# LIST OF PUBLICATIONS YEAR 2003

<table>
<thead>
<tr>
<th>No.</th>
<th>Authors</th>
<th>Title</th>
<th>Journal and Volume (Issue)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Chen PCY, Phua KL.</td>
<td>Equity in healthcare in developing countries.</td>
<td>Jurnal Kesihatan Masyarakat 2003; Jilid 9</td>
</tr>
<tr>
<td>7</td>
<td>Ghazali O, Chua KB, Ng KP, Hooi PS, Pallansch MA, Oberste MS, Chua KH, Mak JW.</td>
<td>An outbreak of acute haemorrhagic conjunctivitis in Malacca.</td>
<td>Singapore Med J 2003; 44(10): 511-516</td>
</tr>
</tbody>
</table>
# LIST OF PUBLICATIONS YEAR 2003

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Volume/Issue</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Recurrent vagina candidiasis</td>
<td>Loh KY, Sivalingam N.</td>
<td>Med J Malaysia</td>
<td>58: 4</td>
<td>14</td>
</tr>
<tr>
<td>14</td>
<td>Meditation for physical, mental and spiritual health</td>
<td>Loh KY.</td>
<td>Asia Pacific Fam Physician</td>
<td>2: 239</td>
<td>*</td>
</tr>
<tr>
<td>15</td>
<td>Investors in people, a strategy to improve existing good practice</td>
<td>Nadarajah VD, Yusoff N, Ogle JJ, Pereira X.</td>
<td>JIRSEA</td>
<td>2(1): 4-11</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>Continuity of care among diabetic patients in a family practice clinic – how important is it?</td>
<td>Nik Sherina H, Teng CL, Shajahan Y.</td>
<td>Asia Pacific Fam Med</td>
<td>2: 10–15</td>
<td>16</td>
</tr>
<tr>
<td>17</td>
<td>Disease impact and patient insight - a study of a local population of asthmatics.</td>
<td>NS Ahmad, MY Chan, FL Hiew, SA Sharif, P Vijayasingham, T Thayaparan, LC Loh.</td>
<td>Med J Malaysia</td>
<td>58(4): 526-532</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>Perioperative deaths in Malaysia: the transition phase from a developing nation to a developed one.</td>
<td>Palayan K, Inbasegaran K, Lim WL.</td>
<td>Med J Malaysia</td>
<td>58(3): 413-419</td>
<td>18</td>
</tr>
<tr>
<td>21</td>
<td>An elderly man with right hand tremor: is he having Parkinson’s disease?</td>
<td>Teng CL.</td>
<td>Fam Physician</td>
<td>12(1): 22</td>
<td>*</td>
</tr>
<tr>
<td>23</td>
<td>The information seeking behaviours of primary care practitioners in Negeri Sembilan.</td>
<td>Teng CL, Nor Asiah Hashim, Mastura Ismail, et al.</td>
<td>FMS Malaysia</td>
<td>1(1): 24-27</td>
<td>21</td>
</tr>
<tr>
<td>No.</td>
<td>Authors</td>
<td>Title</td>
<td>Journal</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Teng CL, Zakiah Mohd Jamin, Nor Izwah Mohd Kamaruddin, Siti Aisyah Idris</td>
<td>Health beliefs, concerns and expectations of patients presenting with non-acute pain: a preliminary study from a government health clinic in Malaysia.</td>
<td>Asia Pacific Fam Medicine 2003; 2: 23-26</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

* Abstract not available

**Molecular genetic analysis of phosphatase and tensin homolog and p16 tumor suppressor genes in patient with malignant glioma**

Jafri Malin Abdullah, Norafiza Zainuddin, Sarina Sulong, Hasnan Jaafar, Mohamad Nizam Isa

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International Medical University, Sesama Centre, Plaza Komanwel, Kuala Lumpur, Malaysia

**Abstract**

**Objective:**
Several genes have been shown to carry mutations in human malignant gliomas, including the phosphatase and tensin homolog (PTEN) deleted on chromosome 10 and p16 tumor suppressor genes. Alterations of this gene located on chromosome 10 q23 and 9p21, respectively, may contribute to gliomagenesis. In this study, the authors analyzed 20 cases of malignant gliomas obtained in patients living on the east coast of Malaysia to investigate the possibilities of involvement of the PTEN and p16 genes.

**Methods:**
Samples of DNA were amplified by polymerase chain reaction (PCR), analyzed by single-stranded conformation polymorphism (SSCP), and subsequently by sequencing. Two cases of glioblastoma multiforme, three cases of anaplastic astrocytoma, one case of anaplastic pleomorphic xanthoastrocytoma, and one case of anaplastic ependymoma showed SSCP band shifts in PTEN mutational analyses. The DNA sequencing analyses of these samples revealed missense and nonsense mutations, with cluster of mutations in the region 5’ to the core phosphatase motif of exon 5 and the 5’-end of exon 6. No abnormal migration shifts were detected in the glioma samples analyzed for point mutations of the p16 gene. Homozygous deletions of p16 were also not detected in all samples.

**Conclusions:**
These findings indicate that mutations of the PTEN genes were likely to contribute to the tumorigenesis and morphological transformations of gliomas. In addition, the alterations of the p16 gene might not play a major role in tumorigenesis of malignant gliomas in Malaysian patients.

**Key words:** phosphatase and tensin homolog, p16, mutation, polymerase chain reaction–single-stranded conformation polymorphism, glioma
Chen PCY, Phua KL. Equity in healthcare in developing countries. Jurnal Kesihatan Masyarakat 2003; Jilid 9

Equity in healthcare in developing countries

Paul C. Y. Chen * and Phua Kai Lit *

* International Medical University

Abstract

"Equity in health care" can be discussed in terms of equity of health status subject to biological constraints such as age and gender; equity in access to health care services such that financial, geographical and cultural barriers are minimized; equity in utilisation of health care services such that there would not be any "underserved" groups; and equity in financing of health care services such that the burden of paying for health care services is equitably distributed. In this paper, these approaches are critically discussed and analysed in terms of their implications for the organisation, financing and delivery of health care services in the developing countries. Comparative data from selected developing countries are presented to illustrate significant disparities in terms of health equity. The comparison involves Malaysia and twelve other nations which are roughly similar in terms of Gross National Product per capita (GNP per capita) measured using Purchasing Power Parity (PPP) "international dollars". The data shows that health status as measured by life expectancy at birth is noticeably lower in some countries as compared to the other countries. Similarly, equity in access to and equity in financing of health services (as measured respectively by the "responsiveness index" and the "fairness in financial contribution index" of the World Health Report) varies significantly between these countries. A second set of comparisons involving Malaysia and selected neighbouring ASEAN countries are also made. Finally, we conclude that the burden of paying for health care services cannot be equitably distributed if policymakers wish to promote equity in health status, equity in access to health care services and equity in health care services utilization

Key words: Equity, health status, access to health services, utilisation of health care, financing of health services, developing countries
Fatty acid composition of some Malaysian seaweeds

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Abstract
Lipid content and fatty acid composition of nine species of seaweeds (three Rhodophytes, two Chlorophytes and five Phaeophytes), collected from various locations along the west coast of the Peninsular Malaysia, were determined. Of the seaweeds studied, Dictyota dichotoma (Phaeophyta) contained the highest amounts of lipids (17.6% ash-free dry weight) while the Rhodophyte Gracilaria changii had the lowest lipid content (1.1% ash-free dry weight). Fatty acid composition of the seaweeds consisted of 16:0, 16:1, 18:0, 18:1, 18:2, 18:3ω3, 20:1, 20:2, 20:3, 20:4ω6 and 20:5ω3. Saturated fatty acids, particularly 16:0 were dominant, ranging from 51.2 to 84.4% total fatty acids. Except for Grocilaria changii, all the seaweeds produced eicosapentaenoic acid (EPA, 20:5ω3), which ranged from 2.4 to 10.7% total fatty acid. Gracilaria edulis from Sungai Pulai had the highest amount of 20:5ω3; however, the same species from Pulau Kukup contained only low amounts of the fatty acid (5.7% total fatty acids). Malaysian seaweeds are of good nutritional value in terms of their appreciable amounts of long chain polyunsaturated fatty acids.

Key words: seaweeds, fatty acids, lipids, polyunsaturated fatty acids (PUFA), Gracilaria, Sargassum

Nipah virus outbreak in Malaysia

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Abstract
Nipah virus, a novel paramyxovirus, closely related to Hendra virus emerged in northern part of Peninsular Malaysia in 1998. The virus caused an outbreak of severe febrile encephalitis in humans with a high mortality rate, whereas, in pigs, encephalitis and respiratory diseases but with a relatively low mortality rate. The outbreak subsequently spread to various regions of the country and Singapore in the south due to the movement of infected pigs. Nipah virus caused systemic infections in humans, pigs and other mammals. Histopathological and radiological findings were characteristic of the disease. Fruitbats of Pteropid species were identified as the natural reservoir hosts. Evidence suggested that climatic and anthropogenic driven ecological changes coupled with the location of piggeries in orchard and the design of pigsties allowed the spill-over of this novel paramyxovirus from its reservoir host into the domestic pigs and ultimately to humans and other animals.

Key words: Nipah virus; Encephalitis; Outbreak; Malaysia
Reevaluating the use of antibiotics in acute otitis media in children

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Abstract
Increasing concern about the antibiotic resistance in acute otitis media (AOM) has led to debate over use of antibiotic in AOM and duration of therapy. Many studies have proved that watchful waiting should be used more often for acute otitis media. In children over two years, the most appropriate treatment was found to be initial observation followed by 5 days of an antibiotic if the child failed to improve spontaneously. In children less than 2 years or one with severe symptoms antibiotic can be started after 24 hours if there is no improvement with symptomatic treatment. Physician should be more selective in the prescription of antibiotics early in AOM.

Key words: Acute otitis media, antibiotics, drug resistance
Medical negligence suits: risk management

S Elango

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Abstract
Medical negligence suits have become an issue of concern for doctors as well as for the health service departments. The main objectives of medical malpractice law are to compensate patients who are injured by negligence and to improve the quality of medical care. The amount of money and time spent on these cases may not be an effective allocation of social resources to minimize patient safety. Though physicians generally win more malpractice suits, much time and money are spent and results in much stress to those concerned. There are certain controllable events in practice that render a physician more or less vulnerable to malpractice claims. Attempts by physicians to understand and prevent unwanted situations that can lead to litigation is important. The risk factors for medical negligence suits are discussed. The practice of good medicine will be the best form of risk management.

Key words: Medical negligence, medical malpractice, risk management

An outbreak of acute haemorrhagic conjunctivitis in Melaka, Malaysia

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Abstract
This paper reports a second outbreak of acute haemorrhagic conjunctivitis due to coxsackievirus A24 in peninsular Malaysia. Between June 2002 and early October 2003, 10,327 patients, comprising 3,261 children and 7,066 adults, were treated for acute conjunctivitis in 11 government health clinics in the Melaka Tengah district of the state of Melaka. The figure grossly underestimates the size of the outbreak; as no patients treated in private clinics in the same district were included. Institution and household surveillance showed that the commonest presenting clinical feature of the illness was eye-discharge (91.2%), followed by foreign body sensation (81.8%), pain (78.3%) and subconjunctival haemorrhage (74.4%). The mean duration of illness was 6.5 and five days for patients with and without subconjunctival haemorrhage respectively.

Key words: epidemic, conjunctivitis, coxsackievirus A24
Abstract

The objective of this study was to characterize the polypeptides associated with cysts of Blastocystis hominis. This form is believed to be infective and plays a role in parasite resistance to anti-B. hominis drugs currently used for treatment of Blastocystis associated diarrhea. Cysts were induced through in vitro culture of the parasite in complete medium supplemented with bacterial extract with trypsin, metronidazole or doxycycline. SDS-PAGE analysis showed almost similar polypeptide patterns of parasite extracts obtained from in vitro cultured parasites before and after exposure with the three supplements. Polypeptide bands at 76, 58.5, 48, 45, 40, 38, 32, 25 and 22 kDa were constantly seen in all antigenic preparations and no specific cyst-associated polypeptide was present. However, on immunoblot analysis, 3 out of 16 blastocystosis human sera identified a cyst-associated polypeptide at 60 kDa in all parasite extracts prepared from cultures with the three supplements. In addition, there were associated morphological changes detected in these parasites stained with acridine orange and observed under fluorescence microscopy. Metronidazole induced cyst forms (reddish cells) as early as 12 hours post-exposure; more cyst production (with stronger immunoblot bands) occurred after 24 hours exposure. However, cysts rupture with release and destruction of B. hominis daughters cells occurred after 48 hours exposure. Doxycycline induced less cyst-like forms at 24 hours (weaker 60 kDa band) and less destruction of the cysts (60 kDa band still present at 72 hours post exposure). Bacterial extract and trypsin also induced cysts at 12 hours with increasing numbers up to 72 hours exposure (corresponding increase in intensity of 60 kDa band from samples harvested at 12 to 72 hours post exposure) without any sign of deleterious effect on the parasite.
A study of admission criteria and early management of adult patients with acute asthma


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**Department of Medicine, Seremban Hospital, Negeri Sembilan

Abstract
We studied the admission criteria and first 24-hour management of 62 asthmatic patients admitted from Accident and Emergency (A&E) department of a state hospital. Data was collected prospectively over a 6-month period from the doctors' medical records with reference to recommendations of the Malaysian Thoracic Society (MTS) on management of acute asthma. Peak Expiratory Flow Rate (PEFR) records were present in only 14.5% of the A&E notes and 54.8% of the ward notes. Most of these readings were below 75% of predicted normal values. Over half of the patients had records on ability to speak full sentences, and respiratory and pulse rates. Based on other records on criteria for life-threatening features (including arterial blood gases), 42% of patients studied had life threatening asthma exacerbations. Most received appropriate treatment as recommended by the MTS. We conclude that while most patients were admitted and treated appropriately, medical documentation regarding acute asthma assessment were inadequate in some.

Key words: Asthma, admission criteria, management, Malaysia
Interviewing the adolescent patient

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2Lecturer, Dept. of Family Medicine, IMU, Seremban, Negeri Sembilan

Abstract
Health professionals sometimes have difficulty in communicating with adolescents. Adolescents are in the state of change in physical, cognitive, social and emotional areas of development, and therefore are often vulnerable and sensitive. Thus interviewing the adolescent patient can be challenging for many health professionals. Objective: This article describes some interviewing strategies that may help the health professionals to communicate more effectively with the adolescent patients. Discussion: To provide effective care and establish rapport with the adolescents, the health-care provider must understand the adolescents in the context of their developmental stage. Reassuring confidentiality, taking the psychosocial history and observing parent-patient relationship are essential components of the interview. It is important for the adolescents to have positive experiences with health professionals as this will encourage health-care seeking behaviour.

Key words: Adolescent; adolescents; behaviour; Confidentiality; development; effective; experience; families; family; family medicine; health; health care; healthcare; History; Kuala Lumpur; Malaysia; Medicine; Patients; Primary Health Care; psychosocial; Seremban; strategy
Recurrent vagina candidiasis

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Abstract

Recurrent vaginal candidiasis is one of the most common reasons for patients visiting their primary care doctors. Majority of the cases are caused by Candida albicans. Controlling of risk factors such as diabetes mellitus, use of broad spectrum antibiotics, contraceptive pills and steroid therapy helps in managing recurrent vaginal candidiasis. Initial 14-day course of oral azoles and followed by 6 months maintenance are effective in treating majority of the cases. Failure to treat recurrent vaginal candidiasis can lead to various bio-psycho-social complications.

Key words: Recurrent vagina candidiasis
Investors in people, a strategy to improve existing good practice

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International Medical University, Commonwealth Plaza, Bukit Jalil, 57000 Kuala Lumpur, Malaysia

Abstract

The Investors in People (IIP) standard was developed from existing good practices in the United Kingdom, in the 1990s. The standard is an audit of the training and development for people in an organisation and is relatively new to the Asian region. The International Medical University (IMU), founded in 1992, starting with the medical faculty, is willing to invest in achieving the standard because emphasis has been given to the training and development of its staff. As staff is the people component of IIP, a questionnaire was distributed to all staff at different levels to gauge the perception of staff in relation to IIP requirements. The results of the questionnaire had suggested 4 areas for improvement (effective induction, provision of equal opportunities, recognition of performance and improvements to developmental activities). Appropriate solutions have been recommended to improve the areas of concern, e.g. the setting up of the Staff Training and Development Committee. Follow-up surveys and interviews to assess the effectiveness of the recommendations will be conducted every 6 months. This paper reports that staff perceptions and needs are crucial in improving the mechanisms already in place.

**Continuity of care of diabetic patients in a family practice clinic: how important is it?**

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²International Medical University, Seremban, Malaysia
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**Abstract**

**Aim:**
To assess the importance of continuity of care among diabetic patients attending a primary care clinic and to correlate degree of continuity of care with diabetic control.

**Methods:**
A cross sectional survey was carried out among diabetic patients (n = 166) attending follow-up consultations in a family practice clinic of a teaching hospital. Face-to-face interviews were carried out on patients' perception of continuity of care and various aspects related to diabetes. Diabetic control was assessed by glycosylated hemoglobin. Retrospective chart audits of each patient over the previous 28 months were done to assess the degree of continuity of care, measured with the Usual Provider Continuity Index (UPCI).

**Results:**
The UPCI ranged from 0.18 to 1.00 with a mean value of 0.60. The average number of visits per patient over the 28-month period was 11.7 visits. The majority of patients saw five different doctors for all their visits. There were no statistically significant associations between the degree of provider continuity with diabetic control (r = 0.054) and diabetic self-care behavior (r = 0.065). The majority of patients (89%) felt that it was important to have a regular doctor. The main reason given was that a regular doctor would know the patient's problems.

**Conclusions:**
Continuity of care was highly valued by diabetic patients attending a hospital-based family practice clinic. Even though the degree of continuity was not associated with the degree of diabetic control, patients felt that it was important to have doctors who are aware of their problems.

**Key words:** continuity of care; diabetes mellitus; family practice
Disease impact and patient insight - a study of a local population of asthmatics


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**Department of Medicine, Seremban Hospital, Negeri Sembilan

Abstract
The cornerstone of asthma management is achieving adequate symptom control and patient education. We studied in our local population of asthmatic patients how well their symptoms were controlled with currently prescribed treatment and their insight into the disease and its management. Over a 6-month period, 93 asthmatics recruited from two local government health clinics and a state hospital were interviewed using a standard questionnaire. Patients were classified into 4 groups based on the treatment they were on according to Global Initiative for Asthma (GINA) treatment guidelines. The number of patients in Step 1 (rescue medication alone), Step 2 (1 controller medication), Step 3 (2 controller medications) and Step 4 (at least 3 controller medications) were 8, 39, 34 and 12, respectively. Except for day symptoms in Step 1 group, fewer than 50% achieved minimum day or night symptoms and no restriction of daily activities. Questions on patient insight were only available for 50 patients. Weather change (74%), air pollution (66%) and physical stress (46%) were the three highest ranked common asthma triggers. More than half correctly recognized the important symptoms of a serious asthma attack but fewer than 15% were familiar with the peak flow meter and its use or with the asthma self-management plan. Most patients perceived that their treatment had helped reduce disease severity and exacerbations. We conclude that symptom control and some aspect of patient education are still lacking in our local asthmatics.

Key words: Asthma, symptom control, insight, Malaysia
Palayan K, Inbasegaran K, Lim WL. Perioperative deaths in Malaysia: the transition phase from a developing nation to a developed one. Med J Malaysia 2003; 58(3): 413-419

Perioperative death in Malaysia: the transition phase from a developing nation to a developed one

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Abstract
This paper examines the surgical pathology associated with perioperative deaths in a country that is undergoing the transition from a developing to a developed nation status. The data from an ongoing nation-wide perioperative mortality study was prospectively collected for the period July 1996 to December 1997 and analyzed. The surgical pathology related to perioperative deaths in Malaysia is different from other developing and developed countries. While death from trauma and the late presentation of surgical conditions are similar to developing countries, infective gastrointestinal conditions were rarely encountered. Diseases associated with advanced age such as colorectal cancer, peptic ulcer, urological diseases and vascular conditions are beginning to emerge. As the country races towards a developed nation status, increasing life expectancy and changing life-styles are expected to influence the disease pattern. The planning of surgical facilities and manpower development must recognize the changes taking place.

Key words: Perioperative deaths, surgical pathology, developing countries
Gastric cancer in Malaysia: the need for early diagnosis

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** Department of Surgery, Hospital Selayang
***Pathology Department, Hospital Ipoh

Abstract
Gastric cancer is an important cause of death among patients with malignancies in Malaysia. Survival of patients with gastric cancer is dependent on the stage at which diagnosis is made. We report our experience in dealing with gastric cancer in a major Ministry of Health Hospitals in Malaysia. A retrospective review of two hundred and fifty consecutive histologically proven gastric adenocarcinoma at Hospital Ipoh for the period January 1988 to 1998 was performed. The study confirms that gastric cancer is a disease of the elderly and has a male preponderance. It is also identifies the Chinese and Indians to be at increased risk of gastric cancer when compared to the Malays. The most striking finding in this study was the very late stage of disease at time of presentation. Eighty-two percent of the patients presented with stage IV disease and curative surgery was offered only to a 16% of them. In a substantial number of patients not even a palliative procedure was offered. Early detection is the key to improving survival in gastric cancer patients. There is an urgent need for clinicians to change their approach to the management of the disease. Patients with dyspeptic symptoms should be investigated early rather then wait for classical symptoms of gastric cancer.

Key words: Gastric cancer, stage of disease, curative surgery

Morbidity and process of care in urban Malaysian general practice: the impact of payment system

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²Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia
³President, Primary Care Organisation Malaysia

Abstract

Background:
The majority of primary care consultations in Malaysia occur in the general practice clinics. To date, there is no comprehensive documentation of the morbidity and practice activities in this setting.

Objective:
We reported the reasons for encounter, diagnoses and process of care in urban general practice and the influence of payment system on the morbidity and practice activities.

Methods:
115 clinics in Kuala Lumpur, Ipoh and Penang participated in this study. General practitioners in these clinics completed a 2-page questionnaire for each of the 30 consecutive patients. The questionnaire requested for the following information: demographic data, reasons for encounter, important physical findings, diagnoses, investigations ordered, outpatient procedures performed, medical certificate given, medication prescribed and referral made. The morbidity (reasons for encounter and diagnoses) was coded using ICPC-2 and the medication data was coded using MIMS Classification Index.

Results:
During 3481 encounters, 5300 RFEs (152 RFEs per 100 encounters) and 3342 diagnoses (96 diagnoses per 100 encounters) were recorded. The majority of the RFEs and diagnoses are in the following ICPC Chapters: Respiratory, General and unspecified, Digestive, Neurological, Musculoskeletal and Skin. The frequencies of selected aspects of the process of care (rate per 100 encounters) were: laboratory investigations 14.7, outpatient procedures 2.4, sick certification 26.9, referral 2.4, and medication prescription 244. Consultation for chronic diseases and acute infections were influenced more by demographic variables (age, employment) rather than payment system. Cash-paying patients were more likely to receive laboratory investigations and injections.

Conclusion:
This study demonstrated the breadth of clinical care in the general practice. Relatively fewer patients consulted specifically for preventive care and treatment of chronic diseases. The frequencies of outpatient procedures and referrals appeared to be low. Payment system results in important differences in patient mix and influences some types of practice activities.

Key words: Morbidity, Family practice, Practice patterns, Payment
The information seeking behaviours of primary care practitioners in Negeri Sembilan

Teng CL, Nor Asiah Hashim, Mastura Ismail, Mariam Abdul Manap, Norsiah Au, Junaidah Abdul Rahman, Sabariah Idris, Shariah Idris, Siti Rokiah Kamaruddin

Objective:
To determine the information needs and usage of clinical practice guidelines of primary care practitioners in Negeri Sembilan.

Methods:
Mailed questionnaire survey of all medical officers and medical officers working in 39 Klinik Kesihatan in the State of Negeri Sembilan.

Results:
Response rate 46%. Half of the medical officers and one-third of the medical assistants intended to specialise in the next two years. Two-fifth of them have attended at least one conference in the past year. Lectures and workshops are the preferred modes of CME. The ranking of information needs vary considerably between medical officers and medical assistants. There was low usage of credible web-based electronic information sources. CPGs were used to a greater extent by medical officers than medical assistants.

Conclusion:
Medical officers and medical assistants have somewhat different information needs, probably reflecting the differing requirement of their clinical practice and perceived areas of deficiency. Improving internet access at the workplace and making available more CPGs relevant to primary care are potential strategies to encourage the use of evidence in clinical practice.

Key words: Information needs, evidence-based medicine, primary care
Upper respiratory tract infections: to what extent is the management evidence-based?

Abstract
Over a 2-week period, the management of upper respiratory tract infection by 24 medical officers and medical assistants in Seremban District was studied. Each practitioner recorded clinical data and prescription for twenty consecutive patients using a structured questionnaire. The extent to which the practitioners used "predictive features" (fever, absence of cough, cervical adenopathy, enlarged tonsils and exudates on tonsils) in clinical decision-making was analysed. The mean antibiotic prescription rate was 28.7% (95% CI: 24.6%, 33.0%). The antibiotic prescription rate of medical officers and medical assistants were similar. Five features were independently associated with antibiotic prescription (phlegm, fever, cervical adenopathy, red throat and tonsillar exudates). Antibiotics were prescribed for 22.1% of patients with 0-1 predictive features. High prescribers were 5 times more likely to prescribe antibiotics in this group of patients than low prescribers. To a larger extent the clinical decision-making of practitioners in this study was evidence based. However, they were unduly influenced by purulent manifestation (phlegm) and redness of throat. The antibiotic prescription rate in these government health clinics is potentially reducible by means of educational intervention.

Key words: Upper respiratory tract infection, Sore throat, Streptococcal infection, Antibiotic prescription

Health beliefs, concerns and expectations of patients presenting with non-acute pain: a preliminary study from a government health clinic in Malaysia

Cheong Lieng Teng, Zakiah Mohd Jamin, Nor Izwah Mohd Kamaruddin, Siti Aisyah Idris.

International Medical University, Jalan Rasah, 70300 Seremban, Malaysia

Abstract

Aim:
This study explored the health beliefs, concerns and expectations of primary care patients presenting with abdominal pain, headache and chest pain.

Methods:
Over a 6-week period, 107 adult patients with symptoms of pain were interviewed using a semistructured questionnaire.

Results:
The presenting symptoms of these patients were: abdominal pain, 41; headache, 35; and chest pain, 31. Females made up 53.3%; the ethnic groups were Malay (35.5%), Chinese (18.7%) and Indian (45.8%); and 71.8% of the patients had primary or secondary education. The patients’ attributions of their symptoms were predominantly non-medical in all three ethnic groups. The non-medical causes mentioned include food, trauma, stress, weather changes and winds (‘angin’). Only two fifths of the patients mentioned disease-specific concerns. Three quarters of these patients expected either medications or wanted the doctor to look for serious causes. Very few patients specifically wanted referral or special tests.

Conclusions:
The patients in the study had health beliefs and concerns, in view of their non-medical focus, that was at variance with those of the health care providers. However, having decided to consult the health clinic, they were mainly looking for symptomatic relief or evaluation for serious pathology.

Key words: concerns: expectations: health beliefs: pain

Ultrasonic evaluation of anterior shoulder translation in normal shoulders

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Abstract

Anterior translation in the right shoulders of 23 volunteers was evaluated using ultrasound from an anterior approach with a 10 MHz, 6 cm wide linear transducer. A translatory force of 90 N was used to translate the humeral head in the adduction and internal rotation position, while a translatory force of 60 N was used in the more clinically relevant position of 90° abduction and external rotation position. The overall intra-observer coefficients of variation ranged from 0–13.0% (mean 3.8 ± 2.5%) for examiner I and 0.5–20.9% (mean 5.1 ± 3.9%) for examiner II. The overall inter-observer variation ranged from 0–29.8% (mean 9.3 ± 7.3%). The anterior translation of the humeral head in adduction and internal rotation following 90 N displacement force ranged from -2.6 to 12.9 mm (mean 2.1 ± 3.1 mm) for examiner I and from -4.1 to 4.7 mm (mean 1.1 ± 2.2 mm) for examiner II. The anterior translation of the humeral head in abduction and external rotation following 60 N displacement force ranged from -3.3 to 3.7 mm (mean 0.3 ± 1.9 mm) for examiner I and from -8.3 mm to 4.5 mm (mean -0.7 ± 2.6 mm) for examiner II. The intra-class correlation coefficients (r) for the measured anterior translation between the two examiners for the 2 positions were 0.029 and -0.058 respectively. We concluded that the inter-observer coefficient of variation remained excessive and the agreement in the measured anterior translation between the two examiners was poor. The finding of negative values in the measured anterior translation despite the use of 90 N and 60 N translatory force raises further concerns about the prospective clinical use of this technique at the present moment.

Key words: Ultrasound; Shoulder; Anterior translation
Epilepsy in pregnancy – a primary care approach

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Abstract
Epilepsy is the most common neurological disorder in pregnancy. The effects of epilepsy include congenital abnormalities which are increased 2-3 fold. The babies born suffer from haemorrhagic disease of newborn. Preconception management and folic acid supplementation is important in optimizing outcome. With close monitoring and proper management, more than 90% of mothers have no complications throughout their pregnancy. Hormonal contraception dosage need to be increased due to the enzyme inducing nature of the anti epileptics drugs.