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" Travel Health and Travel Related Infections in Asia Pacific Region, Challenges in the Next Millennium "

This event is hosted and organized by :

The Indonesian Travel Health Society (PKWI)

and

The Indonesian Society for Tropical and Infectious Diseases (PETRI)

In collaboration with :

The International Society of Travel Medicine (ISTM)

Medical Faculty, Udayana University, Bali

With the patronage of :

The Ministry of Health, Republic of Indonesia
The Office of the State Minister of Tourism and Arts, Republic of Indonesia
WHO Collaborating Center for Tourist Health and Travel Medicine, Italy

Secretariat:

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WELCOME MESSAGE

Dear Colleagues and Friends,

The Indonesian Travel Health Society is privileged and proud to host the Third Asia-Pacific Travel Health (APTH) conference in Bali on July 21-23, 2000 with one day pre-congress course and seminar. This biennial conferenceon travel health which started 4 years ago in Hong Kong, and was followed 2 years ago in Taipei.

In this event we combine the third APTH conference with the Sixth National Congress of Tropical and Infectious Diseases We think that this combination is appropriate and will enrich the knowledge of those who are interested in Travel Medicine, because most of the illness encounter by the travellers are infectious diseases.

With so many well known speakers in this conference, who are not only from the Asia Pacific region, but also from far away places like Europe, USA and Canada; we are confident that this will be a high international standard meeting, where they will share the up-to-date knowledge in the field of travel medicine. This will give benefits for the tourists who are travelling more in this region.

Apart from the scientific highlights, we are working hard to offer you all a joyful social programme. We sincerely wish that you all participants will leave this conference with a feeling that is worthy to come to Bali.
We bid you all a warm welcome in Bali, one of the beautiful island in Indonesia; and wish you success in this coming days.

Best wishes,

Prof. Yahya Kisyanto, MD, PhD
Chairman

RHH. Nelwan, MD
Executive Chairman

H.G Moniaga
Secretary General

K. Tuti Parwati M, MD
Vice Executive Chairman

WELCOME MESSAGE

I want to thank the organizers for the opportunity for the International Society of Travel Medicine (ISTM) to support this third meeting of the Asia Pacific Travel Health Association (APTHA). APTHA was originally conceived and organized by Dr. A.J. Hedley, and the first meeting was held in Hong Kong in 1996.

ISTM was proud to support that first meeting of APTHA by holding its Board meeting in relation with that meeting. The Hong Kong meeting appeared to validate the decision by ISTM to include APTHA on the face of its Journal of Travel Medicine, which indicated that APTHA was an important sister society that had decided to use JTM as its venue for publishing its observations in the discipline of travel medicine.

The next meeting of APTHA occurred in 1998 in Taipei, Taiwan. This meeting was important in maintaining the growth of travel medicine in the Asia Pacific area. Dr. Tony Shieh must be congratulated for his organizational efforts in arranging that second meeting of APTHA.

Now we are at a cross roads. This meeting in Bali promises to invigorate the organizational strength of the Asia Pacific Travel Health Association. At this meeting, a serious business meeting has occurred, and APTHA has taken the organizational steps to guarantee its viability as a scientific organization of the first order. Now we look forward to a scientific meeting that promises to promote the cutting edge concepts of travel medicine as well as tropical medicine. I would like to share with you an important development within the International Society of Travel Medicine. ISTM is seriously discussing the concept of having a meeting of its society once a year. The traditional ISTM scientific meeting will still occur every other year. During the in-between year ISTM plans to have meeting at places other than Europe and North America -- locations that have been financially safe choices -- capable of earning ISTM money to support its operational expenses. The in-between meetings will intentionally aim at regions removed from the traditional venues of Europe and North America. Africa, South America and Asia/Pacific will all be targeted to have an ISTM meeting that will stress regional scientific issues. In this fashion, ISTM also hopes to appeal to that part of its membership that practices migration medicine by bringing the meeting closer to where some of the issues are arising.
I would hope that future meetings of APTHA might sometimes be coordinated with ISTM to be a joint meeting and serve the purpose as ISTM's regional meeting. In this way ISTM could continue to be of substantive help in maturing the interest in travel medicine in the Asia Pacific region.

Again my thanks to the organizers and to all of you for attending this important meeting. I wish us all the highest success as the next days unfold.

Warmly submitted,
Prof. Dr. Charless D Ericsson, MD
President of ISTM

Message From The Minister of Health Republic of Indonesia

Travel is an important aspect of modern life, the health consequences of which have only recently been explicitly recognized.

Global tourist journeys per year are estimated at 5 billion and on top of these are all the movements in search of work and the unwilling migrations of refugees. The Asia Pacific region is experiencing the fastest growth in tourism.

From this perspective it is essential that medicine and public health may pay close attention to the phenomenon of travel. Travel health, which includes travel medicine, should be concerned with the full range of health impacts and consequences of this expanding universe of human travel. It extends beyond counsel, health protection or diagnosis of individual patients.

Recent concerns about newly emerging and re-emerging infectious diseases have also drawn the world's attention to the linkages between international movements of people and health.

I therefore welcome the hosting of the 3 Asia Pacific Travel Health Conference in Bali.

I appreciate that Indonesia was chosen for hosting this important conference. I am convinced that this concerenfe will increase our ability to deal with the specific health problems in the Asia Pacific countries.

I would like to invite you to Bali to learn more about travel health and infectious diseases in the Asia Pacific region and experience the beauty of Bali hospitality.

Achmad Sujudi
Minister of Health
Republic of Indonesia

Message From The State Minister of Tourism and Arts

I would like to welcome you to the beautiful Island of Bali to participate in the 3 Asia-Pacific Conference on Travel Health and the 6 National Congress of Tropical and Infectious Diseases, a special conference for physicians in the field of travel medicine which also include tropical and infectious disease.

As it is well known, Bali is one of the last paradises on earth, with its enchanting panorama and its richness in arts. It is the meeting point between the modern atmosphere and the traditional unique culture.

I earnestly hope, that by hosing the conference in the beatiful Island of Bali, you will be inspired with new advances and approaches in managing diseases in traveling people.

Every patient has the right to be treted properly by physicians, and whenever possible, also have the right to enjoy a better quality of life.

I am also grateful to note the high level of internatiojnal participation given to the conference as indicated by the large number of professional speakers worldwide, the generous support from ISTM (International Society of Travel Medicine) and the pharmaceutical industries. Despite the wide publicity on the unfavorable domestic condition in Indonesia, Bali maintains its reputation as a safe and tranquil place to be visited by visitors, as proven by the almost double amount of visitors to Bali during this period.

Besides the excellent scientific program, I am happy to note that there are programs on leisure activities conducted by the Organizing Committee, including a Balinese Art Exhibition which is especially design for you where you will have the opportunity to see the Balinese craftsmen at work.

Finally, I sincerely appreciate the hard work of the Organizing Committee, in preparing the conference and the generous support of the ISTM President, and I wish all of you a successful conference and also a joyful stay in Bali.

Djaelani Hidayat
State Minister of Tourism and Arts
Republic of Indonesia

ORGANIZING COMMITTEE

Patrons:
Minister of Health, Republic of Indonesia
State Minister of Tourism and Arts, Republic of Indonesia
Governor of Bali
Rector of Udayana University

Advisors:
K Sukardika, K Suata, I Made Bakta

Chairman:
Yahya Kisyanto

Vice Chairman:
Iskandar Zulkarnain, Soewignjo S

Executive Chairman:
RHH Nelwan

Vice Executive Chairman:
K Tuti Parwati Merati, Adi Asmono

Secretary General:
Hanny G Moniaga

Secretary :
Budi Setiawan, Tonny Loho, Sjaiful I Biran

Treasurer:
Herdiman T Pohan, Helena Rahayu

Scientific Committee:
RHH Nelwan, Suriadi Gunawan, Nyoman Sutarka, Anwar Santoso,
Alisah N Abidin, Eddie Suria Sumantri, EJ Manuhuttu,
Soewignyo, I Made Bakta,Robert Utji,
Alan Tumbelaka, Suhendro, Levina S Pakasi

Fund Raising:
H Sulastomo, Herdiman T Pohan, Djoko Widodo,
Hanafi Trisnohadi, T Santoso, Hanny G Moniaga

Transportation & Accommodation:
Firman Masjhur, Nyoman Purwadi,
Ketut Suardamana, Kompyang Wirajaya

Protocol & Ceremony:
Budi Setiawan, Julius Tanasale, Tjok Gde Dharmayuda,
Ratih W Manuaba, Yenny Kandarini

Logistics and Exhibition:
Idrus Alwi, Yenny Gunawan, Yumei Sulistyo,ĒKetut Suaga
Leonard Nainggolan, Asep Purnama,
DAP Sri Masyeni, Ratna Saraswati

LOCAL ORGANIZING COMMITTEE (BALI)
3rd ASIA PACIFIC CONFERENCE ON TRAVEL HEALTH
6th NATIONAL CONGRESS ON TROPICAL AND INFECTIOUS DISEASES
BALI, 21-23 JULI 2000

Patron	:	Rektor Universitas Udayana Dekan Fakultas Kedokteran Universitas Udayana Ka.Kanwil Depkes Propinsi Bali
Advisor	:	I Made Bakta Soewignjo S
Chairman	:	K. Tuti Parwati Merati
Secretary	:	Sjaiful Ichwansjah Biran
Scientific Committee	:	I Made Bakta Soewignjo S Anwar Santoso Dewa Putu Wijana Nyoman Sutarka
Transportation & Acomodation	:	Nyoman Purwadi Ketut Suardamana Kompyang Wirajaya
Protocol & Programme	:	Sjaiful Ichwansjah Biran Julius D. Tanasale Tjok Gde Dharmayuda Wira Gotera I Nyoman Murtiasa IA. Ratih Wulansari Manuaba Yenny Kandarini
Logistics / Exhibition	:	Ketut Suega Asep Purnama DAP. Sri Masyeni Ratna Saraswati
Fundraising	:	Jodi Sidharta Loekman Sjaiful I Biran

Robyn Bushell	Australia
Bob Kass	Australia
John Turnidge	Australia
Jay Keystone	Canada
Louise T Auger	Canada
Li Xu Hua	China
Nebojsa Nicolic	Croatia
Dieter Gniel	Germany
Hans D Nothdurft	Germany
Abu SM Abdullah	Hong Kong
Santanu Chatterjee	India
Anil Dutta	India
Madhusudana Shampur	India
Eli Schwartz	Israel
Walter Pasini	Italy
Atsuo Hamada	Japan
Mikio Kimura	Japan
Hiroshi Ohtomo	Japan
Tomohiko Takasaki	Japan
Masao Yoshida	Japan
Asma Ismail	Malaysia
Kwai-Lin Thong	Malaysia
Peter AM deBeer	Netherlands
HJ van der Kaay	Netherlands
Robert Tjon SL	Netherlands
Alex Tuazon	Philippines
Robert Steffen	Switzerland
Charles D Ericsson	USA
Karl Neumann	USA

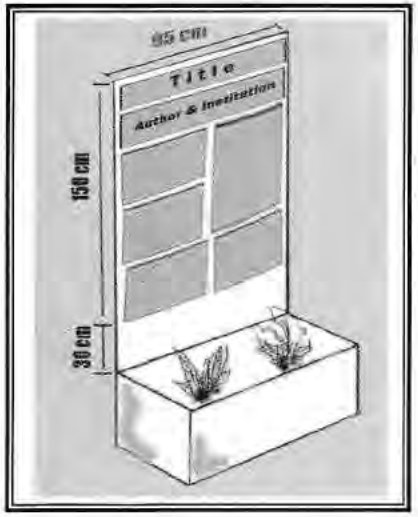
Umar Fahmi Achmadi	Indonesia
Tjandra Yoga Aditama	Indonesia
Zulkifli Amin	Indonesia
Adi Asmono	Indonesia
Asril Bahar	Indonesia
Sjaiful I Biran	Indonesia
Latre Buntaran	Indonesia
James Campbell	Indonesia
Herman Cipto	Indonesia
Zul Dahlan	Indonesia
Endrawati	Indonesia
Suriadi Gunawan	Indonesia
Paul N Harijanto	Indonesia
Hadi Halim	Indonesia
Barnawi Hirsjam	Indonesia
Yahya Kisyanto	Indonesia
Ferdinand Laihad	Indonesia
I Gede Lanang	Indonesia
RHH Nelwan	Indonesia
K Tuti Parwati Merati	Indonesia
Danang Parikesit	Indonesia
Anwar Santoso	Indonesia
Teguh Santoso	Indonesia
Rianto Setiabudy	Indonesia
Marcellus Simadibrata	Indonesia
Soesilo Soejosembodo	Indonesia
Jan Soesilo	Indonesia
Eddie S Soemantri	Indonesia
Soelastomo	Indonesia
Sonya Roesma	Indonesia
Amin Subandrio	Indonesia
Bambang Sutrisna	Indonesia
Azhar Tanjung	Indonesia
Laksono Trisnantoro	Indonesia
Hanafi B Trisnohadi	Indonesia
Adi Utarini	Indonesia
Robert Utji	Indonesia
Iskandar Zulkarnain	Indonesia

Guidelines for Oral Presentation

1. The official language is English.
2. Each speaker will be allowed to present their paper in 7 minutes plus 3 minutes discussion.
3. Every meeting room will be equipped with 1 (one) computer projection facility, 2 (two) slide projectors, 1 (one) overhead projector and 2 (two) screens.
4. The program for computer projection is MS Power Point 2000 for PC under Windows 98.
5. All speakers will have to register their names on the ***Registration Desk*** near the main entrance of the conference. ***Registration Desk*** will be open from 07.30 a.m. to 17.00 p.m. starting July 19, 2000.
6. All speakers will have to submit their slides and/ or diskettes in the ***Slide Counter*** (see Hotel Map) at least 2 (two) hours prior to the presentation.
7. Slides and/or diskettes will be kept by the Organizing Committee until the presentation and can be retrieved back 2 (two) hours after the presentation at the slide counter.

Guidelines for Poster Presentation

1. The official language is English.
2. The poster will be displayed daily from July 21-23, 2000 according to the schedule.
3. The size of the poster board is 150 l x 95 cm w.
4. The Organizing Committee will provide some tools for poster set-up, such as pins, double-sided adhesive tape and scotch tape.



5. All participants are expected to set up their posters by themselves before 09.00 a.m. in the morning.
6. Posters will be visited each day and all presenters should be at their posters at that time.
7. The schedule of poster presentations is as follows:
   a. Friday, July 21, 2000 at 10.00 - 10.45 a.m.
   b. Saturday, July 22, 2000 at 10.45 - 11.30 a.m.
   c. Sunday, July 23, 2000 at 10.45 - 11.30 a.m.
8. Poster should be dismantled in the evening after the final daily program.

Best Poster Awards

This special awards will be given to the best 3 (three) participants who present their posters during the conference.

The evaluation will be based on the scientific content of the poster, presentation design and the presentation made during the poster round sessions.

The winners will be announced at the **closing ceremony** and the awards and prizes will be given directly by the Organizing Committee of the 3rd Asia Pacific Conference on Travel Health and the 6th National Indonesian Congress of Tropical and Infectious Diseases.

The National and International Jury members will consist of active delegates from the ISTM/ APTH, The Indonesian Travel Health Society and Indonesian Society for Tropical and Infectious Diseases.

Best Exhibitor Awards

This special awards will be given to the 3 (three) best Healthcare Exhibitor and the most visited exhibitor conducted during the conference.
The evaluation will be based on : Scientific contents / theme, esthetic design, dicipline and hospitality of the staff.

The jury consist of of the key local members of the organizing commitee.
The winners will be announced at the **closing ceremony**, the awards and prizes will be given directly by the Organizing Committee of the 3rd Asia Pacific Conference on Travel Health and the 6th National Indonesian Congress of Tropical and Infectious Diseases.

Time	Thursday July 20	Friday July 21	Saturday July 22	Sunday July 23
07.30 -	PRE CONFERENCE BASIC COURSE and NATIONAL SEMINAR; REGISTRATION		Meet The Experts; Breakf. Meeting WLPD	Breakfast Meeting SKB
08.30 -		**Opening Ceremony**	Plenary 2	Plenary 4
09.15 -		Memorial Lecture	Sym 4; Sym 5; Sym 6	Sym 7; Sym 8; Sym 9
10.00 -		Coffee Break Posters & Exhibition		
10.45 -		Plenary I	Coffee Break Posters & Exhibition	Coffee Break Posters & Exhibition
11.30 -		**SS 1** Chiron Vaccines; **SS 2** Sch. Plough	**SS 3** Aventis Pasteur	**SS 5** Janssen, yakult; FP add
13.00 -		FRIDAY PRAYER & LUNCH Posters & Exhibition	LUNCH Posters & Exhibition	LUNCH Posters & Exhibition
14.00 -			Sym 7; Sym 8; FP add	Sym 12; FP add; FP add
15.00 -		Sym 1; Sym 2; Sym 3	Plenary 3	Plenary 5
15.45 -			Special Lecture Askes	**Closing Ceremony**
16.30 -	**PKWI** Business Meeting	Coffee Break Posters & Exhibition	FREE PAPER 4 - 6	
17.00 -		**FREE PAPER 1- 3**	Coffee Break Posters & Exhibition	
17.30 -			Panel Discussion Antimicrobials	
18.00 -				
18.30 -	**PETRI** Business Meeting	**APTH** Business Meeting	**PERPARI** Business Meeting	
19.00 - 21.30	**Welcoming Reception** Balinese Art Exhibition	**Dinner Symposium** Roche	**Free**; **Faculty Dinner**	

Basic Course on Travel Medicine

Course Organizer :

The Indonesian Travel Health Society (ITHS)

In collaboration with :

The International Society of Travel Medicine (ISTM) and Tropen Informatie Poli Leiden (TriP®), The Netherlands

Time	Program	Speaker	Title
08.00	Registration		
08.45	Opening		
09.00	1st Session	Robert Steffen	Introduction of Travel Medicine
09.45		Bob Kass	How to Set Up and Run a Travel Clinic
10.30	*Coffee Break*		
10.45	1st Session	HJ van der Kaay	Impact of the Environment on Travel Medicine
11.30		Santanu Chatterjee	Impact of Travel on Host Countries
12.15	Lunch		
13.00		Peter AM de Beer	Evacuation of the Sick Patient
13.45		Robert Tjon S L	The TriP-PREP® Travel Advice (Pr E P) A Dynamic Integration of Prevention, Care and Cure in Travel Medicine
14.30		Charless D Ericsson	Diarrhea : The Major Threat to Travelers
15.15	*Coffee Break*		
15.45		Robert Tjon S L	Pharmaco-immunological Basis of Vaccines : Contraindications and Interactions with Medicines
16.30		Jay Keystone	Recent Advances in Immunization for Travel

NATIONAL SEMINAR

Health Service Preparedness in Supporting Tourism Industry

Time	Program	Speaker	Title
08.00	Registration		
09.00	1st Session	State Minister of Tourism and Arts	*Keynote Address*
09.30	*Coffee Brak*		
10.00	2nd Session Chairperson : Laksono Trisnantoro	Yahya Kisyanto	The Role of Travel Health Society to Improve Health Quality Service for Tourists
		Walter Pasini	State of the Arts of International Travel Health System
		Danang Parikesit	State of The Art of Nationaland International Tourism: Market Perspective
11.30	3rd Session Chairperson : Tuti Parwati Merati	I Gusti Lanang Made Rudiartha	Health Services among General Hospitals in Supporting Tourism Industry in Bali, The Experience of Sanglah General Hospital
		Soesilo Soerjosembodo	Health Development at the Tourist Area : Tanjung Lesung Resort, Banten
		Endrawati	Cooperation between the Non-governmental Health Service System and Travel Industry in Bali
		Soelastomo	Health Insurance Aspect in Tourism Health : The Perspective of PT ASKES INDONESIA
13.00	*Lunch*		
14.00	4th Session Chairperson : Adjie Kusworo	Panel I.G.B. Yudhara I Gede Adnyana Sudibya	Expectations from the Tourism Industry Professionals to the Health Service System
15.30	***Coffee Break***		
16.00	*Closing Session* Chairperson : I Wayan Semendra	Laksono Trisnantoro	An Analysis on Health Service Infrastructure for Supporting Tourism Industry in Indonesia
		Laksono Trisnantoro	Do we need licensing and standardization of health service for tourists ?

Friday, July 21, 2000

Time	Program
07.30 08.30	Registration
08.30 09.15	**Opening Ceremony** *Venue: Kharisma Room* Opening Speech by: Chairman, Governor of Bali, Ministry of Health Republic of Indonesia
09.15 10.00	**Adhyatma Memorial Lecture** *Venue: Kharisma Room* Chairpersons: 1. Yahya Kisyanto, *Indonesia* 2. Suriadi Gunawan, *Indonesia* **"Environmental Health Supporting the Tourism Industry"** Umar Fahmi Achmadi, *Indonesia*
10.00 10.45	**COFFEE BREAK, POSTERS & EXHIBITION**

Posters Round

Chairpersons:
1. Katsuya Inada, *Japan*
2. Soeharyo, *Indonesia*

P.1 "Procalcitonin is A Good Marker for the Diagnosis of Infection and the Severity of Illness in Patients with SIRS"
Shigeatsu Endo, *Japan*

P.2 "Interleukin 18 (IL-18) Levels Increase in Patients with Sepsis"
Shigeatsu Endo, *Japan*

P.3 "The Use of Gen-Probe PACE 2 Assay for Diagnosis of Cervical *Neisseria gonorhoeae* Infection"
Syahrial Harun, *Indonesia*

P.4 "Nipah Virus Encephalitis: MRI Findings in a Novel Zoonotic Infection"
Paul A. Tambyah, *Singapore*

P.5 "A Rapidly Fatal Case of Severe Falciparum Malaria Complicated with High-Level Metabolic Acidosis"
Yuriko Saito, *Japan*

P.6 "A Relationship between Clinical Manifestation and Genetic Pattern of *Salmonella paratyphi* A as An Etiologic Agent of Typhoid Fever (Case Report)"
Retno K. Soemanto, *Indonesia*

P.7 "Leprosy and Febrile Neutropenia in a Child"
Lukman Abdul Wahid Bafadal, *Indonesia*

P.8 "Disseminated Histoplasmosis: A Case Report"
Merry Wintery, *Indonesia*

P.9 "Leptospirosis with Gastrointestinal Bleeding Due to Disseminated Intravascular Coagulation"
Istika, *Indonesia*

P.10 "Quadrivalent meningococcal vaccination (A/C/Y/W-135) for travel clinics in Singapore"
Annelies Wilder Smith, *Singapore*

P.11 "Mycobacteria Isolated from Various Condition of Tuberculosis Patients and Its Sensitivity to Antimicrobials in Indonesia"
Misnadiarly AS, *Indonesia*

P.12 "The Estimation of Infectious Diseases and Parasitic Infections Rates in Indonesia"
Sarimawar Djaja, *Indonesia*

P.13 "The Evaluation of Measles Epidemics in Indonesia in the Year 1999"
Bambang Heriyanto, *Indonesia*

P.14 "Antimicrobial Susceptibilities of Enteropathogenic Bacteria in Jakarta, Indonesia"
Noer Endah Parcoyo, *Indonesia*

P.15 Antibiotic Priority on Typhoid Fever and Pancytopenia
Imran N, *Indonesia*

10.45 11.30 **Plenary I:**
Venue: Kharisma Room
Chairperson: Sri Rezeki Hadinegoro

PL.1 **"10 Commandments for Tropical Travel"**
Jay Keystone, *Canada*

11.30 13.00 **Satellite Symposium 1 (CHIRON VACCINES)**
Vaccines for Travellers from Asia
Venue: Kharisma Room
Chairperson : Walter Pasini, *Italy*

SS.1 "WHO Vaccinations Policy"
Walter Pasini, *Italy*

SS.2 "Rabies in Asia - Its Prevention and Treatment "
Madhusudana Shampur, *India*

SS.3 "Tick-Borne Encephalitis Vaccination for Travels to Europe "
Dieter Gniel, *Germany*

Satellite Symposium 2 (SCHERING-PLOUGH)
New Strategies for Treatment of Antibacterial Infections
Venue: Rejang Room
Chairperson: I Made Bakta, *Indonesia*

SS.4 "Clinical Impact of Methicillin Resistant *Staphylococcus aureus* - An Update"
Latre Buntaran, *Indonesia*

SS.5 "Aminoglycoside: A Re-assessment of Their Therapeutic Role"
John Turnidge, *Australia*

SS.6 "Critical Evaluation of Oral Cephalosporins: Applications in Clinical Practice"
RHH Nelwan, *Indonesia*

13.00 15.00 FRIDAY PRAYER & LUNCH, POSTERS & EXHIBITION

15.00 16.30 **Symposium 1**
New Principles and Practice of Infectiology
Venue: Kharisma Room
Chairpersons:
Robert Steffen, *Switzerland*
Robert Utji, *Indonesia*

S.1.1 "Emerging Pathogens and Their Impact on Travel Medicine"
Eli Schwartz, *Israel*

S.1.2 "Which of the Required, Routine, and Recommended Vaccines are Indicated for Which Travelers?"
Robert Steffen, *Switzerland*

S.1.3 "Rapid Diagnostic Technologies for the New Millennium"
James Campbell, *Indonesia*

S.1.4 "TTV: A New Hepatitis Virus?"
Suwignyo Sumoharjo

Symposium 2
Rapid Diagnosis of Major Tropical and Infectious Disease
Venue: Arjuna Room

Chairpersons:
1. Mikio Kimura, *Japan*
2. Tonny Loho, *Indonesia*

S.2.1 "Use of Dipstick Tests for the Rapid Diagnosis of Malaria in Non-Immune Travelers"
Hans Nothdruft, *Germany*
S.2.2 "Advancement in the Rapid Diagnosis of Enteric Fever"
Asma Ismail, *Malaysia*
S.2.3 "Rapid Diagnosis of Imported Dengue Cases in Japan"
Tomohiko Takasaki, *Japan*
S.2.4 "Rapid Test of Dengue Hemorrhagic Fever"
Iskandar Zulkarnain, *Indonesia*

Symposium 3
Traveling with Cardiovascular Disease
Venue: Rejang Room

Chairpersons:
1. Walter Pasini, *Italy*
2. Wayan Wita, *Indonesia*

S.3.1 "Cardiovascular Patients in Bali Inclusive of Travelers "
Anwar Santoso, *Indonesia*
S.3.2 "Travel Preparation for Patients with Cardiovascular Diseases"
Walter Pasini, *Italy*
S.3.3 "Emergency Treatment of Acute Myocardial Infarction"
Teguh Santoso, *Indonesia*
S.3.4 "Low-Molecular Weight Heparin in Acute Coronary Syndrome"
Hanafi B Trisnohadi, *Indonesia*

16.30 17.00 COFFEE BREAK, POSTERS & EXHIBITION

17.00 18.30 **FREE PAPERS 1**
Venue: Kharisma Room

Infectious Disease Problems and the Use of Advanced Diagnostic Tools

Chairpersons:
1. Mikio Kimura, *Japan*
2. Hadi Jusuf, *Indonesia*

0.1 "Detection of Toxoplasmosis and Salmonellosis in Meat Juice: Experimental and Surveillance Studies"
Lobna A. Elzawawi, *Egypt*
0.2 "The Evidence of Congenital Malformations and the Prevalence of Toxoplasma Infection in Women and Fetuses Detected by Serological Test and PCR Technique"
Teguh Wahyu Sardono, *Indonesia*
0.3 "Use Of Lactoferrin Assay In The Diagnosis Of Different Vaginal Pathogens"
Mohamed Gamal Hishmat, *Egypt*
0.4 "Genetic Relatedness between First Line Drug Resistance *Salmonella typhi* Isolates using Pulsed-Field Gel Electrophoresis (PFGE)"
Lucky H Moehario, *Indonesia*
0.5 "Potential of Small Mammal-Borne Diseases Transmission at Sigedang Village near Dieng Plateau, Wonosobo, Central Java"
Ima Nurisa, *Indonesia*
0.6 "The Widal Slide Test (SAT) Using Locally Prevalent Antigen as a Diagnostic Aid for Typhoid Fever"
Maria M. Padmidewi, *Indonesia*
0.7 "Activation of Granulocytes with Vero Toxin of Enterohemorrhagic *E. coli*"
Katsuya Inada, *Japan*
0.8 "Endemic Typhus is Still a Cause of Acute Febrile Illness in Modern Urban Singapore"
Paul A. Tambyah, Singapore
0.9 "An outbreak of An Outbreak of Group B Streptococcal Meningitis in Singapore"
Annelies Wilder Smith, *Singapore*

FREE PAPERS 2
Venue: Arjuna Room
Travel-Related Issues among Various Disciplines

Chairpersons:
1. Xu Hua, China
2. Yahya Kisyanto, Indonesia

0.10 "Travel Medicine in 2000: How to Prepare Physicians to These Challenges: The University of Montreal Experience"
Elisabeth Rousseau, Canada

0.11 "Flight Surgeons' Role in Medical Evacuation: A Three-Monthly Report Evaluation of Garuda Indonesia"
Trevino A. Pakasi, Indonesia

0.12 "Traveling Dialysis in Cipto Mangunkusumo General Hospital, Jakarta"
Imam Efendi, Indonesia

0.13 "Possible Health Hazards for Visitors to Tropical Australia and the Advice Necessary"
Reggie Cooke, United Kingdom

0.14 "The Medical Aspects of A Large Scientific and Educational Marine Project in the Indian Ocean"
Bev Holt, United Kingdom

0.15 "HIV Infection among Travelers in Jakarta. Needs for Continuum Care"
TH Karyadi, Indonesia

0.16 "Health Care for the Elderly Travelers"
Liu Shaoping, China

0.17 "Issues in Travel Medicine: Lessons from One Case"
RHH Nelwan, Indonesia

0.18 "Analysis of Incorrect Concept of Travel Medicine and Leisure Activities in Taiwan"
Ying-Hya Shieh, Taiwan

FREE PAPERS 3
Venue: Rejang Room
Mycobacterial Infections

Chairpersons:
1. Eddie S. Soemantri, Indonesia
2. Asril Bahar, Indonesia

0.19 "The influence of BCG vaccination to serum ML among schoolchildren in leprosy endemic area of Sulawesi, Indonesia"
Agnes Kwenang, *Indonesia*

0.20 "The relationship between DNA Mycobacterium leprae from housedust and specific IgM antibody from members of the household on community in leprosy endemic area of Indonesia"
Muhamad Nasrum Massi, *Indonesia*

0.21 "Pattern of antituberculosis drug resistance to *Mycobacterium tuberculosis* at Dr. M Hoesin General Hospital Palembang"
Ahmad Rasyid, *Indonesia*

0.22 "Pulmonary Tuberculosis at the Pulmonary Clinic of Manado General Hospital"
Carta A. Gunawan, *Indonesia*

0.23 "Human Resources Development of the Laboratory Workers in Community Health Centres in Finding Pulmonary Tuberculosis Cases in the Community"
Frieda Tobing, *Indonesia*

0.24 "Health Education of Tuberculosis"
Riris Nainggolan, *Indonesia*

0.25 "The Risk Factor in Knowledge, Behavior and Information Quality Aspect on Productive Ages Lung Tuberculosis"
Zulkifli Kamarudin, *Indonesia*

0.26 "Clinical Manifestation and Prognosis Factor of Lung Tuberculosis on Productive Ages in Sulianti Saroso Infectious Disease Hospital Jakarta"
Fuaddimal, *Indonesia*

18.30 **Symposium Registration**

19.00 21.30 Dinner Symposium (ROCHE - Antibiotics)
The Challenge and Task of Antibacterial Therapy in the New Millenium
Venue: Kharisma Room

Chairperson: Usman Chatib Warsa, *Indonesia*

SS.7 "Optimising ß-Lactam Therapy: Rational Dosage, Resistance Patterns and Pharmacoeconomics"
John Turnidge, *Australia*

SS.8 "The Rational Use of Ceftriaxone Once Daily in the Clinical Setting"
RHH Nelwan, *Indonesia*

Saturday, July 22, 2000

Time	Program
07.30 08.30	**Breakfast Meeting** (Omnicef - WLPD) *Venue: Kharisma Room* Chairpersons: RHH Nelwan, *Indonesia* "Current Hospital-Isolated and Its Sensitivity to Cephalosporins Amin Subandrio, *Indonesia* "Pharmacological Overview on Oral Third Generation Cephalosporins" Rianto Setiabudy, *Indonesia* "Switch Therapy in the Current Treatment of Infectious Diseases Djoko Widodo, *Indonesia* **Meet theExperts** *Venue: Rejang Room* **"Tourism Planning and the Wellbeing and Quality of Life for Host Communities"** Robyn Bushell, *Australia* Umar Fahmi Achmadi, *Indonesia*
08.30 09.15	**Plenary II:** *Venue: Kharisma Room* Chairperson: RHH Nelwan PL.2 **"Epidemiology of Health Risks in Travelers "** Robert Steffen, *Switzerland*
09.15 10.45	**Symposium 4** **Special Group Travel Precautions** *Venue: Kharisma Room* Chairpersons: 1. HJ van der Kaay, *The Netherlands* 2. Tuti Parwati, *Indonesia*

S.4.1 "Adventure Travel: Special Health Risk?"
Peter AM de Beer, *The Netherlands*
S.4.2 "Traveling with Children"
Karl Neumann, *USA*
S.4.3 "A Multidisciplinary Approach to Caring for Refugee Children"
Louise T. Auger, *Canada*
S.4.4 Body Defense Profile As Indicator of Treshold Value of Susceptibility to Illness. A Psychoneuroimmunolovy Study on Indonesian Haj Pilgrims"
H Kabat, *Indonesia*

Symposium 5
Malaria: Diagnosis, Prevention and Treatment
Venue: Arjuna Room

Chairpersons:
1. Hans Nothdurft, *Germany*
2. Halim Mubin, *Indonesia*

S.5.1 "The Malaria Situation in Indonesia"
Ferdinand Laihad, *Indonesia*
S.5.2 "Characteristic Features in the Management of Malaria in Japan "
Mikio Kimura & Hiroshi Ohtomo, *Japan*
S.5.3 "The Use of Chemoprophylaxis in the Prevention of Malaria among Japanese Residents of Tropical Africa "
Atsuo Hamada, *Japan*
S.5.4 "Latest Approach to Malaria - Prevention and Treatment"
Jay Keystone, *Canada*

Symposium 6
Tuberculosis: Present Spread and Control
Venue: Rejang Room

Chairpersons:
1. A Wilder-Smith, *Singapore*
2. Eddie S. Sumantri, *Indonesia*

S.6.1 "Epidemiology of Tuberculosis Spread"
Bambang Sutrisna, *Indonesia*

S.6.2 "Epidemiology of Multidrug-Resistant Tuberculosis"
Eddie S. Soemantri, *Indonesia*

S.6.3 "Tuberculosis Control"
Tjandra Yoga Aditama, *Indonesia*

S.6.4 "Management of Multidrug-Resistant Tuberculosis"
Zul Dahlan, *Indonesia*

10.45 11.30 **COFFEE BREAK, POSTERS & EXHIBITION**

Posters Round:

Chairpersons:

1. Sri Rezeki Hadinegoro, *Indonesia*
2. Alan R Tumbelaka, *Indonesia*

P.16 "A prospective randomised trial of coronary angioplasty versus intracoronary t-PA in acute myocardial infarction - Japanese intervention trial in myocardial infarction (JIMI)"
H Aoki, *Japan*

P.17 "Analysis of the Result of Testing Hepatitis B Antigen and to Its Antibody in Serum among 30116 People Traveled Abroad"
Liu Shaoping, *China*

P.18 "The Eye Function and Hypoxia in High Altitude"
Trevino A Pakasi, *Indonesia*

P.19 "Medical Training to Staff of Collaborating Hospitals"
Shoko Umemura, *Japan*

P.20 "Sanitation in Tourism Area Lake Toba"
Riris Nainggolan, *Indonesia*

P.21 "Death in Air Travel"
H Miyazaki, *Japan*

P.22 "Plasma endotoxin level in non-alcoholic liver cirrhosis: an analysis by new method"
Andri Sanityoso, *Indonesia*

P.23 "Detection of Plasma Leakage Manifestation in Dengue Hemorrhagic Fever Patients"
Rika Bur, *Indonesia*

P.24 "Sinus Bradycardia in Dengue Hemorrhagic Fever with Hypokalemia"
Joko Budiman Jong, *Indonesia*

P.25 "Hematocrite as Plasma Leakage Predictor in Adult Dengue Hemorrhagic Fever Patients"
DJS Widayat, *Indonesia*

P.26 "Dengue Hemorrhagic Fever Incidences With Their Clinical And Laboratoric Manifestation Patterns On Children At The Gedangan Primary Health Care, Sidoarjo, East Java From January 1999 To December 1999"
Irene Ratridewi, *Indonesia*

P.27 "Thrombocyte Count in Patients with Dengue Hemorrhagic Fever"
Asnath Matondang, *Indonesia*

P.28 "Indonesian Hajj Drug Formulary"
Ondri Dwi Sampurno, *Indonesia*

P.29 "Antimicrobial Susceptibility Pattern of *N. gonorrhoeae* Among Female Sex Worker in West Java Province Indonesia"
Djoko Yuwono, *Indonesia*

P.30 "Quality Control Study of the Slide Examination of *Mycobacterium tuberculosis* in the Microscopic Reference Health Center"
Merryani Girsang, *Indonesia*

11.30 13.00 **Satellite Symposium 3 :** (AVENTIS PASTEUR)
Travel Vaccines Symposium: Hepatitis A, Typhoid Fever & Meningococcal Infections. Options and Answers for Travelers
Venue: Kharisma Room
Chairperson: Charles D. Ericsson, *USA*

SS.9 "Epidemiology of Hepatitis A Virus"
Charles D. Ericsson, *USA*

SS.10 "Epidemiology of Typhoid Fever"
Frank von Sonnenburg, *Germany*

SS.11 "Meningococcal Meningitis - A Travel Health Problem ?"
Robert Steffen, *Switzerland*

SS.12 "Vaccination in Travellers"
Anil Kumar Dutta, *India*

13.00 14.00 **LUNCH , POSTER S & EXHIBITION**

14.00 15.00 **Symposium 7:**
Upper Respiratory Tract Infection (URTI) in Travel Medicine
Venue: Kharisma Room
Chairperson: Barmawi Hirsjam, *Indonesia*

S.7.1 "Travelers Preparation for Preventions of URTI"
Zulkifli Amin, *Indonesia*
S.7.2 "URTI in travelers"
Asril Bahar, *Indonesia*

Symposium 8:
Travel Health Issues in Host Countries
Venue: Arjuna Room
Chairperson: Santanu Chatterjee, *India*

S.8.1 "Caring for Travelers in Host Countries"
Santanu Chatterjee, *India*
S.8.2 "Regional Travel Health Cooperation with Host Countries-the Need in the New Millennium"
Bob Kass, *Australia*
S.8.3 "Tourism and Health : the Balinese Experience"
Sjaiful I Biran, *Indonesia*

FREE PAPERS 4
Venue: Rejang Room

Infection and Antibiotic Resistance Problems

Chairpersons:
1. Usman Chatib Warsa, *Indonesia*
2. Suhendro, *Indonesia*

0.27 "Antibiotic Resistant Pattern of Salmonella typhi Isolated in a Government Hospital in Jakarta"
Tonny Loho, *Indonesia*
0.28 "Evaluation of the Rational Antibiotic Used in Department of Internal Medicine , Dr. Soetomo Hospital Surabaya"
Usman Hadi, *Indonesia*
0.29 "The Types of Bacteria and Appropriate Antibiotics in The Cases of Nosocomial Infection in Hospitalized Patients Treated through Intravenous Infusion at the Pavilion Unit of Malang RSSA Hospital During the Period of January June 1998"
Djoni Djunaedi, *Indonesia*
0.30 "Patient Hospitalisation as a Risk Factor for Antimicrobial Resistant (AMR) Dissemination"
Kuntaman, *Indonesia*

0.31 "Molecular Analysis of Multidrug-Resistant *Salmonella typhi*"
Kwai-Lin Thong, *Malaysia*
0.32 "ICAM-1 Levels as a Prognostic Factor to Septic Shock in Sepsis Patients"
Hadi Susatyo, *Indonesia*

15.00 15.45 **Plenary III**
Venue: Kharisma Room
Chairperson: K Sukardika

PL.3 **"Cost-Effective Treatment with Antimicrobials"**
John Turnidge, *Australia*

15.45 16.15 Special Lecture
SS.13 **"The Role of Indonesian Health Insurance Company in Health Care in Indonesia"**
Sonja Roesma, *Indonesia*

16.15 17.00 **FREE PAPERS 5**
Venue: Kharisma Room
Problems and Prevention in Travelling

Chairpersons:
1. Ying-Hua Shieh, *Taiwan*
2. Halim Mubin, *Indonesia*

0.33 "Dietary Supplementation of Bifidobacterium Lactis DR in Milk Enhances Natural Immunity in Healthy Elderly Subjects"
Chuh-Kai Liao, *Taiwan*
0.34 "Developing an International Standard Clinic in Bali"
Denny Thong, *Indonesia*
0.35 "Sufficient Knowledge but Low Compliance on Self Protection to Tropical Disease among Foreign Travelers in Yogyakarta, Indonesia"
Soesanto Tjokrosonto, *Indonesia*
0.36 "Disease Pattern of Foreign Tourist at Adventist Hospital Bandung, Indonesia"
Hadi Jusuf, *Indonesia*

FREE PAPERS 6
Venue: Arjuna Room

Parasitic Infections

Chairpersons:
1. Alisah N. Abidin, *Indonesia*
2. Putu Wijaya, *Indonesia*

0.37 "The Influence of Physical Environments Against the Number and Genus of Flies and Parasites on Them at Junrejo and Supit Urang Garbage Piles"
Soebaktiningsih, *Indonesia*

0.38 "Important Emerging, New and Re-Emerging Zoonotic Diseases Related to the Travel Health in Indonesia"
Gindo M. Simanjuntak, *Indonesia*

0.39 "Food Borne Parasitic Zoonosis in Indonesia"
Kaboel N. Idris, *Indonesia*

0.40 "Innovative, Indigenous, Appropriate Cost Effective Methods of Personal Protection to Control Vector-Borne Disease in Tropical and Subtropical Countries"
Musharraf A Ansari, *India*

FREE PAPERS 7
Venue: Rejang Room

HIV/ AIDS

Chairpersons:
1. Kariman Soedin, *Indonesia*
2. Sjamsurizal Djauzi, *Indonesia*

0.41 "Problems and Obstacles Encountered In Providing Care to Patients With HIV/AIDS in Dr. Soetomo Teaching Hospital, Surabaya, Indonesia"
Usman Hadi, *Indonesia*

0.42 "Clinical Features of Twelve Patients with AIDS"
Nasronudin, *Indonesia*

0.43 "HIV/AIDS Among Migrants Population, East Java (After 10 Years HIV/AIDS Transmission, 1989-1999)"
Arya Sidemen, *Indonesia*

0.44 "HIV/AIDS Case Study on Injection Drug Users (IDUs) in Sulianto Saroso Infectious Disease Hospital, Jakarta"
Sukiman Rusli, *Indonesia*

17.00 17.30 **COFFEE BREAK, POSTERS & EXHIBITION**

17.30 18.30 Panel Discussion
Cost-effective Treatment with Antimicrobials
Venue: Kharisma Room

Chairperson: K Suata, *Indonesia*

Panel:
John Turnidge, *Australia*
Rianto Setiabudy, *Indonesia*
Charles D Ericsson, *USA*
RHH Nelwan, *Indonesia*

19.30 **Faculty Dinner**

Sunday, July 23, 2000

Time	Program
07.30 08.30	Breakfast Meeting (SmithKline Beecham) Chairperson: RHH Nelwan, *Indonesia* Alex Tuazon, *Phillipines* **"Third Millennium Innovations in Diarrheal Diseases "**
08.30 09.15	**Plenary IV:** *Venue: Kharisma Room* Chairperson: Edi Suwandoyo PL.4 "Perspectives on Travel Medicine: Now and the Future" Charles D Ericsson, *USA*
09.15 10.45	**Symposium 9** **GI and Other Infections in the Travelers** *Venue: Kharisma Room* Chairpersons: 1. Charles Ericsson, *USA* 2. I Made Bakta, *Indonesia* S.9.1 "Molecular Analysis of Multidrug-Resistant *Shigella flexneri*" Kwai-Lin Thong, *Malaysia*

S.9.2 "Treatment of Travelers' Diarrhea"
Charles D. Ericsson, *USA*

S.9.3 "Dengue Fever among Travelers to East Asia"
Eli Schwartz, *Israel*

S.9.4 "The First Report on Human Cases Serologically Diagnosed as Japanese Encephalitis in Indonesia"
Masao Yoshida, *Japan*

Symposium 10
STD/ HIV among Travelers
Venue: Arjuna Room
Chairpersons:
1. Xu Hua, *China*
2. Sjamsurizal Djauzi, *Indonesia*

S.10.1 "STD and Travel in Indonesia"
Suriadi Gunawan, *Indonesia*

S.10.2 "Management of HIV/AIDS in Bali"
Tuti Parwati Merati, *Indonesia*

S.10.3 "HIV/AIDS and Floating Populations in China"
Xu Hua, *China*

S.10.4 "Epidemiology of HIV/AIDS in Hong Kong: Impact of Travel and Population Mobility"
Abu SM Abdullah, *Hong Kong*

S.10.5 "AIDS in the World"
Suriadi Gunawan, *Indonesia*

Symposium 11
Medical Problems in Special Situation: Air and Maritime Medicine, Sun and Skin Problems
Venue: Rejang Room
Chairpersons:
1. Nebojsa Nikolic, *Croatia*
2. Yahya Kisyanto, *Indonesia*

S.11.1 "Skin Problems and the Management in Travelers"
Herman Tjipto, *Indonesia*

S.11.2 "High-Altitude Problems in Travelers"
Adi Asmono, *Indonesia*

S.11.3 "Jet-Lag Prevention in Travelers"
Robert Steffen, *Switzerland*

S.11.4 "Medical Problems in Nautical (Yachting) Tourism"
Nebojsa Nikolic, *Croatia*

S.11.5 "The Bunaken Diving Resort Medical Problems"
PN Harijanto, *Indonesia*

10.45 11.30 **COFFEE BREAK, POSTERS & EXHIBITION**

Posters Round:
Chairpersons:
1. Eddy Soewandojo, *Indonesia*
2. Paul N. Harijanto, *Indonesia*

P.31 "Infection Control Nurse in Indonesia"
Ramah Surbakti, *Indonesia*

P.32 "Experience of Fleroxacin on Typhoid Fever"
Soeharyo Hadisaputro, *Indonesia*

P.33 "Liver Abscess in Department of Internal Medicine, Sanglah Hospital, Denpasar, January - December 1999"
Made Ratna Saraswati, *Indonesia*

P.34 "Diagnostic Problem in Lung Abscess"
Gede Somayana, *Indonesia*

P.35 "The Prevalence of HbsAg and Anti HCV in Hepatocellular Carcinoma Patients in Sanglah General Hospital, Denpasar, Bali"
Nyoman Purwadi, *Indonesia*

P.36 "The Benefit of Oxygen Hyperbaric Therapy in Diabetic Patient with Diabetic Foot Complication in Sanglah General Hospital"
Achmad Baihaqi, *Indonesia*

P.37 "Assumption of Viral Origin Nosocomial Infection"
Prihatini D, *Indonesia*

P.38 Acute Cholecystitis in a Child with Typhoid Fever
Dian Marcia, *Indonesia*

P.39

11.30 13.00 **Satellite Symposium 4:**
"New Breakthroughs on Prevention and Treatment of Diarrhea in General and Travelers' Diarrhea in Particular"
(JANSSEN, YAKULT)
Venue:Kharisma Room

Chairpersons: Robert Utji, *Indonesia*

SS.14 "Epidemiology of Travelers' Diarrhea"
Robert Steffen, *Germany*
SS.15 "Prevention of Diarrhea with Vaccines of Today and the Future"
Stephen Iwan Soemara, *Indonesia*
SS.16 "Update in the Management of Diarrhea"
Marcel Simadibrata, *Indonesia*
SS.17 "Probiotic as a Medium for Managing Diarrhea"
Robert Utji, *Indonesia*

FREE PAPERS 8
Venue: Arjuna Room

Malaria Disease

Chairpersons:
1. Hiroshi Ohtomo, *Japan*
2. Iskandar Zulkarnain, *Indonesia*

0.45 "Diagnosis of Resistance To Chloroquine in Plasmodium Falciparum by Restriction Digest of PFCRT10 PCR Product"
James Campbell, *Indonesia*
0.46 "Glucose-6-phosphate Dehydrogenase Enzyme Deficiency in Malaria Endemic Area, Timor Island, Nusa Tenggara Timur"
Loeki E. Fitri, *Indonesia*
0.47 "Imported Malaria Cases in Children in Japan from 1980 to 1999"
Yasutaka Mizuno, *Japan*
0.48 "Malaria in Domestic Travelers, Increased of Cases Admitted in A Private Hospital in 1999"
Iskandar Zulkarnain, *Indonesia*

0.49 "How Prepared were Travelers for Their Travel into Malaria Endemic Area?"
Liliana Kurniawan, *Indonesia*
0.50 "Appropriate Technology with Environmental Outlook for Malaria Control in Central Sulawesi"
IG Seregeg, *Indonesia*
0.51 "Clinical Pattern of Malaria in Department of Internal Medicine, Sanglah Hospital, Denpasar"
Ketut Suardamana, *Indonesia*
0.52 "Efficacy During More Than 12 Hours of the Repellent Mousticologne® Against Mosquiotos Bites, About A Study in Senegal"
A. Izri, *France*
0.53 "Experience in the Management of Children with Severe Malaria in the District of Sikka - East Nusa Tenggara"
MA Simplicia, *Indonesia*

13.00 14.00 **LUNCH, POSTERS & EXHIBITION**

14.00 15.00 **Symposium 12:**
Lower Respiratory Tract Infection in Travel Medicine
Venue: Kharisma Room

Chairperson : Zulkifli Amin, *Indonesia*

S.12.1 "Chronic Obstructive Pulmonary Disease Prevention for Travellers"
Hadi Halim, *Indonesia*
S.12.2 "Travelling with Chronic Lung Disease"
Barmawi Hirsjam, *Indonesia*

FREE PAPERS 9
Venue: Arjuna Room

Gastrointestinal Tract Infections

Chairpersons:
1. Gatot Ismanoe, Indonesia
2. PN Harijanto, Indonesia

0.54 "Perforation: An Intestinal Complication of Typhoid Fever in Dr. Sutomo Hospital"
Edi Suwandoyo, *Indonesia*

0.55 "Preliminary Report: Study on Bacterial Overgrowth in Liver Cirrhosis, the Association with Intestinal Motility and Liver Function"
Paulus Simadibrata, *Indonesia*

0.56 "Bloody Diarrhoea: A Clinical and Microbiological Approach in Sulianti Saroso Infectious Disease Hospital, Jakarta"
Sukiman Rusli, *Indonesia*

0.57 "Microbial Pattern and Drug Suceptibility Test of Acute Diarrhea in Sulianto Saroso Infectious Disease Hospital at Early Period of the Third Millenium"
Tony Soetanto, *Indonesia*

0.58 "Seroepidemiological Survey on Schedule Programme 0-1-2 with Hepatitis B Recombinant Vaccine in West Java"
Bambang H. Djalinus, *Indonesia*

0.59 "The Clinical and Microbiological Profile of Acute Watery Diarrhea in Sulianto Saroso Infectious Disease Hospital at Early Period of the Third Millennium"
Djadjang Eko Wahju, *Indonesia*

FREE PAPERS 10
Venue: Rejang Room

Dengue Hemorrhagic Fever Infections

Chairpersons:
1. Soebagyo Loehoeri, *Indonesia*
2. Akmal Syahroni, *Indonesia*

0.60 "Mixed Infection between Typhoid Fever and Dengue Fever in Persahabatan Hospital, Jakarta"
Suhendro, *Indonesia*

0.61 "Thrombocytopenia as a Predictor of Plasma Leakage in Dengue Fever"
Herdiman T. Pohan, *Indonesia*

0.62 "Hyponatremia as a Predictor of Plasma Leakage in Adult Patients with Dengue Haemorrhagic Fever"
Djoko Widodo, *Indonesia*

0.63 "The Role of Thrombocytopenia in Dengue Infection and Its Association with Haemoconcentration"
Budi Setiawan, *Indonesia*

0.64 Transient Immunosuppression, gastric bleeding, prolonged fever and severe otalgia in a rhesus positive DHF patient
RHH Nelwan, *Indonesia*

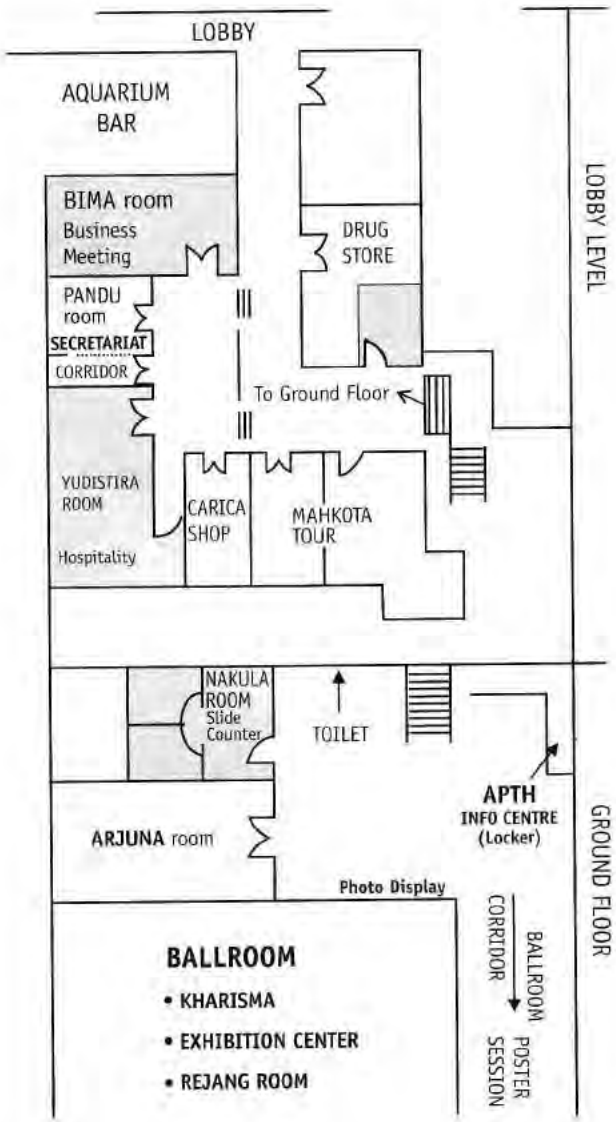
0.65 "Pattern of Dengue Hemorrhagic Fever in Adult, Sanglah General Hospital, Denpasar"
Nyoman Sutarka, *Indonesia*

15.00 15.30 **Plenary V**
Venue: Kharisma Room
Chairperson: Alisah N. Abidin, *Indonesia*

PL.5 **"Systemic Mycosis: Diagnosis and Management"**
Jan Soesilo, *Indonesia*

15.30 **Closing Ceremony**
Venue :Kharisma Room
- Report from the Executive Chairman / Secretary General
- Speech from the host country delegate of the 4th APTH Conference
- Speech from the President of ISTM
- Announcement of Best Poster Awards Winners
- Announcement of Best Exhibitors
- Final Draw of door prizes from the sponsors
- Group Photo
- Closing Refreshments

See You Again in The 4th APTH in.....



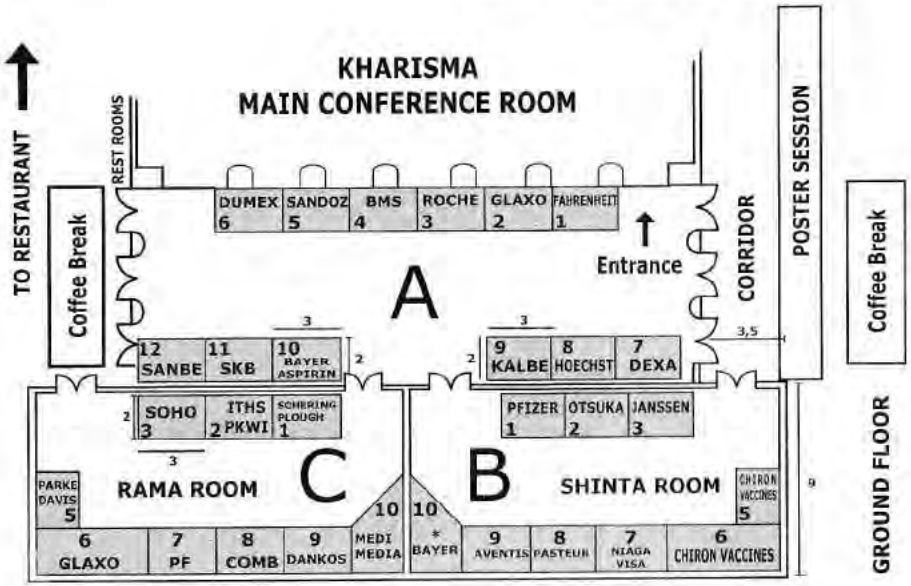
The 3rd Asia-Pacific Conference on Travel Health Exhibition will provide a marketplace for vendors from around the world. This is an excellent medium to promote their products and will cover a great variety of medicines. In regards with the travel-related disease, a range of medicines has included antibiotics, vaccines, cardiovascular products, respiratory products, antiviral, antifungal, antiparasites, vitamins, analgesics, antiallergies, nutrition, gastrointestinal products, food supplement et cetera. Companies interested in taking part as an exhibitor should contact:

Hanny G Moniaga, Secretary General
3rd Asia-Pacific Conference on Travel Health
PO Box 666 JAT 13000
Jakarta - Indonesia
Phone: +62-21-390 8157, 392 5491
Fax: +62-21- 453 5833, 392 9106

E-mail: hmoniaga@indo.net.id

Social Program

- Welcoming Reception, July 20, 2000
  Balinese Art Exhibition
- Opening Ceremony, July 21, 2000
  Dinner Symposium
- Ladies Program, July 22, 2000
  Faculty Dinner
- Closing Ceremony, July 23, 2000
  Best Awards Presentation
  Grand Door Prizes from Sponsors



Shopping Spree and Ubud Scenic Tours

This tours takes about 4 hours starting from **Traditional market at Sukowati (Cheap Shopping)** selling Balinese arts and crafts. Price bargaining is one of the interesting activities which you could get very good and fair price of Balinese arts and crafts from bed cover, sea shells, handicraft and many more

Once you have enough in this interesting shopping programme, we will take you to inner part of **Ubud Woodcarving** which is known as a center of painting master and sculpture. You will have enough opportunities **to see the master do the painting** High quality and precious painting are easily found here.

The trip still continue to the depth of Ubud and watch regarded **sacred monkey** are freely play in the forest (Prepare the peanuts). After lunch at restaurant the last destination is **Ayung River** which is noe become among the white water rafting maniacs, thanks to its natural beauty along the river and fresh air too!!

HOTEL LOCATION

General Information

Bali

Bali, the fabled "Island of the Gods", has been enchanting visitors for centuries with its rich cultural traditions and spectacular panoramas. From lofty, mist enshrouded volcanoes and cool mountain lakes down through terraced rice fields to a golden strand lapped by azure waters, every square inch of Bali offers a fresh and unforgettable image.

No less enchanting are its people, some 2.7 million souls whose artistry and piety are recognized throughout the world. Balinese Hinduism, a complex fusion of Indian cosmology, Tantric Buddhism and home-grown mythology, is the primary faith of Bali's inhabitants, and so deeply woven into the fabric of their daily lives that the line between the spiritual and the material is blurry at best.

Those of you keen on delving into the island's fascinating culture will have plenty of opportunities, as colourful ceremonies and traditional performances occur with the regularity of sunrise. Most hotels offer nightly dance shows of one form or another, tailored to tourist audiences but none the less exquisite. The hill town of Ubud, the island's premier arts centre, also has a full schedule of performances, and the nearby stone-cutter's village of Batubulan is famed for its Barong lion dances

The shoppers among you will find Bali a treasure house of handicrafts and fine works of art. The Balinese are incredibly gifted artists and craftsmen, and their material creations are imbued with the same sense of wonderment with which they regard their universe. Stone and wood carvings, traditional and modern paintings and intricately designed jewelry in gold and silver are readily available in shops and galleries throughout the island.

As for recreation, there is no shortage of options. Nature walks, horseback riding, diving, surfing-even bungy jumping and white water rafting - await the adventurous here.

Badges

The Organizing Committee kindly ask you to wear your badge throughout the meeting. Only badge holders will be admitted to the sessions and social events.

Attention

For your own security, please keep your passport and other valuable things in the hotel safety-box.

UBUD BIRD PARK TOUR
Price: US $ 40, Hotel pick up: 09.00
Duration: 6 hours
Include: Entrance fees, Lunch, Tours

This tour provides an introduction to countryside, life art and craft of Bali

KECAK DANCE & LOBSTER DINNER
Price: US $ 40, Hotel pick up: 17.30
Duration: 4 hours
Include: Entrance fees and lobster dinner

Kecak Dance is performed by a group of at least 50 men who dance in a circle around a blazing torch, After the performance, enjoy lobster dinner at local restaurant.

BARONG DANCE & DENPASAR CITY TOUR
Price: US$ 40, Hotel pick up: 08.30
Duration: 5 hours
Include: Barong ticket, lunch and entrance fees

After seeing the exciting Barong Dance, visit Bali Museum, with its art collection that ranges from pre-historic to early 20 -century art. Then visit pasar (local market), where local people sell their product.

ALAS KEDATON and TANAH LOT TOUR
Price: US $ 30, Hotel pick up: 09.00
Duration: 5 hours
Include: Entrance fees & lunch, tours

Visit Monkey Forest and Tanah Lot Temple, which was built on a lava rock 200 meters off shore.

KINTAMANI TOUR
Price: US$ 35, Hotel pick up: 09.00
Duration: 7 hours
Include: Entrance fees and lunch

Experience the spectacular view of Lake Batur and the mighty Mount Agung as the background.

BALI GOLF CC TOUR
Price: US $ 165, Hotel pick up: 07.00
Duration: 5 hours
Include: Green fee, caddy fee, golf cart and transfer

A world championship 18 hole golf-course in a spectacular seaside setting, which is located in Nusa Dua.

RAFTING
Price: US $ 60, Hotel pick up: 08.00
Duration: 6 hours
Include: Lunch, raft and gear

Enjoy a white water rafting adventure - an unforgettable journey through lush jungle scenery and deep river gorges.

SCUBA DIVING
Price: US $ 75

THALASSO BALI
Price : US $ 85
Duration: 4,5 hours
Include: Thalasso care health, light meals, transfers.

Experience the power of sea water and seaweed at Thalasso Bali, which will revitalize and re-balance your body and soul.

BOROBUDUR & PRAMBANAN TOUR
(YOGYAKARTA)
One day trip
Price: US $ 225, Hotel pick up: 05.00
Duration: 14 hours
Include: Air ticket (Denpasar- Yogyakarta - Denpasar- Economy Class), lunch, tours and entrance fees.

Visit the spectacular temple of Borobudur and Prambanan.

HANDARA KOSAIDO GOLF TOUR
Price: US $ 120, Hotel pick up: 07.00
Duration: 9 hours
Include: Green fee, caddy fee, transfer to golf course

One of the best 50-golf courses in the world

BALI HAI BEACH CLUB CRUISE
Price: US$ 69, Hotel pick up: 08.00
Duration: 9 hours
Include: BBQ lunch, snorkeling, glass bottom boat, village excursion and transfers.

Cruising to Lembongan Island and enjoy an array of activities.

LOMBOK ISLAND TOUR
One day trip
Price : US $ 150, Hotel pick up: 07.00
Duration: 11 hours
Include: Air ticket, lunch and tours, entrance fees

Visit the small Island of Lombok, often describe as Bali of the sixties.

YOGYAKARTA TOUR
One day tour
Price: US $ 225, Hotel pick up: 07.00
Duration: 11 hours
Include: Air ticket (Denpasar-Yogyakarta-Denpasar, Economy Class), lunch, tours and entrance fees.

Visit the famous Sultan's Palace, Kotagede and City of Yogya.

MOUNT BROMO TOUR (East Java)
One day tour
Price: US $ 200, Hotel pick up: 07.00
Duration: 14 hours
Include: Air ticket (Denpasar-Surabaya-Denpasar, Economy Class), lunch, tours and entrance fees.

Enjoy the beauty of the nature and the culture of Tengger People. (No sunrise watching).

Conditions of booking:

1. Bookings are expected at least 24 hours prior to the commencement of the tour for best service and satisfaction.
2. Unless requested 24 hours before, all tours are guided by our experienced and friendly English-speaking tour guide.
3. All tours have included: entrance fees, parking fees, meals, and air ticket as indicated.
4. All prices are subjected for one single person.
5. There is no refund for unused portion of the tour package.

For further details, please contact your Official Travel Agent

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Sponsored Symposia

Friday, July 21, 2000 (11.30 - 13.00)
Satellite Symposium 1 (Chiron Vaccines)
Vaccines for Travellers from Asia

Chairperson : Walter Pasini, *Italy*

SS.1 "WHO Vaccinations Policy"
Walter Pasini, *Italy*
SS.2 "Rabies in Asia - Its Prevention and Treatment"
Madhusudan Shampur, *India*
SS.3 "Tick-Borne Encephalitis Vaccination for Travels to Europe"

Satellite Symposium 2 (Schering-Plough)
New Strategies for Treatment of Antibacterial Infections

Chairperson : I Made Bakta, *Indonesia*

SS.4 "Clinical Impact of Methicillin Resistant Staphylococcus aureus - An Update"
Latre Buntaran, *Indonesia*
SS.5 "Aminoglycoside: A Reassessment of Their Therapeutic Role"
John Turnidge, *Australia*
SS.6 "Critical Evaluation of Oral Cephalosporins: Applications in Clinical Practice"
RHH Nelwan, *Indonesia*

Friday, July 21, 2000 (19.30 - 21.30)
Dinner Symposium (Roche)
The Challenge and Task of Antibacterial Therapy in the New Millenium

Chairperson: Usman Chatib Warsa, *Indonesia*

SS.7 "Optimizing Antibacterial Therapy: Rational Dosage, Resistance Pattern and Pharmacoeconomics"
John Turnidge, *Australia*
SS.8 "The Rational Use of Ceftriaxone Once Daily in the Clinical Setting"

Saturday, July 22, 2000 (07.30 - 08.30)
Breakfast Satellite Symposium (WLPD)
"The Role of Oral Antibiotics In the Current Treatment of Infectious Diseases"

Chairperson : R.H.H. Nelwan, *Indonesia*

BS.1 "Current Hospital Isolated and It's sensitivity to Cephalosporin"
Amin Soebandrio, *Indonesia*
BS.2 "Pharmacological Overview on New Oral 3rd Generation Cephalosporin"
Rianto Setiabudi, *Indonesia*
BS.3 "Switch Therapy in The Current Treatment of Infectious Deseases"

Saturday, July 22, 2000 (11.30 - 13.00)
Satellite Symposium 3 : (Aventis Pasteur)
Travel Vaccines Symposium: Hepatitis A, Typhoid Fever & Meningococcal Infections Options and Answers for Travelers

Chairperson: Charles D Ericsson, *USA*

SS.9 "Hepatitis A Risks for Travelers"
Charles D Ericsson, *USA*
SS.10 "Typhoid Fever: A Concern for Travelers"
Frank von Sonnenburg, *Germany*
SS.11 "Meningococcal Meningitis - A Travel Health Problem ?"
Robert Steffen, *Switzerland*
SS.12 "Travelers Immunization: An Overview"
Anil Kumar Dutta, *India*

Saturday, July 22, 2000 (15.45 - 16.15)
Special Lecture (Indonesian Health Insurance Company)

SS.13 "The Role of PT Askes Indonesia in Health Care Management in Indonesia"

Sunday, July 23, 2000 (07.30 - 08.30)
Breakfast Meeting (SKB)

Chairperson : R.H.H Nelwan, *Indonesia*

BS.4 "New Management of Diarrhea in the 3rd Millenium"
Alex Tuazon, *Phillipines*

Sunday, July 23, 2000 (11.30 - 13.00)
Satellite Symposium 5: Janssen Pharmaceutical, Yakult
"New Breakthroughs on the knowledge Prevention and Treatment of Diarrhea in General and Travelers' Diarrhea in Particular"

SS.14 " Epidemiology of Travelers Diarrhea
Robert Steffen, *Germany*
SS.15 "Prevention of Diarrhea with Vaccines of Today and The Future"
Stephen Iwan Soemara, *Indonesia*
SS.16 "Update in The Management of Diarrhea"
Marcellus Simadibrata, *Indonesia*

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Bayer Pharma
Smith-Kline Beecham

***

Silver:

Novartis, Dumex Alpharma, Bristol-Myers Squibb, Fahrenheit, Kalbe Farma, Dexa Medica, Sanbe Farma, Darya Varia, Pfizer, Soho, Dankos, Otsuka, Glaxo, Yakult, Guardian, Upjohn, Takeda, Eli Lilly, Combiphar, Phapros, Janssen, Hoechst, Rhone Poulenc

Abstract Book

3rd ASIA PACIFIC CONFERENCE ON TRAVEL HEALTH

and

6th NATIONAL CONGRESS OF TROPICAL AND INFECTIOUS DISEASES

Kartika Plaza Beach Hotel
Bali, July 21 - 23, 2000

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Basic Course on

"Travel Medicine"

July 20, 2000

Introduction to Travel Medicine

Robert Steffen
Division of Epidemiology and Prevention of Communicable Diseases, Institute of Social and Preventive Medicine of the University and WHO Collaborating Centre for Travellers' Health, Zurich, Switzerland

Travel medicine is becoming increasingly important. In 1998, some 625 million international tourist arrivals were reported to the World Tourism Organization; of particular interest are the 50 million travelers who each year visit developing countries where the hygienic and epidemiological conditions are fundamentally different as compared to where and how they live.

The primary goal of travel health is to protect travelers from accidents, disease, and death. A secondary goal is to minimize the impact of illness abroad, largely through the principle of self-therapy. To some extent (mainly for diagnostic and therapeutic aspects) the discipline of travel medicine overlaps with the disciplines of infectious diseases and tropical medicine; however, travel medicine has a scope that expands far beyond these two disciplines, so it cannot be considered just a branch of either. Quite in contrast, travel health is interdisciplinary: For instance, trekkers in the Himalaya or the Andes mountains will need advice on coping with very high altitude and, more specifically, on preventing and treating acute mountain sickness. Since accidents are leading causes of traveler's mortality, education about risk reduction is of paramount importance.

To be able to practice travel health and travel medicine, one must base on epidemiological knowledge, otherwise one risks to protect travelers against rare risks while leaving them unprotected against far more frequent ones of similar severity. According to morbidity statistics in travelers, clearly traveler's diarrhea is the most frequent health problem in developing countries, whereas constipation occurs more often while touring industrialized countries. The incidence rates of the vaccine preventable infections vary greatly. HIV is still transmitted far to often and travel associated infections account for 10% and more in many countries. In addition, whenever there is political turmoil in the world, large numbers of migrants may be suddenly admitted, possibly importing uncommon diseases.

How to Set Up and Run A Travel Clinic

Bob Kass
Travel Doctor Group TMVC Australia

Questions to ask yourself.

1. Is there are market for a travel medicine clinic in my area? If not, should I reconsider the current location.
2. What is motivating me to develop this niche activity?
3. Is the current/ proposed clinic design suitable for travel medicine? Do I need to make structural/ procedural changes before providing a service?
4. Do I have suitably trained/ motivated staff? Will they interact well with potential clients?
5. What services should I offer?
6. How do I charge for these services?
7. What information resources do I require?
8. Do I need to consider ongoing educational training?
9. What strategies do I need to consider to make sure my clinic runs smoothly?
10. What do I need to do to market myself to potential clients?
11. How do I measure whether I have been successful?

Impact of the Environment on Traveller and Travel Medicine

HJ van der Kaay
Emeritus Professor of Leiden University Medical Center, Leiden and Consultant of Tropen Informatie Poli (TriP), Leiden, The Netherlands

Each traveller to endemic areas known to harbour vector-borne diseases should receive a personal advice, which is more than a vaccination and/or a prescription for drugs. Such an advice is based on the most recent data of the local epidemiology of the vector-borne infections concerned. In addition, but as important are a personal medical history and a detailed information about the travel route.

The environment plays a major role in the transmission of vector-borne diseases, thus the following questions are pertinent: traveller, where do you go, how do you travel and where do you stay at night?

In this context, the following three infectious diseases will be discussed:

1. Malaria. An infection for which no vaccination is available. Protection is still based on drug prophylaxis, while facing an increasing problem of multi-drug resistant *Plasmodium falciparum*. A renowned killer of the human race, being an infection with a high mortality among non-immunes. Drug resistance in *P. vivax* has only just started during the past decade, also in the eastern part of Indonesia. Specific treatment and drug for prophylaxis are still available, but for how long do they remain effective? Under these circumstances, preventive measures to reduce a chance for infections plays a major role. Early diagnosis and prompt treatment, WHO current policy, is also important for the traveller.
2. Yellow fever. A serious infection with a case fatality of over 60% in adults, but with a long history of an effective vaccination. The only infection for which a vaccination certificate can be required for international travel. The endemic areas are clearly reported. There is no specific treatment. Are travelers adequately protected?
3. Dengue. This infection is spread throughout the tropics. An increasing number of outbreaks are reported. More recent Dengue hemorrhagic fever (DHF) and Dengue shock syndrome (DSS) have become of importance, usually occurring during secondary dengue infections. There is no specific treatment, but management of vital signs like hemoconcentration, dehydration and electrolyte imbalance require immediate evaluation and adequate medical response. Intensive research on dengue vaccines is in progress and leading candidates are being tested.
4. Diseases in relation to tropical rain forest degradation: a warning for adventurous travellers and ecotourism. A few examples of emerging infectious diseases will be presented in relation with man penetrating forested areas.

Unknown for most travellers is, that individual behaviour can play a major role to prevent a vector borne infection. The medical officer must realize that an advice for a traveller is more than just a prescription of drugs and/or vaccination.

Impact of Travel on Host Countries

Santanu Chatterjee
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Tourism today promotes exotic off-the-beaten places in developing countries especially in the Asia-Pacific region, together with traditional vacation destinations. This tremendous growth of international travel involving rapid movement of people greatly influences lifestyles and values in these countries. Such an impact encompasses economic, socio-cultural and health dimensions. Income generation and employment potential of this industry are powerful economic inducers. Host countries, having scarce financial resources, find such benefits difficult to ignore. Tourism development often leads to increasing living costs for the local population and attracts them to leave their traditional income generation practices and join the industry. The social impact in the form of changes in the quality of life for the indigenous population are self apparent and often immediate whereas the cultural influences are usually more subtle and initiates long term changes in the local norms and traditions. Lifestyle issues and food preferences of the tourists are known to influence the host population. Water and air pollution, garbage removal and deforestation are major environmental concerns.Travel has a dual health impact in that it not only promotes and influences the health of the local population but also acts as a vehicle of spread of disease within this group. Identifying appropriate health care resources locally, initiating disease surveillance programs and promoting safe food hygiene practices are other key issues that merit special focus. Workplace health and safety concerns in the local tourist industry needs due consideration. It is now quite apparent that the health of the host population is closely linked to the health of the traveller. The Indian subcontinent offers numerous examples of such issues and their possible solutions. For all of us who believe in the goal of healthy travel, it is therefore imperative that we understand, identify and develop strategies to overcome the negative aspects of such an impact.

Evacuation of the Sick Patient

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website: www.tropmed.bizhosting.com

Evacuation of ill and injured travellers back home needs a careful repatriation advice: the so called TRANSPORT ADVICE. Collecting information about the specific medical problem of the patient is essential in decision making. A diagnosis, a prognosis and transport decision is made in good cooperation and communication by the medical expert-team of an Alarm Unit with a referral hospital in the home country and the contact person/ organization and hospital in the guest country where the patient is residing. The Alarm Unit expert decides in good cooperation with the contact organization about the treatment procedure of the patient in the guest land and the decision when evacuation is needed. The Alarm Unit expert in the home country of the patient is responsible to give an advice on treatment and, if required , for the transport of the patient back home. The whole procedure follows strict guidelines (protocols) for each specific disease or medical problem leading to a DIAGNOSIS and its consequences for the traveller

Diagnosis categories produced by ANWB Alarm Centrale Netherlands shows the following medical problems over the year 1998: Cardiovascular problems 40 %; traumatology 25 %; internal medical problems 20 %; psychiatry 5 %; other 10 %.

As soon as transport of the patient is required a specific advice will be made by the responsible expert.

This TRANSPORT ADVICE is specific about:

- Date of transport
- Means of transport (taxi; ambulance; boat; scheduled airline ; ambulance flights)
- Escort needed (family; co-traveler; doctor; nurse)
- Equipment (for example: stretcher, Propaq)

The NACA-score (National Advisory Committee for Aeronautics, USA) can be used to determine the degree of severity of the illness and to judge the patients fitness for transport. In addition the Glasgow Coma Score and Revised Trauma Score can be used for decision making.

Transport Advice has a fixed validity in time, for example up to 72 hours. After this time has expired the medical file have to be studied again and a new advice to be given.
For a successful transport the following items have to be checked:

- A diagnosis
- The location of the patient
- Means of transport
- Insurance coverage
- Definite agreement for admission in a hospital in the home country (MRSA problems)

The TriP-PREP® Travel Health Advice

Robert Tjon Soei Len
Tropen Informatie Poli Leiden (TriP®), The Netherlands

Providing travel health advice to travellers is a preventive medical service. Prevention on two levels:

1. Do no harm, rule out contra-indications of vaccines, malaria prophylaxis and other medicines before advising these preventive measures to a traveller.
2. Risk assessment and risk management of travel related health risks: vaccine preventable (vpd) and non-vaccine preventable diseases (non-pvd).

The TriP-PREP® travel health advice is based on these points of view and is generated from TriP travel health Infobase®. TriP travel health Infobase® is developed to bring knowledge in the Travel Clinic.

The chain of reasoning.

Step 1.

Collecting data: demographic and relevant health data of the traveller, itinerary.

Step 2.

Providing the advice based on the worksheet generated by TriP travel health Infobase.
The worksheet contains the data from step 1 and the epidemiological data of the itinerary structure according vpd and non-vpd.
The HELP® (Health Evaluation through Logical Processing) reports on vaccines and diseases to support the care provider and the PREP advice is a personal document for the traveller with his/her relevant health data, and provides written information, instruction and education on the health risks ordered by the way of transmission.
A built-in site snagger takes care of the periodically refreshing (every 12 hours) of the local server with the latest out-breaks (CDC-WHO etc).

Besides this Electronic Travellers Dossier TriP travel health Infobase® manages vaccine registration (lot number vaccines - traveller-stock management) financial, marketing and management tasks like appointments, etc.

The approach of the traveller is structured, checked against protocols and is recorded in a uniform way so that there is an optimal relation between the health status of the traveller and the advice given.

Travelers' Diarrhea

Charles D. Ericsson
Professor of Medicine and Head, Clinical Infectious Diseases, University of Texas, Houston Medical School, Texas, USA
President, International Society of Travel Medicine, Editor, Journal of Travel Medicine

Because of its frequency and economic impact, travelers' diarrhea is the most important health problem affecting tourism among travelers moving from developed to developing countries. Mortality due to typical travelers' diarrhea is extremely uncommon; however, the morbidity of untreated disease is substantial. Approximately 1% of sufferers are hospitalized, at least 20% are confined to bed for a day, and nearly 40% change their itinerary. Acute travelers' diarrhea is a clinical syndrome. The frequency with which specific microorganisms cause disease varies somewhat around the world, but most of the identified causal organisms are bacterial. Considerable overlap exists in the clinical manifestations of the various microbiological causes of travelers' diarrhea; however, the average frequency of symptoms can be described: cramps, 40-60%; nausea, 10-70%; vomiting, 5-10%; fever 10-30%.

The world can roughly be divided into three zones based on the risk of travelers' diarrhea. Risk averages about 7% in developed countries such as the United States, Canada, Europe, Australia, New Zealand, and other industrialized nations. Risk averages about 20% in southern Europe, Israel, Japan, South Africa, and certain Caribbean Islands. Risk is highest (20-50%) in the rest of Africa, Latin America, the Middle East and most of Asia. In numerous studies risk of travelers' diarrhea has been related to water and food consumption. In the face of ubiquitous and frequent exposure to enteropathogens, differences in hosts are difficult to demonstrate as risks for the acquisition of diarrhea.

Options for the prevention of travelers' diarrhea include education and chemoprophylaxis with either bismuth subsalicylate-containing compounds or antibiotics. Vaccination is a promising option, however vaccines against all enteropathogens that cause travelers' diarrhea might never be possible or cost effective due to the large number of strains that cause disease.

The maxim "boil it, cook it, peel itor forget it" is catchy, but the problem is achieving behavior modification in tourists. Bismuth subsalicylate-containing compounds are effective in the prevention of travelers' diarrhea. Protection is only about 65%. If travelers are careful in what and where they eat, then the degree of protection conferred by bismuth subsalicylate-containing compounds can be improved substantially. If they are active against causal enteropathogens in a region, antibiotics are up to 90% effective in preventing travelers' diarrhea. Most authorities agree that routine prophylaxis of travelers' diarrhea, especially with antibiotics, should be discouraged.

Arguably, oral rehydration is the most significant medical advance during this century in terms of a cost effective, elegantly simple intervention to save countless lives otherwise lost to dehydrating diarrhea. However, travelers' diarrhea is only infrequently dehydrating in adults. When travelers' diarrhea among adults in Mexico is treated with loperamide or loperamide plus oral rehydration solutions, the addition of ORS conferred no benefit to the subjects. Stringent dietary adjustments are probably not necessary in the usual management of travelers' diarrhea.

Pharmaco-Immunological Basis of Vaccines

Robert Tjon Soei Len
Tropen Informatie Poli Leiden, the Netherlands

Infection is the leading cause of death in human populations. The two most important contributions to public health in the past 100 years have been sanitation and vaccination. Modern immunology grew from the success of Jenner's vaccination against smallpox.

Smallpox was a specifically human disease, which was virtually pandemic in the 18th century. In several parts of Europe in the 18th century, it was known that an infection acquired from cows, cowpox, could protect against smallpox. This association was particularly noticeable in rural areas because milkmaids who contracted the mild cowpox infection did not catch smallpox.

Edward Jenner is credited with the first scientific study of vaccination when he gave experimental inoculations of cowpox to several individuals who were shown subsequently to be resistant to smallpox.

In 1796, he provided proof that "the inoculated Cow Pox proves a perfect security against the Small Pox". (The Origin of the Vaccine Inoculation, Jenner 1801). The word vaccine is derived from vaccs, the Latin word for cow and the word 'vaccination is now used to describe, in general terms the process of immunization against disease. This established the general principles of safe and effective vaccination.

This lecture will describe:

- the immune response: immune response are not forgotten but have the property of recollection (memory). This is a particularly important principle of vaccination.
- the 'stimulus' which evokes an immune response: (pathogen-antigen-immunogen)-vaccine.
- the immunological pathways of this stimulus: antigen detection-antigen presentation-lymphocyte differentiation.

Recent Advances in Immunization for Travel

Jay S. Keystone
Tropical Disease Unit The Toronto General Hospital
Vice President, International Society of Travel Medicine

In recent years 'new' vaccines have been added to our armamentium which are safe and effective for the prevention of infections of travellers and new information is now available about 'old' vaccines.

In the 'old vaccine' category we have learned recently that the risk of severe adverse reactions to yellow fever vaccine is much higher in the elderly population (RR 2-8); that hepatitis B immunization can be accelerated to a 0, 7, 21 days schedule with a booster at one year; that Japanese encephalitis vaccine provides 80% protection with two doses at 0 and 14 days; and that the combined hepatitis A./B vaccine can be accelerated to 0, 7, 21 days with very good results. New recommendations for old vaccines include the fact that routine booster doses no longer are required for rabies vaccine in travellers and that meningococcus vaccine is no longer recommended for India and Nepal.

In the 'new vaccine' category, the oral cholera vaccine (CVD 103-HgR) is 100% effective in preventing moderate to severe diarrhea for six months. The new varicella vaccine, an effective and safe, live attenuated vaccine is indicated for travellers from developing countries to industrialized countries because the risk of infection is much higher in the latter, especially in adults who are likely to be susceptible. For those travelling extensively to Lyme Disease areas of North America, the new Lyme vaccine provides 100% protection against asymptomatic infection and can probably be given at 0, 1 and 6 months instead of 0, and 12 months.

Regardless of which vaccines are used it is important to remember that when it comes to 'recommended' vaccines, the rule is: "immunize according to the risk of infection, not according to the country visited!"

National Seminar

The Preparedness of Health Service System in Supporting the Tourism Industry

July 20, 2000

The Role of the Indonesian Travel Health Society to Improve Health Quality Service for Tourists

Y. Kisyanto
Indonesian Travel Health Society

Travel medicine is a rather new (1983) interdisciplinary form of medicine, which deals with the illness of travellers. Travel Health is travel medicine with environmental health.

Knowing that a lot of improvement can be done in the travel health sector, we physicians and non-doctors who are interested in travel health have founded the Indonesian Travel Health Society (ITHS) in Jakarta in 1997. The ITHS is one of the 53 country members of the International Society of Travel Medicine (ISTM), and also member of the Asia Pacific Travel Health Association (APTHA), where we now host the Third APTH conference in Bali.

The role of the ITHS to improve the health quality service for tourists is by recognizing what can be done to improve and maintain a good quality service for the tourists. The main issue is to give the right, quick and up-to-date information about travel health for tourists. In the micro sector, this information will be more about prevention and early treatment by the travel medicine doctors and travel clinics. In the macro sector, this can be more effective by working together with the Ministry of Health, Ministry of Tourism and the travel-related industry.

State of the Arts of the International Travel Health System

Walter Pasini
Director of WHO Collaborating Centre for Tourist Health and Travel Medicine

Abstract not received within time limit.

Health Development at the Tourist Area: Tanjung Lesung Resort, Banten

Soesilo Soerjosembodo
Tanjung Lesung Resort Area, Health Division of PT. Banten West Java TDC, West Java, Indonesia

The health development at Tanjung Lesung Resort Area is directed directly under Health Division of PT. Banten West Java TDC, aimed to prepare Contagious Disease Free Area, particularly Malaria, and increase environmental health. These are felt necessary considering the problems occurred in that area such as contagious disease (Malaria, diarrhea); environmental health (many houses without toilet, ground-floor houses, and the problem of clean water); healthy life habit; Education, Economics and existing health service infrastructure. This resort was established in 1994, occupying 1500 Ha area, settled by 12.000 citizens, which at the beginning (middle 1996), 48 were sick (clinical malaria) out of 244 citizens per month per village, MOPI 0-57,6% could be decreased, therefore, this problem was solved. 'Imported Malaria' from and into endemic area, due to the economic problem, is a potential threat, and has become "a team work" between the 'village malaria expert' and local citizens. To prevent this disease, a new settler or worker is given chloroquin every week for as long as 6-12 months.

This area is developed based on the principle of:

1. Malaria surveillance program/ epidemiology/ services in Malaria control.
2. Active participation from the citizens.
3. 'Malaria experts' as motivator and advisor of health problems together with village health workers.
4. Empowering human resources and increasing citizens' performance
5. Opening 'health center' outside Hotel and Medical Room to make the tourist feel secure and at the same time help the citizens.
6. Strengthening Malaria Surveillance.

Demand for Global Mobility and Exposures to Health Problems

Danang Parikesit
Director of The Center for Tourism Research and Development, Gadjah Mada University

The advancement of travel industry, improvement of human knowledge through education and communication as well as information technology, and the improvement of wealth have increased the demand for global mobility, reflected in growth of the tourism trends around the world and Indonesia. Indonesia, despite its current down-turn in the tourism growth, is believed to regain its future increase in the number of foreign visitors and domestic travellers. This condition, gives an opportunity to tourists and travellers to visit places with different conditions.

While tourists and travellers receive the benefits of visiting their destinations, as a byproduct of such activities, they are also exposed to health problems associated with travel and transport. Travel-related health problems can be categorized into (1) pollutions and emissions, especially from mobile sources and (2) travel sickness and food-related problems. National and local tourism plans must therefore consider the above factors to ensure the success of tourism development. This paper reviews the tourism trends and puts forward health-related factors that become national and local issues in tourism development. All stakeholders, i.e. central and local government, travel industry, host community and travellers, must be aware of such conditions and take necessary actions to further encourage tourism development.

Health Service System of General Hospital in Supporting Tourism Industry in Bali. The Experience of Sanglah General Hospital

I Gusti Lanang Made Rudiartha
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Abstract not received within time limit.

Cooperation between the Private Health Service System and Travel Industry in Bali. Case Study from the Surya Husada Hospital Networking

Endrawati
Director of Surya Husada Private Hospital, Bali, Indonesia

Abstract not received within time limit.

Health Insurance Aspect in Tourism Health: The Perspective of PT ASKES INDONESIA

Sulastomo
Indonesian National Health Insurance Company

One point to be considered in developing a tourism program is the existence of health insurance for the tourists. The insurance could be taken from healthy environment, healthy food, accommodation, and quick health service.

PT Askes Indonesia is a health insurance company, which has large health service network throughout Indonesia, including resort areas. To provide the feeling of secure to the tourists, including foreign tourists, it seems that there is a need to consider efforts to develop health insurance for them, neglecting the fact that almost all foreign tourists are members of insurance institutions at their home countries. The type of insurance offered should meets their needs.

This paper will present the insights of the possibility of providing health insurance for tourists, the type of the insurance products and their connections to the tourism program in general, how to make benefit of the health service network of PT Askes Indonesia

An Analysis on Health Service Infrastructure for Supporting Tourism Industry in Indonesia

Laksono Trisnantoro
Center for Health Service Management
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Indonesia has many tourist resorts and attractions. At the moment the new development in tourism needs strong support from health sector. The support is becoming very important because there is an increasing risk of eco/cultural tourism and more vulnerable individuals who travels to Indonesia. However, compared to the hotel industry infrastructure, the health service system is still far from the international standard. This paper aims to discuss the quality of health service infrastucture for supporting industry. There were some activities organised to describe the current situation. The activities are in the form of direct observation, in-depth interviews, and focus-group discussion with many stake-holders at central government, provincial, and district level, and also private sectors,. The conlusion is that the health service infrastructure has many weaknesses. There is no unit in the Ministry of Health which is concerned with the health system for tourism industry. At the provincial level, because it is very centralised plan, there is no structure diference between provinces which have tourism industry and which have not. There is not any standard for tourism industry and Indonesian accreditation body which may develop the quality of service for tourism industry. It is expected that in this meeting there will be a discussion on the need for (1) restructuring the district and provincial health office for supporting the tourism industry; (2) establishing licensing and accreditation system for health service organisation which provide services to the tourism industry; (3) benchmarking to other countries and the international standard; and (4) developing Indonesian standard for health facilities in tourism industry.

Do We Need Licensing and Standardization of Health Service for Tourists?

Adi Utarini
Magister Manajemen Rumah Sakit UGM

Quality of health professionals and quality of health care organizations are the two interrelated factors essential in the development of health service system supporting the tourism industry. The relationship is preventive in nature, in that both the providers (health professionals) and the system (health care organizations) are imperative to prevent errors in the delivery of health care. Tourists as potential health care consumers represent the presence of an international community in Indonesia who may have different expectations, requiring international standards. From the medical perspective, diseases may affect people differently. Health professionals, therefore, should gain additional understanding and knowledge to be able to delivery quality care. Malaria, with an estimate of 300-500 million clinical cases, 1.5-2.7 million deaths annually and an alarming drug resistance problem, is certainly an example. Besides the clinical viewpoint, expectations regarding other aspects of care such as language, communication skills, food habit, insurance requirements, are also identified. The main questions addressed in the paper are, therefore: Should we develop a licensing for health professionals dealing with tourists? If so, who should grant the license? What types of standards should we use?

Memorial Lecture

Environmental Health Supporting Tourism Sector

Umar Fahmi Achmadi
Director General Communicable Disease Control and Environmental Health, Ministry of Health, Jakarta, Indonesia

Tourism is one of the important sectors of the Indonesian government. Now it has become even more crucial in view of combatting the ongoing economic crisis. But it has been observed that the number of tourists have decreased significantly in the recent years. Such a decrease of tourists has direct link with prevailing social unrest and degraded environmental conditions. There have been reported cases of tourists becoming infected by communicable diseases while visiting or traveling within Indonesia.

The environmental sanitation condition and hygiene practices are less than satisfied in the tourist spots. Therefore, these threats produce negative image on Indonesian tourism. For example the outbreaks of diarrheal diseases in Medan and Bali few years ago, directly affected the tourism. Many tourists from overseas had to cancel their trips due to such unwanted havoc.

The environmental up keeping can support development of industrial tourism to a large extent. While hygiene and sanitation conditions in transport vehicles, hotels and resorts play a major role in tourism promotion, water supply, food & beverage, wastewater & garbage disposal, vector control, and environmental pollution protection are also essential to sustain the promotional efforts of the tourism industry.

This paper aim at critically analysing the present situation, with special focus on Health & Hygiene, which can affect tourism positively. Healthy tourism, an initiative taken by the Government of Indonesia to support tourism, also has been discussed in the paper briefly. This concept is being implemented in 8 of the tourist resorts in Indonesia since 1999. The general aims of optimizing tourism are to realise health, safety and comfort in the tourism areas in Indonesia.

Plenary Lectures

10 Commandments for Tropical Travel

Jay S. Keystone
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Vice President, International Society of Travel Medicine

Of 100,000 travellers to developing countries for one month or more, almost half will develop an illness, 500 will be hospitalized abroad and one will die. Traveler's diarrhea is the most frequent ailment of travelers, hepatitis A, the most frequent vaccine-preventable infection, malaria the most frequent infectious cause of death, and motor vehicle accidents the most frequent cause of preventable death.

Consulting with a health care provider who is expert in travel medicine is the first and most important step in being educated about how to remain healthy during tropical travel. Acclimatizing the elements and time change, protecting oneself from insects, purifying water, cooking and peeling one's own fruits and vegetables, utilizing prophylactics (both latex and antimalarials), avoiding fresh water in areas of schistosomiasis, being concerned about security, and finally, and not least, being wary of one's form of transportation, are all ways to remain healthy during travel.

However, staying healthy during travel to developing countries is mostly a matter of taking common sense precautions, knowledge of the risks in the countries visited, and to some extent, luck. There is much information both in print and electronically concerning travel health safety, but invariably it is the traveller who ultimately decides which risks she or he is willing to take for the sake of business or pleasure.

Epidemiology of Health Risks in Travelers

Robert Steffen
Division of Epidemiology and Prevention of Communicable Diseases, Institute of Social and Preventive Medicine, University of Zürich and WHO Collaborating Centre for Travellers' Health, Zürich, Switzerland

In order to have a rational approach to necessary preventive measures, it is essential to know the health risks. The 50 million travelers each year with destinations in Africa, Asia, Latin America, Pacific Islands and remote areas in Eastern Europe are exposed to a broad range of pathogens that are rarely encountered at home. The risk depends on the degree of endemicity in the area visited, the duration of stay, the individual behavior and the preventive measures taken.

Travelers' diarrhea (TD) is the most frequent ailment of visitors to countries with poor hygiene. The incidence rate is 25 to 90% in the first 2 weeks abroad. The risk of TD is far less in travelers originating in a high risk country, as some immunity develops. The onset of TD is usually within the first days abroad. Untreated, the average duration is 4 days (1% >1 month). Half the patients suffer of abdominal cramps, roughly 15% of nausea, vomiting, fever, or blood admixed to the stools. TD usually is self-limited and mild, but it may ruin a business journey or a vacation abroad. Travelers who lack of the gastric- acid barrier, infants and young adults show a higher incidence rate of TD. Except in SE Asia the most frequent agents causing TD are enterotoxigenic E. coli. Enteropathogenic, enteroadhesive and enteroinvasive E. coli (5-10%), Salmonella (5%) or Shigella È(5-15%) , Campylobacter (mainly in cool season), other bacterial pathogens (<5%), parasites such as E. histolytica, G. lamblia, Cryptosporidum (<2%); and rarely in adults Norwalk, adenovirus and rotavirus may also be detected. Some 30% of diarrheal episodes remain unexplained but apparently are of bacterial origin since they favarourably respond to antibacterials. The clinical symptoms are not pathognomonic for a specific agent.

Malaria is an important risk for travelers going to endemic areas. Without chemoprophylaxis, the monthly incidence is high in some destinations, among them frequently visited tropical Africa where 80% to 95% of the infections are due to Plasmodium falciparum. The incidence rates are lower in most endemic areas of Asia and Latin America where Plasmodium vivax predominates. The risk is nil in all capital cities of South America and SE Asia, as well as in many frequently visited tourist destinations.

Among the immunization preventable diseases the monthly incidence rate in developing countries is highest for symptomatic hepatitis A (300/100,000 average, 2,000/100,000 in backpackers). Hepatitis B is mainly a problem for expatriates living close to the local population and for travelers braking the most basic hygienic rules; the monthly incidence is 25/100,000 for symptomatic infections; 80-420/100,000 for all infections. Less common infections include typhoid fever (incidence rate per month at most destinations È3/100,000; on the Indian subcontinent, in Egypt, Morocco, Algeria, West Africa and Peru 30/100,000). Rabies is a risk particularly in those who are in close contact with natives over a prolonged time, e.g. missionaries, those en route with bikes, and in those working with animals or who explore caves. Meningococcal meningitis (highest risk during the pilgrimage to Mecca) is rare even in travelers staying in countries where the infection is highly endemic. The risk of cholera is approximately 0.2/100,000, although asymptomatic and oligosymptomatic infections may be more frequent. A few dozen cases of Japanese encephalitis have been diagnosed in civilian travelers within the last 25 years, the attack rate in civilians is less than 1 per million. Only two international travelers were diagnosed with plague since 1966. Epidemiological data on the occurrence of yellow fever, measles and tetanus in travelers are scant.

Sexually transmitted diseases occur frequently, as some travelers (5% among European ones) engage in casual sex, approximately half of them without being protected by a condom. The prevalence for HIV-infection, syphilis, gonorrhoea, etc. often exceeds 50% in prostitutes. In some European countries, heterosexuals with newly acquired HIV- infection have acquired it while abroad.

Cost Effectiveness of Antimicrobials

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Many guidelines have been produced on the appropriate use of antimicrobials in different settings. Few, however, focus on the relative costs of antibiotics, a factor that must always been considered when there are significant cost differentials between agents. When assessing the cost effectiveness of antibiotics, there are a number of factors that must be considered for the agents:

1. relative efficacy
2. acquisition cost
3. cost of administration
4. dose and dosing frequency
5. duration of treatment

These data are best applied to situations where there is more than one choice of similar agents, and the costs of those agents is comparatively high, eg some injectable ß-lactams. It is common when considering these types of comparisons to consider acquisition costs alone at the pharmacy or drug committee level. However, this can be misleading, as the other factors introduce costs that may make the 'less expensive' agent more expensive to administer overall. Useful comparisons, where relative efficacy and safety might be considered to be the same, will be used as examples. These include third-generation cephalosporins (cefotaxime, ceftriaxone and ceftazidime), fourth-generation cephalosporins (cefpirome and cefepime), ß-lactamase inhibitor combinations (ticarcillin-clavulanate, piperacillin-tazobactam), carbapenems (imipenem and meropenem), aminoglycosides (gentamicin and tobramycin) and fluoroquinolones (ciprofloxacin and ofloxacin). Examples will also be shown of how this concept of cost-effectiveness can be further enhanced by factoring in pharmacokinetics and pharmacodynamics, resulting in new regimens that minimise overall costs of treatment. Applying the principles to agents where the efficacy rates are different or resistance to one agent is more prevalent is not so straightforward. In these circumstances, the costs of failures must be factored in, and presently there is little prospective data about these costs.

Perspectives on Travel Medicine: Now and the Future

Charles D. Ericsson
Professor of Medicine and Head, Clinical Infectious Diseases, University of Texas Houston Medical School
President, International Society of Travel Medicine, Editor, Journal of Travel Medicine

A) Risk Assessment
   1) Comparing risks of staying at home and going to war.

B) Lowering Risk in Developing Countries Through Travel Medicine

Now:
- Education
- Vaccination
- Chemoprophylaxis
- Self-therapy

Future:
- Improved public health in host countries

C) Risks Are Not Highest for Infectious Diseases
   1) Cardiovascular Disease
   2) Trauma
   3) The BIG SIX infectious diseases
      a) Travelers' Diarrhea: 30%
      b) Malaria: 2% (West Africa, no chemoprophylaxis)
      c) Respiratory tract infection: 1%
      d) Hepatitis A: 0.3%
      e) Gonorrhea: 0.2%
      f) Animal bites with rabies risk: 0.1%

D) Coping with Risk
   1) Prevention is generally better than self-therapy or looking for a physician in a developing country.
      a) Exception is travelers' diarrhea
   2) Regrettably education frequently fails to change deep-rooted behavior.
   3) The approach is one-stop shopping, because it might be the last time you get a chance to protect the client.

E) Concepts: Now and the Future

1) Immunizations:

Now:
- Advent of many-in-one vaccines (e.g., Hep A and B)
- Better understanding of risk to exclude unneeded vaccination

Future:
- DNA technology promises to make vaccines cheap to produce
- Breakthroughs in vaccine delivery to circumvent the cold chain (e.g., vaccines in bananas, oral vaccines)

2) Travelers' Diarrhea

Now:
- Self-therapy
- Developing vaccines options (e.g., Typhoid, ETEC, Shigella)

Future:
- Safe food and water
- New drugs (e.g., botanicals; rifaximin and azithromycin)
- WHO initiatives to improve public health.
- Irradiation of food.

3. Malaria

Now:
- Risk assessment
- Personal protective measures
- Chemoprophylaxis vs. self-therapy

Future:
- Mosquito control
- Vaccine

4) Jet Lag

Now:
- Melatonin
- Exposure to timed sunlight.
- Soporifics like Ambien

Future:
- Light delivery systems
- Drug delivery systems

Systemic Mycosis: Diagnosis and Management

Jan Soesilo
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The study's objective is to identify the diagnostic and management problems of systemic mycoses and to find ways and means to overcome the difficulties.

Retrospective study of the identified cases showed that awareness of systemic fungal infections is low. Systemic mycoses were diagnosed between one to three months after hospitalization. More than 25% of the histoplasmosis and cryptococcosis patients could not be saved.

Candica isolated from clinical specimens was mostly considered to be non-pathogenic although clinical course seemed to prove otherwise. Nosocomial infections were treated with antibiotics for the isolated microorganisms and the possibility of fungal infections were rarely considered.

Concomitant treatment of *Candida* and *Aspergillus* isolated from bronchial washing showed better improvement than treatment of the underlying disease alone.

Increasing the awareness of the clinicians, the availability of diagnostic kits and modification of isolation technique are ways to improve the detection of systemic mycosis.

Symposia

Emerging Pathogens and Their Impact on Travel Medicine

Eli Schwartz

The Center for Geographic Medicine
Sheba Medical Center, Tel Hashomer, Sackler School of Medicine, Tel-Aviv University, Israel

Abstract not received within time limit.

Which of the Required, Routine, and Recommended Vaccines are Indicated for Which Travelers?

Robert Steffen
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Selection of immunizations should base on requirements and on risk of infection. According to the International Health Regulations (IHR), many countries require yellow fever vaccination and proof thereof in the International Certificate of Vaccination. Additionally few countries still require proof of vaccination against cholera and meningococcal disease.

A consultation for travel health advice is always an opportunity to ascertain that routine immunizations have been performed. Recommended immunizations often are more important for traveller's health than required or routine ones. The most frequent vaccine preventable infection in non-immune travellers to developing countries is hepatitis A with an average incidence rate of 0.3% per month; in high risk backpackers or foreign-aid-volunteers this rate is 2.0%.

Many immunizations are recommended for special risk groups only: There is a growing tendency in many countries to immunize at least all young travellers to developing countries against hepatitis B, as it is uncertain who will voluntarily or involuntarily get exposed. The attack rate of influenza in intercontinental travel is estimated to be 1%. Immunity against poliomyelitis remains essential for travels to Africa and parts of Asia. Many among the monthly 0.2-0.4% who experience an animal bite are at risk of rabies. Typhoid fever is diagnosed with an incidence rate of 0.03% per month among travelers to the Indian subcontinent, North and West Africa (except Tunisia), and Peru, elsewhere this rate is tenfold lower. Meningococcal disease, Japanese encephalitis, cholera and tuberculosis have been reported in travelers, but these infections are rare in this population.

Although no travel health vaccine is cost beneficial, most professionals will offer protection against the frequent risks, while most would find it ridiculous to use all available vaccines in every traveller. It is essentially an arbitrary decision on to what risk level one wishes to recommend protection.

3rd APTH BALI 2000

The Organizing Committee of The 3rd Asia Pacific Conference on Travel Health expressed sincerest thanks and appreciation for the support of

CHIRON VACCINES

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Fleet Facts

Garuda Indonesia's fleet of more than 40 aircraft is one of the biggest and most modern in the Asia Pacific region. We are currently operating Boeing 747-400s and Airbus A330-300s on long-haul routes and refurbished Boeing 747-200s and DC-10-30s on medium-range routes; Airbus A330-300s on regional international services; new Boeing 737-300s, 737-400s and 737-500s for domestic and regional services; and Fokker F28-4000s supplement some short-haul domestic routes. Our fleet is meticulously maintained jointly by the Garuda Maintenance Facility (Asia's Largest aircraft maintenance facility), Swissair and KLM.

Boeing 747-400
Engines: 4X General Electric CF6-80C2
Maximum speed: 990 kph
Range: 14,180 km
Seat capacity: 405
Crew: Cockpit 2
Cabin 17

Mc Donnell Douglas DC-10
Engines: IX General Electric CF6-50
Maximum speed: 900 kph
Range: 9,250 km
Seat capacity: 250
Crew: Cockpit 3
Cabin 12

Boeing 737-400
Engines: 2X CFM56-3 C1
Maximum speed: 840 kph
Range: 3,515 km
Seat capacity: 124
Crew: Cockpit 2
Cabin 16

A330-300
Engines: 2X Rolls Royce Trend 800
Maximum speed: 330 knots (0.82 mach)
Maximum Range: 4,500 miles
Crew: Cockpit 2
Cabin 14

Rapid Diagnostic Technologies for the New Millennium

James R. Campbell
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New rapid diagnostic technologies for identifying pathogenic microorganisms face a range of practical challenges. Besides the obvious need for high sensitivity and specificity, these methods must be easy to use, inexpensive and have minimal storage and logistics requirements. Tests that use chromogenic or fluorogenic enzyme substrates, various chromatographic techniques, DNA-based techniques, and antigen-antibody based methods all offer desirable features in rapid assays. However optimal methods also offer multiplex capability, at low cost, with minimal training in their use. Applications for rapid diagnostic technologies range from clinical laboratories in large clinical centers and practitioners' offices, to field epidemiological surveillance projects, to personal home use. The relative importance of speed, cost and simplicity in these different settings will be compared and discussed, for several rapid technologies currently in use. Future directions for development of rapid diagnostic assays will be discussed, in the context of appropriate technologies for developing countries.

TTV: a New Hepatitis Virus ?

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Until 1995 we have 5 characterized Hepatitis viruses : Hepatitis A,B,C,D and E. But there are still many cases of unclassified acute Hepatitis with negative markers of known viral Hepatitis. The cases are called non A-E virus Hepatitis. In 1995 a new RNA virus thought to be associated with Hepatitis Non A-E has been reported independently by two groups of investigators, called Hepatitis G Virus (HGV). It was confirmed later that HGV is the same virus as GB-C virus. GB virus was originally reported in 1967 by Deinhart. Further studies showed that HGV is a Flavivirus found worldwide. HGV was transmitted parenteraly and perhaps also sexually. The virus was positive 1n 0.8% of donors with normal ALT, and 3.9% of donors with elevated ALT. But until now the relation of HGV infection with Hepatitis remain unclear. In 1997 Nishizawa et al reported a new DNA virus thought to have relation with Hepatitis. Perhaps TTV can be grouped into Parpoviridae. Studies showed that the virus was distributed worldwide, and transmitted by parenteral and fecal oral route. The virus was found in 1-2% of healthy blood donors in America and Europe, and in 12% of blood donors in Japan. It was reported that TTV was found in 47% of Non A-G Hepatitis cases in Japan. Studies In the developing countries with low standard of hygiene and sanitation show the very high prevalence of TTV infection. Almost all of the population were infected and the infection was acquired at the very early ages. There is no difference or the prevalence of TTV infection between individuals with and without liver disease. The conclusion is that TTV is not a hepatitis virus although it may causes hepatitis in a subset of patients.

Use of Dipstick Tests for the Rapid Diagnosis of Malaria in Non-Immune Travelers

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Objectives: Swift diagnosis of falciparum malaria in non endemic areas is frequently complicated by lack of experience on the side of involved laboratory personal. Diagnostic tools based on the dipstick principle for the detection of plasmodial histidine-rich protein 2 (HRP-2) (ICT Malaria P.f.) and parasite-specific lactate-dehydrogenase (pLDH; OptiMal), respectively, have become available for the qualitative detection of falciparum malaria.

Methods: In order to evaluate currently available assays, a series of studies was conducted: sensitivity and specificity were evaluated by investigation of specimens from 231 febrile returnees from endemic areas, cross reactivity in patients with rheumatoid factor were assessed among 92 patients from a rheumatology unit and the quality of dipstick self-use by febrile travelers was tested in Kenya.

Results: While the test kit based on the detection of HRP2 performed with a sensitivity of 92.5% and a specificity of 98.3%, the kit for the detection of pLDH showed a sensitivity of 88.5% and a specificity of 99.4%. Cross-reactions with sera positive for rheumatoid factor occurred in 6.6% with the ICT Malaria P.f. ; and in 3.3% with the OptiMal test. Only ICT Malaria P.f. was tested for quality of self-use among travelers. This dipstick assay was performed successfully by 67 patients (68.4%), while 31 (31.6%) were unable to obtain a result.

Discussion: Dipstick tests have the potential of enhancing speed and accuracy of the diagnosis of falciparum malaria, especially if non-specialized laboratories are involved. However, microscopical testing remains mandatory in every single patient with the possible diagnosis of malaria. Self-use of dipstick tests for malaria diagnosis by travelers should only be recommended after appropriate instruction and training, including a successful performance of the test procedure.

Advancement in the Rapid Diagnosis of Enteric Fever

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In the quest of developing an accurate test for enteric fever, there is a need to discover antigens specific for typhoid and paratyphoid diagnosis. We have previously reported the discovery of the 50 kD outer membrane protein specific for *Salmonella typhi*. Our studies on *Salmonella paratyphi A* led to the discovery of a specific surface associated protein for paratyphoid A . The specific protein was used to develop a rapid (1 hour) dot enzyme immunosorbent assay for detection of specific IgM. A panel sera comprising of paratyphoid and non paratyphoid sera devoid of total IgG was used to evaluate the sensitivity and specificity of the paratyphoid antigen. Results of the study showed a sensitivity of 100% and a specificity of 94% for paratyphoid A diagnosis. Further work involving strategies for cloning and epitope mapping of both the specific typhoid and paratyphoid A antigens in order to develop a 2 in 1 test for the accurate diagnosis of enteric fever will also be discussed.

key words: enteric fever, Salmonella paratyphi A, diagnosis, surface associated proteins

Rapid Diagnosis of Imported Dengue Cases in Japan

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Dengue virus infections are a major public health problem in most tropical and sub-tropical countries of the world. Dengue is not endemic in Japan. However, dengue is occasionally imported by travelers who visit tropical areas and become infected with dengue virus. Laboratory diagnosis is essential for confirming the diagnosis of this virus. For purpose of confirmation, detection of specific IgM by IgM-capture ELISA and dengue virus genome by RT-PCR have recently been used. In our laboratory, we examined serum specimens from 204 suspected cases from 1985 to 1997, and approximately half of these cases were confirmed to be infected with dengue virus. Serum specimens from 129 suspected cases were examined by serologic tests and 55 cases were positive in 1998 and 1999. Dengue virus genome can be detected in serum samples by RT-PCR before fever subsides. Detection of IgM by IgM capture-ELISA or a rapid immuno-chromatographic test provides positive results when serum specimens are obtained after febrile period.

key words: dengue viruses, imported cases, ELISA, RT-PCR

Rapid Test for Diagnosing Dengue Hemorrhagic Fever (DHF)

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Since 1997 we have used Pan Bio Dengue Immunochromatography which yielded its result (IgM and IgG anti Dengue) within 5 minutes at a single examination. The sensitivity and specificity of this method were 99% and 92%. It could replace the place of HI test, the golden hemagglutination standard test we knew. HI test needs paired sera taken 5-7 days apart. Other serological examination for DHF are: Pan Bio Duo Elisa, IgM antibody capture Elisa (MAC-Elisa), and IgM-IgG antibody Capture Elisa (MAC-GAC Elisa). The spread of dengue throughout the world and the increasing number of cases to be tested has made Elisa format test for IgG antibodies to replace the HI test become highly desirable. Although the IgG Elisa showed a low HI concentration in primary infection, IgG Elisa titers could be associated with primary or secondary infections when analyzed by days after the onset of symptoms.

IgG Elisa can substitute HI in characterizing the immune response to dengue virus. Compared to other tests, Pan Bio Rapid Immunochromatographic test (PRIT) had the best sensitivity (100%). The assays were also able to detect DEN-specific antibodies in samples from patients with either primary or secondary infections. The Pan Bio Ig M Elisa - assessed by the sum of sensitivity and specificity (F value), performed similarly in distinguishing Dengue Virus from non-Flavivirus infections compared to MRL IgM Elisa. Also the Pan Bio IgM Elisa showed significantly better distinction between Dengue - Virus infections and JE (Japanese Encephalitis).

In 1999, De Oliveria SN et al started to investigate whether saliva could be used to diagnose recent dengue. With a minor modification, undiluted saliva were tested using an IgM capture (MAC-Elisa). Sera collected simultaneously from the same patients (with a dilution 1:10) were tested with the same method. Recent dengue infection was confirmed in 38 cases. High rate of positivity was observed for the saliva samples collected more than 5 days after the onset of the disease. Lab examination of saliva was also done with Pan Bio Duo Dengue and HI test. He found that salivary IgG level was well correlated with serum HAI (Haem-Agglutination Inhibition) titer (R=0.78), so it could be used to distinguish primary from secondary dengue infection. No healthy laboratory donor and none of the non-flavivirus infection showed elevation of salivary anti Dengue antibodies (=100% specificity).

Saliva may be a convenient non-invasive alternative to serum for diagnosis of recent DEN-fever virus infection, especially for epidemiological studies during outbreak of the diseases. During the outbreak in 1998, we used PRIT instead of HAI test. There were 985 cases with suspected DHF in Jakarta from 3 big hospitals in Jakarta. We found that recent dengue infection for primary infection [IgM (+), IgG (-)] and secondary dengue [IgM (+), IgG (+)] were 121 and 410 cases respectively. There were 147 cases with suspected secondary dengue with IgM (-) but IgG (+) and other 307 cases had both IgG and IgM negative.

The benefit of serology PRIT is that we could establish the diagnosis of dengue or non-dengue infections and distinguish primary from secondary dengue. It also can cut 2-3 days infusion and 4-6 bottles of 500 ml Ringer-Lactate solution per day and 2-3 times savings for monitoring Hb, Ht, and thrombocytes count. If in each hospital in Jakarta, the recent dengue infection incidence was 40-50%, we could imagine how much money could be saved.
Conclusion : Rapid test of dengue was based on serology; saliva may be a convenient non-invasive alternative to serum nowadyas still under research. Early diagnosis of recent dengue infection by rapid test would be a cost-effective tool.

key words: rapid test, early diagnosis, recent dengue, money saved

Travellers and Cardiovascular Diseases

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Surveys instigating reasons for death and medical emergencies in tourism and during air travel repeatedly identified cardiovascular disease as the major cause of them.

The enormous increase in tourism seen over the last few decades involves more than ever before a large number of persons who are cardiologically vulnerable, including subjects affected by ischaemic cardiopathy, hypertension, valvulopathy and other cardiovascular diseases. There are also other categories of travellers, such as the elderly, who although when they set out on a journey have no specific history of cardiac disorders, nevertheless might run the risk of cardiovascular disease. Acute Myocardial Infarction, Cardiac Arrest and Sudden Cardiac Death can strike adults apparently in good health. Bacterial, parasitic and viral infections can cause myocarditis and cardiomyopaties.

Travellers can prevent cardiovascular disease by adopting particular precautions and standards of conduct, and medical personal must provide them with the following instructions. Heart check-up before departure, backed up by appropriate instrumental analyses. Carry a copy of a recent electrocardiogram and any other clinical documentation about a known disease. Carry sufficient drugs for the full duration of the journey or holiday. Do not exaggerate with physical activity, to avoid exposing the heart to excessive strain to which it is not accustomed. Ascertain that at holiday destination there are suitably equipped medical facilities. Check blood pressure periodically. Pacemaker patients must carry an information card with details of their pacemaker model with full updates, and should check that their holiday destination has a suitable pacemaker centre. Do not choose high-altitude destinations, as these could cause a fall in blood oxygen content (hypoxaemia). Rapid altitude changes with ski-lifts, cable cars or other means of transport can also be dangerous. At seaside destinations, avoid prolonged exposure to the sun and exposure in the hottest hours of the day. Be aware that infectious diseases can increase the risk of cardiovascular complications even if their health is stable. A book on the "Travelling Heart" has been prepared for Italian doctors in 2000 by the WHO Collaborating Centre for Travel Medicine

Cardiovascular Patients in Bali Inclusive of Travelers

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Abstract not received within time limit.

Emergency Treatment of Acute Myocardial Infarction

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Abstract not received within time limit.

S.3.4

Low-Molecular Weight Heparin in Acute Coronary Syndrome

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Abstract not received within time limit.

Adventure Travel: Special Health Risk ?

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An interim analysis of post-travel medical examination of five Dutch tourists with a still active disease of unknown origen after travelling in Mexico-Belize and Guatemala in 1998. How and up to which level extensive diagnostic examination is required in these cases? Analysis results and strategy proposals in post-travel medical care are highlighted.

Between May 12 and June 10, 1998 a group of six tourists and a guide (four man and three women) made an organised guided camping-trip from Yucatan, via Belize and Guatemala back to Yucatan. This jungle-trip included a visit to a batcave. In Yucatan also cenote-diving was included in the trip.

Five of the group (three women and two man) developed complaints during the trip within the period May 20 and May 30,1998. At present three women have complaints, including of fatigue, musclepain; arthralgia; episodes of subfebrile fever and skin abnormalities. Two of women are unable to work. The fourth, a man, shows arthralgia and musclepain. One of the patients visited the Travel Clinic's Hertogenbosch, The Netherlands on October 15, 1998 for consultation and reported at the same time what she had heard from other members of the group. Investigation was initiated in search for a possible common cause for the complaints of the five members in connection with their adventure travel.

Methods:

First, a joint investigation started. Medical and laboratory reports were obtained from the patients' general practitioners (GP's) and the various complaints compared. Secondly, in a meeting in 1999 during the ISTM conference, Montreal, it was decided, apart from routine blood, faeces and urine investigations shoud be carried out to exclude a series of a common and/or rare parasitic-,bacterial- and viral infections . Finally, three Dutch members were invited for a combined consultation in the Travel Clinic's-Hertogenbosch. Travel history was scrutinized and the results were checked by a fourth patient from Switzerland.

Preliminary results:

- The onset of the complaints could be linked in time with the adventurous jungle trip.
- During the past two years the general condition of all the patients show a slight improvement.
- Consultation with many specialists in infectious diseases,tropical and travel medicine took place in order not to overlook a rare or re-emerging infection.
- Histoplasmose can match the symptoms of only two patients pointing to the batcave as a possible cause. This diagnose could not be confirmed by laboratory investigation.
- Coordination with the GP's is good and the attention given to their complaints prevented the patients from shopping along the health services in search for an answer for their complaints.
- The use of electronic communication between the GP's and specialists opened a rapid global cooperation in search for a solution of this peculiar series of complaints.

Traveling with Children

Karl Neumann
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Millions of infants and children travel internationally and many health-related travel issues affect them differently than they do adults. Preparing infants and children for developing countries requires familiarity with the health environtment in the destination country and knowing such details as whether the children will be staying at a five-star hotel or visiting and sharing rooms with cousins. Depending on the trip, infants and young children may require additional doses of routine "childhood" immunizations and all children may require travel-related immunizations. Children may also require malaria prophylaxis - which may differ from that given to adults. And depending on the destination, parents must be informed and educated about the following: prevention and treatment of travelers' diarrhea and dehydration; preventing accidents; hazards from the sun; the use of insect repellents; avoiding exposure to animals; the prevention, recognition and treatment of altitude sickness; the benefits of carrying a medical kit; and how to find good medical care in foreign countries. The advent of telemedicine - cellular telephones and digital cameras, for example, may have great benefits for families that travel.

A Multidisciplinary Approach to Caring for Refugee Children

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Canada has always been a country which receives people from other lands who are seeking a better life for themselves and their families, as well as for those seeking refuge from political, religious or personal persecution. For the year 2000, Canada expects to receive some 225,000 new arrivals including 25,000 refugees. Refugees are often ill-prepared to face the new challenges of their host country. They frequently present with multi-dimensional problems which the host country is equally ill-prepared to deal with. Most refugees experience difficulties in psychosocial and cultural adjustments; however, children and adolescents also experience problems which are related to their age. Additionally, the medical screening process conducted by Canadian immigration is focused towards adult problems, often overlooking those pertaining to children, such as development, immunization and certain diseases.
We at The Montreal Children's Hospital, a university pediatric centre, have developed a multi-disciplinary approach to providing care for refugee children and adolescents. We provide not only comprehensive medical assessment and screening but also thorough evaluation of their social and psychiatric needs. Our findings are based on three years of collaborative work among various health care professionals.

key words: refugee children, multidisciplinary approach to health care

Body Defense Profile As Indicator of Treshold Value of Susceptibility to Illness. A Psychoneuroimmunolovy Study on Indonesian Haj Pilgrims

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This study was done to prove that stress as a response of stressor (journey of the Indonesian pilgrim process) is one of the main factors behind the high morbidity of the Indonesian Haj Pilgrims. The Haj Pilgrimage involve physical exercise in a very different setting and climate than accustomed in Indonesia, leading to possible adverse effect on the cardiovascular, cardiopulmonary, musculoskeletal, and mucosa system, causing changes in metabolism and body defense mechanism. The physical burden, change of environment, habits and social conditions associated with the Haj pilgrimage, are stressors that influence the body holistically in the quest for homeostasis. Based on these assumptions the pattern of hormonal changes and host defense were used as indicators of the stress to which a Haj pilgrims is exposed. A physiobiologic paradigm based on psychoneuroimmunological concept was used to prove the hypothesis that there were (1) a significant difference in the increase of the stressor hormone, cortisol, and corresponding decrease in host defense mechanism between full Haj pilgrim and Umroh pilgrim, (2) humoral immune response profile of full Haj pilgrim was worse than Umroh pilgrim and (3) cellular immune response of full Haj pilgrim was worse than Umroh pilgrim.

This study was a quasi experiment. Control group pre-test post-test design was used on a total of 131 subjects, using 2 conducted the abbreviated umroh program. All subjects were male, between 30-70 years old. The results of their pre-pilgrimage physical and laboratory check up were normal. Subjects were never having traveled on a plane out of the country, non-active smoker, were accompanied by spouse on this haj pilgrimage, and had a steady job. All received 20 times, haj manasik training with every session lasting for 3 hours. This training consisted of theoretical, practial, demonstration and simulation exercises. Cortisol was used as "link" variable to prove the psychoneuroimmunological concept, while white blood cell count, total lymphocyte, neutrophil, basophil, eosinophil, monocyte, IgE, IgA, IgM, IgG were used as dependent variables. Discriminate statistical anaysis were performed to obtain the host defense response profile, assessing the threshold of susceptibility to morbidity caused by the stresses of the haj pilgrimage. Analysis of the baseline data for both groups showed homogeneity, but manova revealed a significant difference between stresses experienced by the two groups ($p<0.05$). The difference in defense mechanism variables between the two groups together with higher cortisol level in the full haj group results in decreased lymphocyte levels, and may be followed by a decrease of lymphocyte B activity. This in turn can be seen from the low level of IgA, IgE, IgG and IgM in full haj group. The results proved that hypotheses were received and the objectives were achieved.

key words: psychoneuroimmunology, stressor, stress, hormone stressor

The Malaria Situation in Indonesia

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Malaria is endemic in many rural areas especially in the eastern part of the country. There are 14 species of Anopheles act as malaria vectors. Over 2 million clinical malaria cases and about 100 death were annually reported through hospitals, health centers and sub-health centers. However it is estimated by WHO that the total number of malaria cases is more than 6 millions with 700 death annually.

The incidence of the disease has increased since the last three years due to environmental changes and population movement. Economic crisis since 1997 has made additional burden to malaria control program and caused re-emerging of the disease with outbreak in some areas of the country.

The main activity of malaria control in Indonesia consists of case detection, treatment and vector control. The control activity is conducted through inter-sector coordination including private sectors and community participation in the prevention of the disease. The problems and constraints faced in the malaria control program in Indonesia include environmental change and population movement, anti malaria drug resistance and lack of malaria personnel both in quantity and quality especially at the district level. A new policy called "Gebrak" Malaria has been introduced to emphasize on partnership and community participation in the prevention of the diseases.

Characteristic Features in the Management of Malaria in Japan

Mikio Kimura, Institute of Medical Science, University of Tokyo, and Hiroshi Ohtomo, Dept. of Tropical Medicine, Jikei University School of Medicine, Tokyo, Japan

Although indigenous malaria has been eradicated since 1962 in Japan, the number of imported cases is steadily increasing and is composed of an increasing proportion of falciparum malaria. In recent years, development of severe malaria or its fatal outcome, mainly due to insufficient knowledge in medical personnel and/or travelers is becoming a grave concern.

The Japan's situation of malaria cases can be best shown in the data of a Japanese Research Committee that is responsible for importing and distributing unlicensed medicines for tropical diseases. Both of the presenting authors are actively involved in the committee and has been contributing to the appropriate use of antimalarials and application of supportive treatments for Japanese patients. Among those antimalarials, mefloquine and iv quinine proved valuable in uncomplicated and severe falciparum malaria, respectively. Recently, we have also introduced a qinghaosu derivative.

Chemoprophylaxis is less often advocated in our country than in other industrialized countries. This is due to the non-availability of effective antimalarials such as mefloquine or chloroquine/proguanil, lack of knowledge regarding the potentially fatal falciparum malaria, and reluctance among Japanese travelers to take a medicine that could produce adverse effects. The balance between those potential adverse effects and the risk of contracting falciparum malaria should be discussed at various sectors.

However, the malaria check system for febrile returning travelers has been launched in 4 international airports and has proved promising. As for the diagnosis, the acridine orange method developed by Kawamoto and a PCR method by Wataya and Yamane are worth mentioning for supplementing the potentially erroneous microscopic exam of malaria parasites.

key words: malaria, chemoprophylaxis, antimalarials

The Use of Chemoprophylaxis in the Prevention of Malaria among Japanese Residents of Tropical Africa

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Aim: In Japan, malaria chemoprophylaxis is not officially recommended for Japanese residents of endemic area. Two surveys were conducted to clarify the current usage of preventive medication against malaria. One survey was directed to the residents of tropical Africa, and the other to companies whose employees had been sent to work in the area.

Survey of Japanese residents: The surveys were in the form of questionnaire, sent on two occasions. There were 129 questionnaires in 1994 and 139 in 1998. Most were sent from Japanese companies. The responses showed that in 1994, 30 people (23.3%) used chemoprophylaxis, and in 1998, 51 people (36.7%) used chemoprophylaxis, an increase of 13.4%. Both surveys showed that 60% used chloroquine alone. In 1994, the percentage of users of chloroquine plus proguanil was 3.3%, increasing to 23.5% in 1998. On the other hand, users of mefloquine decreased from 16.6% in 1994 to 12.0% in 1998.

Survey of Japanese companies: In this survey the targets were medical sections of 28 Japanese companies that had sent the employees to tropical Africa. Sixteen of the companies (57%) recommended chemoprophylaxis to their employees working in the area. In 7 of the companies, the prime recommendation was chloroquine alone.

Discussion: Recently, chemoprophylaxis has been a major preventive measure of malaria in Japanese residents in tropical Africa. We must provide official guidelines for both Japanese individual residents and to Japanese companies that send employees to the area.

Latest Approach to Malaria - Prevention and Treatment

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In the last two decades there has been a steady deterioration in malaria control in many endemic areas because of increasing parasite resistance to antimalarials, and insecticide-resistant vectors, declining economic conditions, and ecologic and climate change. Also, media-generated concern about some antimalarials has led travelers to utilize suboptimal preventive regimens due to fear of drug induced adverse events. The combination of increased travel and escalating drug resistance has resulted in an increasing number of travelers being exposed to drug resistant malaria, some 10,000-30,000 travelers from industrialized countries each year.

Countering these trends has been the recent introduction of permethrin-impregnated bed nets and several new antimalarials which are safe and effective both for treatment and prevention. On the prevention side, numerous scientific studies have supported the relative safety and continued efficacy of mefloquine; tolerance to the drug can be readily determined by use of a loading dose over three days. Primaquine, an old antimalarial, has now been shown to be a safe and effective prophylactic agent in at least three countries. An 8-aminoquinoline derivative, tafenaquine, may provide long-lasting protection with only three daily doses. The combination of atovaquone and proguanil is an exciting new addition, although present studies have only been done in non-immunes. Azithromycin appeared to be effective in early studies, but a recent trial in Indonesia was disappointing from an efficacy standpoint.

On the treatment side, halofantrine safety has now been questioned because of cardiotoxicity, as has mefloquine safety in pregnancy due to a possible increase in stillbirths. The artemisinin drugs in combination with other antimalarials remain highly effective although largely unavailable to industrialized countries due to the inability to meet standards of good manufacturing practice. In many countries the combination of atovaquone and proguanil is an important recent advance in the treatment of uncomplicated *P. falciparum,* as is pyronaridine in Africa. The management of chloroquine resistant *P. vivax* is still an enigma.

Epidemiology of Tuberculosis Spread

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Tuberculosis is one of the oldest diseases known, usually a respiratory disease due to infection by *Mycobacterium tuberculosis*. Tuberculosis (TB) is a leading infectious cause of death. We worry about TB because it is worldwide, one person in three is infected with TB. It kills more than 3 million people annually. Although it is completely curable and it is (relatively) inexpensive to cure, TB control is difficult. Currently, the principal control strategy for those with TB is contact-tracing and DOTS (Directly Observed Therapy Short Course); to ensure patients complete treatment. DOTS both maximizes cure-rates and minimizes drug resistant strains of TB bacilli. Risk factors of TB are: 1. Those who are malnourished, elderly, poor. 2. Migrants, refugees, travellers. 3. Smokers, chronic alcoholics. 4. Those with co-morbidity: diabetes, HIV/AIDS, Silicosis.

Changing TB mortality in the West, the decline was due to elimination of poverty, improved nutrition, improved medical care. A real change in disease incidence or mortality can occur due to changes in the environment, in the host or in the agent. Factors influencing environments: nutrition, wealth, housing, hygiene, socio-political. Factors influencing host changes: susceptibility, travel, migration, sociodemographics. Factors influencing agent changes: development of drug resistant strains of TB. An apparent change/ trend can occur over time without real changes in actual rates. it is very important to consider these influences when analysing trends. These apparent trend can be due to: 1. change of social attitudes towards TB; 2. improved diagnostic techniques, recognition and awareness; 3. improved notification procedures; 4. availability of health statistics.

Epidemiology of Multidrug-Resistant Tuberculosis

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One of the present major health problems in the world is Multiple Drug-Resistant Tuberculosis (MDR-TB), in which the TB strain is resistant at least to Isoniazid (INH) and Rifampicin, the key stones to short-course tuberculosis (TB) chemotherapy.

MDR-TB is a potential threat to the standard international method of TB control with DOTS strategy. Since the early 1990s, the emergence of strains of MDR-TB has gradually increased in HIV infected person and nosocoial transmission in New York City (US) and Europe. WHO/ IUATLD (1994-1997) conducted a global surveillance on Anti Tuberculosis Drug Resistance.

The median prevalence of MDR-TB in the world is 1.4% and primary MDR-TB "Hot Spots" are in the former USSR (Ivanovo Oblast, 30%), Dominican Republic (6.6%), Argentina (4.6%), Ivory Coast and several Asian Countries (State of Delhi, India) (13.3%). Prevalence of MDR-TB in Indonesia is not known. In Persahabatan Hospital (Jakarta), primary drug resistance is 1.6-2.6% and combined drug resistance is 5.3-18.8%. In Hasan Sadikin Hospital (Bandung), combined drug resistance is 32.6-36.5%.

Tuberculosis Control in Indonesia

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Based on survey between 1979 - 1982, the prevalence of smear positive TB in Indonesia was 0.29 percent. TB was the third killer in Indonesia. WHO estimated that there were 175 thousands of TB deaths in Indonesia annually, and every year there were 450 thousands new TB cases. Three quarters of the cases were in the age group of 15-49 years old, the productive age period. Based on World Bank's DALY (Disability Adjusted Light Year) calculations, TB was responsible for 7.7% of the total disease burden in Indonesia. This figure relatively higher than neighboring countries, which have a figure of about 4%.

The oldest evidence of TB in Indonesia could be seen as a relief on Borobudur temple, which was build in 8 century. The attempt to combat tuberculosis in Indonesia had been founded before the 2 World War, at the beginning of the 20 century. A Dutch association called Centrale Vereniging Voor Tuberculose Bestrijding (CVT) in 1908 began the activity to combat tuberculosis. Based on the association a Foundation was established, called Stichting Centrale Vereniging tot Bestrijding der Tuberculose (SCVT). The new government of Indonesia, after the 2 World War, revised the attempt to combat tuberculosis in the country in 1949. At that time, TB diagnosis was based on X-ray finding and the patients was admitted to the hospital (sanatorium). The discovery of Anti Drugs (ATD) caused a dramatic change in the strategy of the management of TB patient. WHO recommended that TB diagnosis should be started with sputum smear examination. There was no need to admit TB patient into hospital anymore, TB patient will be treated on ambulatory basis.

The National TB Control Workshop in Ciloto at the beginning of 1969 gave the modern foundation of the strategy to combat tuberculosis, the activity was integrated in the primary health care. The national strategy for TB control was set up in 1970, i.e. BCG vaccination, the case finding, the treatment or case holding and the health education and evaluation.

The directly observed treatment using the short-course TB regimen, known as the DOTS Strategy was adopted nationally in 1995. DOTS was implemented with a political commitment from opinion leaders, diagnosis based on microscopic examination, short course chemotherapy was given and the idea of PMO= *pengawas menelan obat* (treatment observer) was introduced, the availability of medicine is taken caare of and good recording and reporting system was implemented. At present the DOTS Strategy is implemented focusing on primary health care (health centers) only, and only around 51% of health centers are implementing the DOTS Strategy. The hospitals and private sectors such as private clinics, private practitioners have not been involved yet. It has been estimated that more than 50% of patient are treated at hospital or by private practitioners. TB patient in Indonesia are treated by various health institutions in the government as well as the private sector. The different sectors may use different strategies. The data showed the avarage number of TB patient treated in each health center was 8 patients per year.

The year 1999 was an important milestone in TB control program in Indonesia. This year, the Indonesian Stop TB Initiative (Gerakan Terpadu Nasional Penanggulangan TB - Gerdunas TB) was established. This organization consists of various sector / organization related to TB control in Indonesia. GERDUNAS TB is a real form of partnership as a key success factor in combating TB in Indonesia. Partnerships are the key to success in the TB programme. Without active participation from various sectors it would be very difficult to control TB in Indonesia. The Indonesian Stop TB Initiative movement is an important development which encourage all sectors to work hand in hand to combat TB in Indonesia.

Management of Multidrug Resistant Tuberculosis

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MDR TB is not a new "natural phenomenon" but an iatrogenic disease arising under the selective pressure of inadequate therapy. Clinically drug resistant is divided into two types, secondary and primary drug resistant tuberculosis. It is necessary to determine whether MDR TB as imported, or resulted from poor treatment or transmission after immigration. The treatment of MDR TB serves both an individual (cure), and a public health benefit (breaking the chain of transmission). Early diagnosis of TB, early suspicion of resistance and early appropriate treatment are the most important determinants for improved outcome in MDR tuberculosis.

To prevent the major cause of MDR TB and treatment failure by nonadherence, directly observed treatment (DOT) method should be apply to all patient. Decision regarding the choice of regiment in the intensive phase of treatment based on the results of susceptibility testing, which is rarely available before treatment is implemented. Although the treatment of MDR TB requires an individual analysis for each case, some general guidelines were suggested for suspicion based MDR, and MDR with available susceptibility pattern tuberculosis cases. Regiment for MDR TB case should include at least four, but possibly as many as six or seven drugs, to which the strain concern is still susceptible. When the in vitro susceptibility of a patient's isolate is not known, a four-drug regimen with INH, RIF, PZA, and SM or EMB is preferred for the initial, empiric treatment of TB.

If sputum conversion does not occurs in 4 months or patients relaps, the potential benefit of resectional surgery is used as an adjunct to medical treatment. Person contacted by MDR TB at the risk of developing active MDR TB should be advised to take an alternative preventive (AP) regiment , which depending on the susceptibility pattern is advised to use either a quinolone in combination with EMB or PZA, or a combination of EMB and PZA. MDR TB associated with high death rates of 50% to 80%, spans a relatively short time (4 to 16 weeks) from diagnosis to death.

Travelers Preparation for Preventions of URTI

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URTI comprise of:

1. Common cold
2. Flu syndrome
3. Pharyngitis:
   a. Group A streptococcal pharyngitis
   b. Gonococcae pharyngitis
   c. Diptheria
   d. Vincent's angina
   e. Other bacteria
4. Rheumatic Fever
5. Chronic or relapsing sore throat
   a. Chronic tonsilitis
   b. Infectious mononucleosis
   c. Septic thyroiditis
6. Acute sinusitis
7. Chronic sinusitis
8. Pharyngeal abcess
9. Epiglotitis

Preparation prevention for healthy persons

Common cold:
- Vitamin C 1000 mg/ day
- Analgesic
- Oral decongestant
- Topical (nasal) decongestant

Flu syndrome:
- Vaccine (depend on region and season)
- Zanavidir (Relenza) oral inhalation

If within 3 days not recovered and suspiciously there is secondary infection or complication, contact the nearest physician/ clinic.

Preparation for person with chronic sinusitis, chronic pharyngitis, chronic tonsilitis

- Analgesic, decongestant
- 1 cure of oral antibiotic that known to be sensitive to the chronic infections
- Address/ phone number of clinic/ hospital / person that could be contacted any time
- Stay away from any substance (air, food, environment) that can trigger the chronic conditions.

URTI in Travelers

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Caring for Travelers in Host Countries

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Illness abroad is a possibility that many travelers need to deal with. Tourism is booming in Asia. Studies reveal that around 60-75% of travelers reported physical symptoms or suffered minor illness and 5% of all travelers required medical attention per month of travel in Asia. Recent trends indicate a preference for travel to remote destinations. Tour itineraries and lifestyle factors during travel influence disease risk. Moreover, finding appropriate access to health care especially in rural areas, is sometimes difficult and standards vary in terms of costs and quality. Emergency medical care and quality of blood are other areas of concern. In addition, ill travelers often expect andÊneed reassurance regarding the nature of illness and prognosis. Health care providers in host countries therefore have a pivotal role to play in such situations.

The role of the health care provider needs to be defined. Apart from possessing adequate knowledge of local health risks and disease transmission patterns, good organizational support in terms of arranging medications and organizing quick hospital referrals are needed. Easy communication links and familiarity with evacuation protocols are an added asset. They also play an important part in disease prevention by providing practical advice on the availability of safe food and water, specific local allergens, inputs on insect precaution and safer transport options. Cross-cultural adaptation, stress management and options for relaxation especially for the long-term traveler and their families need also be addressed. Travelers are usually motivated to comply with safe travel practices when coping withÊ illness during their travel. This provides an excellent opportunity for physicians in host countries, particularly those directly involved in caring for travelers, to focus on disease prevention and reinforce the concepts of safe travel discussed during their pre travel consultations.ÊIt is thus evident that health care providers need possess wide-ranging skills, both clinical and knowledge based to be truly caring.

Regional Travel Health Cooperation within Host Countries - the Need in the New Millennium

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The number of international travellers is increasing annually; individuals are travelling for longer, to more exotic locations and many have pre existing health problems. In 1999, Australians undertook more than 3.2 million trips overseas. More than 25% were to destinations in South East Asia with 350,000 to Indonesia alone. Holiday travel accounted for almost half with business and convention/ conference another 25%.

In Australia in the mid to late 1980s travel medicine was in its infancy. There were many cynics as to whether it was a true medical discipline. Despite a pro-active stance by the Australian Federation of Travel Agents (AFTA) the vast majority of travel agents viewed any health related involvement as negative to the planning of an overseas trip and it was certainly not viewed as a value added component. At a medical level at that time most practitioners still viewed health preparation as a couple of jabs namely cholera and typhoid and a few malaria tablets.

Attitudes have changed dramatically in the last 10 years and much can be attributed to the professionalisation of the discipline at an organisational level, namely the International Society of Travel Medicine or ISTM. Unfortunately the major gains seen through the ISTM have not been universally appreciated and despite much innovation and drive at a country level through organisations such as the China International Travel Healthcare Association CITHA and the Indonesian Travel Health Society (PKWI) the South East Asian region has not been strongly represented. APTHA has had two conferences but has not yet been able to generate sustainable interest in an active membership. It effectively does not exist at present.

In his message to colleagues who might attend the 3rd Asia Pacific Conference on Travel Health the president of the ISTM, Dr Charles Ericsson notes the organisational problems relating to development of a regional Asia/Pacific association and makes a plea for local groups to work together to develop a strong regional body. This is vitally important given the exponential growth in regional tourism and the fact that communications through the internet has dramatically changed the way in which local health information can be widely disseminated not always to the benefit of the traveller or tourist industry. The plague in India, coxsackie in Sarawak, enterovirus 71 in Taiwan, the bird flu in Hong Kong all remind us how quickly information can travel and why it is very necessary for a regional body to be pro-active in travel health. Representation must include the travel industry, government and the media as well as health professionals. This presentation outlines the benefits of an effective regional travel-health group.

The year 2000 must mark the beginning of a regional body, the Asia Pacific Society of Travel Health.

Tourism and Health : the Balinese Experience

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Molecular Analysis of Multidrug Resistant *Shigella flexneri*

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Diarrhoeal diseases caused by *Shigella* spp remains a serious health problem in both developing and developed countries. In recent years, *S. flexneri* has been the most prevalent species causing shigellosis in Malaysia but few epidemiological studies have been reported. The problem is exerbated by the emergence of multidrug resistant (MDR) strains and it is of utmost importance to identify these strains rapidly and accurately. Pulsed field gel electrophoresis (PFGE) and ribotyping were used to analyzed 50 MDR strains of *Sh. flexneri* from sporadic cases of shigellosis from different parts of Malaysia. With ribotyping, 8 ribotypes, A-H, each consisting of 6- 7 DNA bands were observed. Majority of the strains belonged to ribotype A. The strains were further subtyped by pulsed field gel electrophoresis(PFGE) into 15 different PFG profiles, each consisting of 11-16 DNA fragments. Wide genetic variations among the strains were noted. PFGE was more discriminative than ribotyping in differentiating *Sh. flexneri* in Malaysia and is a useful molecular epidemiological tool.

key words: molecular analysis, Shigella flexneri, *PFGE, ribotyping*

Treatment of Travelers' Diarrhea

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Presently, the most active of the antibiotics available for treatment are members of the fluoroquinolone group such as norfloxacin, ciprofloxacin ofloxacin, enoxacin, fleroxacin and others. The choice of one should probably be made based solely on the price of therapy, because they all appear to be highly effective. Antibiotics that are not absorbed such as aztreonam and a rifampin-like agent, rifaximin, are presently being evaluated as anti-diarrheal agents. Azithromycin has been studied in *Campylobacter* disease, and it is efficacious. *In vitro* studies predict that azithromycin should be active in treating travelers' diarrhea, too. Now a single dose of antibiotic can be recommended for most patients. One disquieting observation has been the development of antibiotic resistance during treatment of *Campylobacter* disease with the quinolones.

Less severe disease can be treated with a variety of non-antibiotic agents. Bismuth subsalicylate (BSS)-containing compounds decrease the number of unformed stools passed after beginning treatment by almost 50%. BSS is not as effective as an antibiotic. In comparative studies the anti-secretory and anti-motility agent, loperamide, was significantly and meaningfully more efficacious than BSS. The combination of an antibiotic and loperamide was superior to treatment with either agent alone.

Recent studies have shown that a new and novel calmodulin inhibitor, zaldaride, is useful in decreasing the duration of diarrhea. Likewise, a novel agent found in the Amazon with an uncertain mode of activity, Provir®, shows promise as an antisecretory agent.

The following is our general approach to the treatment of travelers' diarrhea:

ALGORYTHMIC APPROACH TO TREATMENT OF TRAVELERS' DIARRHEA		
Clinical symptoms	***Recommended therapy***	***Comments***
1) Mild diarrhea (1-2 stools/24h with mild or absent symptoms)	Attapulgite, bismuth subsalicylate preparations or none	Longer term travelers are encouraged to endure mild diarrhea in hopes to develop some immunity
2) Mild to moderate diarrhea (≥3 stools/24h with no distressing symptoms)	Loperamide or bismuth subsalicylate preparations	Business travelers or others on short, critical trips might consider addition of an antibiotic
3) Worsening or persisting mild to moderate diarrhea	Add single dose quinolone antibiotic*	A single dose of an antibiotic usually suffices
4) Distressing diarrhea with distressing symptoms	Loperamide plus a quinolone antibiotic*	Reassess symptoms after 24 h; discontinue therapy if diarrhea has abated
5) Severe diarrhea with fever or passage of bloody stools	Quinolone antibiotic* with or without loperamide	Loperamide can be added for severe cramps or fluid losses

*Levofloxacin is preferred in the US because it is the available fluoroquinolone that can be given every 24 hours

Dengue Fever Among Travelers to East Asia

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We surveyed dengue fever among Israeli travelers in the last 5 years. Cases were defined positive when they were febrile with positive IgM antibodies against dengue virus (serotypes 1-4, done by commercial kit Pan-Bio, Australia).

During 1995-1999 dengue fever was confirmed in 108 Israeli travelers. The majority of cases were acquired in Thailand (55%), followed by India (26%) the rest were acquired in Burma , Laos and China.(In 10% information was not available). Only 2 cases were acquired out of Asia: 1 case in the Pacific (Tonga island) and the other one in Africa.

A sharp increase was noted in 1998, due to high incidence of imported cases from Thailand- mainly from the islands of Southern Thailand.
The overall attack rate during 1998 in cohort of 5030 Israeli travelers to Thailand was 3.4:1000 (95% CIÊ= 2.0-5.4/1000). There was no significant change in incidence between the dry and the rainy season. These findings indicate that dengue fever is a definite hazard for the traveler in Thailand, and the disease is now abundant all year round.

The First Report on Human Cases Serologically Diagnosed as Japanese Encephalitis in Indonesia

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Although Japanese encephalitis (JE) virus was isolated from mosquitoes in 1974, human JE case has never been reported in Indonesia in spite of the prevalence of anti-JE antibodies among human and pig population as well as abundant JE vector mosquitoes.

In this report, we describe serological diagnosis of JE cases in Bali, Indonesia, using IgM-capture ELISA both on serum and cerebrospinal fluid (CSF) of the patients.

In the first series of our investigation (Series 1), we examined serum specimens from 12 patients with clinical diagnosis of viral encephalitis, meningitis or dengue hemorrhagic fever (DHF), and found 2 possible JE cases.

In the next series (Series 2), we examined not only serum but also CSF from 5 encephalitis patients that gave laboratory diagnosis of JE. One of them was suspected to have concomitant or recent infection with dengue virus, probably type 3. These results strongly indicated that JE has been prevalent in Bali, Indonesia.

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Sexually Transmitted Deseases and Travel in Indonesia

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Reliable data on the incidence of sexually transmitted diseases (STDs) in Indonesia are not available. Government hospitals and health centres reported in 1997 a total 2194 of cases of syphilis and 13003 cases of gonorrhoea. The incidence of syphilis varies from 16.6 in Papua and 0.1 per 100,000 in Central Java, while for gonorrhoea it varies from 61 in Papua and 2.6 per 100,000 in Central Java. These are minimal rates.

Several surveys of female sex workers found markers for syphilis around 10%, prevalence of gonorrhoea 10-40% and chlamydia 20-40%. Among pregnant women, the prevalence of syphilis and gonorrhoea is low (below 1%) but chlamydia relatively high (around 4%). Trichomoniasis and bacterial vaginosis were relatively common (5-10%). Antibiotic resistance of *N. gonorrhoeae* is high for penicilline (40-80%), tetracyclin (90%), sulfametoxazole (70%) and chloramphenicol (80%). Quinolone resistance is still very low (less than 1.5%).

AIDS was first detected in 1987 in a foreign tourist and as of March 2000 a total of 293 AIDS cases and 853 HIV infections were reported to the Ministry of Health. The distribution of HIV/AIDS according to province is as follows : Aceh 1/0, North Sumatera 27/3, West Sumatera 3/0, Riau 102/8, Jambi 3/0, South Sumatera 41/1, Lampung 3/0, Jakarta 234/111, West Java 33/24, Central Java 24/3, Yogyakarta 3/3, East Java 64/14, West Kalimantan 4/1, Central Kalimantan 19/0, South Kalimantan 4/0, East Kalimantan 11/0, North Sulawesi 1/2, South Sulawesi 14/1, Bali 38/22, West Nusa Tenggara 0/2, East Nusa Tenggara 1/0, Maluku 16/3, Papua 217/91. The modes of transmission are 82.6% heterosexual, 12.5% homosexual, 3.7% intravenous drug use, 0.5% blood transfusion and products, 0.7% perinatal.

Travel played an important role in the spread of AIDS in Indonesia. The first cases were foreign tourists and Indonesians, who have travelled abroad. Foreign fisherman have introduced AIDS in several regions e.g. Papua, Maluku, Sumatera and Kalimantan. Other mobile populations are also important, e.g. seamen, soldiers, migrant workers, and truck drivers. Special outreach programmes are needed to reach these mobile populations in order to limit the spread of HIV and other STDs.

key words : STD, HIV/AIDS, epidemiology, travel

Management of HIV/AIDS in Bali"

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HIV/AIDS and Floating Population in China

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Despite nearly two decades of research, the AIDS epidemic continues to spread death and social instability around the world. ÊVirtually every country has been touched by the disease, and in many areas it is out of control. There is no large-scale AIDS epidemic in China. ÊThere is, rather, a potential epidemic...a once sleeping giant that is just beginning to stir, and is capable of great destruction. A total of 17,316 HIV infections (including 476 AIDS cases) were reported to the Health Ministry of the P. R. China at the end of 1999. The number of new cases reported in 1999 was 4,675, an increase of 41.5% from the previous year. ÊIt is estimated, however, that there are currently 500,000 actual cases of HIV in China. ÊLikewise, STDs have risen sharply to a level of 836,655 reported cases. Again, experts estimate that the actual number of STD cases in the country is 4 million. There are several factors facilitating the spread of HIV in China. Internal migration is one of these key factors. In the eastern coastal regions a majority of migrants are from western poorer regions, migrants account for most of the infections, for example: migrants account for 77.18% of all HIV infection in the Zhejiang province; 65.94% in Shanghai; 52.4% in Beijing. (Immigrants have also brought a reported 701 cases from abroad.)

The current internal movement of temporary and permanent migration across China is without precedent. Estimates suggest that the total number of migrants, both temporary and permanent, may be as high as 120 million; that is, some 15% of the total labour force. ÊThis number, while extremely large, is actually increasing. ÊMuch of the movement occurs within towns, countries, and provinces, but as many as 20 million go to other regions for short and long term relocation. A number of additional factors make the migrant labour force particularly vulnerable to HIV infection.

First, the mere fact that they are mobile makes it extremely difficult to reach them. ÊThey easily escape efforts at education and health promotion. ÊAIDS knowledge within the floating population is, therefore, very low.

Second, migrants are often young and live for extended periods of time away from the social pressure of their families and communities. ÊThey are frequently unmarried or are living apart from their spouses and children. ÊNevertheless, they are still sexually active and often have casual sex, often with prostitutes, without protection.

Third, prostitutes working in most cities are often not permanent residents, but originated in distant regions. (The number of prostitutes and clients arrested in 1998 is 398 000, in the estimation the actual number of prostitutes about four million). In economically booming areas, they commonly form communities that are comprised of women from all over China. ÊThese women are in constant movement between cities. In most urban areas, the majority of STD patients come from within the nonresident population.

Finally, the most recent and severe increase in both drug trafficking and use in cities throughout China is closely connected with the migrant and nonresident population. There are some 600,000 known drug users recorded by public security in mainland China. EThe actual number is estimated to be between 3-4 million.

The above-mentioned situation has been brought to attentions of governments and NGOs in China and further research and efforts at AIDS prevention and intervention for the floating population are conducted.

Epidemiology of HIV/AIDS in Hong Kong: Impact of Travel and Population Mobility

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The first case of human immunodeficiency virus (HIV) infection in Hong Kong was reported in late 1984. The epidemiological data suggests that the epidemic started in Hong Kong among gay/ bisexual men in early 1980s. Among heterosexuals, the epidemic also started in the early 1980s but in small numbers and, until the mid-1980s the epidemic was predominantly among heterosexuals. As of 31 December 1999, 1359 cases have been reported to the Department of Health, of which 433 have progressed to AIDS. As HIV is not a notifiable disease in Hong Kong as elsewhere in the world and reporting is always incomplete, the actual number is considered to be much higher than the reported figure.

In the early years of the epidemic in Hong Kong, the epidemic occurred mainly among homosexuals (male-male) and haemophiliacs (blood or blood product recipients). There are no new reported infections through transfusion of contaminated blood or blood products occurring after August 1985 since when all blood or blood products were continually screened for HIV. The numbers of newly diagnosed cases among homosexuals and bisexuals have been decreasing since 1991 and more heterosexually acquired cases have been reported since then. Now heterosexual transmission is the main mode of HIV transmission in Hong Kong.

Although only relatively few women have been infected with the HIV during the early years of the epidemic, the rate of increase of HIV infection in women has been particularly rapid in the past three years. With the increasing trend of heterosexual transmission, it is likely that more women will become infected by the virus. Locally, ten cases of perinatal transmission have been reported, the first in mid-1994. It is expected that more cases will occur in future years with the increase in heterosexual transmission of HIV and women becoming infected with HIV. The prevalence of HIV infection among drug users in Hong Kong has remained low. After the first reported cases in 1985, a total of 23 cases were reported by December 1999. The low prevalence of HIV among drug users in Hong Kong is believed to be related to the availability of syringes and accesibility of support services (e.g., drug rehabilitation, medical etc.) for IDUs. In Hong Kong, even though the prevalence of HIV is relatively low (<0.1%) at the moment, it is predicted that the infection will steadily increase in prevalence over the coming years. Travel and population mobility is playing an important role in the spread of HIV/AIDS in Hong Kong. Findings from different population based studies will be illustrated in the presentation.

AIDS in the World

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Based on estimates made by UNAIDS and WHO, there are 33.6 million men, women and children living with HIV by the end of 1999. The majority of people with HIV (95%) live in the developing countries where poverty, poor health systems and limited resources for prevention and care fuel the spread of the virus. But even in industrialized countries HIV is still a challenge. Now that life prolonging therapy is available, there is some complacency about safe sexual behaviour in some western countries. The disease remains fatal, and information from some industrialized countries suggests that the decline in number of deaths due to antiretroviral therapy is tapering off.

Sub-Saharan Africa continues to bear the brunt of HIV and AIDS, with close to 70% of the global total of HIV positive people. Most will die in the next 10 years, joining the 13.7 millions Africans already killed by the epidemic and leaving behind shattered families and shattered prospects for development.

HIV came relatively late to Asia, giving the region the opportunity to learn from experience of other countries. There are some successful prevention efforts, but also many failures. Across Asia, UNAIDS/WHO estimate that 6.5 million people were infected by HIV, 4 million in India. Other countries seriously affected are Thailand, Cambodia and Myanmar. In China and most other Asian countries, HIV infection is still relatively low, but slowly increasing. Intravenous drug use and prostitution fuel the epidemic.

There were 2.6 million deaths from AIDS in 1999, mostly of people younger than 35 years. The epidemic left behind a cumulative total of 11.2 million AIDS orphans. The number of new infections in 1999 was 5.6 million, mainly in developing countries.

Travellers are at risk if they :

- Have unprotected sexual intercourse with an infected person
- Use or allow the use of contaminated syringes or other skin piercing instruments
- Use infected blood or blood components

key words : AIDS, HIV, epidemic, global estimates

Skin Problems and the Management in Travelers

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Skin problems in travelers are usually related to the new condition they will deal with traveling. The places, the atmosphere, the diet, the seasons and the activities, all have influences on the skin problems. Hot, sweat, and moisture will provoke dermatomycosis.
Staying outdoor and spending time on the sand or land will invite insect bite or sting and creeping eruption. Lovers of outdoor sports and outdoor walkers will suffer from sun exposure that will give sunburn or photodermatosis. Sun exposure can also cause photoaging or skin cancer as the late effect. All of these diseases are some of the skin problems that could happen to the travelers. To prevent dermatomycosis, good personal hygiene and avoidance of moisture is important. Insect bite or sting and creeping eruption can be prevented by proper clothes and clean sand or land. For sun exposure we can use protective clothing, wide rim hat and sunscreen on expose areas.

key words: dermatomycosis, insect, photodermatosis, skin cancer

High Altitude Problems in Travelers

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The atmosphere is a gaseous envelope that covers the earth. It is a mixture of gases, and is primarily composed of Nitrogen (N2) and Oxygen (02). As we ascend from sea level, the atmospheric pressure will correspondingly reduced. As atmospheric pressure drops, the air become less dense. The primary reason for this phenomenon lies in the kinetic nature of atoms and molecules. Molecules, especially those of a gas, are highly kinetic, or, in a constant state of motion. As pressure around the molecules is reduced, they will travel further apart. This explains why air becomes less dense as altitude increases, and why the partial pressure of each gas also decrease, thus explaining the phenomenon of gas expansion.

At higher altitudes, where less oxygen is available in each breath and the ambient temperature relatively drop, the body must adjust, or *acclimatize*. When travelers move up to higher altitude faster than this adjustment can take place, *hypoxia* and *altitude illness* can strike. Beside that, the *expansion of trapped gas* in the body cavities due to decrease of atmospheric pressure will lead to pain sensation.There are two major forms of altitude illness : one that involves the brain (*high altitude cerebral edema* = HACE), and one that involves the lungs (*high altitude pulmonary edema* = HAPE). The more common form, the illness involving the brain, usually comes on slowly, with headache, nausea, and fatigue. If ignored, symptoms can progress to unconciousness and death. In high altitude pulmonary edema, the lungs begin to fill up with fluid, causing increasing fatigue and shortness of breath while exercising, and eventually, breathlessness during rest. If the person does not descend, the illness can be fatal. Descending to a lower altitude always cures altitude illness, often very rapidly.

Almost similar to altitude illness, is *altitude induced decompression sickness* (DCS). It is one of the more dangerous problems an aviator or traveler may face. The condition characterized by a variety of symptoms resulting from exposure to low barometric pressure that cause inert gases (mainly nitrogen), normally dissolved in body fluids and tissues, to come out of physical solution and form bubbles. DCS can occur during exposure to altitude or during ascent from depth (diving or mining). Although bubbles can form anywhere in the body, the most frequently targeted anatomic locations are the shoulders, elbows, nees and ankles.

The traveler can be exposed to high altitude in many ways: by flying into a high city such as Lhasa, Tibet, or La Paz, Bolivia; by driving into high mountain ranges; or by hiking into the Himalayas, or climbing isolated peaks such as Mt. Kilimanjaro in Africa. Travelers to destinations above 6,000 to 8,000 feet should be knowledgeable about altitude illness and should design their itineraries to allow for gradual acclimatization. If a gradual adjustment is not possible, some medication may help prevent symptoms.

Travelers should be aware that high altitude can affect pre-existing illnesses, such as pulmonary diseases or cardiac problems. Although research is limited, any pregnant woman contemplating a trip to high altitude should consult first with a doctor who has experience with aviation medicine or high altitude medicine.

key words: Acclimatization, Altitude, AMS, Atmosphere, Barometric pressure,DCS,Expansion of trapped Gas, HACE, HAPE, Hypoxia

Jet Lag Prevention in Travelers

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Jet-lag occurs when long flights across several time zones result in dissociation between environmental time cues and the body's internal clock.

The severity of the symptoms depends on the number of time zones crossed and individual characteristics such as age, rhythm sensitivity, and motivation. As many as 94% of long-distance travelers suffer from jet lag, and 45% consider their symptoms severely bothersome. Jet lag is characterized by sleep disturbances, daytime fatigue, reduced mental and physical performance, gastrointestinal problems, and generalized malaise.

To minimize the effects of jet lag, various nonpharmacological countermeasures have been proposed although only a few of them have been scientifically validated. Short naps under 4 hours may help compensate for sleep loss and are especially useful for air crew. The use of timed bright light is a very promising method since the light-dark cycle is the most important factor controlling the body clock. Jet lag diets have been proposed based on the fact that carbohydrates induce sleep by facilitating serotonin synthesis and proteins promote alertness by stimulating the synthesis of catecholamines. The effectiveness of this diet is controversial. Preliminary studies in humans support the hypothesis that increased physical activity during the habitual rest period alters body rhythms.

The following behavioral recommendations may be helpful:

1. Get a good night's sleep before the trip.
2. Try to sleep at night, during the flight. When the day is much prolonged by westbound flight, try to nap.
3. Adopt local time and routines immediately upon arrival
4. Allow plenty of time to sleep and rest in your new location before commencing work or touring activities.

Pharmacologic treatment of jet lag symptoms attempts to enhance alertness, promote sleep, and resynchronize the body's clock. Caffeine is often used to improve alertness and delay the onset of sleep. Short-acting benzodiazepines such as temazepam, triazolam, and lorazepam have been used to minimize sleep loss after transmeridian flights, but amnesia may occur. Timed administration of melatonin is the most promising method of alleviating jet lag. Melatonin is a pineal hormone produced mainly during the dark phase of the day. Irrespective of flight direction, 1 to 5 mg of melatonin should be taken at bedtime (local time), starting the first evening after arrival and continuing for 4 to 6 days.

Injuries in Yachting Tourism

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Sailing is probably one of the most beautiful experiences that nature offers, but unfortunately, many have unnecessarily and expensively paid for it. Some through injury, some through illness and many with their lives. Medical help in sailing is unique, because tourists spend their holidays sailing practically under coastal, or sometimes, under ocean traffic conditions. Because of the lack of space on board and higher activity in such a restricted area, injuries on sailing-cruises are more common than would otherwise be experienced on land. There are some typical causes of sailing injuries and these are undoubtfully winches, jib stays, cabin openings, pulleys, and the boom, whose blow to the head can be fatal. The chain, anchor, jib-sheets and main-sheets can also inflict uncomfortable injuries. Fire on board could easily occur and burns caused by excessive exposure to the sun are frequent, especially with inexperienced weekend sailors. Poisonous sea animals are only one of many dangers in sailing tourism and the risk of collision with floating object or object below the surface is always present. The main difficulty lies in the circumstance that, being on a sailing-cruise, one is normally long way from health institutions and that almost all navigators are medically inadequate. Additionally, difficult weather conditions can only worsen this dangerous situation.

This is why the ship and the crew must be well prepared, equipped and trained in all procedures required. They must be cautioned by even most common types of injuries on vessel and be able to deal with them in every situation.

The Bunaken Diving Resort Medical Problems

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Bunaken diving resort is one of the most popular places for tourism in North Sulawesi. Bunaken island is located just off the cost of Manado city, from which it can be reach by boat in 30 45 minutes. There is a large variety of coral reefs and their fish, which can be seen closed to the water surface. Annually the Bunaken resort is visited by thousands of tourists, and this figure is increasing year by year.

The medical problems arising at Bunaken diving resort can be divided into those related to diving and those not related to diving. The latter include accidents and injuries; infections (malaria, dengue, typhoid fever), snake bites and allergic reactions, as well as other common medical conditions such as acute myocardial infarctions, stroke, bronchial asma, hypertension and gastroenteritis. The former are the conditions related to diving activity including decompression sickness and barotrauma.

To minimize the occurence of the medical problems among tourists, information on prevention and emergency medical services should be organized. Information should be provided in the tourists country of origin, the airport of arrival and at the destination resort. Anticipating accidents, staff of the diving centres should be trained in first aid and simple treatments. Good communication and a clear standard protocol will help in refering the emergency cases to the nearest hospital for further management. The availability of a hyperbaric oxygen chamber is important for the management of barotrauma and decompression sickness.

key words : diving, malaria, hyperbaric

Chronic Obstructive Pulmonary Disease Prevention for Travellers

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The main symptoms of patients with Chronic Obstructive Pulmonary Disease are dyspnoea, cough with sputum, exercise intolerance and malnutrition.

The consequences of the disease qualitative and quantitative techniques are used to measured airflow obstruction, pulmonary hyperinflation, exercise capacity and quality of life.

Prevention for travelers, patients with FEV1 > 50% predicted. Nutritional assessment, exercise training such as abdominal breathing, stop smoking or smoking with occasional insulated bronchodilator, diminish sputum production and cough, methyl xanthines have been used for improved exercise tolerance and quality of life.

Patient with moderately - severe (FEV1 < 50% predicted). Maintenance with anticholinergic with ß-agonist are required and oral or inhaler corticosteroid and supplementary oxygen treatment.

Travelling with Chronic Lung Disease

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Chronic obstructive lung disease is characterized by chronic progressive airflow obstruction caused by chronic bronchitis or emphysema, or both. It is one of the leading cause of morbidity and mortality worldwide. The several main causes are exposure to cigarette smoking, air pollution and respiratory infections.

Discussion about traveling with chronic lung disease is always associated with air travel. The environment of the cabin at high altitude is different from that on the ground, and the atmospheric pressure and the partial pressure of oxygen are lower. Passengers with obstructive lung disease may already have low alveolar partial pressure of oxygen and therefore more prone to serious desaturation during flight.

A patient with respiratory insufficiency who plans to fly should undergo a medical examination in advance. The need of oxygen supplementation during air travel should be considered for patients with arterial oxygen tension (PaO) < 7.3 kPa, or when the forced expiratory volume in one second < 40% of the predicted value, or when arterial oxygen saturation (SaO) < 90%. Air travel is generally contraindicated for patients suffering from hypercapnia, acute respiratory infections, resting dyspnea, unstable cardiac function and severe anemia.

Patients with chronic lung disease should be advised to avoid taking the holidays at high altitude region because of hypoxia, cold and dry air could worsen their condition. They also should avoid too much exertion while traveling. The availability of ipratropium bromida bronchodilators, corticosteroids and antibiotics can be considered, as it would be more convenient for travelers to be informed about this.

key words: traveling, chronic lung disease, high altitude

Satellite Symposia

WHO Vacccination Policy

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The World Health Organization (WHO) has always considered vaccination the major measure of health prevention. Through mass immunization WHO eradicated smallpox. In 1974 WHO launched the Expanded Programme on Immunization (EPI). At that time, less than 5% of the world's children were vaccinated during their first year of life agianst the six target diseases initially chosen-diptheria, tetanus, whooping cough, polio, measles and tuberculosis. In 1990, according to available statistics (after a slight intervening fall in coverage), almost 80% of the 130 million children born every year were vaccinated within their first year. This success means over 500 million vaccination contacts with children per year. In two decades, the EPI managed to prevent the deaths of three million children under 5 years of age. In addition, the number of children becoming blind, ill, mentally retarded or in some other way affected by other health problems fell by at least 750,000.

In 1988, WHO launched the global polio eradication. Since 1988, extraordinary progress has been made in implementing polio eradication strategies towards reaching the global target, particularly during 1999 following the implementation of major acceleration activities. During 1999, the number and quality of immunization rounds in remaining priority countries increased dramatically, and the quality of surveillance for acute flaccid paralysis (AFP) improved globally, with a 25% increase in the number of AFP case reported, compared to 1988. The number of known or suspected polio-endemic countries decreased from 50 to 30. The World Health Organization through its department of Êvaccines and biologicals offers information and recommendations on the vaccines represented in the Expanded Programme on Immunization. According to its global mandate, the department is now assuming an extended normative role in this field, and issues a series of regurlarly updated position papers on other vaccines and vaccine combinations against diseases that have an international public health impact.

Rabies in Asia - Its Prevention and Treatment

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Abstract not received within time limit.

Tick-Borne Encephalitis / Vaccination for Travelers to Europe

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Tick-Borne Encephalitis, or Spring Summer Encephalitis is a viral infection of the central nervous system transmitted by bites of certain vector ticks (Ixodes and other species). The TBE-virus belongs to the Flavivirus genus, which is known by 100 different serotypes. The most common Flaviviruses known in Asia are Yellow Fever, Japanese B Encephalitis and Dengue.

Human infections follow bites of infected ticks, usually in persons who visit or work in forests, fields, pastures or, as known from Berlin, parks.
Areas, with TBE-risk are known as so called natural foci (lower risk) or endemic areas (higher risk of developing the disease).

The result of studies from the German County Baden Württemberg, with highly active pockets of endemic disease, show that nearly 90 % of the cases that occurred here were during leisure time (hiking, camping, jogging etc.).

For natural foci in Germany, the mean relative risk of viral infection as a result of tick bites has been given as 1:50 to 1:1000, the risk of TBE-infection in other countries in Central Europe, and particularly in Eastern Europe and Austria, is distinctly greater.

Mortality from Eastern Subtype of TBE-virus (distributed in Siberian part of Russia) compared to the Western Subtype in Central Europe is higher in adults and children.

Travelers to Europe can be in danger, especially those visiting rural areas in the countryside areas with a high TBE-risk (e.g. Black Forest in South Germany, all areas in Austria).

Clinical Impact of Methicillin Resistant *Staphylococcus aureus* - An Update

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Abstract not received within time limit.

Aminoglycosides Reassessment of Their Therapeutic Role

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Aminoglycosides (and the related aminocyclitols) have been available for almost 50 years. Despite the limitations of nephro- and ototoxicity, the aminoglycosides have remained very valuable drugs for the management of sepsis, and to a lesser extent endocarditis. The reasons for this are:

1. resistance levels have generally remained low; this may relate to the fact that they can only be given parenterally, and that the fear of toxicity has restricted their use, keeping the selective pressure for resistance at a low level.
2. they have broad Gram negative coverage, including *Pseudomonas aeruginosa*, making them highly suitable for empirical therapy pending culture results
3. they are rapidly bactericidal against susceptible organisms
4. they have a proven valuable role as synergistic agents in endocarditis, and serious *Pseudomonas* sepsis

In many circumstances, there have been attempts over the years to use third-generation cephalosporins as aminoglycoside substitutes. However, these latter agents have a significant weakness in their coverage of bacteria, such as *Enterobacter* species, which possess chromosomal cephalosporinases. Hence, the value of aminoglycosides is that empirical use covers these troublesome nosocomial pathogens. Another important development has been the design of newer dosing strategies, in particular once daily dosing, are able to minimise toxicity. This has come about through an understanding that Cmax/MIC and AUC/MIC ratios are the predictors of efficacy, and that the total daily dose can be given at once without compromising efficacy. Once daily dosing has now gain acceptance in a wide variety of circumstances, and may eventually prove to be applicable in almost all clinical settings.

Critical Evaluation of Oral Cephalosporins: Applications in Clinical Practice

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Cephalosporins are the most non-toxic and highly tolerated class of antimicrobials expanded from mainly effective action against gram positive organisms toward broadspectrum activity also to gram negative organisms and even against the anaerobic community of microbes.

The oral cephalosporins were mirrowing their parenteral counterpart and beside antimicrobial activity, the oral derivaties also improved its pharmacokinetic profile by reaching higher drug concentrations in the blood and reaching longer half lives.

The strong representation of oral cephalosporins in the 3 successive generation of cephalosporins lend itself to early switch from parenteral to oral therapy in this class that at the same time could spare funding for treatment as well as more earlier discharge curtailing the cost of hospitalisation.

For better compliance we would prefer lesser daily administration of antimicrobials and those that are better tolerated as well as have shown their clinical efficacy confidently.

Optimising ß-Lactam Therapy: Rational Dosage, Resistance Patterns and Pharmacoeconomics

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A considerable amount of information has emerged over the last 10 years about the pharmacodynamics of antibiotics, that is the relationship between the pharmacokinetics of the drug and clinical and bacteriological efficacy. In particular, we now know that the determinant of efficacy for ß -lactams is the time that the drug levels exceed the MIC, and that these agents do not produce a significant postantibiotic effect against Gram-negative bacteria or streptococci. Animal studies and clinical data suggest that near maximum efficacy of ß-lactams, and cephalosporins in particular, is achieved in non-immunocompromised hosts when the time that blood levels exceed the MIC for about 40-50% of the dosing interval. This has led to a critical evaluation of the current dosing schedules, and allowed the development of alternative dosing strategies for a number of agents. For example, it can be shown on pharmacodynamic grounds that the dose of ceftriaxone for adult pneumonia or sepsis need not exceed 1g daily, even taking into account protein binding, and the prevalence of some kinds of resistance. This dose will exceed an MIC of 0.5mg/L for 100% of the dosing interval, and an MIC of 2 for >40% of the dosing interval. The vast majority of enteric Gram-negatives, *Haemophilus influenzae*, *Moraxella catarrhalis* and pneumococci and other streptococci have MICs well below these values. Other examples that take advantage of our understanding of ß
-lactam pharmacodynamics include the development of twice-daily formulations of cefaclor and amoxycillin clavulanate. An alternative adaptation of pharmacodynamic principles of ß-lactams has been the introduction of continuous infusion for certain clinical situations, such as those caused by relatively resistant bacteria, or infections that require parenteral drug but could otherwise be managed at home. In future, new ß-lactams will be developed clinically with pharmacodynamic principles included in the original dosage design.

The Rational Use of Ceftriaxone Once Daily in the Clinical Setting

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General characteristics of 3 generation cephalosporins include excellent activity against both gram positive and gram negative microorganisms with a variable activity against *Pseudomonas aeruginosa*. After intravenous injections of 1 gr, the serum levels of the 3 generation cephalosporin after 1 hour are highest with ceftriaxone while after 12 hours serum concentrations with this long acting cephalosporin are still 30 mg/L, many times higher than the MICs of microorganisms causing community infections while concentration of the other 3 generation cephalosporins of the same class are already near MICs of the microorganisms or not detectable at all.

After more than a decade of clinical experience on the basis of evidence generated from studies, it became clear that most of the community acquired infections could be treated with the single dosage of one gram ceftriaxone daily giving satisfactory results in a variety of infections including the serious ones involving the respiratory, urinary, central nervous system, bone, skin, soft tissue and even general sepsis.

The third analysis about administration of 1 gram of ceftriaxone definitely pointed out that from a pharmaco-economic view that included all four assessment techniques such as cost-minimization, cost-benefit analysis, cost-effective analysis and cost-utility analysis, it may concluded that in a hospital setting when patients should be treated as best as possible and also secure their rapid discharge, ceftriaxone use contributed to the most substantial savings.

Epidemiology of Hepatitis A Virus

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Hepatitis A Virus (HAV) is an enteric RNA virus for which humans are the reservoir. It is highly resistant to inactivation by temperature or disinfectants. The virus is transmitted by the fecal-oral route and rarely parenterally or sexually. Incubation time averages 28 days. HAV frequently causes asymptomatic hepatitis in the very young. Severity of hepatitis increases with age with mortality approaching 2% in persons over the age of 40. Recovery from hepatitis is the rule; however, relapse with cholestatic hepatitis is possible and fulminant hepatitis can lead to death. Chronic HAV disease does not occur. Diagnosis is confirmed by anti-HAV-IgM and immunity can be confirmed by anti-HAV-IgG.

The world can be divided into areas of HAV endemicity. High, intermediate and low endemicity are defined in terms of the age at which 80% of the population becomes anti-HAV antibody positive: 10, 25, and 50 years of age, respectively. The level of endemicity is lowest in areas with best sanitation and hygiene. In a given area endemicity varies by rural (higher) vs. urban (lower) locations. Risk of HAV for a typical tourist moving from a low to high endemicity area is 1/1000/week. Around the world improvements in socio-economic and sanitary conditions have led to shifts in endemicity from high to intermediate to low and very low. These epidemiologic shifts have resulted in an increasing proportion of the population that is susceptible to HAV infection and increases in severity of disease and risk of outbreaks.

Shifts in endemicity support consideration of preventative measures. Improvements in public health services with resultant clean food and water and rises in hygienic practices decrease the transmission of HAV but such improvements are accompanied by increase in the severity of HAV disease that occurs in an older population. Immunoglobulin currently has a limited role in prevention in individuals but not in populations. Vaccination can provide long-term immunity. According to the 1999 ACIP guidelines persons that should be routinely vaccinated include travelers, persons with certain individual life-styles (e.g. gay, IV drug abuser) or underlying diseases (E.g., hemophilia, chronic liver disease), and those with risky professions like health care workers. In addition HAV vaccination should routinely be given to populations with ≥ 20 cases/year/100.000 and considered for populations with >10 but <20 cases/year/100.000.

Epidemiology of Typhoid Fever

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Typhoid fever (TF) is a systemic infection unique to humans caused by a capsulated bacterium, *Salmonella typhi*. The disease is characterized by a 7-10 day invasive phase followed by a 2-week diarrhea phase due to an inflammatory response in the intestinal mucosa. In addition to this characteristic diarrhea, symptoms include malaise, anorexia, myalgia, fever, sore throat, cough, chills and abdominal pain. Typhoid fever occurs more often and is more serious in children, adolescents and young adults. As it is transmitted through contaminated food or water, it remains a serious and common problem in many developing countries. The WHO estimates that more than 16 million cases occur in the world annually, causing more than 600.000 deaths. Resistant and multi-resistant strains of *Salmonella typhi* are increasingly observed worldwide. In countries where this disease is non-endemic, cases of typhoid fever still occur annually, due primarily to travel abroad.

Two vaccines are currently used, one injectable given in one dose and another oral one given in three doses. Large field trials in endemic areas showed for the oral attenuated vaccine (Ty21a) protection rates between 43 and 96% with various formulations. The injectable Vi polysaccharide vaccine protected against TF in 64 - 81%. Travelers, who risk exposure to *Salmonella typhi*, may be protected against the disease by vaccination.

Meningococcal Meningitis - A Travel Health Problem ?

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Until recently, meningococcal disease (MD) has been considered only a minor problem in travelers. Among the usual travelers, the attack rate has been estimated to be 0.4 per million whereas already then the rate in pilgrims to Mecca was 2000 per million (1), with a case fatality rate exceeding 20%. In the past years the situation has dramatically changed: In many industrialized countries a significant increase in MD has been reported, and particular concern has been expressed about an increased risk of infection among university students (2). Greater proportions of serogroup Y have been noted in the United States where older age groups are now more often affected (3). After the 2000 hadj to Mecca not only Saudi Arabia, but also many countries on four continents have been confronted with a major epidemic of MM, primarily due to W135 (4).

This new situation has already and further will influence decision making about new and traditional MM vaccines. With respect to travel health, MD immunization so far is required for hadj and umrah pilgrims and recommended for travelers both to regions with current MD epidemics caused by a vaccine preventable subgroup, usually A or C in developing countries, and to those traveling to the sub-Saharan meningitis belt, particularly if close and prolonged contact with the local population is anticipated. From now on not only students at British universities will be recommended to get immunized, but the vaccine should be offered more often to those at risk, and wherever available the quadrivalent vaccine covering serogroups ACWY should be preferentially used. Additionally, the Saudi health authorities will continue to request visitors residing in the meningitis belt countries to take a single dose of ciprofloxacine offered upon arrival. Since they realize that some visitors have received only a stamp into their International Certificate of Vaccination, but no vaccine, they consider to request proof of immunization with a sticker glued in that document; such sticker would be provided with each vaccine vial.

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Vaccination in Travellers

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The risk of acquiring infectious disease during travel varies directly to the duration of travel, exposure to local food/water of uncertain quality, close contact with local residents, and, inversely to the living conditions, standards of environmental sanitation and local immunization coverage . Recommendation for travel vaccination hence are based on an assessment of these risk factors and the local disease epidemiology. This paper discusses vaccines against hepatitis A, typhoid and meningococcus.

All the currently available inactivated Hepatitis A vaccines have been shown to be safe and immunogenic in children, adolescents and adults. The inactivated Hepatitis A vaccine from Aventis Pasteur (Avaxim) is prepared from cultured, purified and formaldehyde-inactivated GBM strain of HAV. A formulation containing 160 antigen units (in-house ELISA with n-house reference material) per 0.5 ml dose has been extensively studied in adolescents and adults and, more recently in children. The immunization schedule for hepatitis A vaccination consists of one primary dose of the vaccine followed by a booster 6 to 12 months later. Using this protocol the duration of protection against the disease has been estimated at 10 years. Protective antibodies titers may persist for more than 20 years. A new pediatric formulation of inactivated hepatitis A vaccine, derived from the GBM strain, has recently been shown to be safe and immunogenic in 189 Israeli children, aged 18 months to 15 years. Moreover, this vaccine offers the advantage of rapid seroprotection for children living in "protected" area and visiting hepatitis A endemic areas, which is particularly important if medical attention is only sought shortly before potential exposure.

There are presently three licensed vaccines against typhoid. The whole cell killed vaccine is not often used in view of its high reactogenecity. An oral (Ty21a) vaccine has been in use in adults and children above 6 years of age and has shown good tolerance and an acceptable efficacy. It requires multiple dosing (3 or 4 doses on alternate days). The Vi capsular polysaccharide vaccine contains 25 g of purified Vi antigen of *Salmonella typhi* in each immunizing dose of 0.5 ml. The Ty2 strain that are grown in a semi synthetic media without animal protein. Large scale randomized double blind trials in high endemic areas of Nepal and South Africa have shown an efficacy of 60 to 77%. Studies in more than 4000 vaccinated subjects from high and low endemic regions have shown that adverse reactions to Vi vaccine are generally mild and transient, and almost always resolve within 48 hours of vaccination making this an ideal vaccine for travellers. One 0.5 ml intramuscular dose provides at least 3 years protection against typhoid.

Vaccination against meningococcus with a single dose of A+C polysaccharide is recommended for travellers above 18 months of age going to an area experiencing an epidemic of meningococcal disease or to areas with a high rate of endemic meningococcal disease. Since the epidemic of meningococcal disease that occurred in 1987 during the Hajj pilgrimage in Mecca, proof of vaccination against meningococcus has been required for the pilgrims to the Hajj or Umra, at their entry in Saudi Arabia.

An immunizing dose (0.5 ml) or meningococcal A+C vaccine contains 50 g each of purified polysaccharide from group A and C of *N. meningitidis*. Apart from terminating the epidemic of meningitis in Brazil in 1974-75, the efficacy of this vaccine has been proven during mass campaigns during epidemics in Nigeria, and Bamako, Mali. From the fifth day after vaccination, the antibody levels rise and the antibodies persist for at least three years in individuals over the age of 2 years.

The Role of ASKES in Managed Care in Indonesia

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Speaking of managed care we have to go back to its origin in the USA. Due to a double digit inflation, cost-control techniques pioneered by HMO was much in demand by insurances who had to pay for the benefits of their members. The term given to these cost controlling techniques was managed care. The aim of managed care is cost containment without reducing the quality of care.

Facing a tremendous increase in health expenditure, the Clinton Administration proposed a National Health Reform legalization which was opposed by Congress, and to day, the year 2000 put forward again. while the fight over the President's Security Plan goes on, American people go to Canada and Mexico for their treatment is it is cheaper.

Since the beginning 30 years ago, up till now, controversial vies of critics and supporters are never ending. I would like to quote what Alan Williams wrote in 1988, that there are two pillars as follows:

- It is the doctor's duty to do all he or she can for the patient no matter what it cost
- It is the doctor's duty to take cost into account when deciding what course of action to recommend for the patient.

The development of ASKES, a Health Insurance State Enterprise, started in the 1960's when the founders (Ministry of Health) set up a simple but an ambitious plan consisting of four phases. Phase I was the formulation of a concept while ASKES as a social health insurance was established in 1968, mandatory for civil servants and their dependants (phase II). Phase III started in 1993 by expanding membership to voluntary private employees, more profit oriented. At the moment we are embarking on phase IV by proposing a national health insurance. The academic concept has been prepared by the Gadjah Mada University.

Managed care was introduced in ASKES during phase II in 1986 by implementing pre-payment capitation to all health center doctors, becoming the first company in Indonesia and Asia to embrace Managed Care. In 1987, ASKES produced its own Drug and Price List (DPHO), a very effective procedure. Indonesia was also the first country in the world to accept managed care as an act when in 1992 the Parliament issued the Act No. 23 / 1992 on Health. Gradually ASKES implemented a referral system, total capitation with a prospective payment, ISO for quality assurance, utilization review and cost sharing procedures.

In the year 2000, principles practiced of ASKES managed care are comprehensive care, guaranteed access, community/experience rating, no check-up on enrollment for mandatory members, quality assurance and ISO 9002, capitation/ total capitation, cross-subsidy, utilization review and cost sharing.

The effect of more than 10 years of ASKES as a system of managed care on providers even government are abundant. Health center doctors and family physicians became receptive to capitation and hospitals to prospective payment. The East Timor Governor insured the whole population (800,000) since 1995. Ministry of Health has produced a hospital formulary, an extended ASKES' DPHO Drug and Price List and is also formulating an act on Managed care called JPKM. At the moment, ASKES is the leading sector in Health Insurance/ Managed Care in Indonesia.

Epidemiology of Travelers' Diarrhea

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Abstract not received within time limit.

Prevention of Diarrhea with Vaccines of to Day and the Future

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Enteric diseases today and in the future will still be a major global public-health problem. Four bacteria (*Shigella, S. typhi, E. coli* - ETEC, *V. cholerae*) and one virus Rotavirus (*Rv*) are responsible for 2.5 million deaths a year throughout the world. Diarrhea is by far the commonest cause of illness, however no vaccines is capable of conferring general protection against diarrhoea, which has many different causes. Vaccine for *Shigella* is obviously needed since there is a high disease burden mostly in developing countries and a tendency of resistance to current antibiotics, but a major problem in the assessment of *Shigella* vaccine efficacy is the absence of the correlates of protection.

The injectable inactivated whole cell vaccine against typhoid fever confers a certain amount of protection, but can have unpleasant side-effects. However, the new injectable Vi polysaccharide vaccine, given in one injection, is well tolerated and provides good protection. A booster dose is recommended every three years, and possibly more often in poor hygiene condition. Another alternative is to use oral typhoid vaccine, which is effective when given in three oral doses two days apart. The traditional parenteral vaccine conveys incomplete, unreliable protection of short duration and its use, therefore, is not recommended.

A new oral cholera vaccine, composed of killed *Vibrio cholera* 01 and B subunit of cholera toxin provides short term protection against *E. coli* that produce heat labile enterotoxin (LT), is now available and provide high level protection for several months in few countries.

The rational use of *Rotavirus* immunization was based on several considerations; first, the rate of illness among children is comparable in industrialized and developing countries, indicating that improvement of sanitary is unlikely to decrease the incidence of disease. Second, wide spread use of oral rehydration is inadequate to prevent significant morbidity. Third, trial of oral RRV-TV (RhesusRV-Tetravalent Vaccine) in several countries shows efficacy of 80% to prevent severe illness.

key words: vaccine, diarrhoea

Update in the Management of Diarrhea

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Abstract not received within time limit.

The Use of Probiotic in the Management of Diarrhea

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Diarrheal disease is a very disturbing problem which also could lead to fatality. In Indonesia, diarrheal disease is the second leading cause of infectious diseases. Travelers' diarrhea is a major disease problem among travelers with an infection rate ranging between 2 - 40% depending on the hygienic condition of the country. The main cause of travelers' diarrhea was ETEC (Enterotoxigenic *E. coli*) followed by *Salmonella sp.*, *Shigella sp.*, *Vibrio sp.*, *Campylobacter sp.* and *Rotavirus*.

Basic treatment consists of oral rehydration, antibiotics or sub salicylic bismuth. Usually, ciprofloxacine is suggested; however, antibiotic use frequently generates negative impacts such as adverse effects and increase of resistant microorganisms.

A new alternative method that should be considered is the use of Probiotic for prophylaxis or treatment. Probiotic is live microorganisms that reside in the human intestines but have a positive impact. The example of this is the lactic acid-forming bacilli called *Lactobacillus*. Probiotic microorganisms could prevent or treat diarrhea through a process that creates a balance between the intestinal flora and fermentation.

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Tourism Planning and the Wellbeing and Quality of Life for Host Communities

Robyn Bushell
University of Western Sydney, Australia

A workshop co-hosted by Umar Fahmi Achmadi, Director General CDC and Environmental Health, Ministry of Health, Indonesia, this session aims to explain the WHO Healthy Tourism concept which aims to deliver benefits for the Quality of Life in relation to environmental health, physical and social well being, and cultural integrity for communities who host tourism.

A case study on Fiji has been undertaken to identify current policy, practice and ways in which broader health issues are integrated into tourism planning and operation; key issues of tourism for the host population; the implications of the current situation for healthy tourism and criteria which should be incorporated into Guidelines.

This case study will be discussed and inputs sought from delegates from other Asia/Pacific nations.

Oral Free Papers

Detection of Toxoplasmosis and Salmonellosis in Meat Juice: Experimental and Surveillance Studies

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Public health and economic impact of toxoplasmosis and salmonellosis in meat is considerable in terms of morbidity and even mortality in humans. Up to date, no suitable method is availableÊ for diagnosis of both diseases in meat of slaughtered animals.

The present study evaluated the meat juice as a sample from experimentally infected mice with *Toxoplasma gondii* (*T. gondii*) or *Salmonella typhimurium* (*S. typhimurium*) for detection of anti-*toxoplasma* or anti-*salmonella* antibodies by an indirect enzyme linked immunosorbent assay (ELISA) technique.

No statistically significant differences were observed when comparing the results of muscle juice ELISA to those obtained from serum samples of mice with strong correlation between the two samples. This indicates that meat juice is as efficient as blood in diagnosis of toxoplasmosis and salmonellosis. Moreover, the superiority of meat juice lies in its ability for diagnosis when blood is not obtainable. The use of this sample was applied in surveillance study which was done on randomly collected beef and chicken meat. The antibodies against *T. gondii* and *S. typhimurium* (in beef and chicken meat) were detected in 30%, 22% and 14%,7% respectively. This justifies the importance of meat juice to be used in the future large scale meat screening programs.

The Evidence of Congenital Malformations and the Prevalence of *Toxoplasma* Infection in Women and Fetuses Detected by Serological Test and PCR Technique

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Relationship between the evidence of congenital malformations and the prevalence of *Toxoplasma* infection were studied upon 140 cases from six hospitals in Malang municipal. Seventy-nine cases of congenital malformation deliveries and 61 cases of normal deliveries were recruited to be subject and control group respectively. Hydrocephalus (16 cases or 20.25%) and anencephaly (15 cases or 18.99%) were the most prevalent congenital malformations. Serological tests showed that specific IgG were positive in 39 women (49.36%) of subject group and 35 women (57.37%) of control group, while IgM were positive in 4 women (5.06 %) and in 5 women (8.20%) respectively. Specific IgG were positive in 11 from 22 fetuses of subject group (50%) and 8 from 17 fetuses of control group (47.05%), while IgM were positive in 2 fetuses (9.09%) and 2 fetuses (11.77%), respectively. The presence of specific DNA of *Toxoplasma* in placenta, were detected using PCR analysis. A band below 194 bp were always visible on all the DNA controls, but there was no positive finding in 99 placenta samples, neither from subject group nor control group. This study still unable to show the relationship between toxoplasmosis and the evidence of congenital malformations. Natural population selection was assumed to be the caused of the result of this study.

key words: Toxoplasma, congenital malformation, placenta, PCR.

Use Of Lactoferrin Assay In The Diagnosis Of Different Vaginal Pathogens

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Local cell mediated immunity is more important than systemic immunity Êfor protection against different vaginal pathogens. The predominant inflammatory cells in vaginal pool are almost exclusively polymorphonuclear neutrophils (PMN) which were varied according to the type of vaginal pathogens. Lactoferrin is an iron binding glycoprotein found in the secondary granules Êof PMN. In order to determine the usefulness of such marker Êfor neutrophilic activity in different vaginal infections, we examined the vaginal discharge using the antilactoferin antibodies (lactoferrin latex agglutination test:LAFLA), against different gold standard techniques. Our results demonstrated that Trichomonuas vaginalis revealed ahigh lactoferrin titre which was positively correlated with the number of PMN. In addition, cases with vaginal candidiasis, was charecterised by mild inflammatory process as expressed by mild lactoferrin level which was also correlated with the PMN count. However, a paradoxic finding,was observed in the discharge recovered from cases with bacterial vaginosis where lactoferrin titre was not correlated with PMN count. In addition findings of the present Work,indicated that LAFLA was sensitive and specific when used alone Êand its sensitivity was increased after coupling with other simple methods as Ph determination or amin test. In conclusion,our results described the feasibility of using LAFLA as a simple,extremely sensitive, reliable methode in distinguishig different types of vaginal pathogens,so it could be used as apromising method for a widespread community screening to diagnose population of females at risk.

key words: lactoferrin,vaginal pathogens

Genetic Relatedness Between First Line Drug Resistance Salmonella typhi Isolates using Pulsed-Field Gel Electrophoresis (PFGE)

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Sixteen isolates of Salmonella typhi (S. typhi), with single or multi-resistance to first line drugs, i.e. Ampiciline (A), Chloramphenicol (C), Sulpha-cotrimoxazole (S) and Tetracycline (T), originated from typhoid fever patients hospitalized in two private hospitals in Jakarta in 1998 was studied for their genetic diversity. Four isolates with single resistance to T showed dissimilar PFGE patterns with Dice coefficient (F value) ranged from 0.26 to 0.63, and 2 isolates with A resistance phenotype showed F value of 0.87. Two isolates were resistant to antibiotics A and T has F value 0.39. While 2 of the 3 isolates were resistant to three drugs, A, C and T showed identical PFGE pattern, with F value 1.00. However, one of them was only showing low degree of similarity, F value was 0.52. Further, 2 isolates were resistant also to 3 drugs i.e. C, S and T were not related, F value was 0.36. Multi resistant to 4 antibiotics, A, C, T and S, was observed in 2 isolates, and they were showing F value 0.39. Nonetheless, F value 1.00 was obtained from 2 isolates with different phenotypes, one resistant to antibiotic A and the other resistant to antibiotic T. Moreover, 3 isolates resistant to multi drugs (2 isolates resistant to A, C, T and 1 isolate resistant to C, S, T) were found to have identical genomic patterns, F value 1.00. Thus, this study indicated that similarity in the resistance to certain antibiotics, did not necessarily show their genetic relatedness and clonality.

key words: S. typhi, antibiotic resistance, F value

Potential of Small Mammal-Borne Diseases Transmission at Sigedang Village near Dieng Plateau, Wonosobo, Central Java

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A study on the role of small mammals in transmission of some zoonoses was carried out in a period of August 1999 to January 2000 at Sigedang Village, Kejajar Sub District, Wonosobo District, Central Java Province. A total number of 235 wild small mammals consisting of 3 species of rats, *Rattus exulans, Rattus rattus diardii, Rattus tiomanicus* and one species of shrew, *Suncus murinus* were captured indoor and outdoor with a quite high Trap Rates (11.0 % - 12.5 %). Gravidity Rates of female rats ranging between 50 % to 78 % with the average number of embryos 6.9 at dry season and 4.5 at rainy (wet) season. Flea infestation was found in 16.2 % of the captured animal with a flea index of 2.1. Mites infested 6.2 % of the animals, chigger-mites were found infested 0.4 % of the animal. Serological examination of 46 human serum samples using immunoflourescense antibody technique (IFA) showed 6.5 % positive to *Rickettsia conorii* infection or spotted fever group (SFG) Rickettsiae and 2.2 % positive to *Rickettsia typhi* infection or murine typhus. It is concluded that many species of reservoir animals and ectoparasite vectors of diseases were found at Sigedang Village that many viral, rickettsial, bakterial and parasitic diseases such as Korean haemorrhagic fever (*Hantavirus* infection), murine typhus, scrub typhus, SFG Rickettsiae and plague, are potential to be transmitted at the village and spread to its surrounding areas. A study on the socioeconomical and physical environment were also done and discussed.

key words: rats, shrews, ectoparasites, zoonoses, epidemiology

The Widal Slide Test (SAT) Using Locally Prevalent Antigen as a Diagnostic Aid for Typhoid Fever

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A laboratory study to assess the diagnostic value of Widal slide test using locally prevalent antigen was carried out on 61 sera, comprising 30 sera of typhoid fever adult patients with positive blood culture, 30 non-typhoidal febrile patients and one paratyphoid A fever patient with positive blood-culture for *S. paratyphi A* attending the outpatient clinic or hospitalized in the Tropical Diseases Ward of the Dr. Soetomo Hospital in Surabaya.

All sera from the above mentioned patients were tested with the Mekar Jaya Diagnostika (MJD) Widal slide agglutination test (SAT) using a mixture of 5 strains of locally prevalent *S. typhi* as the antigen. To obtain the required dilution or the antibody titer in the sera, a list of the ratio of the serum and the phosphate buffer saline (PBS) solution recommended by the manufacturer and available in the kit, was used. Incubation was carried out at room temperature for only 5 minutes. The result of the test was read with naked eyes above a 10 watt neon lamp.

The cut-off value of the above mentioned Widal slide test in adults was fixed at a titer of 1/80 for agglutinin O, H, and PB, and 1/40 for agglutinin PA. The O agglutinin titer of ≥ 1/160 or O and H agglutinin titer of ≥ 1/160 was found to be diagnostic for the Widal slide SAT-MJD test.

The result of this study revealed that the Widal SAT-MJD test is an eligible tool to detect typhoid fever in adults with a diagnostic sensitivity as high as 83.33%, a diagnostic specificity as high as 90%, a diagnositic efficiency as high as 86.66%, a diagnostic positive predictive value as high as 89.28% and a negative predicitive value of 84.37%. The one patient suffering from paratyphoid A fever in this study, showed only a positive Widal SAT-MJD test for agglutinin PA (titer = 1/640).

From a practical point of view, the performance of this Widal slide test could be considered as very practicable, the incubation period is less than 5 minutes and the cost for each test is far from expensive.

Based on the data in this study, it can be concluded that the Widal slide test has a reliable diagnostic value and is very practicable for the diagnosis of typhoid fever.

key words: typhoid fever, Widal slide test, locally prevalent antigen

Activation of Granulocytes with Vero Toxins of Enterohemorrhagic *E. coli*

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Leukocytosis (mostly neutrophils) is thought to be one prognostic factor for the pathogenesis of hemolytic uremic syndrome (HUS) due to enterohemorrhagic *E. coli*.

The author speculated that neutrophils are activated and cells play a role for the pathogenesis of HUS due to enterohemorrhagic *E. coli*. Thus the author investigated 1) the increased levels of proinflammatory cytokines, which are especially involved in the activation of PMN, in plasmas from patients, and 2) the possibility of the activation of granulocytes by vero toxins.

The results are as follows: 1) Plasma levels of cytokines and other mediators: the levels of three groups; Group A (patients with HUS), Group B (patients hospitalized with diarrhea but not HUS), and Group C (outpatients with diarrhea), were compared. High levels of IL-8 and PMN-elastase were found in Group A and B, but the levels were higher in Group A. Other proinflammatory cytokines were also found especially in Group A. Endotoxin levels were within cut-off value, even in severe cases. High levels of procalcitonin, as an indicator of severe bacterial infection, was found in Group A. 2) Activation of granulocytes with vero toxins: Vero toxin (VT1) activated granulocytes to produce proinflammatory cytokines (IL-6, IL-8, TNF-a, and IL-8) and to express the adhesion molecules (CD11b/CD18; Mac-1). VT 2 also activated granulocytes to produce cytokines and to express the adhesion molecules. The potency of VT2 was superior to VT1. CD77 (Gb3) antigen was found to be expressed on granulocytes.

These results suggest that the activation of granulocytes plays a role in the pathogenesis of HUS and is a vehicle to deliver vero toxins to organs.

key words: enterohemorrhagic E. coli, *hemolytic uremic syndrome, vero toxins, granulocytes, Gb3, interleukin 8, adhesion molecules*

Endemic Typhus is Still A Cause of Acute Febrile Illness in Modern Urban Singapore

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Background: Endemic or murine typhus was thought to be a disease of Singapore's past. This may be due to a lack of awareness among clinicians and a dependence until recently on the Widal-Weil Felix test for diagnosis.

Methods: We retrospectively reviewed clinical and epidemiological data on 21 cases of endemic typhus identified at the Natinoal University Hospital in Singapore on the basis of a compatible clinical syndrome, positive specific serological response to indirect immunoperoxidase testing using specific rickettsial antigens (US Army Medical Research Unit, Institute of Medical Research, Kuala Lumpur, Malaysia) and in most cases, prompt response to doxycycline therapy.

Results: Most patients were young (mean age 38.2 14.5), men (M:F, 18:2), either Singaporean residents (7/21) or Bangladeshi migrant workers (7/21). The most common presenting complaints were fever (89%), cough (44%), myalgia (33%) and headache (28%). The initial temperature was high (39.1 1C) as was the pulse (99 16). More than half (11/20) had a rash, but there were no other significant physical findings. Initial wbc (9.1 2.8) and platelet counts were normal, but there was a mild lymphopenia (1.7 0.9) and transaminitis (ALT 90 78, AST 94 66).

Conclusions: Endemic typhus is still an important cause of acute febrile illness in modern urban Singapore. The diagnosis may be missed if it is not specifically sought.

An Outbreak of Group B Streptococcal Meningitis in Singapore

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Background: Meningitis caused by *Streptococcus agalactiae* (group B streptococcus) is rare in adults and usually affects patients with predisposing conditions. We describe an outbreak of adult group B streptococcal meningitis occurring in Singapore.

Methods: We reviewed all cases of bacterial meningitis admitted to the Singapore General Hospital in 1998/9 aged 16 years or above. Microbiological records for the previous 10 years were searched for any additional cases of adult group B streptococcal meningitis.

Results: In 1998 & 1999, 21 adult patients with bacterial meningitis were admitted to Singapore General Hospital. *Streptococcus agalactiae* was isolated in 10 cases, *Streptococcus pneumoniae* in 3 cases, *Klebsiella pneumoniae* in 2 cases, and *Pseudomonas pseudomallei* in 1 case. In 5 cases no bacteriological diagnosis could be made. Only two of the patients with adult group B streptococcal meningitis had conditions known to predispose to this infection. No patient died, but neurological and general medical complications were frequent. A 10-year review of microbiological records revealed only one previous case of adult group B streptococcal meningitis in a patient with multiple risk factors.

Conclusion: An unusual outbreak of group B streptococcal meningitis has occurred among adults living in Singapore. The cause of this outbreak remains unclear.

Travel Medicine in 2000 : How to Prepare Physicians to These Challenges : The University of Montreal Experience

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In 1993, the Faculty of Medicine at University of Montreal undertook a thorough reorganization of pre-graduate studies, in order to respond to new challenges in health services. One of them identified was the health needs of migrant populations (North-South, East-West), under various circumstances such as traveling, immigration (on a voluntary basis or as a refugee), or international adoption.

Throughout their training, medical students have been exposed to:

- problem-based learning sessions with clinical problems of patients from all over the world
- clinical encounters with such patients during their clerckship
- elective courses in International Health and in Tropical Medicine
- elective clinical rotations in various developing countries

Since Canada is a preferential country of refugees, the Board of Faculty of Medicine at University of Montreal felt that it was his to recognize the new multiethnic paradigm and to offer to pre-graduate students a curriculum that would address this challenge. The objectives and their implementation will be presented.

key words : immigrant health, pedagogy

Flight Surgeons' Role in Medical Evacuation: A Three-Monthly Report Evaluation of Garuda Indonesia

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Background: Medical evacuation is one of the problems in air travel health. Flight surgeons should make an evaluation and a special arrangement so that patients or passenger who has just cured from any illnesses can travel safely. This study describes medical evacuation that has been done during January to March 2000 by Garuda Indonesia.

Method: Every case reported by the flight surgeons were analysed: the medical problems, the special arrangement that had been made, and whether there were problems aboard.

Result: There were 57 patients, female (57.9%) and male (42.1%), age >60 years old (42.1%) and the other below. The medical problem were GI tract (19.3%), urinary tract (17.5%), musculosceletal (15.8%), cardiovascular (14.0%), and respiratory tract (10.5%), degenerative disease (28.1%), neoplastic disease (17.5%), post-operative (14%), unconsious (7%), physically weak (36.5%) and paralysed (10.5%). The prognosis during the trip were good (96.5%) and dubia (3.5%). Special arrangements that had been made were: doctors and nurses flight attendance (40.4%), stretcher (35.1%), oxygen 100% (19.0%) and infusions (7%). None of the patients were reported died or had an emergency problem during the flight.

Conclusions: Flight surgeons play a big role in arranging special needs for medical evacuation in order to make air travel safe for patients.

key words: medical evacuation, flight surgeons

Traveling Dialysis in Cipto Mangunkusumo General Hospital, Jakarta

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The modern transportation facilities make the long and far distance take short time journey, thus it is possible for chronic illness patient, especially patient with maintenance dialysis to go travelling. Patients on maintenance dialysis usually depend on dialysis mechine in their hospital, but now they can do dialysis in the place where their visit.

We report seven patient travelers to Jakarta Metropolitan and were dialysed in Ciptomangunkusumo General Hospital. The procedure of dialysis was adjusted to their own hospital prescription, except when there were no facilities in our hospital. Dialysis were programed just after arrival to Jakarta and during their stay in Jakarta for twice a week. Traveling dialysis were used for business occasions, family gathering, official meeting or waiting for building vascular access Cimino. Unfortunately, we have no data for CAPD patients because they were not depending to dialysis mechine in hospital, so they could go traveling without our notice.

Possible Health Hazards for Visitors to Tropical Australia and the Advice Necessary

Reggie Cooke

Background : Australia is a popular destination for international travellers. In recent years, however, there have been reports of illness, accidents and fatalities in some overseas visitors.

Aims : (1) To identify the possible health risks. (2) To assess the advice perceived necessary.

Method : (1) Risks : information, regarding possible risks, was obtained from a variety of sources.
(2) Advice : (a) Travel brochures were examined and travel agents were telephoned.
(b) The travel details of one family were sent to 116 UK practices
A short questionnaire was sent to a GP and a Nurse in each practice :
i) Should the family go on this trip?
ii) List the TOPICS of advice considered necessary

Result : 1) Risks. 12 main groups of risk factors were identified, including poor preparation. Other topics related to climate and distances, and attractions, specific to Australia.
(2) Advice : (a) Travel brochures/ agents gave very limited advice.
(b) General Practice: 41 practices completed the questionnaire (35%).
The most number of topics covered was 9. Siz or more topics would have been advised by 24 nurses (58%) and 8 doctors (19%). Several topics got little or NO mention. Most people were not aware that reciprocal medical arrangement, with the UK, DO exist. No mention was made of the returning traveller.

Conclusion :
1) Many risk factors, specifically for visitors to tropical Australia, were identified.
2) The importance of the risk factors to both travellers and advisers is not appreciated.
3) The advice thought necessary is, therefore, sub-optimal.
4) A particular problem in one member of a family or group may become the focus of advice - possibly at the expense of the others.
5) Preparation and planning is essential to visitors to Tropical Australia to MINIMIZE the RISKS and MAXIMIZE the ENJOYMENT. More research of actual figures is needed.

The Medical Aspects of a Large Scientific and Educational Marine Project in the Indian Ocean

Bev Holt
Chief Medical Officer
Royal Geographical Society (with IBG) - Shoals of Capricorn Programme

The Shoals of Capricorn Programme has been set up by the Royal Geographical Society (with The Institute of British Geographers) and in association with the Royal Society and the Governments of Seychelles and Mauritius. The project is investigating the remote Mascarene Plateau in the western Indian Ocean through an integrated marine research and education initiative, developing knowledge and skills for the effective management and protection of marine resources.

This entails maintaining several base camps mainly on remote islands with permanent staff, and a large number of visiting scientists and students, as well as several cruises on research vessels. The whole project, which will continue for three years, involves numerous people working in isolated locations in a marine environment with the possibility of tropical diseases, envenomation by marine and terrestrial organisms, and the hazards of working underwater.

This paper will describe how the medical aspects of this project are being managed; preparations, risk assessment, first aid training, equipment. back-up service, collaboration with local health professionals, evacuation of casualties etc.

This could provide a model for any organisation taking a large number of personnel to a remote location for whatever purpose i.e. commerce, exploration, tourism etc.

Some of the problems encountered to date will be discussed together with their management.

key words: marine, expedition, health

HIV Infection Among Travelers in Jakarta. Needs for Continuum Care

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Until last March 2000 there are 1190 HIV infection cases reported in Indonesia. MMMost of them stay in Jakarta. Our clinic in Cipto Mangunkusumo General Hospital, Jakarta, has treated 206 cases, 172 males and 34 females. Twelve of them are travelers: 2 from Thailand, 1 from Malaysia, 1 from Singapore, 1 from India, 4 from Europe, 2 from Africa and 1 from USA. Most of them are in asymptomatic condition except 3 cases are full blown AIDS. One patient died in our hospital and two patients went back to their country accompanied by nurses. Almost all of the travelers do not know the condition of health service for HIV cases in Indonesia. They are not aware about the facility of laboratory and availability of the drugs. So they have problems when they want to check their condition or want to buy antiretroviral drugs. Since two years ago our clinic is able to perform CD4 count and viral load test. Some antiretrovirals are also available such as AZT, ddl, DDT, d4T, 3TC, Saquinavir and Ritonavir but Indinavir and Nelvinavir are not yet available. Since care of HIV infections should be continued during traveling, networking among clinics in travel area should be established.

Health Care for the Elderly Travelers

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A retrospective investigation and analysis is made to a special healthy elderly tourist group initiated by China International Travel Service (CITS), in order to further strengthen the medical and health care in travel services. The analysis covers the composition, age ranging, and health status of the group members. The result indicated that CITS organized 3 elderly tourists groups in one year. Among which there were two 7-day trip to Thailand and on 9-day trip to Thailand and Hong Kong. They all started their trips from Beijing. There were altogether 53 people joined the trips, comprising of 2 couples of husband and wife, 2 couples of mother and daughter, 20 singles and 6 working staffs (including group leaders, doctors and TV reporters).

There were 18 males and 35 females. The age ranked from 47 to 77 years, excluding the working staffs. The average age is 65 years old. There were 28 members between 60 to 70, 59.57% (28.47%) of the groups. 31 had history of various disease before the trips, which was 65.96% (31/47) of the groups. Among which there were 15 cases of high blood pressure (15/47, i.e. 31.91%), 10 cases of coronary heart disease (10/47, i.e. 21.28%), 9 cases of hyperlipidemia (9/47 i.e. 19.15%), 5 cases of hyperglycemia (5/47, i.e. 10.64%), etc. There were only a few people feeling slightly unwell during the trips. No one got infectious disease during the trips.

The result shows that the analysis on the composition, age spread and health status of the elderly tourist groups, both before and after providing basis for further strengthening and improving the health care service for the travelers.

key words: elderly, travel, health care

Issues in Travel Medicine : Lessons from One Case

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A 42 years old female patient was admitted with severe vomiting and convulsions. She traveled from France through Holland to Indonesia. The day before she had red meat for dinner in Medan (North Sumatra) before continuing her journey to Jakarta. Not long after the evening meal she felt nauseated and vomited several times during the night but she insisted travelling the next day as planned. During the flight she vomited several times and in the Cengkareng Soekarno-Hatta airport of Jakarta she had several seizures and was brought to the local emergency clinic and treated with a sedative and gastrointestinal regulator before she was transported to the hospital.

It turned out that this patient was an epileptic on oral anti epileptic medication that she could not swallow her medicine because of nausea and vomiting after her dinner. From these two happenings two issues could be identified first is food safety and the second one was that no intravenous substitute was available for her medical condition to prevent epileptic seizures.

It may be suggested that firstly food serving should be better supervised (probably in this case *Staphylococcal* food poisoning was the cause of the gastrointestinal upset) and that an international drug formulary should be made available especially if we would boost our tourism industry and the revenues it generates and at the same time prevent cases to be referred to outside Indonesia for shortcomings that could in fact be better regulated locally.

Analysis of Incorrect Concept of Travel Medicine and Leisure Activities in Taiwan

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Since living standard in Taiwan has improved, more people are involved in leisure activities and travelling. The purpose of this research was to generalize the knowledge of travel medicine and to improve the prevention of travel diseases. 1132 interviewers were enrolled, 45% were female and 55% were male. We designed 10 true/ false questionnaires and each questionnaire is 10 points. Most of them received 30 to 50 points. It indicated that many people had wrong concept of travel health. Besides, more than 50% of the people had incorrect concept about first aid, safety health protection, vaccination, epidemic diseases, and where to ask for assistance about health care in foreign countries.

According to the t-test, women had higher knowledge about travel health than men. The satisfactory rate of leisure activities was lower in women. The most favorable activities were as followed: watching television (33%) listening music (19%), and playing sports (18%).

Since many people considered travelling as one of their activities, it is necessary to teach people how to prevent urinary tract infection during honeymoon and sexual transmitted diseases when travel in certain regions, such as South East Asia and China.

Therefore, due to insufficient knowledge of travel health, we must cooperate with the government to educate the people.

The Influence of BCG Vaccination to Serum MLPA Titer Among Schoolchildren in Leprosy Endemic Area of South Sulawesi, Indonesia

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Objective: To determine the effect of BCG (*M. bovis* killed vaccine) to humoral immunity responses, IgM antiphenolic glycolipid1 (PGL-1) antibody against *M. leprae* among schoolchildren in South Sulawesi, Indonesia.

Methods: Cross sectional study. We examined 58 schoolchildren in 1991 and 46 schoolchildren in 1993, we performed these studies in the same area.

Results: We found from these two studies has 37.9 % and 43.5 % positive BCG scar, respectively. No statistical difference were found between two studies on the positivity of BCG scar (Chi-square test $p>0.05$). We tested the IgM immune responses to leprosy from schoolchildren both in the first study and in the second study to determine the correlation between titer of IgM PGL-1 antibody and positivity of BCG scar.

Conclusions: Our study, revealed that no relationship was observed between positivity of BCG scar and the titer of IgM PGL-1 antibody among schoolchildren in leprosy endemic area.

key words : BCG, MLPA, schoolchildren, leprosy

The Relationship Between *Mycobacterium leprae* DNA from Housedust and Specific IgM Antibody from Members of the Household on Community in Leprosy Endemic Area of Indonesia

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Leprosy is a chronic disease caused by *Mycobacterium leprae* which the transmission is difficult to define, especially in relationship between the environmental factors and their preventions since *M. leprae* can not be cultivated *in vitro* and do not have a gold standard for diagnosis. The purpose of this study is to detect *M. leprae* DNA from housedust in leprosy endemic areas using PCR technique and to identify IgM antibody titer increase in members of the household which showed positive *M. leprae* DNA in housedust. 46 housedust samples from the houses in leprosy endemic area were examined and 3 samples (6,52%) were found positive of *M. leprae* DNA. MLPA test was done to 144 person in Tukamasea District and we found 48.6% positive (70 persons) but only 5 persons who live in house with PCR housedust positive (7%). In conclusion, the Polymerase Chain Reaction (PCR) technique could be used to detect the *M. leprae* DNA from housedust in leprosy endemic area, but no significant different between IgM antibody titer increase in members of the household with *M. leprae* DNA positive in housedust.

key words : PCR, MLPA, M. leprae, Housedust

Patterns of Antituberculosis Drug Resistance to *Mycobacterium tuberculosis* at Dr. M Hoesin General Hospital Palembang

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Background : Recently has been reported an increase in prevalence of tuberculosis resistance to antituberculosis drugs.

Objective : To evaluate the prevalence of primary, secondary, and multidrug resistant (MDR) disease in our center.

Method : Prospective, cross-sectional study has been performed to determine the pattern of tuberculosis resistance in Dr. M. Hoesin General Hospital, Palembang. There were 178 tuberculosis patients with positive smear acid fast bacilli which were referred to our center consisted of 123 patients previously have not treated and 56 patients have been treated with antituberculosis drugs.

Result : The overall resistance rate (1 or more drugs) was 87 patients (48.9%), with primary resistance 40.2% (49 of 123) and secondary resistance 67.9% (38 of 56). Primary resistance to isoniazide was the most frequent (30.3%), followed by streptomycin and ethambutol (each one is 15.6%), rifampicin (4.9%), and pyrazinamide (4.1%). Primary resistance was noted as 20.5% to 1 drug, 11.5% to 2 drugs, 5.7% to 3 drugs, 2.5% to 4 drugs and 0% to 5 drugs. Secondary resistance to isoniazide was the most frequent (55.4%), followed by streptomycin (37.5%), ethambutol (35.7%), rifampicin (30.4%), and pyrazinamide (17.9%). Secondary resistance was found as 12.3% to 1 drug, 10.7% to 2 drugs, 8.9% to 3 drugs, 10.7% to 4 drugs, and 12.5% to 5 drugs. Combination resistance to rifampicin and isoniazide with or without another antituberculosis drug (MDR) was noted 12.7% (22 out of 178 patients).

Conclusion: This study indicated primary, secondary, and MDR *M. tuberculosis* to antituberculosis drugs in Dr. M. Hoesin General Hospital were high that might threated the success rate of antituberculosis treatment.

key words: primary resistance, secondary resistance, multidrug resistance, M. tuberculosis, antituberculosis drugs

Pulmonary Tuberculosis at the Pulmonary Clinic of Manado General Hospital

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Tuberculosis (TB) remains the major public health problem in developing countries, including Indonesia. In Indonesia pulmonary TB is the number one public disease.

A retrospective study was done on pulmonary TB patients attending to the Pulmonary Clinic of Manado General Hospital during 2 years (January 1998 to December 1999).

There were 1067 patients, consisting of 633 males (59.3 %) and 434 females (40.7 %). Patients' mean age was 44.5 years and most patients were in > 60 years age group (27.8 %). The main clinical presentation was cough (82.9 %), followed by decreased body weight 56.4 %, fever 52.0 %, hemopthysis 36.4 %, dyspnea 32.3 %, night sweat 28.6 %. Pleural effusion and pneumothorax complications were 3.4 % and 0.5 % respectively. Chest X-ray that was suggestive of pulmonary TB appearances were 89.2 %. Sputum acid fast stainings were positive in 17.8 % of patients and acid-fast bacilli cultures were positive in 12.0 % of patients. Mantoux tests were positive in 62.9 % of patients. Laboratory results showed mean hemoglobin was 13.6 g/dL, mean leucocyte 10.138/mm^3, mean erythrocyte sedimentation rate in the first hour 61.1 mm. Only 19.7 % of patients got regular treatment and finished their therapy at the Pulmonary Clinic. Among 1067 patients, 87 (8.2 %) were diagnosed as relapse cases after complete treatment.

Pulmonary TB is found more frequently in males compared to females and in elder groups. Sputum acid-fast bacilli in direct smear or culture is positive in only less than 20 % of cases. Some problems in the management of pulmonary TB are the low percentage of patients finishing therapy and the presence of relapse cases.

key words : pulmonary TB, clinical feature, laboratory result, relapse

Human Resources Development of the Laboratory Workers in Community Health Centers in Finding Pulmonary Tuberculosis Case in the Community

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A study was carried out toward 27 laboratory workers in 15 Community Health Centers of "PRM" (*Pusat Rujukan Mikroskopis* or Microscopic Referral Centre) and satellite CHC which is implementing the slide examination of "BTA" (Acid Resistant Bacteria) in their laboratory in 1998. As one part of this sutdy in regard to Human Resources Development, the knowledge of the worker was evaluated, as well.

The goal of this study is to explore levels of knowledgeof the CHC-laboratory workers in technically correct examination of the "BTA" slide in regard to HRD.

The methods of this study is arranged by education, training and trying out (by using a questionnaire in the pre-test and post-test). Nineteen laboratory workers (out of 27) were tried out. There are 12 trained workers (63.15%) and 7 analysts (36.84%).

The result describe that two workers do not show any improvement in their post-test; tow workers (who are trained workers and work for satellite CHCs) decrease their score in their post-test; and one worker (analyst), has stability in his score. The results also describe that the "BTA" slide examination were done more by trained workers than analysts. There is significant difference of knowledge of the analysts and trained workers.

It is suggested that slide examination in CHC laboratory should be administered by analysts, while the trained workers should get more education in obtaining accurate results of examination in order to detect tuberculosis more quickly which at the end it will reduce the tuberculosis transmission in the community.

key words : tuberculosis, HRD, training, laboratory

Health Education of Tuberculosis

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Tuberculosis is an important public health problem as it is still the the main public health problem in Indonesia. Tuberculosis also still kills more adults than any other infection disease with incidence as high as 450,000 and cause 175,000 deaths per year. Indonesia has a population of 210 millions, where 40% of the population are poor people and low educated. Tuberculosis control was drawn up in 1968 consisting of vaccination, isolation and treatment of cases in sanatoria and the latest is Directly Observed Treatment Shortcourse (DOTS) which will not expand too quickly.

For optimalization of tuberculosis control in Indonesia with poor and low education, health education is needed continuously.

key words: health education, tuberculosis

The Risk Factor in Knowledge, Behavior and Information Quality Aspect on Productive Ages Lung Tuberculosis

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Currently, lung tuberculosis is more complicated with some complicating problems (reemerging diseases) such as treatment failure by the patients (defaultor), tuberculosis and HIV coinfection, and multidrug resistance beside the classical factors like low education, unhealthy life style and poor behavior.

To have a description about the role of community education in tuberculosis development, 100 patients were evaluated in Sulianti Saroso Infectious Disease Hospital (RSPISS) to know the relationship among the knowledge state, behavior and information quality about the lung tuberculosis disease.

Most of the patients evaluated were men (60%), the highest between 20-30 years of age (51%), low education (57%), living in the slums area (74%), low income (90%) and never received information about lung tuberculosis (25%).

The patients knowledge about lung tuberculosis were low in the age group of 30-40 years, low education, unemployed, and very low income patients. Information acceptance are also low in patients with age 30-40 years old, low education, unemployed, lack of ideal housing and have not used the providing information facility.

key words: lung tuberculosis, productive age, knowledge, behavior and information quality

Clinical Manifestation and Prognosis Factor of Lung Tuberculosis on Productive Ages in Sulianti Saroso Infectious Disease Hospital, Jakarta

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Currently, lung tuberculosis are more progressing (reemerging diseases) with more complicated problems, especially after HIV/AIDS emerging and increasing of the multidrug resistant cases.

To get the clinical manifestation and the influencing prognosis factors, evaluated 99 patients lung tuberculosis productive age in Sulianti Saroso Infectious Disease Hospital (RSPISS).

The majority of patients are men (64.6%) and most of them have low education (59.2%), low income (56%) and very low percapita income (86%).

Clinical manifestations were found still characteristic for lung tuberculosis, 44% found with hemopthysis and the predominant comorbidity are other infection in the lung (15%), diabetes mellitus (3%), positive HIV (2%), and hepatitis (2%).

The study about lesion manifestation, thorax x-ray are found, most of them with advanced lesion (55%) which is the highest on the ages 30 until 40 years (31%), with very low income (30%), followed by anemic ((24%) and hipoalbuminemic (7.2%). The majority of patients with advanced lesion have more a comorbidity (20.2%) compared with early lesion (7/1%).

key words: lung tuberculosis, productive age, clinical manifestation, prognosis factor

Antibiotic Resistant Pattern of *Salmonella typhi* Isolated in a Government Hospital in Jakarta

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The isolation of *S. typhi* strain that are resistant to chloramphemicol, ampicillin and cotrimoxazole has been reported from several countries, such as Mexico, India and Thailand. These reports have induced the study to find out whether such strain is already exist in Indonesia.

Blood cultures of 100 patients that were clinically diagnosed as typhoid fever patients in a government hospital in Jakarta, were studied, and 66 were *S. typhi* positive. All the 66 strains were susceptibility tested against chloramphenicol, ampicillin, cotrimoxazole, ceftriaxone, cefoperazone, cefotaxime, ciprofloxacin and pefloxacin.
The results showed that 65 isolates (98.5%) were chloramphenicol sensitive, 1 isolate (1.5%) was chloramphenicol intermediate, 63 isolates (95.5%) were ampicillin sensitive, 3 isolates (4.5%) were ampicillin intermediate, 63 isolates (95.5%) were cotrimoxazole sensitive, 3 isolates (4.5%) were cotrimoxazole intermediate, and 66 (100%) were sensitive to ceftriaxone, cefoperazone, cefotaxime, ciprofloxacin and pefloxacin.

These results indicated that multidrug resistant *Salmonella typhi* strain has not been found in at least one government hospital in Jakarta.

Evaluation of the Rational Antibiotic Used in Department of Internal Medicine , Dr. Soetomo Hospital Surabaya

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Antibiotic is usually used in the management of the patients in the hospital . Result of the study antimicrobial using in 10 Teaching hospitals showed that 68.30% inpatients used antibiotic (Surbakti, 1988).

Retrospective study of the evaluation of rational antibiotic used had been done in the Department of Internal Medicine Dr. Soetomo Hospital. The medical record of the patients that discharged on May 1999 was evaluated.

There were 263 patients hospitalized, among these patients 167 (63.5%) used antibiotic and 96 (36.5%) without antibiotic. Almost all patients (97.6%) were given antibiotic therapy empirically without antimicrobial sensitivity test. The most prevalence antibiotic used were cefotaxime 66(39.52%), followed by chloramphenicol 41(24.55%), co-trimoxazole 24(14.37%), metronidazole 18(10.78%) and others.

The evaluation of the classifications of antibiotic used was done according to Gyssens' classifications. The result showed that 106 (63.47%) antibiotic used was appropriate and 61(36.52%) inapprropriate . The inapprropriate antibiotic used especially caused by no indications of antibiotic used (30.54%).

key words : rational antibiotic used

The Types of Bacteria and Appropriate Antibiotics in The Cases of Nosocomial Infection in Hospitalized Patients Treated through Intravenous Infusion at the Pavilion Unit of Malang RSSA Hospital During the Period of January June 1998

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Nosocomial infection (NI) is a type of infection aquired by patients while they stay in the hospital for treatment. The occurrence of NI that were manifested in the form of infections of venous, surgical incision, urinary tract, respiratory tract, or neonatal's umbilical exacerbated the existing condition and/or lengthened the required period of hospitalization (Hasbullah, 1994; Djunaedi, et.al., 1998). Therefore, it is useful to discover the causes of NI and their appropriate treatment.

For that purpose, this study was conducted for the period of 6 months involving 56 patients undergoing treatment through intravenous infusion. Forty eight hours after the insertion of the cannulas, cultures were grow using specimens obtained from the end of the cannulas. Fourteen cultures were tested positive and those included S. coagulase negative (42,9%), A. anitratus (26,2%), Bacillus species (14,3%) and P. aerogenosa (14,3%). Bacterial sensitivity tests to antibiotics showed that, in descending order, appropriate responses were obtained from the administration of Ofloxacin, Cefuroxime and Amikasin. Of the 14 cultures, 4 were from patients treated with Cefuroxime immediately after the insertion of the cannulas due to inflammation that turned out to be caused by S. coagulase negative that were sensitive to Cefuroxime.

These findings showed that bacterial sensitivity tests conducted in vitro did not always correlate with bacterial sensitivity in vivo. It is suggested that the patients' individual immune response factor seemed to have played a major role in the case of bacterial sensitivity in vivo.

key words: nosocomial infection, bacterial culture, sensitivity test

Patient Hospitalization As A Risk Factor for the Dissemination of Antimicrobial Resistant Microorganisms

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Background : The hospital environment is conducive to a community with a growing percentage of antimicrobial usage. The irrational usage of antimicrobials will aggravate the antimicrobial use rate with consequence of increased rate of antimicrobial resistance. Studies show that about 47% until 84.75% hospitalized patients consume antimicrobial agents. The irrational use of antimicrobials will cause development of bacterial resistance, either by mutation or by horizontal transfer of R-factor carrying plasmids. Bacterial flora in the human body will receive selective pressure if they come into contact with antimicrobial agents ; surviving flora will gain antimicrobial resistance with a tendency to disseminate. The aim of this research is to study the role of hospital and/or patient hospitalization as a determinant of antimicrobial resistant microorganism dissemination.

Method : The research was conducted by cross-sectional study in Dr. Soetomo Teaching Hospital Surabaya. On each hospitalized patient on Day-1 (Coded as MRS) and on Day-7 (Coded as KRS) was performed a rectal swab to isolate the normal flora of Escherichia coli and a nose swab to isolate Staphylococcus epidermidis. Then, antimicrobial suspectibility testing for 9 standard antimicrobials i.e.: ampicillin, tetracycline, gentamycin, ciprofloxacine, cefotiam, erythromycin, chloramphenicol, cefotaxime and cotrimoxazole, was done on all of the isolated bacteria. The increasing rate of antimicrobial resistance during hospitalization was analysed statistically.

Result : The result of this study showed that from isolates of Day-1 more than 50% of Staphylococcus epidermidis were resistant to ampicillin, tetracycline and cotrimoxazole and more than 50% of Escherichia coli were resistant to ampicillin, tetracycline, chloramphenicol and erythromycine. For isolates tested on Day-7 of hospitalization, a significant increase of antimicrobial resistance was noted, i.e. Staphylococcus epidermis to chloramphenicol and Escherichia coli to chloramphenicol, ciprofloxacine and cefotaxime respectively. These more highly resistant bacteriae will be carried by the patients when they are discharged from the hospital and will eventually lead toward a higher risk for the community to get infection by more resistant bacteria.

Conclusion : The hospitalization serve as risk factor for the increased development of antimicrobial resistant microorganisms and will make way for dissemination of these microorganisms to the community.

Molecular Analysis of Multidrug Resistant *Shigella flexneri*

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Diarrhoeal diseases caused by *Shigella* spp remains a serious health problem in both developing and developed countries. In recent years, *S. flexneri* has been the most prevalent species causing shigellosis in Malaysia but few epidemiological studies have been reported. The problem is exerbated by the emergence of multidrug resistant (MDR) strains and it is of utmost importance to identify these strains rapidly and accurately. Pulsed field gel electrophoresis (PFGE) and ribotyping were used to analyzed 50 MDR strains of *Sh. flexneri* from sporadic cases of shigellosis from different parts of Malaysia. With ribotyping, 8 ribotypes, A-H, each consisting of 6- 7 DNA bands were observed. Majority of the strains belonged to ribotype A. The strains were further subtyped by pulsed field gel electrophoresis(PFGE) into 15 different PFG profiles, each consisting of 11-16 DNA fragments. Wide genetic variations among the strains were noted. PFGE was more discriminative than ribotyping in differentiating *Sh. flexneri* in Malaysia and is a useful molecular epidemiological tool.

key words: molecular analysis, Shigella flexneri, *PFGE, ribotyping*

ICAM-1 Levels as a Prognostic Factor to Septic Shock in Sepsis Patients

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Sepsis is a systemic inflammatory response syndrome (SIRS) plus evidence of infection as likely the cause of inflammation. The harmful complication of sepsis is septic shock. Septic shock occurs due to vascular endothellial injury. ICAM-1 molecules are shed from endothelial cells after their exposure to mediators. Tight binding of activated neutrophils to endothelial cells via the ICAM-1 - integrin interaction may represent a critical event in the generation of vascular endothelial injury.

There were 20 women and 19 men with sepsis admitted in our hospital. We measere ICAM-1 in blood samples obtained within 24 hours admission to hospital, and then we treated these patients with standard therapy for sepsis. As a control group we measure ICAM-1 from 30 healthy volunteers.

We found day 1 ICAM-1 level increased in 39 sepsis patients (619.13 $\pm$ 232.39 ng/ml) as compared with 30 healthy volunteers (264.65 $\pm$ 89.54 ng/ml; p=0.0000). Sixteen patients underwent septic shock (809.95 $\pm$ 154.18 ng/ml) as compared with 23 patients without septic shock (468.38 $\pm$ 190.61 ng/ml), there was a positive correlation (p=0.000, CI=95%).

Our conclusion is day 1 ICAM-1 can be used as a prognostic factor to septic shock in sepsis patients.

key words: ICAM-1, septic shock

Dietary Supplementation of Bifidobacterium Lactis DR™ in Milk Enhances Natural Immunity in Healthy Elderly Subjects

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There is growing evidence that diets containing lactic acid bacteria (LAB) can enhance immune competence and promote health. A new strain (Bifidobacterium lactis DR10™) has recently been identified by scientists at the Milk and Health Research Centre (Massey University, New Zealand) and the New Zealand Dairy Research Institute. This paper presents results from a clinical nutrition study using DR10™, which was conducted on elderly Taiwanese subjects. The 58 subjects above the age of 65 consumed reconstituted low-fat milk powder (LFMP) as part of their normal diet. After 3 weeks acclimatization, subjects then received milk supplemented with DR10™ for a further 3 weeks. Finally, subjects returned to milk alone (without DR10™) for a final 3 weeks. Peripheral blood samples were withdrawn from these subjects at four time-points during the trial, and parameters of natural immune function were measured, including polymorphonuclear (PMN) cell phagocytosis and natural killer (NK) cell activity against tumor cells. Following commencement of the DR10™ diet, levels of PMN cell phagocytosis and NK cell activity remained above the baseline starting values (week 0). In common with results from a previous study on elderly subjects in Canada (Chandra at al., unpublished), this report highlights the fact that dietary formulations supplemented with DR10™ are likely to offer measurable improvements in immune-mediated health. These studies open up exciting possibilities for the development of health-promoting dairy foods, especially for population groups that are likely to exhibit increased susceptibility to disease, such as the elderly, the young, stressed or immunocompromised individuals.

Developing an International Standard Clinic in Bali

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Many officials from different sectors in the government have voiced their concern that Bali as main tourist destination should have an international standard clinic that would be able to provide primary health care to tourist. It is even realized that the existence of such a clinic would form an essential part for people to decide an their choice to spend enjoyable vacation.

A clinic, with the above aims, was epened about two years ago and managing it was a true challenge to prove that the clinic has actually an international standard which can be indicated by number of patiens attending the clinic from all over that world.

This experience, its drawbacks and its successes, and more importantly its activities, will be elaborated in this paper.

Sufficient Knowledge But Low Compliance on Self Protection to Tropical Diseases Among Foreign Visitors in Yogyakarta, Indonesia

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Background: Travel related diseases have been observed among foreign visitors at Yogyakarta and varied from conventional diseases related to poor personal hygiene, vector borne, sexually transmitted and AIDS. Insufficient knowledge and poor prevention practices were blamed. It is therefore a base line study was carried out to measure their preparedness against tropical diseases they may contract.

Method and population setting: A survey was carried out to short term foreign students at Yogyakarta studying Indonesian language. Questionnaires were distributed to the respondents to be filled according to their knowledge and practices against tropical diseases.

Results: Protective measures observed include eating well cooked food (95.5%), keeping hand clean (90.9%), avoid eating salad (77.3%), using mosquito repellant (63.6%) and taking pill (18.2%).
Fansidar was the mostly used (72.7%) antimalarial, then doxycyclin (13.6%), Lariam, chloroquine and others (4.5% respectively). Drugs were prescribed by their family doctor (63.6%). Using the leftover pill (9.1%). Duration of stay of > 4 week and non continental tourists were as risk factors of incompliance (OR:3.24; 95% c.i 1.27-5.22;$p<0.05$ and OR:4.32; 95% c.i 2.46-6.19; $p<0.05$ respectively).

Conclusion: The foreign visitors were observed as having sufficient knowledge mostly on vector and water related diseases. They were equipped with the protection pills (even leftovers pills) but did not comply the procedure of taking it.

Disease Pattern of Foreign Tourist at Adventist Hospital, Bandung, Indonesia between 1998 - 1999

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Bandung is one of the tourist destination in Indonesia. Some of the travelers are susceptible to get diseases or accident while traveling. Bandung Adventist Hospital is commonly visited by travelers who seek medical treatment.

From January 1998 to December 1999, 306 travelers visited this hospital and 57 of them were hospitalized. The nationality of these travelers were Korean 52(17%), American 43(14%), Dutch 19(6%), Australian 16(5%) and others. The ages were between 5 months - 72 years, and males were predominant. The most common diseases among out patients were upper respiratory tract infections, acute gastroenteritis and typhoid fever, while among in patients were typhoid fever and dengue infection (DF/DHF). All patients recovered properly.

The Influence of Physical Environments Against the Number and Genus of Flies and Parasites on Them at Junrejo and Supit Urang Garbage Piles

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Garbage piles represent breeding places of flies. Flies act as mechanical vector for infectious agents such as virus, fungi, bacteria, and parasites. Flies collected by fly net once a week during 10.00 a.m. - 1.00 p.m from October 1997 - March 1998 in Junrejo and Supit Urang garbage piles were identified. The flies were washed with water soap and 70% alcohol, this solution was centrifuged to obtain the parasites. The temperature, humidity and light intensity of each garbage pile were recorded. There were three genus of flies; *Chrysomyia, Lucilia* and *Musca* and two family of mites: *Anoetidae* and *Pyemotidae,* two genus of helminth: *Ascaris* and *Trichuris* eggs. There were significant differences in the number of male and female *Chrysomyia, Ascaris* eggs at the outer and the inner part of the male and female *Chrysomyia* at both garbage piles.

At Junrejo Batu, light intensity and temperature influenced the number of female *Musca*, mites attached at male *Musca* and the helminth eggs brought by the gastrointestinal tract of *Musca*. Humidity influenced the number of helminth eggs on male *Musca* at Supit Urang Malang, light intensity influenced the number of helminth eggs on female *Chrysomyia*. The temperature influence the number of male *Chrysomyia, Lucilia* and *Musca* and helminth eggs on female *Chrysomyia*. Humidity influenced the number of helminth eggs on female *Chrysomyia*.

key words: physical environment, flies, parasites

Important Emerging, New and Re-Emerging Zoonotic Diseases Related to the Travel Health in Indonesia

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For the last three years Department of Tourism was targeted about six millions of foreign tourist to come to Indonesia yearly. Some places like Bali, Batam, Lake Toba, Bogor, Bandung, Borobudur, Prambanan, Bromo, Toraja, and Bunaken are used to be the favorite places to visit. Emerging, new and re-emerging zoonotic diseases, can be found also in the tourist areas. Rabies, is distributed in all provinces in Sumatra, Sulawesi, West Java province, and in the border districts of South, East and Central Kalimantan provinces. There were about 15.000 persons that bitten by suspected rabid animal yearly, which predominantly by dogs and about 20 persons died by rabies. About 46% out of 520 animal brain specimens were found positive of rabies virus. Plague that caused by *Yersinia pestis*, can be found in enzootic area in Central Java, Yogyakarta and East Java provinces. The last case of plague in Indonesia were confirmed among six persons in Nongkojajar, East Java in 1996 but no death case, There were about 3.000 specimens, collected yearly from suspected patients and from rodent and about 0.01% were found antibody positive against *Y pestis*, all were rodent sera. Anthrax is geographically distributed in eight provinces. The last out break of anthrax was among ostrich bird in 1999 in West Java where 11 persons were infected from illegal slaughtered ostrich. Japanese encephalitis, transmitted mostly by Culex mosquito. Of 42% human sera who lived surrounding pig farms and 48% of pig sera were found positive of antibody against JE virus. Taeniasis solium and about 3600 brain cysticercosis were found in Papua province among Baliem population.

key words: Emerging, new and re-emerging, travel health, zoonotic, enzootic

Food-Borne Parasitic Zoonosis in Indonesia

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There are only a few of food-borne parasitic zoonosis that have been reported in Indonesia. The most frequently observed food-borne parasitic diseases are toxoplasmosis, taeniasis, cysticercosis and gnathosomiasis.

Taeniasis has been reported in nine provinces. Toxoplasmosis in human, with the prevalence rate ranging from 1 to 60%, has been reported in 12 provinces. Toxoplasmosis has been detected in 75% of animals tested.

However, it is expected that other parasitic zoonoses such as anisakis, fasciolopsiasis, echinostomiasis, paragonimiasis, angiostrongyliasis will emerge since many foreign foods became more popular, which often served as raw food in Korean and Japanese restaurants that spread throughout Indonesian cities.

Innovative, Indigenous, Appropriates Cost-Effective Methods of Personal Protection to Control Vector Borne Disease in Tropical and Subtropical Countries

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Recently, various innovative, indigenous and cost-effective methods of personal protection against mosquitos bites have been developed. Field trials were also carried out to evaluate operational feasibility and bio-efficacy of these methods against An. culicifacies, A. stephensi principal vectors of rural and urban malaria. Aedes agegypty, a major vector of dengue and dengue hemorrhagic fever (DHF) and Cx. quiquefasciatus a pest mosquito and vector of lymphatic filariasis. These methods are esbiothrin impregnated rope, esbiothrin kerosine lamp, neem kerosin lamp, neem cream and neem mats, aromatic oils, jute impregnated strips, etc. for different socio-economic group for composite control of vector borne diseases. Results of these studies will be presented and discussed in context of Roll Back Malaria initiative of World Health Organization.

key words: innovative mosquito repellents and devices, vector control, An. culicifacies, An. stephensi, Cx. quinquefasciatus.

Problems and Obstacles Encountered In Providing Care to Patients with HIV/AIDS in Dr. Soetomo Teaching Hospital, Surabaya Indonesia

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HIV/AIDS continues to be a major health problem worldwide. In Indonesia, HIV/AIDS is seen as a new threat with growing numbers of persons infected each year. One hundred five of HIV/AIDS were reported as of May 2000 in East Java. In anticipation of the increased numbers of HIV infections, health care workers have been educated and trained as to the care and issues related to HIV/AIDS infected persons.

Since 1998, Dr. Soetomo Hospital has provided medical care to 12 HIV/AIDS patients (9(75%) males and 3(25%) females). The following problems were encountered : 1) All twelve patients did not have the financial means to purchase basic health care. 2) The Hospital laboratory did not have technology or training to measure the patient's immunology via CD4 and CD8 test or the ability to detect oportunistic infections. 3) The patient's confidentiality was difficult to maintain. 4) Health care workers only began following universal precautions after being aware of an HIV patient. 5) Counseling for HIV/AIDS patients and their families was lacking.

Conclusion : 1). Universal precaution educations is important for the health care workers to prevent spreading HIV/AIDS in the hospital and some programs such as a hospital wide training around universal precautions has already begun. 2). Collaboration with another laboratory/institutions are needed. 3). It is important to make serious effort to support the financial need for the patient and their family. 4). The capability of the health workers for counseling have to be increased.

key words : HIV/AIDS, patients cares

Clinical Features of Twelve Patients with AIDS

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Background: AIDS is a dynamic infection, causing a chronic illness of many years duration. The clinical events surrounding the acquisition of HIV/AIDS have not been well characterized, tends to be different from what is seen in the developed world. A great deal is known about the mechanisms of disease, by understanding these mechanisms doctors are better prepared to identify and treat disease manifestations.

Purpose: To review the clinical features, and management of HIV/AIDS infection.

Method: We evaluated information and data on epidemiologic characteristics, clinical manifestations, and therapy for complications of AIDS and outlined practical approach to assess and manage these disorders during November 1989-January 2000.

Results: Twelfe adults patients with acquired immunodeficiency syndrome (AIDS) were admitted and treated in Department of Internal medicine- Dr Sutomo teaching hospital. Nine patients (75%)were males, and 3 (25%) were females, with a male : female ratio of 3:1. The mean age of patients was 35 years (range 23-54). The maximum occurrence was seen in the group 21-30 years with comprised 50% of all the patients. Twenty five percent of patients were 31-40 years of age, 8,3 percent 41-50years and 16,7 percent were above 50 years. The major mode of transmission was sexual, 9 patients were heterosexual, and had multiple sex partners. One patient reported having used injection drugs , one patient used injection drugs and heterosexual, and one patient homosexuals. One out of the 3 female patients were housewives, whose husbands were promiscuous, two others were commercial sex workers. History of fever was present in 11 out of 12 patients (91,67%). The another commonest symptom was weight lost found in 11 patients (91,67%), followed by cough in 5 patients (41,67%), nausea/vomiting in 5 patients (41,67%), sore throat in 3 patients (25%), and diarrhea lasting for more than one month in 4 patients (33,3 %), to lose consciousness in 3 patients (25%). The most common physical sign was pallor which was seen in 11 of the 12 patients (91,67%). Other physical signs included extreme emaciation in 7 (50,3%), lymphadenopathy in 2 (16,67%), oral thrush 4 (33,3%), hepatomegaly in 5 (41,67%), splenomegaly in 2 (16,67%), rhonchi 2 (16,67%), oral candidiasis 4 (33,3%), one patient had edema extremitas, dyspnea 3 (25%), encephalopathy HIV 3 (25%). Two patients was death. The commonest opportunistic infection seen was pneumonia, diarrhea, tuberculosis, esophageal candidiasis, followed by sepsis and septic shock.

Conclusion: The general picture of the patients with AIDS in Dr Sutomo Hospital was a 21-30 wear old, with prolonged fever, weight loss, cough, pallor, extreme emaciation, sepsis, pneumonia, diarrhea and a history of high risk behavior. The commonest opportunistic infection seen was pneumonia, diarrhea, tuberculosis, esophageal candidiasis, followed by sepsis and septic shock.

HIV/AIDS Among Migrants Population, East Java (After 10 Years HIV/AIDS Transmission, 1989-1999)

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East Java is one of the most populated provinces in Indonesia. HIV cases place the forth, after Papua, Jakarta and Riau. Until December 1999 HIV/AIDS, the cummulative number has reached 88 cases; 28 cases were found in 1989-1994, 26 cases in 1995-1998 and 34 cases in 1999. There were 56 (63.6%) HIV, 19 (21.6%) AIDS and 13 (14.8%) positive blood donors.

26 cases (29.6%) reported from sentinel survey, 49 cases (55.7%) from hospitals and private practices, while the rest (13 cases = 14.8%) were from Indonesian Red Cross (PMI). 39 cases (52.7%) were male, while 35 cases (47.3%) were female. Among 75 cases with identified risk factors, 59 cases (78.7%) were heterosexuals, 8 (10.7%) homosexuals, 7 (9.3%) injecting drug users, and 1 (1.3%) patient receiving blood transfusion. Among 66 cases, their occupations were identified as follows: 14 (21.2%) were migrant workers (5 from abroad), 6 (9.1%) were government officers, 10 (15.2%) were civil workers, 26 (39.4%) were CSW, and 5 (7.6%) were university student, all of them were related to migrant population.

For all HIV/AIDS cases, migrant workers were 11.5% (1989-1994), 27.8% (1995-1998) and 27.3% (1999). Among hospitals and private practices, the reported cases of migrant workers were 12.0%, 41.7% and 40.0% for the respective years whereas among the AIDS cases, the migrant workers were 40.0%, 20.0% and 37.5%.

Migrant population has great contribution on HIV/AIDS transmission in east Java setting.

key words: HIV/AIDS, epidemiology, migrant population

HIV/AIDS Case Study on Injection Drug Users (IDUs)I in Sulianti Saroso Infectious Disease Hospital, Jakarta

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IDU is one of the mode of HIV transmission and 25% HIV/AIDS patients are IDUs. The effect of narcotic is also decreasing the immunity as HIV infection does. Secondary infection are the most common causes of death on IDUs with HIV infection.

To obtain the clinical manifestation and the risk factor, 11 HIV/AIDS among IDUs patients have been evaluated in Sulianti Saroso Hospital, Jakarta. All patients are men with mean age of 21.7 years old and have been in the AIDS staage, with dominant symptoms of wasting syndrome (100%), drastic weight loss (100%), cough (100%%), followed by thrombocytopenia (81.8%), and anemia (72.7%). Opportunistic infections that mostly occurred were tuberculosis (54.5%), candidiasis (36.4%), and bacterial pneumonia (18.1%). Typhoid fever, hepatitis, dengue hemorrhagic fever, PCP and Guillain-Barre syndrome were also found in the patients. Three of them (27.3%) were having infective endocarditis that seemed to be another infection complication of IDUs. Prognostic factors that play a role can be concluded as a severe hematologic disorder and opportunistic infection with pathogenic and infectious microbe, to the disease course tend to be severe and progressive.

key words: IDUs, AIDS, clinical manifestations

Diagnosis of Resistance To Chloroquine in Plasmodium Falciparum by Restriction Digest of PFCRT10 PCR Product

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The current standard for the diagnosis of resistance to chloroquine by *Plasmodium falciparum* is a 7 to 28 day in vivo test or a 48 hour in vitro microtest. Neither plays a role in the clinical management of patients with falciparum malaria, largely because results are not known until treatment decisions have already been made. Moreover, both these procedures require specialized skills and equipment, and are thus impractical in most clinical settings. A point mutation at codon 76 in the *crt*10 gene of *P.falciparum* has been found to correlate with in vitro chloroquine resistance among culture-adapted isolates from around the world (T. Wellems, U.S. NIH, personal communication). We extracted parasite DNA from samples drawn from subjects enrolled in treatment trials of chloroquine against *P.falciparum* acquired in Indonesia. We amplified *Pfcrt*10 by standard PCR and performed a restriction digest (ApoI) of the PCR product. ApoI recognizes and cuts the codon 76 wild type, but not the mutant gene. Among more than 100 isolates with known clinical phenotypes of chloroquine resistance or sensitivity, we have found excellent sensitivity and good specificity for *Pfcrt*10 assay. This K76T *Pfcrt*10 assay system requires only a few hours and may be useful in reaching treatment decisions in some clinical settings. Moreover the assay system greatly expands the capacity for conducting surveillance for resistance to chloroquine in *P.falciparum* across the Indonesian archipelago. We are applying the same strategy to the development of genetic probes of resistance to pyrimethamine+sulfadoxine in *P.falciparum*. These tools will allow for the rapid assessment of likely therapeutic response by *P.falciparum* to the first and second line therapies in the Republic of Indonesia.

key words: malaria: drug resistance; molecular diagnosis

Glucose-6-Phosphate Dehydrogenase Enzyme Deficiency in Malaria Endemic Area, Timor Island, Nusa Tenggara Timur

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Background: Glucose 6 phosphate dehydrogenase (G6PD) deficiency is common in malaria endemic region. However no molecular study has been performed on G6PD deficiency in Timor Island, Indonesia and no systematic study of the relationship between malaria incidence and that genetic disorder.

Objective: (1) To investigate the relationship between the resistance of malaria infection and G6PD deficiency in Timor Island, Indonesia. (2) To see the molecular basis of the G6PD deficiency in Timor.

Method: Across sectional study was undertaken in Timor Tengah Utara, Timor Island. G6PD deficiency was screened using *Formazan Ring Method* and their molecular basis was determined by *MPTP (Multiple PCR using multiple Tandem Forward Primer and a common reverse primer)*. Malaria parasite was confirmed by thick and thin smear using Giemsa stain.

Result: From 440 randomized sample, malaria infection was found in 37 sample (8,4%). G6PD deficiency was found in 14 sample (3,18%). Using molecular analysis there was Chatam variant, a common G6PD deficiency variant in Asia. There was a significant relationship between G6PD deficiency and the resistance of malaria infection but no relationship between G6PD deficiency and severity of malaria diseases.

Conclusion: The prevalence of G6PD deficiency in malaria endemic area was correlate with the innate resistance of malaria infection.

key words : G6PD deficiency, malaria resistance

Imported Malaria Cases in Children in Japan from 1980 to 1999

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Imported malaria has been increasing according to the recent globalization of Japan. There are about 120 clinical cases of malaria which included a few pediatric cases (approximately 1%) every year in Japan. Generally, pediatric cases are often atypical onset and course compared to adult cases, and also develop serious and fatal effects in a short time. In this study, we examined imported malaria cases in subjects under 15 years old from 1980 to 1999 conducted by Research group on clinical evaluation against orphan drugs in the treatment of imported tropical diseases and parasitic diseases. During those 20 years we found 44 clinical cases in children. Of those 70% were foreign cases. Among the species of parasites, there were 21 cases of Vivax malaria, and 17 cases of Falciparum malaria; a few cases of Malariae and Ovale malarias were also found, which are rare events in adults. Concerning the drugs chosen in Japan for chemotherapy to treat malaria, Chloroquine and Primaquine seemed to be employed most frequently before 1990, however Mefloquine or Artesunate seemed to be more common after 1990. Also, most pediatric cases were former residents or refugees from tropical countries; however, some cases were Japanese children who had recently visited those areas with their families. There were no fatalities in pediatric cases of malaria; however tropical diseases, including malaria, must be rule out, when examining pyretic children, considering the number of travelers abroad has been increasing.

key words: imported malaria, globalization of Japan

Malaria in Domestic Travelers, Increased of Cases Admitted in a Private Hospital 1999

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Travelers or tourist going to some place have risk of getting sick while on his/her journey. We agree to admit that they should have advised for self protection. Due to not enough information on diseases out there, some of them got malaria and the clinical symptoms appear as they came back to Jakarta. We know that the incubation period of malaria is 7 10 days.

A retrospective study from RSIJ Hospital medical record data 1999 of malaria cases, within the first 6 months showed: There were 19 cases comprised of 15 P.vivax, 3 cases with *P. falciparum* and 1 with mixed infection Pv + f. Only within six months we got cases more than years before. Collected data from 3 residents of Jakarta, who have traveled to several parts of Indonesia, known as endemic area. Some came to Jakarta from that endemic area.

The increased malaria situation in several small cities of Java was due to:

- Many immigrants had to flew away from several conflict areas which are also endemic malaria area (Maluku, Papua, East Timor, South Sulawesi, West Kalimantan, Aceh etc) back to Java.
- Many new breeding places for anopheles mosquito were established.
- And the 3rd factor is El Nino the world temperature increased, extrinsic incubation of plasmodium in the anopheles mosquito became shortened.

Conclusion:

An increased of malaria cases admitted in 1999 could be attributed to many domestic travelers who caught the disease while staying in their destination area later known as endemic malaria area.

An increased of malaria situation in Java could be attributed to the disturbing situation in several parts (conflict area) of Indonesian Island in 1998 - 1999.
Suggestion: Travelers and doctors should aware about endemic area for certain diseases

key words : malaria, domestic traveler, increased of cases, endemic area

How Prepared were Travelers for Their Travel into Malaria Endemic Areas? Lessons of 25 Domestic Travelers

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With the advents of business development and tourism, malaria endemic areas are visited more and more by officials, businessmen and people on holiday. These people might not be aware of what kind of diseases they may encounter in places they visit.

When somebody is visiting another country, a doctor would be consulted, but this hardly happen when travelling is within the country.

Thirty malaria patients who got the illness after visiting malaria endemic areas in Indonesia, were questioned about their knowledge and preparation anticipating malaria infection before they left for the malaria areas. Their experience will be described and discussed.

Conclusion is made and suggestions are given such as involvement of travel agencies (holding sufficient information about travel related isease, providing travel pack), knowledge of doctors of malaria endemic area, choloroquine resistant malaria areas in Indonesia and others.

key words: malaria, travelers

Appropriate Technology with Environmental Outlook for Malaria Control in Central Sulawesi

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A literature study for Malaria Control Program with Environmental Outlook using appropriate technology was conducted in Jakarta and Central Sulawesi for six months this year (2000). It was mentioned that in Central Sulawesi mainly in rural areas malaria still is occupied the first rank of the big ten diseases. Mortality rate was still high even though intensified program has been starting (Passive Case Finding & Treatment : 65.062 cases for 1999 2000 for the whole province). Result of literature study in Jakarta mentioned that zooprophylaxis and intermittent irrigation conducted in Central Java has given a good result for malaria control. Hence the new strategy for malaria control using "dry farming" within the range of 1 km out of the residence in combination with the placement of cattle nearly houses (20 m) was proposed. Removal of the herd from the road to the residence was considered giving a positive impact on traffic mainly at night and the negative impact of cow dung in the residence would be handled by "latrine fermentation" (biogas digester) that producing biogas and healthy fertilizer which are really needed by the local people mainly the farmers.

Clinical Pattern of Malaria in Department of Internal Medicine Sanglah Hospital Denpasar January 1998 March 2000

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Back ground: Malaria is a very common health problem in Indonesia. Bali as a tourism destination as been decleared as a free area of malaria, and therefore malarial prophylaxis is not necessary any more.

Objective: The study purposed to know clinical pattern of malaria and sources of infections.

Methods: We have conducted a retrospective study on medical record of malaria inpatients in internal medicine department Sanglah Hospital since January 1998 march 2000.

Results: We found 38 cases, the mean age was 29.8 ± 9.98 years old, 71.1% (27/38) males and 28.9 % (11/38) females. 76.3 % (19/38) were Indonesian and 23.7% (9/38) were foreigners. 84.2 % (32/38) got the infection from other islands, while 15.8 % (6/38) were uncertain. On admission; the most chief complaint was fever, i.e. 92.1 % (35/38), and the most frequent type was intermittent fever, i.e. 60.5% (23/38). The average of fever was 8.5 ± 6.81days. Other symptoms that frequently occured were headache 100 % 38/38), shivering 100% (38/38), anorexia 100% (38/38), nausea 94.7 % (36/38) and sweating 89.5 % (34/38). On physical examination we found icteric in 26.3% (10/38) of patients, anemia in 15.8% (6/38) of patients and splenomegaly in 2.6 % (1/38) of patients. Laboratories investigation showed: decrease of hemoglobin: 15.8 (6/38), leucopenia 14.7 % (5/38), normal leukocyte 68.4 % (26/38), leucocytosis 18.4% (7/38), trombositopenia 62.9 % (25/38). Malaria parasite were positive 65.8% (25/38), 68.0 % (17/25) of them were plasmodium falciparum and 32.0 % (8/25) were plasmodium vivax. The mean length of stay was 5.2 ± 3.82 days. The frequent complications were anemia: 15.8 % (6/38) and cerebral malaria 5.2 % (2/38). Chloroquin treatment in combination with primaquin were given to 97.3 % (37/38) patients, and kina dehidrokloride parentral were given 2.7% (1/38). Recovery 81.6% (31/38), evacuated 15.8 % (6/38), one patients 2.6 % (1/38) died due to cerebral malaria.

Conclusions: The major symptoms were fever, headache, shivering and anorexia, physical examination showed icteric (1/4 cases), laboratory finding were trombocytopenia (2/3 cases). The sources of infection of the most case who admitted at the hospital was from the other Bali island.

Efficiency During More Than 12 Hours of The Repellent Mousticologne® Against Mosquiotos Bites, About A Study in Senegal

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Mousticologne® is a repellent against the mosquito's bites. It has been in a sa... from 1990 in France. It includes DEET. 20% and EHD, 15%. Its efficacy was demonstrated in laboratory tests against *Aedes ageypti*, the main vector of yellow fever and Dengue, and *Anopheles stephensi*, one of the main vectors of malaria in Africa. It was efficient during more than 12 hours. To confirm these laboratory results, we have organised a field study in Senegal during one week in November 1999. We reporte here the data of this study. The village, Keur M'Baye is located on the southern banks of Senegal river to the north of Dakar.

Two formulations of Mousticologne® spray and gel were evaluated. To perform the study, 15 volunteers from the village were accepted. All of them were adult males. Every day, during six days, 3 groups of 5 persons were randomised among the 15 volunteers. The persons of group 1 were treeated with the spray, the persons in group 2 were treated with the gel and the persons in group 3 were not treated (control group). The treatment were applied every day, between 14 p.m. and 15 p.m. and consisted on applying spray or gel on the legs of the volunteers, from knees to ankles. The 15 volunteers were free to do all works they normally do, but were not allowed to wash their legs during 12 hours after treatment. Every night, from 21 o'clock to 4 o'clock, all of them were regrouped in a place of village and had to catch with test tubes the mosquitos bitting on their legs. The number of bites were compared between the 3 groups.

A total of 3025 mosquitos were cought during the 90-night person captures: 19 mosquitos were caught by the persons treated with the spray (group 1), 181 were caught by the persons treated with the gel (group 2), and 2825 were caught by the not treated persons (group 3). Thirteen species of mosquitos were identified including 2 of the main vectors of malaria in Africa: *Anopheles gambiae* and *Anopheles funestus*. 94,17 bites per person and per night were counted in group 3 and 0.63 bite per person and per nigh in the group 1. The difference was highly significant ($p < 0.0001$). There were 6/03 bites per person and per night in the group 2. No secondary effect was observed in the two treated groups.

We conclude that Mousticologne® spray has, on the field as well as in the laboratory, a high efficacy against mosquitos' bites for more than 12 hours after its application. It constitutes an interesting product to prevent the transmission of diseases by mosquitos.

key words: Mousticologne®, mosquitos, repellent, efficacy, 12 hours

Experience in the Management of Children with Severe Malaria in the District of Sikka - East Nusa Tenggara

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During May - November 1999, 8 children with severe malaria were hospitalized in 2 hospitals in Maumere and Lela - Sikka - East Nusa Tenggara.

The age of the patients ranged from 6 - 122 months with an average of 56 months. Male and female ratio was 1 : 3. Four patients had good nutritional status, only 1 was severely malnourished.

All of them came with decreased conciousness ranging from apathetic - coma, along with prostration and anaemia. Five patients had more than 1 complication of malaria. The complications comprised : cerebral malaria in 4 patients, severe anaemia in 2, repeated general convulsions in 2, acidaemia in 2, hyperpyrexia in 5. Hypoglycaemia before and after treatment was not found.

With the infusion drip of 10 mg/kg BW Quinine dihydrochloride in 5% Dextrose over 4 hour - given 8 hourly, 87.5 % of patients recovered. We treated the convulsion with diazepam and phenytoin, tranfusion with packed red cell we gave to a patient with severe anaemia. The other patient with severe anaemia died. She came to the hospital on the 8 th day of illness, with a haemoglobin content of 2.6 g/dl and leucocytosis of 22,000/ cmm, moreover she also suffered from hyperpyrexia and pneumonia.

Perforation : An Intestinal Complication of Typhoid Fever in Dr. Sutomo Hospital Surabaya, Indonesia

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Typhoid fever is still an unsolved health problem in many part of the world, included Indonesia. The major reasons for the continued prevalence are related to inadequate disposal of feces and inappropriate water supply. As long as these problems are not solved, enteric diseases will remain one of the leading causes of morbidity in world countries. Intestinal perforation is common life threatening complications of typhoid fever, the patients must be managed carefully. Further more the mortality rate due to intestinal perforation is high, and it seemed to be related to early diagnosis and the time lapse between the occurrence of the symptom and administration. It has been established that diagnosis and prompt treatment improved the prognosis of intestinal perforation. At the Department of Surgery we found 15 cases with generalize peritonitis due to intestinal perforation in the 5 years period between April 1995- Mai\y 1999. The clinical manifestations of patients with intestinal perforation were : abdominal pain in 14 patients (93.3%), nausea in 8 patients (53.3%), vomiting in 8 patients (53.3%), fever in 13 patients (86.7%), abdominal rigidity and tenderness in 12 patients (80%), abdominal distention in 10 patients (66.7%), and paralytic ileus in 10 patients (66,7%), 1 patient was death. Surgical management or laparatomic procedure was performed for all of patients. Number of perforation single in 13 patients (86.7%), tripple in 2 patients (13.3%). Location of perforation at 15-30 cm from ileocaecal junction in 11 patients (73.3%), < 10 cm in 1 patient (6.6%), > 70 cm in 3 patients (20%). Location of perforation at ileum was found in fourteen patients (93.3%) and 1 patient (6.6%) at ileum and caecum.

Preliminary Report: Study on Bacterial Overgrowth in Liver Cirrhosis, the Association with Intestinal Motility and Liver Function

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Bacterial overgrowth (BOG) in liver cirrhosis is associated with an increase of bacterial translocation (which is an important mechanism of pathogenesis of spontaneous bacterial peritonitis in cirrhosis), hepatobiliary damage, increase of endotoxin production, increase of lithocholic acid (risk of cholelithiasis), nutrient malabsorption, as well as increase of alcohol toxic effect. BOG itself can be caused by malnutrition, excessive use of alcohol, decrease of gastric acid, decrease of bile acid, ascites, IgA deficiency, poor liver function and intestinal hipomotility. The aim of this study is to determine the association between intestinal hipomotility and poor liver function with the incidence of BOG in liver cirrhosis.

Thirty-nine non-alcoholic liver cirrhosis patients were included in this study and Breath Hydrogen Test (BHT) was performed using a Lacto Meter (Hoek Loos Medical Technology, The Netherlands). After ceasing treatment which could affect the intestinal microflora and hydrogen production for a week and overnight fast, each patient was asked to perform BHT before and at 30 minutes intervals after taking 20 ml lactulose (Duphalac, Duphar BV, Weesp, Holland) for the next 3 hours.

The patients were categorized in three groups by the severity of cirrhosis (Child-Pugh). In each group, class A, B and C, BOG was positive in 35%, 14.29% and 20% respectively. Prolonged oro-cecal transit time in some patients need further analysis to determine the statistical significance.

key words: bacterial overgrowth, liver cirrhosis, breath hydrogen test

Bloody Diarrhoea: A Clinical and Microbiological Approach in Sulianti Saroso Infectious Disease Hospital, Jakarta

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Bloody diarrhoea is a dysentric form diarrhoea with visible blood on the stool that caused by intestinal inflammation. The incidence tent to increase in relation with high prevalence of food poissoning, traveller diarrhoea and HIV/AIDS patients.

By clinical and microbiological approach in Sulianti Saroso Hospital, 25 dysentriae syndrome patients were evaluated for 2 months (Marh and April 2000). The majority of them are over fifty years old (48%) and low education status (76%). All patients suffered moderate/ mild dehydration, accompanited by anemia (20%), low nutrition status (20%), and chronical comorbidity disease (24%). Bloody diarrhoea weere 13 (52%) patients. All microbes on stool culture were enterobacteriacea group, consist of *E. coli. Proteus, Klebsiella, Enterobacter, Cytrobacter* and *Shigella*. *E. coli* was the highest (68%) in which 9 isolates (36%) from bloody diarrhoea. EPEC serotype was found from 2 bloody diarrhoea and 2 non-bloody diarrhoea, while EHEC serotype especially *E. coli* O 157: H7 was not found and only 1 *Shigella flexneri* from non-bloody diarrhoea. *E. histolytica* was found in 12 bloody diarrhoeal and 2 non-bloody diarrhoeal patients.

key words: dysentriate syndrome, bloody diarrhoea, clinical microbiological manifestation

Seroepidemiological Survey on Schedule Programme 0-1-2 with Hepatitis B Recombinant Vaccine in West Java

Bambang Herman Djalinus, Nunung Harini, Elvyn Fajrul JS
Bio Farma Company, Bandung, Indonesia

We evaluated a total of 1700 samples of serum derived from adult vaccine. Immunization were given their first dose of multidose vial of Hepatitis-B recombinant vaccine. Blood samples were drawn at 4-6 weeks after the third vaccination.

The background of this study was to prevent the drop-out of immunogenicity during the programe 0-1-6.

The objective of this study was to evaluate whether the schedule programme 0-1-2 has a good efficacy as well as schedule programme 0-1-6.

We found that the seroconversion rutes or Geometric Means Titre (GMT) of Hepatitis-B surface antibody was 94%.

key words: vaccine, hepatitis B

The Clinical and Microbiological Profile of Acute Watery Diarrhea in Sulianti Saroso Infectious Disease Hospital at Early Period of the Third Millennium

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Acute secretoric diarrhea is a diarrhea with faeces visually watery form and frequently without blood and mucus. The mortality had been decreased but the morbidity is still high.

To have the clinical and microbiological profile at the early period of the third millenium in RSPI SS, 45 patients were evaluated during March to April 2000. Thirty-three (73.33%) were females and the most frequent age group was old patients (31.11%). The majority of patients were low-educated (80%) and work as housewives (46.66%).

Most patients came with mild dehydration (57.77%) on admission to the hospital for the first time and only 15.55% had severe dehydration. The highest comorbidity were anemia (6 cases, 13.33%) and lung tuberculosis (3 cases, 6.66%). The most frequent microbe found from the stool cultere were *Enterobactericeae* group (75.55%) such as *E. coli, Proteus, Klebsialla* and *Enterobacter*. The highest was *E. coli*, which consisted of EPEC (8.88%), EHEC (0%) and without serotype (40%). Besides *Enterobactericeae* group there were around 24.44% *Vibrio cholera* group with serogroup 01 (Eltor) 20% and non-01 serogroup was 4.44%.

key words: acute diarrhea, clinical, microbiological, early third millennium

Microbial Pattern and Drug Susceptibility Test of Acute Diarrhea in Sulianti Saroso Infectious Disease Hospital at Early Period of the Third Millennium

Tony Sutanto
Sulianti Saroso Infectious Disease Hospital

Early in the third millennium, some studies found that drug resistance was increased among microbial agent of diarreha. To obtain recent antibiogram and microbial pattern that will help in managing diarrhea in hospital, a study was made from acute diarrhea patients hospilized at Sulianti Saroso Infectious Disease Hospital, Jakarta from April 1 to May 31, 2000.

From 82 specimens, 91 isolates were found and *Escherichia coli* on the first rank (56.04%) with EPEC strain 15.7% but without 0157 : H7 strain; *Vibrio cholerae* 10.99% (Ogawa 80% and Non 01 20%); *Shigella flexneri* 1.1%; other microbial 27% and no sign of growth 4.4%.

Antibiotic susceptibility test found that 27.45% *E. coli*, 20% *Vibrio cholerae* and 0% *Shigella flexneri* were resistant against ciprofloxacin. Resistance against tetracycline was found in 86.27% *E. coli*, 30% *Vibrio choleerae* and 100% *Shigella flexneri*. Ampicillin has the highest degree of resistance, come from 88.24% *E. coli*, 80% *Vibrio cholerae* and 100% *Shigella flexneri*.

key words: microbial pattern, antibiotic susceptibility test, early third millennium

Mixed Infection between Typhoid Fever and Dengue Fever in Persahabatan Hospital, Jakarta

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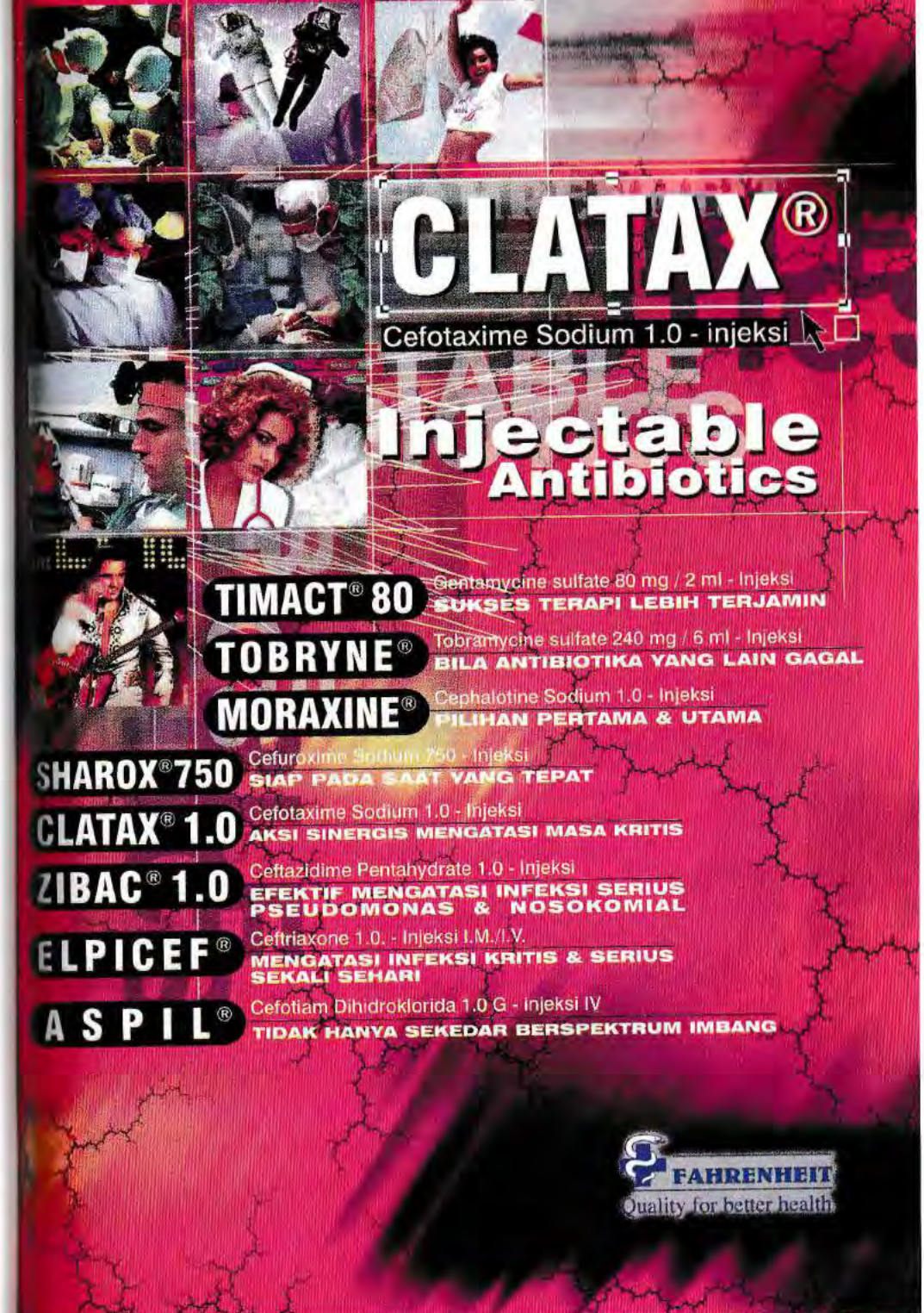
Mixed infection between typhoid fever (TF) and dengue fever (DF) not much reported. Early diagnosis and initial treatment to prevent complication is needed. The aim of the study was to identify symptoms and laboratory of mixed infection between TF and DF. Research was done from January 1997 to December 1999 in Persahabatan Hospital, Jakarta. Patients with positive blood culture for *S.typhi* and *S.paratyphi*, platelet count <150.000/mm^3 and performed serological test for dengue fever were include in this study. We found 11 patients TF with DF and 30 patients TF without DF. Patients were consisted of 23 (56,1%) males, average of age was 21,52 years old and 18 (43,9%) females, average of age was 21,83 years old. Duration of fever before admission were 5,18 days in-group TF with DF and 5,5 days in-group TF without DF (p=0,36). The differences of clinical symptoms between two groups were not significant. In-group TF with DF platelet count on admission between 53.000-129.000/mm^3, average: 95.363/mm^3, hematocrit between 25,5-48,2%, average: 37,17%. In-group TF without DF platelet count between 31.000-147.000/mm^3, average: 92.766/mm^3, hematocrit between 23,5-43,6%, average: 34,76%. No significant difference of platelet count (p=0,8) and hematocrit concentration (p=0,6) in two groups. We recommend evaluating more carefully DF patients to detect possibility of mixed infection with TF.

key words: typhoid fever, dengue fever



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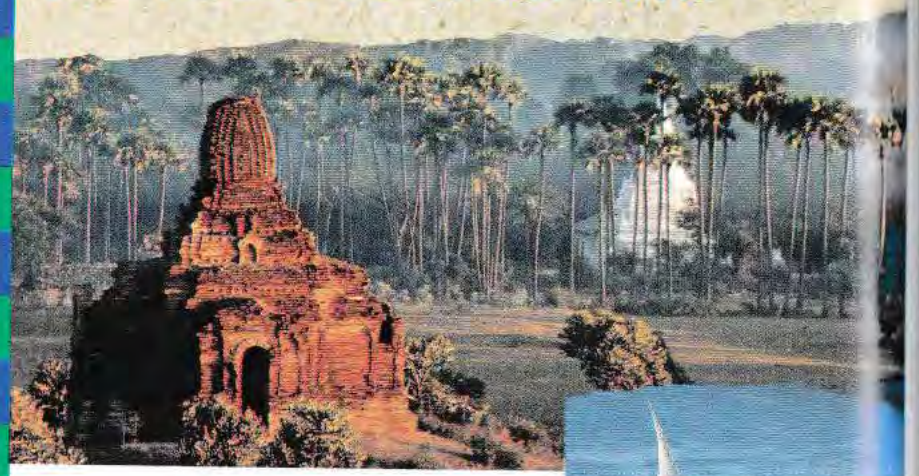

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Thrombocytopenia as a Predictor of Plasma Leakage in Dengue Fever

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Background: Thrombocytopenia in Dengue fever (DF) may due to bone marrow depression or peripheral destruction by antigen-antibody complexes, complement, and also activation of endothelial cells triggering platelet aggregation. Trombocytopenia in DF is related to severity of disease, however it's remain inconclusive.

Objective: To know relationship between thrombocytopenia with plasma leakage and also platelet count as a predictor of plasma leakage in DF.

Material and methods: Cohort retrospective study, the study was done between January to December 1997 in Persahabatan and Private Hospital-Jakarta. Cases criteria: Fever patients with thrombocytopenia and have positive serological test for dengue fever. Control criteria: Fever patients with negative serological test for dengue fever. Both cases had performed abdominal ultrasound and receiving crystalloid infusion.

Results: We found 94 patients consisted of 31 patient's primary DF, 63 patient's secondary DF and 38 patient's as a control. Serositis was found in one primary DF patient and 7 patients' secondary DF. There were significant correlation between thrombocytopenia and serositis. Platelet count below 40.000/mm3 possibility to have serositis is 80%.

Conclusion: Platelet count is a good marker to detect plasma leakage in DF patient.

key words: dengue fever, thrombocytopenia, plasma leakage

Hyponatremia as a Predictor of Plasma Leakage in Adult Patients with Dengue Haemorrhagic Fever

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Background: Dengue Haemorrhagic Fever (DHF) is characterized by leakage of fluid from the vascular compartment into interstitial spaces and serosal cavities, but there is no change in total body water. Others reported that disease severity frequently occurred with hyponatremia. Hyponatremia may be due to low salt intake caused by anorectic, sodium and water shift into intracellular alteration of Renin Angiotensin-Aldosteron system.

Objective: 1) To explore the correlation of plasma sodium level with plasma leakage (PL) that reflected disease severity; 2) to have a tool to predict PL in DHF.

Material and methods: Cohort retrospective study, sample population: hospitalized patients with suspected DHF during January to December 1997 in the Private Hospital in Jakarta. Inclusion criteria were : fever days 1-7. age 13-60 years old, no sign of focal infection. Cases criteria: 1)Dengue test (Pan Bio) IgM (+) and IgG (+) or (-). 2) Platelets less than 100.000; 3) bleeding or Rumple-Leede positive. Control criteria: Dengue test (Pan Bio) IgM and IgG (-) until 8 days. Cases and controls examined hematocrit and plateletes count daily, abdominal ultrasound and plasma sodium level were examined on day 5 to 7 of illness. All cases and control received 3000 ml/ 24 h crystalloid until the convalescence phase.

Results: We got 39 samples (25 cases, 14 control). Ascietic patient one case from 10 cases of Primary Dengue (PD), 5 cases with ascites and pleural effusion from 15 cases of Secondary Dengue (SD). There was a significant correlation between sodium level with plasma leakage (r=0.37; p=0.01). From the curve of Hazard model, it is shown that the probability of plasma leakage is more than 80%, if plasma sodium level is less than 130 meq/dl (reliability = 0.75, Za= 10.8).

key words: hyponatremia, ascites-pleural effusion, plasma leakage

The Role of Thrombocytopenia in Dengue Infection and Its Association with Haemoconcentration

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Background: Increasing blood viscosity caused by haemoconcentration can induced platelets activation and aggregation resulting in thrombocytopenia hyperconsumption. There was no report about the correlation between haemoconcentration and therapeutic effect of crystalloid solution on platelets' count. The aim of this study is to explore it.

Design and method: This was a retrospective, case-control study in hospitalized patients with suspected Dengue Hemorrhagic Fever (DHF) in Persahabatan Hospital and private hospital in Jakarta during 1 year (94 cases, 38 controls). Patients were included based on WHO 1997 criteria; control group was determined as they who showed negative Dengue Test (Pan Bio) IgM and IgG. Patients were excluded if there was a bleeding more than 200 ml, diarrhea or vomiting to dehydration, and oligouria or anuria.

Results: There was a significant correlation between thrombocytopenia and haemoconcentration (r=0.378; p=0.003). The severity of haemo-concentration was correlated with a sharp decrease in platelets count. The highest correlation was found at the 5 to 7 days of fever. Thrombocytopenia in patients treated with 3000 ml per 24 hours crystalloid solution were not as severe as those without solution therapy.

Conclusion: Early treatment with crystalloid solution could prevent a severe thrombocytopenia in DHF patients.

key words: Dengue Hemorrhagic Fever (DHF), haemoconcentration, thrombocytopenia, hyperconsumption thrombocytopenia, platelets aggregation

Transient Immunosuppression, Gastric Bleeding, Prolonged Fever and Severe Otaalgia in a Rhesus Positive DHF Patient

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A 23 years old Indonesian female patient was admitted with a history of high fever for 2 days and unilateral ear pain. Her initial peripheral blood count showed low leucocytes (1.800/ul) and thrombocytes (128.000/ul). Her Widal O titer for S typhi was 1/80 also for S paratyphi C. Her C-reactive protein was elevated (44 mg/l) She received iv fluids and antimicrobial treatment. On the 3 day of hospitalization her leucocyte count dropped to 800/ul and thrombocytes 107.000/ul.The next day it was 600/ul and 96.000/ul. The liver enzymes increased 4 7 of the above the upper normal limits. The leucocytes still fell the next day to 400/ul, also the thrombocytes (65.000/ul) CRP returned to normal on day 5 but her fever was still as high as 40 C.

Antimicrobial treatment was doubled and pluralized as DIC and possible multi organ dysfunction was suspected when her D-dimer values measured up to 4000ng/ml. As Hb fell from 12.2 to 8.2 g/dl due to severe hematemesis this patients who was Rhesus positive needed special donors to compensate for the blood loss.

As her condition stabilized with leucocytes 2.900/ul and thrombocyts 85.000/ul but Hb still falling to 7.8 g/dl before auxilliary transfusions brought the Hb level back to 10.6 g/dl. On day 10 her thrombocyte count returned to normal level and her leucocyte count was near to normal. On repeated testing, her Dengue Blot test for IgG and IgM only became positive after 2 weeks of illness, before it was twice negative (on day 6 and 10) probably due to immunosuppression. There was a rise in O titer of Widal S.typhi agglutination and H titer subsequently appeared explaining the severe condition the patient had gone through but that luckily ended very successfully perhaps due to the correct use of antimicrobial agent initially and in this case Cefriaxone (Rochephin) was used and later on reinforced with amikacin (Amikin).Her otalgia resolved on the fifth day.

Pattern of Dengue Haemorrhagic Fever in Adult, Sanglah General Hospital, Denpasar

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Background: Clinical patterns of dengue haemorrhagic fever (DHF) are varies. DHF infection can occur through all the year with peak level usually in raining season.

Objectives and method: To Evaluated the characteristic pattern of DHF cases in adult in Sanglah General hiospital, Denpasar. A prospective study was done from may 1998 to April 1999. Diagnosis of DHF was based on WHO criteria (1986)

Results: Of 12 months study was found 738 cases of DHF, male 48 % and female 52 %. Most of them occurred in December '98 (16.4 %) and January '99 (14.5 %). The Average of age is 26.7 9.8 year. The simptoms on the first day of hospitalization were fever 94.6 %, head ache 87.8 %, abdominal pain 81.3 %, muscle pain 62.2 %, joint pain 44.6%, nausea 85.2%, vomiting 48%, diarrhea 11.5%, constipation 12.2% and history of bleeding 15.4 %. Clinical presentation were peteichiae 34%, echymosis 0.1%, nose bleeding 6.1%, gum bleeding 0.1 %, hematemesis 0.9 %, torniquet test positif 97.6 %, hepatomegaly 0.7%. The average of thrombocyt count is 90.3 54.8 x 10 /ml, hematocrit 39.4 5.8 %, white blood cell 5.3 19.1 x 10 /ml, AST 124.4 131.3 u/l, ALT 81.8 90.1 u/l. The grading of disease were grade I 63.1%, grade II 36.3% and grade III 0.5 %. The average length of stay is 5.3 4.6 days.

Conclusion : Most of DHF cases in Sanglah General hospital occurred in raining season and mostly are DHF grade I. Transaminase level incresed 6 days. 3 4 times than normal, with a few cases of enlargme nt of the liver.

Posters

Procalcitonin is A Good Marker for the Diagnosis of Infection and the Severity of Illness in Patients with SIRS

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To understand the presence or absence of bacterial infection in patients with systemic inflammatory response syndrome (SIRS), the level of procalcitonin (PCT), a precursor of calcitonin, was determined.

Subjects consisted of 14 SIRS patients without complication by bacterial infection, 14 SIRS patients complicated by sepsis, and 14 SIRS patients complicated by severe sepsis and septic shock. PCT levels in SIRS patients with sepsis (2.9 $\pm$ 2.3 ng/ml) were significantly higher than those in SIRS patients without complication by infection (0.7 $\pm$ 1.1 ng/ml). However, there were no significant differences in the levels of C-reactive protein (CRP), interleukin 6 (IL-6) or tumor necrosis factor-a (TNF-a) between the two groups. PCT levels in SIRS patients with severe sepsis and septic shock (172.2 $\pm$ 276.3 ng/ml) were significantly higher than those in SIRS patients with sepsis. Levels of CRP, IL-6 and TNF-a were also significantly higher in the patients with sepsis compared to those in patients with local infection. Significant correlations were observed between the levels of PCT and those of CRP, IL-6 and TNF-a in SIRS patients. It was suggested that to measure the levels of procalcitonin in patients with SIRS is useful to diagnose the infection and severity of illness.

Interleukin 18 (IL-18) Levels Increase in Patients with Sepsis

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When heat-killed Proprionibacterium acnes (P . acnes) was administered to mice and they were later given a small dose of lipopolysaccharide (LPS), an interferon-g(IFN-g)-inducing factor that differs from interleukin 12 (IL-12) as produced in the blood . This factor is now called interleukin 18 (IL-18), and it is produced by macrophages, especially the Kupffer cells in the liver. When anti-IL-18 antibody is administered before LPS challenge a week after P. acnes administration, no hepatic tissue necrosis is observed, and the GOT and GPT values do not increase.n this study we assessed the relationship between the pathology of sepsis patients and their blood IL-18 levels. The subjects were 13 sepsis patients treated in our center soon after sustaining an injury (8 males, 5 females; mean age: 53 ± 14 years). The peak IL-18 values were significantly correlated with the corresponding TNF-a values. In a similar manner, significant correlations were observed between the peak IL-18 values and the IL-6 ($r=0.9016$, $p<0.0001$) and IL-8 values ($r=0.6537$, $p<0.0154$). A significant correlation was also found between the peak IL-18 values and the APACHE II scores ($r=0.6985$, $p<0.0001$). The IL-18 values rose as the APACHE II score increased in the sepsis group in this study, and the correlation between the two was significant. This suggests that IL-18 may in some way be involved in the pathophysiology of sepsis.

The Use of Gen-Probe PACE 2 Assay for Diagnosis of Cervical Neisseria gonorrhoeae Infection

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The gold standard method to detect Neisseria gonorrhoeae in Endocervical specimens is direct culture, which is very sensitive and specific. However, culture is labor intensive and time consuming method. Recently, a nucleic acid hybridization assay to detect gonorrhoeae rRNA has become available for diagnostic use. It is sensitive, specific, rapid and easy. This study was initiated to evaluate the Gen-Probe PACE 2 system for the diagnosis of cervical Neisseria gonorrhoeae infection. A total of 224 endocervical specimens were tested by Gen-Probe PACE 2 assay and compared with direct culture as gold standard. The assay is found to be sensitive (98.6 %) and specific (84.6 %) for diagnosis of gonorrhoeae infection, with a positive and a negative predictive value of 76.0 % and 85.0 %, respectively. We also tested whether the Gene-Probe PACE 2 assay is stable and accurate after the incubation of specimens at room temperature, and freezing them for more than one month.

key words: gen-probe, Neisseria gonorrhoeae , endocervical, sensitive, specific

Nipah Virus Encephalitis: MRI Findings in a Novel Zoonotic Infection

C.C.T. Lim, P. A. Tambyah, F. Hui, Y.Y. Sitoh, K. E. Lee, W.L. Lee, T. Umapathi, C.C. Lee**, E. Lim***, H.M.L. Oh^*
*National Neuroscience Institute, Singapore *National University Hospital, Singapore, ** Communicable Diseases Centre, Singapore, *** Singapore General Hospital, Singapore ^ Changi General Hospital, Singapore*

Background: In 1998-99, an outbreak of viral encephalitis occurred in Malaysian pig farms and among pig slaughterhouse workers in neighboring Singapore. There were many fatalities. A previously-unknown paramyxovirus named the Nipah virus was identified as the causative organism. We report the brain MR changes in this new emerging disease.

Methods: 11 patients who suffered Nipah virus infection underwent MR imaging of the brain. The conventional MR images of all patients were reviewed. In addition, echo-planar diffusion-weighted imaging (DWI) was performed in 9 of these patients.

Results: All patients had multiple small foci of T2 prolongation within the subcortical white matter of the cerebrum. In 7 patients, cortical and brainstem lesions were also detected; and contrast-enhancement was present in 5 patients. All lesions were less than 1 cm in size. In patients on whom DWI was performed, these lesions showed a decrease in ADC values.

Conclusions: The Nipah virus affects primarily the white matter in a scattered multifocal punctate pattern. This unusual MRI appearance had more similarities to rickettsial diseases such as Lyme disease and Rocky Mountain spotted fever than viral encephalitides such as herpes. DWI was valuable in increasing lesion conspicuity and improving diagnostic confidence in an acute outbreak of an emerging disease.

A Rapidly Fatal Case of Severe Falciparum Malaria Complicated with High-Level Metabolic Acidosis

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A 67-year-old male was admitted presenting with consciousness disturbance after completing a tour to Africa without malaria chemoprophylaxis. After his travel history was revealed, blood films were prepared which showed abundant ring forms mixed with a small number of trophozoites and schizonts of *Plasmodium falciparum*. Despite intravenous quinine infusion, his consciousness state (JGC, III-300), renal and hepatic functions and anemia (Hb 5.8 g/dL) deteriorated. Moreover, metabolic acidosis worsened with pH of 6.954, HCO_3 of 6.1 and BE of -16.1, although he received large volume of sodium bicarbonate solution. The patient died on the 4th day of his illness.

According to the literature, it is suggested that the treatment of metabolic acidosis in severe falciparum malaria could sometimes be harmful, since it can result in sodium overload which may then precipitate pulmonary edema/ARDS. However, alternative treatment regimens have not yet been established. Future investigations on the etiology and the proper treatment of metabolic acidosis associated with severe falciparum malaria are strongly needed.

A Relationship between Clinical Manifestation and Genetic Pattern of *Salmonella paratyphi* A as an Etiologic Agent of Typhoid Fever (Case Report)

Retno Kadarsih Soemanto[1], Lucky Hartati Moehario[1], RHH Nelwan[2]
[1]Department of microbiology, Medical Faculty, University of Indonesia, Jakarta, [2] Department of Internal Medicine, Medical Faculty, University of Indonesia, Jakarta

Five patients with typhoid fever caused by Salmonella paratyphi (S.typhi) A in Persahabatan Hospital East Jakarta in 1998 were studied. Four of the cases were showing mild symptoms, while one of them was toxic. DNA genome of S.paratyphi A were isolated and digested with *XbaI* restriction endonuclease enzyme and electrophoresed using Pulse-field Gel Electrophoresis (PFGE). The result showed 3 different PFGE type, with Dice coefficient (F) ranged from 0.89 to 1. Three of isolates were identical. S.paratyphi A originated from the toxic case showed identical PFGE pattern with two of the mild cases.

From this preliminary study apparent relationship between genetic patterns of the etiologic agent and clinical presentations was not observed.

Leprosy and Febrile Neutropenia in a Child

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We report a case of leprosy and febrile neutropenia in a child. The severe neutropenia with fever and severe anemia ensued during the treatment course of multidrug therapy for leprosy. The multidrug therapy for leprosy, especially Dapsone and Rifampicin were discontinued following their known side effects, despite the fact that the exact cause of neutropenia could not be established. By treating with transfusion, antibiotics, cytokines and appropriate supportive therapy the patient could overcome the serious condition.

key words : leprosy, multidrug therapy, febrile neutropenia

Disseminated Histoplasmosis: A Case Report

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A 23 year old woman, midwife, presented with 5 month intermittent fever, sometimes with non productive cough, she lost her weigh about 7 kilograms and her hair became thinner, she had abdominal distention and artralgia. She had been hospitalized twice in different hospitals before admitted to Cipto mangunkusurno General Hospital. In the last treatment she got prednison 3 times daily for five days. Physical examination : pale, the body temperature was 38,50C, conjunctiva anernis and hepatomegaly. Laboratory examination: Hb 7,1 g/dl, leucocyte 6.800, diff. Count 0-2/0-94/4-0, platelets count 40.000/ul, normochrom normocytic, blood sedimen rate 55/hour,SGOT 80U/1.

During treatment period we did same some laboratory examinations such as Widal, Gall culture, Sputum tuberculose, IgG tuberculose, malaria blood, C3 and C4, ANA, anti DsDNA, blood and bone marrow culture. The result of all examinations did not answer her etiology of prolonged fever, bisitopenia and hepatomegaly. Finally the patient had undergo liver biopsy examination, the result of biopsy from patologyanatomy department assumed there was histoplasma infection. Blood culture reexamination result from paracitology department established there was a growth of histoplasma capsulaturn.

This case report was presented as a sample the association between the systemic mycosis and the used of corticosteroid. With appropriate culture the diagnosis of disseminated histoplasmosis can be made.

Leptospirosis with Gastrointestinal Bleeding Due to Disseminated Intravascular Cagulation

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The prevalence of haemorrhage in leptospirosis is about 5 %. This clinical manifestation is caused by decreased of factors V and X because of consumption of coagulation factors, liver failure, immune mediated platelet destruction, and bone marrow failure.

Another mechanism of haemorrhage is due to endothelial injury by leptospiral toxins that induce disseminate intravascular coagulation (DIC).

A male of 23 y.o with low socio-economic status was hospitalised due to jaundice, gastrointestinal bleeding and fever for 4 days before admission. He cleaned dirty sewers a week before. On physical examination there was hepatomegaly and gastrocnemius muscle tenderness. Leptospira hardjo titer on serological measurement, thrombocyte count was 33000 mg/dL, PT 26.7 ", APTr 13.8 " , D-dimei+, fibrinogen 463, Haerrioglobin 7.3 mg/dL. Patients was given PP 2 X 2.4 million unit, taken NGT and we spooled with cool water twice daily, gave vitamin K tid and PRC transfusion. Haemorrhages stopped on the fourth day after its start.

Summary: The treatment of leptospirosis with haemorrhage due to DIC in this patient was conservative and making attention in blood haemostasis.

key words: leptospirosis, haemorrhage, DIC

Quadrivalent Meningococcal Vaccination (A/C/Y/W-135) for Travel Clinics in Singapore

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Introduction: Hajj pilgrim travelers require meningococcal vaccine A and C (given less than 3 years and more than 10 days ago) as a prerequisite for entry into Saudi Arabia. Every year about 5000 pilgrims travel from Singapore to Saudi Arabia. All of these receive meningococcal vaccine A and C at the various travel clinics in Singapore. In view of a recent spate of worldwide reports of meningococcal meningitis due to serogroup W-135 (mostly from returning travelers from Saudi Arabia or contact cases of returning pilgrim travelers from Saudi Arabia), we investigated the numbers of cases of meningococcal meningitis due to serotypeW-135 in Singapore during 1999 and 2000.

Method: Serotyping for meningococcus was done at the laboratory at the Department of Pathology, Singapore General Hospital, for all cases with culture positive meningococcal disease.

Results: In 1999 there was only one case of meningococcal sepsis due to serogroup W-135. During February to May 2000 there were 4 cases of meningococcal meningitis due to serogroup W-135. One case was a 45 year old male Caucasian returning from a visit to Saudi Arabia, .one a 75 year old male Malay who was a close contact of a returning traveler (Hajj pilgrimage) from Saudi. Two were Chinese subjects (age 64, female and age 39, male) without recent travel history, one with no known contact with returning travelers from Saudi Arabia, one with possible contact with returning travelers from Saudi Arabia. There was one fatality in the year 2000. There are two more recent cases of meningococcal meningitis (late May 2000) whose results for serotyping are still pending.

Conclusion: From 1999 to 2000 we have observed an increase of cases of meningococcal meningitis due to serogroup W-135 in Singapore. We therefore suggest a change for the vaccine recommendations for travellers to Saudi Arabia from the previously given bivalent meningoccal vaccine (A/C) to the quadrivalent meningococcal vaccine (A/C/Y/W-135).

Mycobacteria Isolated from Various Condition of Tuberculosis Patients and Its Sensitivity to Antimicrobials in Indonesia

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The magnitude of the problem of Atypical Mycobacteria infection among tuberculosis patients in Indonesia is unknown

Therefore NIHRD in cooperation with some hospitals and other health facilities in Jakarta and Bandung, studied culture of sputum specimen, identification of species, and sensitivity test of strain. From 356 patients with tuberculosis 100 (28.09%) cases of Mycobacteriaosis were isolated. The species were *M. tuberculosis* (22) patients, *M. bovis (3), M. africanum (3), Atypical Mycobacteria (61), include: M. Kasasii (11), M. Szughai (9), M. simiae (4), M. fortuitum (4), M. marinum (4), Malmoence (3), M. haemiphilum (7), M gordonae (2), M. ulcerans (2), M. triviale (2), M. gastri (2), M. terrae (2), M. avium, M. scrofulaceum (2), M. avium complex (2), M. avium intracelliulare (1), M. chelonei (1), M. smegmatis (1), M. xenopi (1), M. flavescens (1), and unknown (11).* MDR tuberculosis 1 (20%), MDR Atypical Mycobacteria need further research.

key words : tuberculosis, atypical mycobacteria, MDR

The Estimation of Death Rates due to Infectious Diseases and Parasitic Infections in Indonesia

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The health status of the Indonesian community in the 10 years period (1986-1995) showed that infectious diseases and parasitic infections were the highest cause of death. Using a subset of the 1995 National Household Health Survey (NHHS) data on disease patter to estimate Causes of Specific Death Rates (CSDR), this study showed that the magnitude of infectious diseases and parasitic infections death risk in the Indonesian community.

The analysis was based on a sample of 3484 deaths in 27 provinces, using a probability proportionate to size sampling method. Diagnoses of causes of deaths were confirmed using verbal autopsy method, a glossary of diseases symptoms as a tool, and in accordance with the Tenth International Classification of Diseases. Causes of specific death rates were calculated using an indirect method that referred to a life-table mortality level to avaoid under-reporting of deaths.

Results indicate that the magnitude of tuberculosis death risk was the highest in the community (62-77 per 100.000 population), followed by diarrhea (52-56 per 100.000 population), and pneumonia (49-54 per 100.000 population). Other infectious diseases as caused of death in the community showed that typhoid death rate was 39 per 100.000 population, malaria death rate was 13-18 per 100.000 population, upper respiratory tract infections death rate was 10-14 per 100.000 population, tetanus death rate was 10-11 per 100.000 population, and viral hepatitis death rate was 6-7 per 100.000 population. Compared to 1986 NHHS result, it is shown that the risk of death caused by diarrhea and malaria decreased, while the risk of death caused by pneumonia increased.

key words: infectious diseases death rates, Indonesia, 1995

The Evaluation of Measles Epidemics in Indonesia in the Year 1999

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It has been reported about 9 measles epidemics in Central Java; South Kalimantan and East Nusa Tenggara in the year 1999.
Data analysis and laboratory examination indicate that epidemics occurred in isolated area with low immunization coverage (6.3%-43.4%). The attaack rate of 1-4 years and 5-9 years age group were about 10.45%-64.2% and 4.5% - 55.5% respectively. The CFR was about 0.43% - 14.3%.
Laboratory examination showed that 94% had IgM anti-measles positive. The virus isolation and DNA sequence analysis indicated that outbreak was caused by new proposed measles virus genotype (G2) MVi/JakartaINO/32.99 similar to Malaysian genotype MVi/Kuala Lumpur MAA/45.99.

Antimicrobial Susceptibilities of Enteropathogenic Bacteria in Jakarta, Indonesia

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Antimicrobacterial susceptibilities of enteropathogenic bacteria isolates from 101 patients with diarrhoea in several hospitals in Jakarta, were determined by dish diffusion (kerby bowr). Of the 101 rectal swabs, 7 contained shigella, 27 salmonella, 11 vibrio cholerae type Ogawa, and 64 swabs contained V.c. AgI (non 01). Anti microbacteria susceptibility test on shigella isolates shows that 100% are sensitive to Sulfametoxazole (ST), 20% and 40% are intermediate & sensitive to Tetracyclin (Tetra), respectively 71.4% are sensitive to Ampicilllin (Amp), 57.2% are sensitive to Chloramphenicol (Chlorp), and 85.7% are sensitive to Kanamycin (Kana). Similar test on Salmonella isolates shows that 81.5% are sensitive to ST. 11.1% & 33.3% are intermediate and sensitive to Tetra, and 3.7% & 54.3% are intermediate sensitive to Chlorp, and 11.15 & 10% are sensitive to Kana. As for V.c type Ogawa, 100% are sensitive, 90% sensitive Tetra, and 81% sensitive Amp.
Finally, among the V.c non 01 isolates, 89% are sensitive to ST & 43% Amp, 82.88% Chlorp & 89.1% Kana.

key words: Antimicrobial, susceptibility, enteropathogenic bacteria

Antibiotic Priority on Typhoid Fever and Pancytopenia

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Abstract

Patient fifteen years old fever for two weeks especially at night period and looked weak and pale. There was splenomegali and without bleeding Laboratories increase four times of widal titer 0 (1/160 to 1/640) , anemia Hb 6.6g/dl) , leucopenia (1900 /ul) , thrombocytopenia (109.000/ul) Ceftriaxone 3 gram / day was given for four days . Improvement clinical and laboratories parameter hemoglobin , leukocyte and thrombocyte on forth day hospitalize .

key words: thypoid fever, pancytopenia , Ceftriaxone

A Prospective Randomized Trial of Coronary Angioplasty versus Intracoronary t-PA in Acute Myocardial Infarction - Japanese Intervention Trial in Myocardial Infarction (JIMI)

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We assigned 120 patients who presented within 6 hours of their first symptoms of myocardial infarction and showed total occlusion of infarct related artery to treatment with either coronary angioplasty or intracoronary t-PA. Coronary recanarization was achieved in 93% of the patients treated with primary PTCA and in 82% of those treated with thrombolysis. The in-hospital mortality in the PTCA group was 3.3% compared with 1.6% in the t-PA group. During follow up for 3 years, nine patients died (4 cardiac, 5 non-cardiac). Kaplan Meier survival analysis revealed no difference in long-term survival in the two groups, and significantly less cardiac event in the PTCA group than in the t-PA.

Analysis of the Result of Testing Hepatitis B Antigen and to Its Antibody in Serum among 30116 People Traveled Abroad

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Immigrants, visiting, studying, working and laboring people who are going abroad that come for health examination and those people with foreign related marriage. Detecting hepatitis B antigen and to ist antibody in serum with enzyme immunoassay method with Abbott equipment made in USA. Defining positive and negative standard value, according as testing the serum of sample and contrast included positive and negative to calculated the CUTOFF VALUE. Yellow color represents positive reaction while colorless means negative reaction. Provided by ABBOTT LABORATORIES of US. Blood samples of 30116 people have been tested, with 18095 male (60%), and 12021 female (40%). Among which 1276 cases HBsAg positive, which is 4.2%, with 869 male (68%) and 407 female (32%). There are 490 going through all the antigen and to its antibody tests. Among which 42 people have negative result with all of these tests, 30 people are HBsAg positive, 10 are HBsAg and HBcAb positive, 328 are HBsAg, HBcAg and HBeAb positive (referred to this as three-small-positive), 67 are HBsAg, HBcAb and HBeAg positive (referred to this as three-big-positive), 9 are HBsAb and HBcAb positive, 2 are HBcAb and HBeAb positive and 2 are HBcAb positive. It has been found through the test that among these goind abroad and examined for foreign related marriage, the positive rate of HBsAg is 4.2%, which is higher than that of Wuhan, Harbin, Zhengzhou of China, but lower than that of Japan, Australia, and countrywide. Tests show that the major part of the group are three-small positive (67%) and three-big-positive (14%). The structure of positive HBsAg differs between male and female with different age span ($X2=16.59$, $p<0.01$). Positive rate is the highest in the group aged between 20 and 40. It is the lowest for people under 20. This can be related to the availability of the vaccination and putting in the planned children vaccination projects with hepatitis B and popularization of vaccination for the young. To prevent the hepatitis B and spreading, and carrying HBV, it is an important measure to adhere to the planned vaccination for children, popularize the vaccination for the adult, in order to control and lower the rate affected by hepatitis B.

key words: hepatitis B, antigen, antibody

The Eye Function and Hypoxia

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Background: Hypoxia is a major problem in high altitude that can cause fatality in air travelling. Early detection of hypoxia is needed by the pilot in order to prevent aircraft accident. The aim of this study is to describe the symptoms of early hypoxia related to the eye functions.

Method: This was a cross-sectional, pre-post intervention study without control. The subjects were military pilot candidates. The independent variables were: hypoxia and pulse rate. The dependent variables were: contrast sensitivity, color vision, peripheral vision, and heterophoria. Subjects' eye functions were measured before and after being artificially hypoxic in a simulated hypobaric chamber at flight level of 18000 ft.

Result: All subjects experienced hypoxia (oxygen saturation [SaO] < 85%, $p < 0.05$) and their pulse rates were increase ($p < 0.05$). Several changes occurred after hypoxic condition, consisting of: 5 degrees change in peripheral vision ($p<0.05$), decrease of contrast sensitivity ($p<0.05$), decrease of color vision reading time and increase of errors scores of color vision, and slight increase of exophoria. But all changes were within acceptable range.

Conclusions: In a state of early hypoxia, there were changes in several eye functions but all were within the acceptable range. Further investigation is needed to determine which one is the most sensitive change that could be used as a warning sign of early hypoxia.

key words: hypoxia, high altitude, contrast sensitivity, color vision, peripheral vision, exophoria

Medical Training to Staff of Collaborating Hospitals

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Japanese workers abroad seem to feel anxious with some difficulties when they get ill abroad. For most of them, it is not easy to communicate with medical staff in foreign language. Moreover, the medical system in Japan is too unique to understand ones in foreign countries. Labour Welfare Corporation has designated hospitals abroad as Collaborating Hospitals to improve medical environments for Japanese since 1992. The hospitals are often used by Japanese and possess a high medical care standard. The number of the hospitals designated is 12 (Asia 8, Middle East 3, Africa 1) at present. At our center, medical training to staff of the hospitals has been carried out to provide information on medical consulting system in Japan. The number of those who have experienced the training amounts to 108 (54 doctors, 29 nurses, 2 technicians and 23 administrative staff). Collaborating Hospitals are expected to utilize the training for the purpose of creating an user-friendly environment for Japanese patients.

Sanitation in Tourism Area Lake Toba

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Lake Toba with its famous scenery is an attractive place for tourists in Asia. Since the travel is an important aspect of modern life, the health including sanitation is also important. Around Lake Toba there are many hotels and restaurants with good public places sanitation. But many also small shops with poor condition in water supply, refuse disposal, water disposal and food sanitation. This condition may occurs travel health problem such as communicable disease and food poisoning. Now, people are trying to minimize the sanitation problem to attract the tourism's attention.

Death in Air Travel

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Medical emergencies sometimes occur in air travel. Unfortunately, serious conditions may result in death. To clarify the characteristics of deaths in air travel, we reviewed the details of them. Subjects were the passengers who died in-flight or soon after the flights of Japan Airlines between April 1993 and March 1998. Medical records, cabin and captain reports of the cases were analyzed, retrospectively. The number of deaths during air travel was 28 in the observation period. Occurrence was 0.21 per million passengers or 0.05 per thousand flights. The mean age was 56 years old, ranging from 1 to 84. Sixteen were male and 12 were female. Five cases occurred in the domestic flights and 23 in the international ones. It was difficult for some cases to be found because they became sick in lavatories or a bridge of the gate. Common symptoms were unconsciousness, nausea, dyspnea or abdominal pain. Cardiac-related problem was the most common cause of deaths. Prior to air travel, 16 cases had medical problems which might related to their deaths. In some cases, their conditions might be considered unfit to air travel. Totally, 24 cases developed cardiac arrest on board. In half of the cases, CPR was done immediately after cardiopulmonary arrest. These results suggest that pre-flight medical evaluation and quick start of CPR are the keys of decreasing death in air travel. Education program to the public about air travel-related medical problems is mandatory.

key words: in-flight death, air travel

Plasma Endotoxin Level in Non-Alcoholic Liver Cirrhosis: An Analysis by New Method

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Endotoxemia in cirrhosis is a controversial issue. The prevalence of endotoxemia in peripheral blood of liver cirrhosis patients varies greatly from 0 to 92%. The major factors leading to this widely fluctuating results are methodological, reflecting differences in assay technique. In recent years, a more sensitive and specific detection technique has been developed using endotoxin-specific limulus gelation test, which eliminates the false-positive reaction of endotoxin. Using similar method, we perform a cross-sectional study of 14 cirrhotic patients. there were 9 men and 5 women ranging in age from 19 to 70 years with a mean age of 53 years. 10 out of 14 were Child-Pugh stage A and the remaining were Child-Pugh stage B. Samples were taken consecutively from out-patient hepatology clinic in Cipto Mangunkusumo Hospital. In present study, endotoxemia (plasma endotoxin level > 10pg/ml) was not found in all patients. Mean endotoxin level was 1.5 pg/ml (SD 1.46 pg/ml). Our result is not in agreement with most of previous studies which showed increased level of serum endotoxin in liver cirrhosis patients. Other substance rather than endotoxin may be responsible for the positive result in previous studies.

key words: liver cirrhosis, endotoxemia, turbidimetric kinetic

Detection of Plasma Leakage Manifestation in Dengue Hemorrhagic Fever Patients

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Introduction: Major clinical manifestation of Dengue Hemorrhagic Fever (DHF) are bleeding and the sign of plasma leakage such as ascites, pleural effusion and shock. The hematocrite often increase as plasma leakage occurred but the ascites and pleural effusion frequently progress undetected.

Aim: To study the formation of ascites and pleural effusion as the sign of plasma leakage in DHG patients.

Method: The study was conducted in Cipto Mangunkusumo General Hospital from January to April 2000. Patients who hospitalized for fever, thrombocytopenia (> 100.000/l) and positive IgM and IgG anti-dengue were included. Ascites and pleural effusion were detected by means of ultrasonography (Rx400, ATL Co., USA).

Result: Thirty patients could be studied (12 males and 18 females). male and female ratio was 2 : 3. Mean age group was 20 - 30 years old and most of them live in east to Jakarta. Ascites could be detected in 21 (70%) of patients, right pleural effusion in 16 (53%) patients and left pleural effusion in 7 (23%) patients. In total, manifestation of plasma leakage could be detected in 25 (85%) of patients.

Conclusion: Eighty-five percent of DHF patients showed the manifestation of plasma leakage (ascites and pleural effusion). Further study is needed to elucidate this event especially the role of cytokine in plasma leakage.

Sinus Bradycardia in Dengue Hemorrhagic Fever with Hypokalemia

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Convalescence period in Dengue Hemorrhagic Fever (DHF) is usually short and uneventful, although sometimes it may be complicated by benign sinus bradycardia.

We reported a 41-year old female with grade I DHF. The fever decreased gradually during hospitalization. When the temperature became normal, hypokalemia occurred which was corrected with intravenous potassium administration. One day later the heart rate became 48 per minute and electrocardiogram showed the presence of sinus bradycardia with occasional ectopic beats as the platelet reached the mean lowest value. Sinus bradycardia persisted for two days, then it returned to normal sinus rhythm at the time platelet reach almost normal value and the serum potassium became normal.

This case is presented to demonstrate that the presence of sinus bradycardia in DHF is a benign condition and usually will return to normal sinus rhythm without any specific treatment.

key words: convalescence period, benign sinus bradycardia, hypokalemia, ectopic beats, normal sinus rhythm

Hematocrite as Plasma Leakage Predictor in Adult Dengue Hemorrhagic Fever Patients

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Background: Clinical manifestations of Dengue Hemorrhagic Fever (DHF) is hard to differentiate with Dengue Fever. The significant difference between the two of them is plasma leakage (PL) that occurs in DHF. Predicted PL is needed for the arrangement. The research goal: 1) to know the increase of hematocrit (Ht) which is in the same condition of the occurrence ofl PL, 2) to get a simple PL predictor tool on the adult with DHF.

Material and methods: Designed as a cohort retrospective study, limited population: hospitalized patient with suspected DHF in January to December 1997 in Persahabatan and Private Hospital-Jakarta. Inclusive criteria: fever 1-7 days; age 13-60, without a clear focal infection. As case if: 1)Pan Bio IgM serology (+); 2) platellets less than 100.000 cell/mm3; 3) bleeding or Rumple-Leede (+). As control if: serological Dengue test (Pan Bio) IgM and IgG (-) until the 8th day. Case and control are checked for Ht everyday, Abdomen ultrasound once on the day of fever 5th - 8th and we choose patient cristalloid therapy 3000 cc/ 24 hours until the 7th fever day. The enclusive criteria: oligury-anuria; bleeding/ transfussion > 200 cc; vomit/diarrhea to dehydration; no Ht convalescence phase.

Result: We get 94 cases [31 primer dengue (PD), 63 secondary Dengue (SD); 38 control] from 450 sample. Ascitic patient one case from PD and 3 case from SD; 4 cases wih ascites and pleural effusion from SD. Hemoconcentration which meet WHO's criteria in this study was only 23.7% but we got ascitic patient on 10% to 2-% increasing of Ht in acute phase compared to convalescence phase. In Dengue the lowest Ht increase in the same level with PP is 10%, on other hand the highest increase Ht of control is 9.3% without serositis. In the statistic analysis with Hazard Model Graphic we get serositis probability of 75% (r=0.449, p=0.000; Za=7.0, R=0.56) if there is a decrease of Ht 110% afer cristalloid therapy 3000 cc/ 24 hours on acute phase. The serositis probability is 80% (r=0.548; p=0.000; Za=20; R=0.78). If the acute phase is compared with convalescence there is an increase of Ht 28%.

Conclusion: Ht can be used as predictor plasma leakage in adults with DHF.

Dengue Hemorrhagic Fever Incidence, Pattern of Their Clinical and Laboratoric Manifestation on Children at Gedangan Primary Health Care, Sidoarjo, East Java From January 1999 To December 1999

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Dengue Hemorrhagic Fever (DHF) is one of the health problem in Indonesia, as a national problem as well as a regional one. This disease also possess a problem to children with the risk of shock, fatal bleeding of both the lung and the brain. DHF is caused by dengue virus with 4 serotypes with clinical and laboratory manifestation variation. This is a study that provides DHF incidence on children with clinical and laboratory finding (platelet count) during 1999 in Gedangan Primary Health Care, Sidoarjo, East Java. Data collecting has been done during 1999 on the basis of visiting patients to Gedangan Primary Health Care, and have been diagnosed as DHF in accordance to the WHO criteria (1986, 1997). Then, the data is proportionaly analyzed. It is found that there are 20 DHF patients, 11 males, 9 females, age 3 to 12 with the peak on the age of 9-11. The most frequent clinical findings are fever and positive Rumple Leed (both are found in 100% patients). Nausea-vomit and headache are less frequent; found in 95% patients. Spontaneous bleeding only occurs in 3% patients as a non fatal petechiae. Laboratory finding shows 70% patients with mild thrombositopenia, 15% patients with moderate thrombositopenia, and 15% patients with severe thrombositopenia. Fever is caused by certain cytokines namely IL-1, IL-6, TNF-, and interferon, all of which give humoral signaling which in the end cause an increase in body temperature. Positive Rumple Leed Test is not a spesific sign of DHF but if the patient is suspected as DHF, this positivity contributes to the DHF diagnosis. Nausea-vomit and headache are also not spesific for DHF. Finally, this study draws two conclusions: there was not DHF outbreak in Gedangan Primary Health Care, Sidoarjo, East Java during 1999, and the fever and non-spontaneous bleeding occur in all of the patients.

key words: Dengue Hemorrhagic Fever, clinical pattern, laboratoric pattern

Thrombocyte Count in Patients with Dengue Haemorrhagic Fever

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Background: Dengue hemorrhagic fever (DHF) is a disease with clinical manifestation of fever, hemorrhage indifferent manifestation, thrombocytopenia and plasma leakage. Thrombocytopenia is a central element in the pathogenesis of DHF and occurs gradually depends on the duration of fever.

Purpose: To know the incidence of thrombocytopenia in DHF.

Method: The investigation was done in patients with DHF admitted to Cipto Mangunkusumo Hospital from December 1999 until May 2000. Age and sex were recorded. Peripheral blood examinations (hemoglobine, hematocrite, leucocyte and thrombocyte) were examined in the laboratory of subdivision of Haematology, Department of Internal Medicine through MicroCoba S machine and thrombocyte count was also done manually.

Result: There were 37 patients in this investigation, 15 male and 22 female. The thrombocyte count was very low in all patients and the most on day 7 (43%). The result of thrombocyte count was different in 100% patients when examined manually compared to MicroCoba S machine. The value with machine was much lower.

Summary: There was significant different value of thrombocyte count obtained by manually compared to MicroCoba S machine. Further examination should be done to know the factors which paly a role in this different value of thrombocyte count. In the literature it is said that platelet activating factor (PAF) can induce alterations of blood platelets.

key words: thrombocyte count, DHF, PAF

Indonesia's Hajj Drug Formulary

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An available drug which harmonize the pattern of illness which appear during health service on hajj pilgrimage in Saudi Arabia, is one main factor to support on succeeding hajj health service.

A purchasing plan of drug for hajj health service in Saudi Arabia was based on pattern of illness which appeared in the last three years. Purchasing of drug was done in Indonesia, an then its was shipped to Saudi Arabia by air cargo.

Pattern of illness which appeared during health service on hajj pilgrimage in Saudi Arabia in 1999 was not relatively different from the last year. However, there were 26 kind of drugs which must be purchased in Saudi Arabia. Price of drug in Saudi Arabia is more expensive than in Indonesia and its stock was not reading as required. So, it was not efficient.

There were a drug which must be purchased in Saudi Arabia because there were a difference pattern of prescribing by a doctor as the Indonesian hajj health officer (Tenaga Kesehatan Haji Indonesia/ TKHI). Doctors who were assigned as Indonesian hajj health officers was comprised of general practitioners and specialists. However, all doctors was acting like general practitioners and the pattern of drug prescribing by general practitioners would be different from the specialists.

The difference of pattern in prescribing drugs could be eliminated if there a drug formulary was provided. In 1999, it has been recommended to make an Indonesian hajj drug formulary as a guidance for prescribing drugs.

Indonesian hajj drug formulary was established on an experience of doctors who have assigned as TKHI, National Essential Drug List, and evidence based medicine.

key words: drug formulary, hajj pilgrimage

Quality Control Study of the Slide Examination of *Mycobacterium tuberculosis* in the Microscopic Reference Health Center

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A Quality Control study of the tuberculosis direct smear examination has been conducted in East Jakarta and Bekasi in 1998. The objective of the study is to find out the quality of the slide examination of *Mycobacterium tuberculosis* in the Microscopic Reference Health Center and to evaluate the skill of the technician whether they make the slide according to the standard procedures or not.

In site observation was done to score the background of the slide smeared, coloring, cleanliness, size of smearing, and thickness of smearing. Cross-check of the slide examination by CDRC Jakarta was also done. Training on the laboratory techniques of the direct smear examinaiton was given to the Health Center's technicians.

The results of the observation from 736 slide, before training, show that 38% were good in background smearing, 43% clean smearing, 15.3% good in size, 15.7% good in thickness and 16.4% good smearing. After training, the observation of the 478 slides show 53.5% were good in background smearing, 78.8% clean smearing, 60.2% good in size, 38.3% good in thickness and 46.6% good smearing.

Result of the cross-check shows that, before training, there were 23% difference between slide examination in Bekasi Health Center and slide examination in CDRC Jakarta. But after training, there was no difference between slide examination in Bekasi Health Center and CDRC Jakarta.

The study concluded that quality of the slide examination in the Microscopic Reference Health Center before the training was poor. There was a significant increase in their performance after the training were conducted. To maintain the Microscopic Reference Health Center's performance in making a good direct smear, it is recommended that a quality control on the laboratory tehcniques of the direct smear examination should be conducted routinely.

key words : quality control, tuberculosis.

Antimicrobial Susceptibility Pattern of *N. gonorrhoeae* Among Female Sex Worker in West Java Province Indonesia

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An antimicrobial susceptibility study of Neisseria gonorrhoeae against eight antimicrobial commonly used in the STD (Sexually Transmitted Disease) was carried out among Female Sex Workers (FSWs) in Bandung municipality, Bekasi and Tangerang regions, West Java Province, Indonesia in the year 1999-2000.

A total of 224 endocervical swabs were collected and inoculated into Thayer Martin Agar. *Neisseria gonorrhoeae* was identified in 73 (32.6%) specimens by biochemical test, oxidase and catalase activities. A total of 61.8% colonies were identified as PPNG as determined by iodometric test. Susceptibility test against ampicillin; tetracyclin, sulfametoxazole; kanamycin; spectinomycine; cyprofloxacin; cetriaxone and cefuroxime was performed with the agar disc diffusion method. The result indicates that 95.9% of the colony resistant to tetracyclin; 71.2% to sulfamethoxazole; 28.8% to ampicillin; 8.2% to spectonomycine; 1.4% to kanamycine and 1.4% to cyprofloxacine. None of the colony is resistant to cefuroxime or cetriaxone.

Additional data obtain by using questionnaire shows that only 32.2% of the FSWs always used condoms during intercourse and 79.7% of them were protected from N. gonorrhoeae infection.

key words : female sex workers; N.gonorrhoeae; susceptibility pattern.

Infection Control Nurse in Indonesia : A View for the Future

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Control of hospital acquired infection is found effective in developed world as its organization is well established with a reliable surveilance program. It was shown that full time infection control nurses were able to made the program work and lowered the hospital acquired infection significantly.

Implementation of infection control nurse with the Indonesian nurse potential, role, responsibilities and its problem will be discussed.

key words: infection control nurse, role

Experience of Fleroxacin on Typhoid Fever

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Background: Typhoid fever (TF) is still an important public health problem in many developing countries. TF is an intestinal infectious diseases characterized by continuous fever, involvement of lymphatic tissue, spleen enlargement, rose spot and constipation or diarrhoea. The antityphoid drug of choice is still chloramphenicol, the alternative drug are co-trimoxazole, ampicillin, cephalosporin and quinolon.

Objective: The purpose of this study was to compare the efficacy and safety of two regimens orally administered fleroxacine (quinolon derivate) for 5 days with the chloramphenicol for 14 days on typhoid fever.

Method: Design in this study is experimental (pre- and post-test control design), compare fleroxacin 400 mg/ daily for five days with chloramphenicol 4 x 500 mg/ daily for 14 days, on TF patients. Efficacy was determined by culture of blood, overall clinical response and time of laboratory abnormality. A total of ninety-nine clinical TF patients were randomly assigned too the two treatment groups.

Results: A total of 60 patients were evaluable for efficacy, 29 patients in the fleroxacin group and 31 patients in the chloramphenicol group. The time of defervescence was shorter for patients treated with fleroxacin than for those treated with chloramphenicol (2.8 days for fleroxacin and 4.0 days with chloramphenicol, $p > 0.05$). Bacterial cure rates were 96% with fleroxacin and 80% with chloramphenicol. The two regimens were well tolerated showed by adverse effect and the result of laboratory of renal and hepatic function.

Conclusion: Fleroxacin 400 mg for five days appears to be satisfactory for treatment of typhoid fever and can be used as the short course of alternative drug on TF.

key words: fleroxacin, typhoid fever, efficacy

Liver Abscess in Department of Internal Medicine Sanglah Hospital Denpasar, between January - December 1999

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Background: Liver abscess is not always easy to diagnose, because the clinical pattern is varied.

Objective: To know the clinical pattern of liver abscess.

Methods: Retrospective study of liver abscess in Department of Internal Medicine Sanglah Hospital since January 1st - December 31st, 1999.

Result: We found 11 cases of liver abscess from 4619 in-patients of internal medicine (0,24%), male 82% (9/11), female 18% (2/11), ages between 22-85 years old. Most of the cases come with fever 82% (9/11), pain on the right upper abdomen 82% (9/11). Weakness 82% (9/11), nausea 73% (8/11), anorexia 73% (8/11), shortness of breath 55% (6/11). Other complaint was cough, vomiting, right chest pain, or haemoptoe. History of diarrhea was found in 36% of cases (4/11). hepatomegaly and increase of blood sedimentation rate was found in all cases, increase of serum transaminase 73% (8/11), leucocytosis 64% (7/11), and increase of alkali phosphatase 64% (7/11). Most of cases were single abscess of the right liver lobe 82% (9/11), single abscess of the left liver lobe 9% (1/11), and multiple abscess of the right and left liver lobe 9% (1/11). Complication right pleural effusion was found in one case. Cases were treated conservatively only with amubicide 27% (3/11), amubicide combine with antibiotics 73% (8/11). Per cutaneous drainage was done in 9% of cases (1/11) and laparotomy with abscess incision in 9% of cases (1/11). Mean length of stay was 12,8 days (SD = 8,5).

Conclusion: Clinical pattern of liver abscess was varied, but some clinical symptoms and laboratory finding help us to diagnose.

Diagnostic Problem in Lung Abscess

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The incidence of lung abscess has diminished according to the progress of treatment. Many cases give a history of pneumonia. The most common organism cause pneumonia are Klebsiella pneumoniae, Staphylococcus aureus and enteric gram (-) bacilli. Enterobacter sp one of the organism which cause pneumonia with cavity, are enteric gram (-) bacilli. Enterobacter sp belong to the tribe Klebsielleae, commonly colonize the human gastrointestinal tract. They are rarely cause disease in the normal host. Examination of the gram's staining of sputum specimens, remains the mainstay of the diagnostic tool to know the cause organism of lung abscess.

A 50 year old female admitted to the hospital with cough. She had the history of pneumonia with unadequate treatment three month before hospitalized. Chest x-rays shows a density and solitary cavity at right suprahilar accompanied by an air fluid level appearance. The results of gram's staining and culture of sputum specimens were gram (-) bacilli and Enterobacter sp, respectively. The chronic abscess and progressive one without leucocytosis and radiograph feature like that, should be considered the possibility of lung abscess caused by mycobacterium. The patient had been treated by ampicillin 3 x 1 gram iv, gentamycin 2 x 80 mg iv and metronidazole 3 x 500 mg, orally. Clinical improvement occurred after eleventh day therapy, continued by cotrimoxazole 2 x 960 mg, according to the result of sensitivity test. The density and cavity feature disappear after seventeenth day. The patient was discharged on eighteenth day.

The Prevalence of *HbsAg* and *Anti HCV* in Hepatocellular Carcinoma Patients at Sanglah General Hospital Denpasar, Bali

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Hepatitis B and C Virus is closely connected with the pathogenesis of Hepatocellular Carcinoma (HCC). The aim of this study is to know the prevalence of HbsAg (as Hepatitis B virus marker) and anti HCV (as Hepatitis C virus marker) in HCC patients. We studied retrospectively 87 medical records of HCC patients during 1997-1999 period at Sanglah General Hospital Denpasar. As a control group we used blood donors from blood bank of Indonesian Red Cross. Data collected from these two groups included sex, age, HbsAg and anti-HCV. Only 79 from 87 (90%) HCC patients had tested for HbsAg and anti-HCV. The result were as follows: HbsAg was positive in 50.6% (40/79), anti-HCV was positive in 30.3% (24/79), the two markers are negative in 18.9% (15/17) and there was no patient with co-infection (HbsAg and anti-HCV negative). In control group we found HbsAg positive in 2.5% (5/200) and anti-HCV positive in 1% (2/200). The odds ratio for HbsAg and anti-HCV were: 40 (19.8-80.6; CI: 95%) and 43.2 (16.2-91; CI: 95%), respectively. Conclusion: the prevalence of HbsAg and anti-HCV were very high in HCC patients and this long standing infection was an important factor in the pathogenesis of HCC.

The Benefit of Oxygen Hyperbaric Therapy in Diabetic Patient with Diabetic Foot Complication in Sanglah General Hospital

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Background: Diabetic foot is one of the most common complication and most frequent cause of hospitalisation of our diabetes patients. It was estimated that 5-10% of people with diabetes will have this bad complication, and the increasing risk of amputation, prolonged hospitalisation and death. Although Hyperbaric Oxygen (HBO) therapy remain controversial as an additional therapeutic procedures in many hospitals, we try to evaluate the benefit of this procedure in our hospital in Denpasar. The indication of HBO therapy are cellulitis, with or without osteomyelitis and gangren (Wagner grade III-IV).

Aims of the study: To evaluate the outcome of diabetic foot patients as a benefit of HBO therapy such as duration of hospitalisation, the number of foot ulcer healing, amputation and death rate compare to those without HBO therapy (controls).

Method: This case control study was done is Sanglah Denpasar Hospital. A total of 60 patients (30 cases and 30 controls) between June 1996 and January 2000 ware evaluated and followed until they left from the hospital. Chi square test was performed to compare the differences between the case and control groups outcome. Differences were statistically significant if $p < 0.001$.

Results: 76.6% (23/30) of the cases were healed compare to only 50.0%(5/30) in control group and this was statistically significant (p<001). The incidence of amputation was 3.3% (1/30) in each group and the death rates were also not statistically significant (3.3% (1/30) vs. 13.3% [4/30]).

Conclusion: hyperbaric oxygen therapy might have a benefit as an additional therapy in the management of diabetes foot infection in this hospital.

Assumption of Viral Origin Nosocomial Infection

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An outbreak was ocurred in 1999 on 8 neonates several days after birth in the ward of neonatal care unit at Dr.Soetomo' s Hospital. They suffered diaper rash like skin erythema with fever and in unconscious condition. But there were none diaper's cause bruises detected. It was assumed that the cause might be from nosocomial infection, obtained during their admission in the hospital.
To know the real cause of the infection, these new 8 neonates were examined microbiologically at the related laboratory. The laboratory examination included culture of blood specimens, urine, skin, faeces and mother's milk or rest of milk obtained from the hospital, antiseptics used and the clean diapers or those kept in the cupboard of the paediatric ward. Also the existing water found in the ward area.

The bacteriologic result showed that normal flora was presented in almost of the samples. However in the tissue culture were found species of the isolated viruses, which hardly could been identified.
Two of the neonates from which the isolated virus positively detected were death. It can not be concluded whether the virus caused the mortality problem or other else, because in this case no autopsy had been carried out to proof the aetiology.
Further researches should be followed

key words: nosocomial, erythema, and causa mortis

Sensitivity of Pathogens from Sputum Against Various Antibiotics

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Sensitivity of pathogens from sputum against antibiotics monitoring is very important to understand a change of senditivity pattern. Therefore, since January until March 2000 cultures and susceptibility tests had been performed on 37 sputum samples. From all of clinical specimens were isolated : 14 strains of *Streptococcus pneumoniae*, 7 strains of *Klebsiella pneumoniae*, 6 strains of *Enterobacter aerogenes*, 4 strains of *Proteus rettgeri* and 3 strains of *P. vulgaris*. The sensitivity tests was performed by disc diffusion method using Amikacin, Ceftazidime, Imipenem, Fleroxacin, Sulbactam, Ciprofloxacin, Cefotaxime, Cefpirome, Chloramphenicol, Kanamycin, and Erythromycin.

The results as follows:

1. *S. pneumoniae* most sensitive to Imipenem;
2. *P. rettgeri* most sensitive to Imipenem, Fleroxacin, Ciprofloxacin, and Erythromycin;
3. *P. vulgaris* most sensitive to Amikacin, Ceftazidime, Imipenem, and Cefpirome;
4. *E. aerogenes* most sensitive to Imipenem;
5. *Proteus mirabilis* most sensitive to Imipenem, Ciprofloxacin and Erythromycin;
6. *Klebsiella pneumoniae* most sensitive to Imipenem.

key words: sensitivity of pathogens, sputum, antibiotics

Acute Cholecystitis in a Child with Typhoid Fever

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Acute cholecystitis may occur as part of systemic infection and it is uncommon in infants and children. Malformation of the biliary duct, chronic hemolysis and obesity are defined as additional predisposing conditions which result in bile statis that cause acute cholecystitis. Over 3 percent of gallbladder removed for acute cholecystitis contain no stones which caused by S. typhi infection. A five years old girl came to the hospital with main complain fever for 2 weeks. She also suffered from cough, nausea, vomit and decreasing appetite. She also got abdominal pain diffuse and intermitten since a day before and she did not defecate for 2 days. The body weight was 16,5 kilograms. The body temperature was 38° C. The tongue appeared dirty with a hyperemic edge. The abdomen was slightly distended. The laboratory revealed leucocytosis and found S typhi in blood culture. On the fourth day of hospitalization, the signs and symptoms did not reduce and there was found mass of 6 x 4 cm under liver, fixed and pain on palpation. The laboratory examination of amylase was 299.2 U/L. The abdominal ultrasonography revealed an increase in the size of the gallbladder 8.9 x 3.4 cm, doubble wall, sludge and no stones. The patient was treated and on the 13" day of hospitalization, the patient looked better. The signs and symptoms were lesser. The inflammatory process on the biliary duct reduced while the systemic infection resolved so that the obstruction process in the biliary duct was disappeared and also the mass under the liver was not palpable anymore. The patient was discharged in a good condition on day 15 after admission.

Nosocomial Hepatitis Infection in Sulianti Saroso Infectious Disease Hospital, Jakarta

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Nosocomial hepatitis infections are now increasingly recognized as important sources of excess morbidity, mortality and cost in hospitals. Several factors may have contributed to a previous failure to perceive the serious impact of these infections. Hepatitis infections involve a viral source which is generally an infected humans, a vehicle of transmission, and a susceptible host.

The study was carried out to know the prevalence of nosocomial hepatitis infections in high risk group workers in the hospital. We examine 96 workers using macro ELISA, we tested the IgG immune responses to hepatitis infections and were found as 7 workers (0.07%) HBsAg positive, 45 workers (0.46%) anti-HBs positive, 37 workers (0.38%) anti-HBc positive, 7 workers (0.07%) IgG anti-HAV positive and 2 workers (0.02%) anti-HCV positive (HCV RNA positive).

key words: nosocomial infection, hepatitis

Complication of Typhoid Fever in Adult Patients Admitted to the Department of Internal Medicine, Sanglah Hospital, Bali

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Typhoid fever is still among frequent cause of fever admitted to Sanglah Hospital, Bali and not rarely present with complications. The aim of the study was to know the prevalence of typhoid fever complications in this hospital and factors related to the complication. We have conducted a retrospective study on typhoid fever cases hospitalised between January 1999 to March 2000. We found 126 cases with mean age 30.6 years (SD 12.16), admitted to the hospital with fever as a chief complaint in 90.5% (114/126). Complication was found in 17.5% (22/126), such as intestinal bleeding 5.6% (7/126), pneumonia 4.8% (6/126), hepatitis 3.2%(4/126), toxic typhoid 2.4%(3/126), meningitis and arthritis 0.8% (1/126) respectively. Patients with complication come to the hospital in average on the 13th day of the onset of fever. This is significantly difference from patients without complication, who came in average on the 9th day of the onset of fever (p= .0001). Most of patients showed normal leucocyte count both in patients without complication and with complication 70.4% (76/108) and 55.6% (10/18) respectively and statistically there was no significant difference. Leucopenia found in 60% (3/5) patient with intestinal complication, normal leucocyte in 61.5% (8/13) patient with extra intestinal complication, where leucocytosis in 50% (2/4) of extra and intra intestinal complication. We also found Widal test negative in 50% (11/22) patient with complication, such as 71.4% (5/7) of intestinal bleeding, 50% (3/6) of pneumonia, 66.7% (2/3) of toxic patient and 25% (1/4) of hepatitis. We found Widal test positive for more than one serotype in both meningitis and arthritis and also 50% of patient with hepatitis.

Conclusion: Almost one fifth of the patients got complications, frequently intestinal bleeding and pneumonia. Patient with complications commonly came late to the hospital compared to patient without complication. Widal test and leucocyte count have no specific feature in patients with complications.

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