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MEDICAL PRACTICE HOSPITAL IPOH

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We are grateful to the Director-General, Ministry of Health Malaysia for permission to publish the articles in this issue of Medical Practice Hospital Ipoh.

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The Clinical Research Centre Perak (CRC Perak) at Hospital Raja Permaisuri Bainun Ipoh, officially began functioning in March 2001. The CRC was initially based in the 9th floor of the hospital with a computer training facility. The development of the Ambulatory Care Centre (ACC) has allowed the CRC to be housed at a larger facility since early 2006.
National Medical Research Register

Lina Hashim, Amar-Singh HSS

A new online vehicle was initiated and officially launched in 2007 by the National Institutes of Health (NIH) of the Ministry of Health (MOH) Malaysia, to drive clinical research forward in a systematic manner. The National Medical Research Register (NMRR) is a web-based application to support the implementation of the NIH’s guideline on the conduct of research in the MOH. It facilitates the researcher through research ethical approval, research funding, research publication approval, etc. The NMRR enables all research conducted within MOH or by MOH staff to be accessible in a single database to policy makers/managers, other researchers, sponsors of clinical trials and the public. This ensures transparency and increases public trust, allows for policy makers to use research conducted, reduces the duplication of similar research and helps sponsors identify keen researchers. The NMRR is also cost and time-saving, and improves the efficiency of managing MOH research activities, through tracking the progress of and speeding up of research approvals. Researchers are also offered value support via the NMRR.

Via the NMRR, MOH is able to enforce and implement its research policy in the following areas:

- Registration of all research that involves MOH personnel, or that is to be conducted in MOH facilities, or to be funded by a MOH research grant
- Review and approval of the research by designated MOH personnel, within the NIHs, to whom authority has been delegated for the purpose
- In addition, research involving human subjects requires prior review and approval by the MOH Research and Ethics Committee (MREC)
- Approval of all research publications, whether in the form of research report, journal article or conference proceeding, by the NIH initially and thereafter by the Director General of MOH

Most researchers agree that research is a vital method for understanding problems that affect individuals, communities or health systems. It allows for a systematic and scientific assessment or evaluation of the problem and often provides knowledge that allows for change to occur – change that can improve the quality of health and health care. However many researchers produce research proposals that are lacking in vital aspects and hence, when submitted via the NMRR, get returned for revision. The common failures include weak or limited (unclear) methodology, lack of protection of patient confidentiality (data capture sheets containing patient names or identification data), the lack of proper data capture sheets or questionnaires, the absence of consent forms/patient information sheets and no or incomplete institutional approval. Many health professionals start out doing research without learning the scientific, ethical and administrative processes that are required to obtain a meaningful result and one that will enable future publication.

Research involving human subjects require prior ethics review and approval by the MREC. A human subject (in the context of research) is “a living individual about whom an investigator obtains either data through intervention (e.g. clinical trial) or interaction (e.g. questionnaire in health survey) with the individual, or identifiable private information”. This Helsinki Declaration covers virtually all forms of research conducted that involve human subjects.

CRC Perak would like to use this opportunity to promote the NMRR to all researchers in the region. Note that no research can be conducted in MOH without all of the following:

- NMRR registration
- Institutional Approval (local hospital & state)
- MREC approval (ethical clearance)

REFERENCES:

Improving Knowledge On Type 2 Diabetic Patients On Oral Hypoglycaemic Agents

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INTRODUCTION

WHO has recognised diabetes mellitus as a chronic disease epidemic. The Malaysian National Health and Morbidity Survey II showed an increase in the percentage of Type 2 diabetics from 6.3% in 1986 to 8.3% in 1996. Oral hypoglycaemic agents (OHA) are the important drugs used and patient knowledge on OHA is important for better glucose control. The objective of this study was to improve knowledge among diabetic patients on OHA in the outpatient setting using an intervention programme comprising provider education and focused client education.

METHODOLOGY

A non-controlled, community trial on type 2 diabetic patients on OHA treatment was conducted in a district outpatient setting, from November 2006 to August 2007, to assess the effectiveness of an intervention package. The intervention package consisted of standardised structured guidelines, OHA chart, medication explanation checklist, reminder stickers for OHA envelopes and pamphlets. Outcomes were assessed on independent samples of patients via face-to-face interviews at baseline, 5 (PI1) and 8 (PI2) months post-intervention using a structured questionnaire. Respondents were recruited at the pharmacy via convenient sampling method from a sampling frame of 8,500 diabetics.

RESULTS

Patient ages ranged from 30 to 83 years old, with 60% being female and 60% Malays. Almost half of the patients were primary schooled and majority of patients have been on OHA for an average of two years. A total of 302 patients were sampled at baseline, 176 at PI1 and 244 at PI2. Most patients had significant improvement in overall knowledge at PI1 and sustained at PI2 particularly for patients with different duration of diabetic illness (p < 0.001) and number of OHA used (p <0.001). Further analysis done towards 2 different facilities (health clinics and hospital setting) showed a better improvement in health setting.

CONCLUSION

The intervention module designed was effective and showed a significant improvement in overall knowledge across different socio-demographic factors.

KEYWORDS

oral hypoglycaemic agents, diabetic, improve knowledge
Health Seeking Behavior Towards Communicable Diseases Among Foreign Workers In Industrial Sector And Agriculture Sector In Selected Districts In Perak

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INTRODUCTION

Information regarding the pattern of behaviour of foreign workers in seeking health and in their utilisation of health facilities is limited. This may hinder strategic policy formulation and implementation in the health system especially in relation to managing communicable diseases. Information is needed on health-seeking behaviour, barriers, accessibility and utilisation of services. This study was to determine the health-seeking behaviour towards communicable diseases among foreign workers in the industrial and agricultural sectors in Perak.

METHODOLOGY

A cross-sectional community survey was done to look at health-seeking behaviour towards communicable diseases among foreign workers in the agricultural sector from Hulu Perak and Kuala Kangsar districts and industrial sectors from Kinta district in Perak. Purposeful sampling was conducted to ensure that all relevant sectors and ethnic groups were included. The study gathered information through interviews or were self-administered using a standardised, pre-test questionnaire. Health-seeking behaviour for reported illnesses of foreign workers and for possible communicable illnesses (4 clinical scenarios) were evaluated. Availability, accessibility and choice of health care services as well as perceived obstacles were assessed.

RESULTS

710 foreign workers were interviewed. The majority of respondents were from Bangladesh (30.4%), followed by Indonesia (27.7%), Thailand (16.9%), Nepal (14.1%) and Vietnam (10.8%). A total of 338 (47.9%) workers were in the agricultural sector and 372 (52.4%) were in the industrial sector. 328 (46.2%) were from Hulu Perak, 331 (46.6%) from Kinta and 51 (7.2%) from Kuala Kangsar districts. Most of the respondents who participated in this study were workers with work permits (90.3%), and only 9.7% (69) were illegals. Out of the total 710 respondents, 70 respondents (9.85%) had experienced serious illness and another 209 respondents (29.4%) had experienced mild illness. For those who had experienced serious illness, 68 out of 70 respondents sought medical treatment (97.14%) as compared to only 172 (82.3%) out of 209 respondents with mild illness. Of the 172 respondents who sought treatment for mild illness, an equal percentage (48.8%) of them sought treatment at government and private clinics and hospitals. 19.8% of respondents were admitted to hospital and 85.5% of them considered that the fees were affordable. In response to 4 clinical scenarios (PTB, malaria, cholera and typhoid symptoms), they would seek appropriate health care. The majority of foreign workers from the plantations (82.5%) needed to travel more than 20 km whereas 93.7% from the industrial sector only needed to travel less than 5 km to seek treatment.

CONCLUSION

This study showed that foreign worker does not seem to have problems in seeking health care. Access to care is a problem in the plantation sector in term of geographical location. Both legal and illegal worker seek health care for their serious and mild illness. Legal and illegal foreign worker appears to understand serious illness and take appropriate action accordingly. There is a need to improve access to health care for plantation workers.

KEYWORDS

health-seeking behaviour, foreign workers, industrial and agricultural sector, communicable diseases
Improving Asthma Care In Ministry of Health Primary Care Clinics

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INTRODUCTION

The goal of asthma treatment should be optimum asthma control. This study was carried out to improve asthma management among adolescents and adults attending Primary Health Care Clinics under the Ministry of Health in the Kinta and Batang Padang Districts by the use of the Asthma Control Test (ACT) as part of the asthma plan and asthma handbook to educate, and by patient self-empowerment.

METHODOLOGY

This study was a non-controlled convenient quota sampling community trial from August 2008 to February 2009 in 6 government health clinics. Asthma patients who fulfilled the criteria and received treatment during the study period were sampled. Interventions included giving patients a self-administered test card using the Asthma Control Test (ACT), assisted by a trained health care provider, and measurement of peak expiratory flow rate (PEFR) at every clinic visit. Health care providers were given revised GINA guidelines, educated about ACT and PEFR use. To reinforce education of the patient, Asthma Action Plan which includes ACT scores for self-assessment, Asthma Control Handbook and Asthma treatment Records were introduced.

RESULTS

Of the total 634 respondents, 516 (77.1%) completed the study. 118 respondents were dropped due to default in follow-up and no outcomes available. Comparing the baseline and post-intervention socio-demographic characteristics, there was no significant difference between gender, ethnicity and age groups between those who completed and those who failed to complete the study. Majority of them were Malays, female and aged between 40 to 50 years old. At baseline, 35.8% of asthmatics were controlled, 35.6% had a PEFR less than 60% (of best predicted value) and 67.5% were on preventer medication. In post-intervention, the proportion of those with asthma control significantly increased to 52.9%, while those with a PEFR less than 60% (of best predicted value) decreased to 26.8% and those on preventer medication increased to 85.9%. The proportion of patients with uncontrolled asthma reduced from 25.6% (95% CI 22-29) to 13.8% (95% CI 11-17). After the intervention, the asthmatic control among those of Indian ethnicity significantly improved from 25% (95% CI 18-31) to 42% (95% CI 35-50). Those aged 41-50 years old also showed significant improvement from 41% (95% CI 33-49) to 59% (95% CI 51-67).

CONCLUSION

This study has shown that only one-third of asthmatics were controlled at baseline. The overall rate of asthma control for those patients who completed the intervention improved from 39.7% to 52.9%. The intervention package used in this study was effective in improving asthma control.

KEYWORDS

asthma, control, ACT, asthma control test, intervention, asthma action plan, preventer medication, PEFR
Vaccine Storage In Private Practice: A Community Trial In Malaysia

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INTRODUCTION

The aim of this study is to assess vaccine storage practices, and the effectiveness of an intervention to improve these practices among private practitioners.

METHODOLOGY

A non-controlled community trial was conducted to assess vaccine storage practices in private physician clinics, in four administrative regions in Malaysia. Registered nurses from the public health clinics were identified as research assistants. The trial consisted of four audits with the implementation of the intervention package carried out concurrently with the audits. The intervention package consisted of training, enabling resources and educational materials as well as additional incentives. Outcomes measured were type of refrigerator, use of a dedicated refrigerator for vaccines, placement of the refrigerator, placement of vaccine in the refrigerator, maintenance and monitoring of internal refrigerator temperature, singly or in combination.

RESULTS

442 private practitioner clinics participated. At 1 year post-intervention, the dropout rate was 2.7%. 85.1% were general practitioner clinics, with only 12.0% run by specialists. At baseline, the percentage of private practitioner clinics complying with any one particular criterion was low. The recommended refrigerator type was used by only 21% (95% CI 14.3-29.3), and 8.8% (95% CI 6.1-11.4) had a dedicated refrigerator for vaccines. Correct placement of refrigerator and monitoring of internal refrigerator temperature was negligible, while placement of vaccines was only correctly done in one-third of practices. 56.9% (95% CI 45.2-68.7) of the practices had their internal refrigerator temperatures in the recommended ranges. At 1 year post-intervention all except one essential criterion for good vaccine storage had improved significantly. Substantial changes were seen in correct placement of vaccine, maintenance of temperature between 2-8 °C and daily monitoring of temperature. No private clinic achieved the six essential criteria in combination at baseline. 3.9% (95% CI 0-0.8) managed to do so at the end of 1 year. Of more importance was the ability to fulfill a combination of 4 essential criteria, with vaccines and drugs together. This improved from 1.2% (95% CI 0.0-2.3) at baseline to 50.9% (95% CI 37.0-64.7) at 1 year and was sustainable.

CONCLUSION

This data supports the opinion that the vast majority of private clinics that provide vaccination do not have good vaccine storage and has implications for the control of immunisable diseases. The study showed that private clinics were amenable to change and, that given appropriate support and education during 3 consecutive audits, up to 64.7% achieved good vaccine storage one-year post-intervention.

KEYWORDS

vaccine storage practices, private practitioners
Improving Blood Pressure Controls In Primary Care Settings

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INTRODUCTION

Hypertension is a major public health problem with a big community. There are many barriers to the effective management of patients with hypertension including specific physician and patient factors. In this study is a report of health care provider and community interventions to improve blood pressure control among essential hypertension patients in the primary care setting.

METHODOLOGY

This was a controlled community trial to assess the effectiveness of an intervention targeted at health care providers and patients. Health clinics that participated were from three semi-urban locations in Malaysia. In each district, 2 clinics were chosen for intervention and 2 clinics for control. 339 patients were interviewed and a focus group discussion was held with paramedics and medical officers to identify their basic knowledge of hypertension and problems which they face in managing patients with hypertension. From this data an interventional package was developed. Multiple cross-sectional surveys on blood pressure control were done at baseline and monthly for 4 consecutive months post-intervention.

RESULTS

A total of 3,000 patients were sampled at baseline and 1 to 4 post-intervention assessments. There was a significant improvement in the proportion of patients whose blood pressure was treated to target at 1 month post-intervention as compared to baseline. This improvement was sustained over four consecutive months in the clinics with intervention. Blood pressure treated improved from 44% at baseline to 66% at 4 months post-intervention. The percentage of blood pressure treated to target, significantly improved among females and those aged less than 60 years.

CONCLUSION

The interventional package in this study had significantly improved blood pressure control in patients with essential hypertension in a busy primary care setting.

KEYWORDS

blood pressure to target, primary care, hypertension, community trial, health care provider
The Involvement Of Lay Educators In The Diabetic Control Of Type 2 Diabetic Patients

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INTRODUCTION

Type 2 diabetes is associated with high mortality and morbidity rates. The cost incurred in treating diabetes-related complications is an unnecessary financial burden to the country. Studies have shown that lay-led patient self-management programmes have been effective in helping diabetic patients control the progression of their disease. This study aimed to assess the effectiveness of lay health educators in improving diabetic control in Type 2 diabetic patients.

METHODOLOGY

This was a controlled community trial (interventional study). Fifty patients with Type 2 diabetes mellitus were recruited in each of the intervention and control groups. 16 volunteer lay educators were chosen from the local community and trained to educate patients in the intervention centre. Lay educators met patients on an individual basis once a month for 3 months. The key outcomes measured were glycosylated haemoglobin (HbA1c), body mass index, weight, physical activity levels and knowledge after 3 months and HbA1c levels were repeated after 6 months.

RESULTS

There were significant differences in the socio-demography of the populations of the intervention and control groups in terms of mean age, ethnicity and occupation. There was a significant increase in the number of patients with high physical activity levels at 3-month post-intervention (mean hours per week 39.69 vs 26.30, p < 0.001). Significant improvements in mean HbA1c levels at 6 months were also noted in the intervention group (18.0 to 45.5% HbA1c < 6.5%, p = 0.014). There was improvement in the knowledge of the 16 lay educators. A majority of patients (97.8%) and lay educators (100%) felt that the programme was beneficial to them. The problems encountered by them during the programme were language issues, insufficient reference materials, time constraints and the number of patients per lay educator group.

CONCLUSION

This study showed that the lay-led community health programme was effective in improving diabetic control in Type 2 diabetic patients in terms of physical activity levels and HbA1c levels. However, more research on a local level is required to refine implementation issues.

KEYWORDS

lay educator, patient self-management programme, diabetic control, HbA1c, physical activity
Effective Implementation Of A Structured Psycho-education Programme Among Caregivers Of Patients With Schizophrenia In The Community

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INTRODUCTION

Psycho-education has shown promising benefits in managing patients with schizophrenia. In Malaysia, the use of psycho-education is rather limited and its impact indeterminate. This study was to assess the effectiveness of a structured psycho-education programme for the community in improving caregiver knowledge, decreasing caregivers’ burden, reducing patients’ re-admission and defaulter follow-up rates.

METHODODOLOGY

This was a controlled interventional study involving caregivers of adults with schizophrenia. Subjects for the interventional and control group were selected from seven separate community clinics. All respondents identified were given the demographic survey, pre-test questionnaire and The Family Burden Interview Schedule – Short Form (FBIS/SF) prior to intervention. The respondents in the interventional group went through a structured psycho-educational programme followed by an immediate post-test questionnaire after the completion of the modules. Caregivers were assessed at baseline, 3 and 6 months post-intervention for knowledge and burden using the knowledge questionnaire and FBIS/SF. Patients were monitored for relapse and defaulting treatment. The staff were also required to complete a survey form regarding their opinion of the whole psycho-education programme 3 months into the programme.

RESULTS

109 caregivers were included, 54 and 55 in the intervention and control groups respectively.

Baseline demography of the caregivers showed that mean age (53.1 vs 53.9 years) and ethnicity was not significantly different in both groups. However, there were more males in the intervention group (50.0% vs 27.3%, p= 0.025), the duration as a caregiver was significantly shorter in the interventional group (caring for less than 5 years: 37.0% vs 18.2%, p= 0.047) and the mean duration of illness was shorter in the intervention group (below 10 years duration: 48.1 vs 28.8% respectively, p= 0.04). Caregivers in the intervention group showed significant improvement in knowledge scores (score 18.65 vs 14.93, p < 0.001), reduction in burden in assistance in daily living (severity, p < 0.001) and a reduced patient defaulter rate. All staff involved in the psycho-education programme were satisfied in giving the programme and 90% agreed that the programme had been beneficial to the patient.

CONCLUSION

The findings support the use of a structured psycho-education programme among caregivers of patients with schizophrenia in the community.

KEYWORDS

schizophrenia, psycho-education, community, caregiver
Home Safety Practices For Prevention Of Poisoning In Young Children

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INTRODUCTION

Poisoning in young children is defined as unintentional ingestion of medication and common household products/chemicals. Poisoning in young children is a preventable cause of mortality and morbidity. Poisonings account for 2% of the accidental deaths in developed countries and for 5% in developing countries. Most poisoning accidents occur in children aged between 1 to 4 years. The objective of the study was to evaluate and improve home poison safety practices to prevent poisoning in homes with children aged 1-4 years in the Kinta and Manjung Districts.

METHODOLOGY

The study was a non-controlled community trial conducted at urban and semi-urban areas in Perak to assess home safety practices and effectiveness of an intervention programme in the home setting. Initial validation of a safety device involved 100 children and 100 adults (parents/caregivers accompanying the child) who attended MOH health clinics and were recruited to test two home safety devices. In both urban and semi-urban areas, 300 households with children aged 1-4 years were randomly selected. They were audited at baseline. Two post-intervention audits were conducted at 3 and 6 months post-baseline audit using the same tools as in the first audit. The households were divided into two intervention arms. A control arm was considered unethical. Caregivers in the first arm received Intervention Package 1 which consisted of an immediate post-audit feedback, an education pamphlet and a home safety device while caregivers in the second arm received Intervention Package 2 which consisted of an immediate post-audit feedback and an education pamphlet.

RESULTS

At baseline, 60-71% of urban and semi-urban households in Perak had unsafe home safety practices to prevent poisoning in young children. Only 30 (20.4%) households in the Kinta District compared to 79 (52.7%) households in Manjung District had good knowledge. Good knowledge did not ensure a safe household. At the end of the study there was a statistically significant increase in the percentage of safe households in both districts with Kinta District doing better. Kinta District had an increase from 48.6% (CI 40.4-56.8) to 93.9% (CI 89.7-98.0) while in the Manjung District, the increase was from 21.3% (CI 14.7-28.0) to 67.7% (CI 59.7-75.6).

CONCLUSION

The intervention package mainly the Home Safety Practices Audit checklist, self-developed for this study, significantly improved home poisoning safety practices. Between 75.7-85.3% of urban and semi-urban households in Perak had a safe home to prevent poisoning in children at the end of the study. Addition of the safety device to the home safety practices audit further improved home poisoning safety practices. Knowledge and perception does not ensure a safe household in prevention of poisoning in young children.

KEYWORDS

poisoning in children, home poisoning safety practices, safe households, home safety practices audit checklist, safety device.
INTRODUCTION

Oral Proton Pump Inhibitors (PPIs) are used extensively at Hospital RPB Ipoh. In 2005 and 2006, 1.79% and 2.02% of the total drug cost budget was spent on PPIs respectively. From 2005 to 2006 the cost of PPI therapy increased by 25.86%. The objective of this study was to evaluate the appropriateness in the utilisation of PPIs as well as the doses and duration used.

METHODOLOGY

A convenient sampling was conducted. Medical records of 78 patients who were prescribed with Cap Lansoprazole 30 mg or Tab Pantoprazole 40 mg in the Medical Outpatient Department, Hospital RPB Ipoh, from July to August 2007 were reviewed. Data were collected and analysed according to the PPI usage criteria based on the latest MOH Drug Formulary, literature, published guideline and expert opinion.

RESULTS

From the study, 45 (57.7%) out of 78 patients did not meet the PPI usage criteria. Among these 45 patients, 11 (24.4%) patients used PPIs for NSAIDs prophylaxis and 10 (22.2%) patients used PPIs as maintenance therapy for non-erosive GERD. The other patients who were started on PPIs for non-indicated use were 10 (22.2%) with gastritis, 4 (8.9%) with epigastric pain, 2 (4.4%) with non-ulcer dyspepsia, 2 (4.4%) with steroid-induced ulcer prophylaxis and 2 (4.4%) with drug-induced gastrointestinal discomfort.

CONCLUSION

A sizeable proportion of PPIs used at the Medical Outpatient Department, Hospital RPB Ipoh had occurred for non-indicated use. Thus, an ongoing PPI medication utilisation evaluation is recommended. Alternatives with lower cost are recommended, for other unapproved indications before using PPIs, to reduce expenditure and better budget control.

KEYWORDS

PPIs, outpatient department, indication
Study On Overstocking Of Medication And Its Cost Savings By Intervention In Hospital Raja Permaisuri Bainun Ipoh

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INTRODUCTION
Overstocking of medication by patients leads to medication wastage and monetary loss. Another complication of medication overstocking is drug-related problems where patients might confuse new and old medications resulting in poly-pharmacy. Recycling old medication of patients might reduce unnecessary medication wastage and drug-related complications. The objectives of this study were to study monetary wastage on hospitalised patients due to medication overstocking and the cost saved by recycling patient’s own medication upon discharge.

METHODOLOGY
This was a cross-sectional study conducted on 80 patients admitted to two medical wards in Hospital Raja Permaisuri Bainun Ipoh over a period of five months from January to May 2007. Medication history assessment was done for every newly admitted case. Patients were asked to bring back all their old medications from home. The recyclable medications were kept aside at the satellite pharmacy while non-recyclable medications were discarded. Upon discharge, patient’s discharge prescriptions were reviewed and where re-prescribing was noted, their old medications were supplied back to them.

RESULTS
Old medications were collected from 80 patients upon hospitalisation. The mean amount of money wasted per patient was RM78.30 (all medications) and the mean ideal amount of money saved per patient was RM72.90 (medication that can be salvaged). Out of the 80 patients from whom old medications was collected, medications were recycled back to 21 patients (26.3%). Based on these 21 patients, the mean actual amount of money saved per patient was RM109.55.

CONCLUSION
Medication wastage is a problem which should be addressed actively. Recycling patient’s own medications can help reduce medication wastage.

KEYWORDS
medication overstocking, medication wastage, recycling old medication, money saved
Study On Preterm Normal Sodium Standard Parenteral Nutrition (PN) Regime In Hospital Raja Permaisuri Bainun Ipoh: Effect On Costing

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INTRODUCTION

Parenteral nutrition is indicated when the patient’s requirement of nutrition cannot be provided either orally or enterally. Previously, at Hospital RPB Ipoh, the paediatrics’ PN solution was prepared as individualised regime. This regime was prepared on a daily basis according to the neonate’s requirement. However, starting from April 2006, the preterm standard parenteral nutrition (PN) regime was introduced at Hospital RPB Ipoh. This regime consisted of High Sodium PN solution (common regime) and Normal Sodium PN solution. In this study, we focused on Normal Sodium and studied the effect on costing when switching from the individualised regime to a standard regime.

METHODOLOGY

A prospective study using convenient sampling was conducted from 1 March 2008 until 15 June 2008. All preterm neonates who were started on standard regime during this period at the Neonatal Intensive Care Unit and Special Care Units of the Paediatrics Department were included in this study. Individualised regime data was extrapolated from all subjects’ data as in the regime protocol to get the costing for each of the neonates. SPSS Version 14 was used to analyse the data using paired sample t-test.

RESULTS

31 preterm neonates were started on a standard regime during the study period and included in the study. The use of the individualised regime has shown to be 47% to 220% more expensive than the use of the standard regime with the mean of cost difference of RM405.07 ± 236.88. There was a significant difference between the cost of the standard regime and the individualised regime (t = 9.521, p = 0.001). The mean for the cost of individualised regime was RM745.59 ± 368.26 while the mean for the cost of the standard regime was RM 340.52 ± 156.01. Twenty-six (84%) subjects showed wastage of 1 to 100 ml, 3 (10%) had wastage from 101 to 200 ml, 2 (6%) had wastage from 201 to 300 ml and none of the subject showed wastage of more than 300 ml.

CONCLUSION

There was a difference on costing between the individualised regime and the standard regime.

The individualised regime is more expensive compared to the standard regime.

KEYWORDS

parenteral nutrition, standard vs individualised regime, neonates
A 5-Year Retrospective Study On The Outcome Of Patients With Acne Vulgaris Treated With Oral Isotretinoin In Hospital Raja Permaisuri Bainun Ipoh

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INTRODUCTION

Acne vulgaris is a chronic, inflammatory disease with a multifactorial aetiology affecting the pilosebaceous units of the skin. It is extremely common with a prevalence of 80–85% among adolescents which leads to significant physical and psychological impact. Systemic isotretinoin revolutionised the treatment of acne and is the most effective sebosuppressive agent. The response rate of isotretinoin varies from one centre to another but generally between 85% to 96.7%. Relapse occurs in 10–25% of patients after one isotretinoin cycle, but often shows a mild severity grade. Isotretinoin has been associated with adverse events ranging from serious side-effects such as teratogenicity to common mucocutaneous side-effects. The purpose of this study was to determine the outcome of patients with acne vulgaris treated with oral isotretinoin from January 2003 till January 2008.

METHODOLOGY

This was a 5-year retrospective study of patients with acne vulgaris who were started on oral isotretinoin from January 2003 to January 2008. Only patients who have completed at least 4 months of treatment were included. Case notes were retrieved and analysed with regards to demographic data, total cumulative dose of oral isotretinoin, duration of treatment, average daily dose of isotretinoin, response, relapse and subsequent treatment. Patients who defaulted follow-ups were contacted via phone to ascertain if they had any relapse. Laboratory data that were analysed included serial liver enzymes, total cholesterol, triglyceride and low-density lipoprotein (LDL) levels.

RESULTS

A total of 110 case notes were reviewed but only 83 patients fulfilled the inclusion and exclusion criteria. Average daily dose of isotretinoin was 0.24 mg/kg/day and mean duration of treatment was 9.56 months. Mean total accumulated dose of isotretinoin was 61.96 ± 34.15 mg/kg (ranging from 11.18 mg/kg to 151.79mg/kg). There were only 6 (7.2%) patients who achieved total accumulated dose of more than 120 mg/kg/day. All of the patients responded to treatment with 24 (28.9%) of them in complete clearance. However, a high percentage (71.2%) of patients developed mucocutaneous side-effects out of which 27.7% required dose reduction. Relapse rate among those who completed treatment and follow-up or contactable for at least 6 months post-treatment was 24.2% (8 out of 33 patients). There were only 3 (3.6%) patients who developed raised transaminases during treatment but all were less than twice the upper normal limit. Mean total cholesterol, triglyceride and LDL levels were significantly raised at 4 months of treatment when compared to the baseline (p<0.05).

CONCLUSION

Low-dose isotretinoin (<0.5 mg/kg) is an effective treatment for moderate to severe acne vulgaris in the population. All of the patients in the study showed good response to isotretinoin even though some of them relapsed subsequently. Intolerability as a result of mucocutaneous side-effects seems to be a challenging issue when starting isotretinoin in the population.

KEYWORDS

acne vulgaris, isotretinoin, response, relapse, side-effect, tolerability, dosage
INTRODUCTION

Dacryocystorhinostomy (DCR) is a procedure performed to drain the lacrimal sac in cases of nasolacrimal duct obstruction or in chronic dacryocystitis. It can be performed externally or endoscopically. The aim of this study is to describe powered endoscopic dacryocystorhinostomy with full sac exposure and primary mucosal anastomosis without stenting the lacrimal ostium and to report perioperative and follow-up results achieved with this procedure since April 2005.

METHODOLOGY

Twenty-two consecutive patients (16 females and 6 males; mean age 45.54 y; range 18-74 y) who presented to the DCR clinic with epiphora secondary to nasolacrimal duct obstruction and recurrent infection were included in this study. All these patients underwent primary powered endoscopic DCR. A total of 24 procedures were performed using a standardised surgical technique. Post-operatively, symptom evaluation and endoscopic assessment of the newly created lacrimal ostium were done.

RESULTS

Twenty-two of the 24 DCRs were patent after a mean follow-up of 8.6 months, yielding a success rate of 91.66%. Patency was assessed by symptomatic evaluation and endoscopic visualisation at each post-operative visit. Two patients had complications, one orbital fat exposure and the other secondary haemorrhage. The 2 failures were due to synechiae formation.

CONCLUSION

Powered endoscopic DCR with mucosal flaps without stenting has a success rate comparable to that achieved with stents and external DCR.

KEYWORDS
endoscopic dacryocystorhinostomy, epiphora, lacrimal stents
Management Of Sinonasal Inverted Papillomas: Endoscopic Medial Maxillectomy

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INTRODUCTION

Inverted papilloma (IP) is benign sinonasal epithelial neoplasms of the pseudostratified ciliated columnar epithelium that lines the lateral nasal wall. Although uncommon in the general population, papillomas comprise between 0.5% and 4% of primary nasal tumours. Despite being benign, IPs may demonstrate aggressive local invasion with a propensity for recurrences after incomplete excision, as well as a potential for harbouring squamous cell carcinoma. Therefore, complete surgical excision is advocated. This study presents a case series.

METHODOLOGY

Retrospective data review was performed on patients presenting with IP from July 2005 till July 2007. A total of five patients with IP presenting from various sites on the lateral nasal wall was included in this review. Data points collected included age, sex, location(s) and histopathological diagnosis (benign IP vs IP with dysplasia or carcinoma). The surgical treatment strategy, need for adjunct approaches, complications, recurrence rates and length of follow-up were determined.

RESULTS

A total of five patients underwent endoscopic resection of IP from July 2005 till July 2007. The average age was 51.2 years (range, 35-62 years), with four males and one female. The maxillary sinus was involved in all cases. The tumour was also involved the anterior ethmoids in four cases and the frontal recess and middle turbinate in one case. There was no involvement of posterior ethmoids, sphenoid sinuses, skull base or the orbit in all cases. Tumours were staged from I to IV according to the Krouse staging system. Four were in stage II and one was in stage III. The histologic diagnosis was IP without any evidence of dysplasia or squamous cell carcinoma in all five cases. All cases were managed with endoscopic medial maxillectomy as the primary surgical modality. Adjunctive approaches included EDCR in two patients who presented with epiphora post-operatively. Intra-operative frozen section was performed in all cases to ensure complete tumour removal. No intra-operative complications were encountered. No recurrences were noted in these patients, with a mean follow-up period of 23 months.

CONCLUSION

Inverted papilloma is a benign sinonasal lesion that most commonly arises on the lateral nasal wall with a high incidence for recurrence and local aggressiveness. Appropriate preoperative assessment includes clinical and radiological evaluations, which provides an accurate picture of the lesion. Complete removal of the lesion offers the best chance of minimizing recurrence. However, this study showed that endoscopic management is an acceptable treatment strategy resulting in minimal morbidity and low recurrence rates. Careful preoperative planning with proper imaging studies and meticulous surgical technique are absolute necessities for successful management of these difficult tumours. In this small series of patients, endoscopic management proved to be a viable option of treating sinonasal papillomas.

KEYWORDS

benign tumours, inverted papilloma, endoscopic medial maxillectomy
Endoscopic Cauterisation Of The Sphenopalatine Artery In Persistent Epistaxis

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INTRODUCTION
Epistaxis continues to be one of the most common and intriguing emergencies presenting to the ENT surgeon. Usually, the posterior epistaxis provides a challenging management problem as compared to the trivial bleeding from the Little’s area. Patients that continue to bleed despite conservative methods are then subjected to more invasive techniques. The internal maxillary artery is usually ligated through the Caldwell-Luc approach. Sometimes ligation of the external carotid artery in the neck is necessary. With the advent of the rigid endoscopes for the treatment of nasal and sinus diseases, the expanded role has developed to encompass cauterisation and ligation of the sphenopalatine artery.

METHODOLOGY
Between May 2005 and July 2006, eight consecutive patients (5 males and 3 females) with posterior epistaxis underwent endoscopic cauterisation of nine sphenopalatine arteries (4 right, 3 left and one bilateral). The mean age of patients was 52.75 years (range, 26-73). All patients with suspected posterior epistaxis were initially managed with placement of a 10 mL balloon catheter in the posterior nasal space and a Merocel pack anteriorly. The patients were then admitted to the ward for observation. In the ward, routine blood examination was carried out for platelet count and coagulation profile. The next day, the packs were removed and endoscopy performed to confirm the site of bleeding. Once a posterior bleed was confirmed, endoscopic cauterisation of the sphenopalatine artery was performed as an emergency procedure.

RESULTS
In all patients, their platelet counts and coagulation profile was normal. The average length of the procedure was 54.44 minutes. All patients were discharged the next day. In every case, no intra or post-operative complications were recorded, in particular, intracranial or intraorbital sequelae. Minor complications like numbness of the teeth, palate and upper lip was also absent. All patients were subsequently followed up on average of 25 months with no further episodes of epistaxis. Four patients (50%) were hypertensives with associated NPC (one) and diabetes (two). The rest of the patients had unremarkable medical history.

CONCLUSION
Endoscopic cauterisation of the sphenopalatine artery causes interruption of the nasal vasculature at a point distal enough to prevent direct, retrograde and anastomotic blood flow from ipsilateral and contralateral carotid systems. The endoscopic approach is a non-invasive technique, with easy access transnasally to the sphenopalatine foramen. It also offers considerable reduction in surgical and anaesthetic time as compared with the more traditional approaches hence reducing surgical morbidity and failure rates. This also avoids the necessity to pack the nose for several days. This improves patient’s comfort and omits the need for prolonged hospitalisation. As a conclusion, endoscopic cauterisation of the sphenopalatine artery is a safe and cost effective technique in the management of posterior epistaxis.

KEYWORDS
endoscopic, epistaxis, sphenopalatine artery
The Effectiveness Of Preventive Measures Taken To Prevent Inpatients from Accidentally Falling In Seri Manjung Hospital

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INTRODUCTION
Inpatients who accidentally fall in wards are sentinel events that are constantly monitored and documented in the Incident Reporting Form. In the last 5 years, the incidence rate of patients falling (per thousand inpatients) in Hospital Seri Manjung was 0.35 in 2003, 0.05 in 2004, 0.15 in 2005, 0.19 in 2006 and 0.32 in 2007. This showed an increasing trend and it is worrying. The objective of this study was to identify the contributing factors and to improve on the preventive actions that have been implemented.

METHODOLOGY
A prospective study was done in all the wards in Hospital Seri Manjung. A Standard Operating Procedure (SOP) was used as a guideline to prevent the incidents along with a checklist for the hospital staff and a pamphlet to inform the inpatients of all the potential ways they can fall in the wards. The source of the data collection was via the monthly returns, bed head ticket, incident reporting forms and the checklist from all the wards.

RESULTS
All 11 wards in Hospital Seri Manjung were evaluated. A total number of 10,227 inpatients were admitted during the duration of this study from January to May 2008. During this duration of the study, 1 case was reported in the month of February 2008 in the paediatric ward (incidence rate = 0.09 per thousand inpatients).

CONCLUSION
There was a marked reduction in the number of incidents after giving the checklist to staff and pamphlets to inpatients. There was increased awareness at both levels and thus this contributed to the improvement. However, this study was only done in a short duration and should be ongoing. A pamphlet and checklist should be provided to all inpatients and staff respectively as this was shown to be effective in reducing the number of inpatients from accidentally falling.

KEYWORDS
prevention, falls, inpatients
Relationship Between Job Stress, Job Satisfaction And Propensity To Leave Among The Paramedics

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INTRODUCTION

This research was designed to study the relationship between job stress and satisfaction, job satisfaction and propensity to leave and also the relationship between job stress and propensity to leave among paramedics in the Hospital RPB Ipoh.

METHODOLOGY

A cross-sectional study using a self-assessment questionnaire comprising 4 instruments: Nursing Stress Scale (1980), Job Related Tension Index (1984), Brayfield and Rothe Job Satisfaction Scale (1951) and Propensity to Leave Index. Random stratified sampling among paramedics in critical and non-critical units in Hospital RPB Ipoh.

RESULTS

200 questionnaires were distributed and 116 (58%) responses were received. Results of this study showed a negative relationship between job stress and job satisfaction (−0.30). Similar negative results was also seen in the relationship between job satisfaction and propensity to leave (−0.57). Job stress correlated positively (0.26) with propensity to leave except for paramedics from the critical care units. Different work environments had no effect upon job stress but seemed to influence job satisfaction and propensity to leave among paramedics.

CONCLUSION

Paramedics with high levels of job stress have low job satisfaction in both critical and non-critical units. Those who have a low level of job satisfaction and a high level of stress have a tendency to leave their job.

KEYWORDS

job stress, job satisfaction
Low Back Pain And Associated Factors Among Nurses In Kuala Kangsar Hospital

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INTRODUCTION

It is well known that many patient-orientated tasks contribute to occupational back pain in nurses. This study was to determine the incidence of back pain and its contributing factors in Hospital Kuala Kangsar (HKK).

METHODOLOGY

This was a cross-sectional study where data was gathered by means of a questionnaire. The questionnaire included characteristics of the subject’s history and contributing factors to back pain. The questionnaire was distributed to all the staff nurses at HKK.

RESULTS

Of the 58 staff nurses at HKK, 50 responded to the study. 56% reported the occurrence of some form of back pain within the past one year. Majority of nurses working in the male, female and paediatric wards reported back pain. Nurses who had worked for more than 8 years experienced more back pain. All nurses complained of the first episode of back pain after commencing nursing and that day duty was an important causative factor. Majority of 20% of nurses, experienced back pain more at once a month. None of the nurses had reported their back pain to their employers. Treatment options used included rest (36%), medication (40%), (30%) personal physiotherapy and (18%) traditional massage. None of the nurses had surgical intervention. 36% of the nurses says that the symptoms were exacerbated by lifting patients, transferring patients, ambulating patients, restraining struggling patients, giving assistance when patients starts to fall, moving heavy equipment, leaning over patients, stooping, squatting and prolong sitting writing notes.

CONCLUSION

This study has identified patterns of manual handling undertaken by nurses working in Hospital Kuala Kangsar. Back pain among nurses could be due to the cumulative effects of over-work which is often due to staff shortages. In relation to the above problem, nurses should be taught a wide range of manual handling and lifting techniques to meet the needs of insufficient staff. The performance of nurses in lifting and handling of patients should be assessed periodically to ensure that they practise techniques in a manner that protect themselves as well as patients.

KEYWORDS

low back pain, nurses, contributing factors
A Study to Assess The Awareness And Knowledge Of Computer Usage Among Nurses In Teluk Intan Hospital

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INTRODUCTION

The revolution in computers has brought about many changes in the health care system, especially in the areas of communication and information technology. In keeping with these changes, awareness and computer knowledge among nurses is essential to compete in this wave of global changes in information computer technology. This study was to assess the level of awareness and computer knowledge among the nursing staff in Hospital Teluk Intan (HTI).

METHODOLOGY

A cross-sectional study using a structured questionnaire to collect data was conducted from May 2006 to Jun 2006. Staff nurses and nursing sisters working in various disciplines were involved. Random sampling was used to select staff nurses, while all the nursing sisters were selected.

RESULTS

42 out of 435 staff nurses and all 13 nursing sisters were selected. Out of the 55, 54 returned the questionnaire. 90% were aware that computer knowledge was important. 62.3% had access to computers either at home or at the workplace while 7.4% had never used a computer before. 87% of respondents had attended computer courses. 77.4% had knowledge of using Microsoft Word, 52.8% Microsoft PowerPoint and 46.1% Microsoft Excel. However the majority (70%) expressed that they still required help to use Microsoft Office programs. Only 31.1% had knowledge of how to use the Internet and 23.1% could use e-mail.

CONCLUSION

The majority of nurses had basic knowledge on how to use computers but still needed help in Microsoft Office programs and use of the Internet.

KEYWORDS

computer, awareness, knowledge
Type II Diabetic Patients’ Opinions On Insulin Therapy And Knowledge Of Diabetes

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INTRODUCTION

Type II diabetic patients are generally reluctant to change from oral hypoglycemic agents to insulin therapy. This study was to determine Type II diabetic patients’ opinion on insulin therapy.

METHODOLOGY

A cross-sectional survey regarding the opinion on insulin injection at the medical outpatient clinic was done on Type II diabetic patients who were on oral hypoglycemic agents. The patients were sampled conveniently and were interviewed using a structured questionnaire.

RESULTS

53 patients agreed to participate. 53% of the patients had attended a diabetic class. Of the 53 patients 20 (38%) had had been advised to start insulin therapy by a doctor. Of these patients only 55% agreed to accept insulin therapy. Those who had attended a diabetic class were more likely to accept insulin therapy (75%).

Among those who were not keen for the insulin therapy, 53% of them thought that it was not necessary and 47% had syringe-phobia. Knowledge level of the patients about diabetes revealed opinions that: (a) it can be cured (28%), (b) the disease can become worse (81%), and (c) it required medication daily (96%). 98% of the patients agreed that medication is needed to control blood sugar level.

CONCLUSION

There was much reluctance among diabetic patients to use insulin therapy. Patients were more likely to accept insulin therapy if they had priorly attended diabetic classes. It is recommended that all diabetic patients attend diabetic class once diagnosed and continuous counselling and education is required.

KEYWORDS

diabetes, insulin therapy, knowledge
Usage Of Hospital-Made Eye Pads And Its Acceptance By Mothers

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INTRODUCTION

Using eye pads for babies under phototherapy is standard care. Eye pads used in Special Care Nursery (SCN), Hospital Slim River are made from flannel (cut following the contour of baby’s eyes) and lined with dark paper inside. These eye pads are autoclaved and secured over the baby’s eyes using micropore adhesive tape. This study was performed to determine the acceptance of using hospital-made eye pads in neonates undergoing phototherapy.

METHODOLOGY

A cross-sectional study regarding the use of hospital-made eye pads in neonates undergoing phototherapy at the SCN of Hospital Slim River was conducted. The survey was carried out using a structured questionnaire.

RESULTS

10 mothers were conveniently selected over a period of 3 weeks. All mothers agreed to answer the questionnaire. 60% of respondents found the eye pads unsuitable. 70% of the respondents said that securing the eye pads using micropore adhesive tape caused abrasions and irritation to their baby’s skin. The respondents found that the eye pads had gotten displaced as frequently as 1-4 times daily (60%), and 5-8 times (20%), 20% had no problems with displacement.

CONCLUSION

Majority of mothers found that using hospital-made eye pads were unsuitable and ineffective for babies receiving phototherapy. The causes of concern included damage to the baby’s delicate skin and frequent displacement. The current eye pads need to be improved.

KEYWORDS

eye pads, neonate, phototherapy
Intrathecal Morphine For Post-Lower Segment Caesarian Section Pain Management

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INTRODUCTION

Intrathecal morphine service (ITM) for post-lower segment Caesarian section (LSCS) pain management was implemented in Hospital Taiping since June 2006. Every post-LCSC patient on ITM is reviewed by an acute pain service (APS) nurse within 12-24 hours after LSCS. The objective of this study was to review patients’ outcome after having ITM and to evaluate staff opinions about the service.

METHODOLOGY

A cross-sectional study was done on 969 mothers who have undergone LSCS under spinal anaesthesia and having ITM as pain management from January to December 2007. A standard dose of 0.2 mg intrathecal morphine was given by the anaesthetic doctor during spinal anaesthesia. NSAIDs were used as a supplementary measure for patients who had complained of significant pain. The pain score, sedation score and problems identified were charted. After completing the cross-sectional study, a questionnaire was distributed amongst the obstetric staff to get their feedback and comments about the service.

RESULTS

From the total of 969 LSCS patients who received ITM, only 33 patients (3.4%) complained of significant resting pain (pain score > 5/10), 34 patients (3.5%) complained of nausea/vomiting and only 1 patient (0.1%) complained of itchiness. There were no patients having significant sedative effects (sedation score > 2) or urinary retention. 63 obstetric staff responded to the questionnaire. All respondents expressed that they were comfortable with the ITM technique and said that it was better than intramuscular (IM) injection, suppository or oral medication. The respondents agreed that the ITM technique could (a) reduce the workload in the ward (95.7%), control the pain up to 24 hours post-LSCS (63%) and reduce the incidence of needle prick injuries (100%).

CONCLUSION

ITM is a good technique for post-operative pain management in LSCS patients under spinal anaesthesia. The technique was also favoured by the staff.

KEYWORDS

intrathecal morphine, pain management, post-LSCS
INTRODUCTION

This study was to determine the seriousness of a patient’s condition for to receive priority of treatment with the objective of improving quality of triaging the patients in the Emergency Department.

METHODOLOGY

This was a descriptive prospective study and continuous sampling of 30 patients per shift were taken for 7 days. There were 3 shifts and total sampling per day was 90 patients and the total number of sampling during the study was 630 patients.

RESULTS

Out of 615 patients, 566 (92.03%) were correctly triaged. In the first phase, 49 patients (7.9%) were mis-triaged, 30 patients (4.85%) over-triaged and 19 patients (3.09%) under-triaged. In phase 2, 93.08% (565 patients of 607 patients) were correctly triaged. 42 patients (6.92%) were mis-triaged, 27 patients (4.45%) were over-triaged and 15 patients (2.47%) were under-triaged.

CONCLUSION

The study showed that less than 10% were mis-triaged. The under-triaged component is the most important part as it reflects the delay in a patient receiving treatment which can be harmful to the patient.

KEYWORDS

triage, mis-triage, over-triage, under-triage.
Mothers’ Feelings At The Time Of Their Baby’s Admission To Special Care Nursery And 24 To 48 Hours Later

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INTRODUCTION

It is assumed that mothers of babies being admitted to the Special Care Nursery (SCN) are usually anxious, fearful and depressed. This study was conducted to confirm the existence of these feelings and to determine the level of these feelings. The findings from this study would be used to enable the ward staff to identify ways to allay these feelings.

METHODOLOGY

This is a cross-sectional study using a questionnaire. 15 mothers whose babies were admitted to the SCN/NICU Unit, were conveniently selected with informed consent. Questionnaires were handed out during admission to evaluate their feelings upon admission. The same questionnaire was given to the same mothers after their baby had been in the SCN for 24-48 hrs.

RESULTS

Of the 15 mothers, 46.6% had prior experience of their baby being admitted to the SCN. 66.6% were anxious, 6.6% were fearful, 33.3% were depressed and only 6.6% expressed normal feelings during admission of their baby to the ward. 60% of the respondents expressed that the explanations given regarding their baby’s illness had reduced their anxiety. 53.3% found that a friendly nurse helped in calming their fears while another 46.6% needed their husband’s presence to overcome their anxiety. After 24-48 hours in the ward, 66.6% were not anxious anymore, 93.3% of the respondents no longer felt fearful and 80% were not feeling depressed.

CONCLUSION

The findings of this study confirmed the assumption that a majority of mothers whose baby was admitted into the SCN were anxious, fearful and depressed. However, these feelings reduce after 24 to 48 hours’ stay in the ward. Explanation to the mothers, friendly nurses and the presence of their spouse helped in reducing their anxiety, fear and depression.

KEYWORDS

mother, feelings, SCN, admission
Assessing The Turn-Around-Time Of The Integrated Pre-Analytical And Analytical Modular System

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INTRODUCTION

Process automation is an ongoing challenge to the Clinical Diagnostic Laboratory and has been used to increase laboratory efficiency. The implementation of an automated pre-analytical module allows the laboratory to address this issue. The Pathology Department of Hospital RPB Ipoh uses a Modular Pre-analytical (MPA) to automate laboratory specimen processing prior to analysis. This study evaluated the impact of MPA on ‘turn-around-time’ (TAT).

METHODOLOGY

A total of 2,000 blood specimen tubes were processed through MPA in a batch and random-wise fashion. Another 300 blood specimen tubes were processed manually. Both results were assessed for TAT.

RESULTS

Blood specimen tubes processed in the MPA showed pre-analytical TAT mean of 19 minutes (SD=5, range of 8-73). The analytical time for these samples was a mean of 15 minutes (SD=9, range of 7-49). Blood specimen tubes processed manually showed pre-analytical TAT mean of 22 minutes (SD=4, range of 7-30). The analytical time for manual samples was a mean of 15 minutes (SD=9, range of 7-49). The pre-analytical TAT was significantly lower for MPA when compared to manual processing (p <0.05).

CONCLUSION

Processing blood specimens through the MPA had a decreased pre-analytical turn-around-time.

KEYWORDS

Automated Modular Pre-analytics, turn-around-time, manual
Randomised Controlled Trial On Scapular Protraction Exercise For Immediate Pain Relief And Increase In Range Of Motion In A Painful Hemiplegic Shoulder

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INTRODUCTION
Physiotherapists use various treatment modalities in their attempt to alleviate shoulder pain commonly experienced by patients post-stroke. There exists no scientific evidence of efficacy in any treatment approach currently used. This clinical trial was performed to evaluate the immediate influence of scapula protraction exercise on pain intensity and passive shoulder range of motion of patients with hemiplegic shoulder pain.

METHODOLOGY
A randomised controlled single blind before and after treatment trial, evaluating the effects of scapular protraction exercise versus a sham shoulder exercise, was conducted in twenty patients with hemiplegic shoulder pain. Numerical rating scale measured the pain intensity and goniometry was used to measure passive shoulder range of motion.

RESULTS
There was no significant difference between the experimental (n=10) and control group (n=10) at baseline for mean age, duration of stroke onset and passive range of motion. The experimental group performing the scapula protraction exercise demonstrated a mean reduction of 3.80 in the pain scores while the reduction observed in the control group was only 0.8. This difference was statistically significant (p<0.05).

The mean increase in passive flexion range of motion observed in the experimental group was 41.8° (95% CI 31.6-52.0, p<0.05) while the mean increase in external rotation was 19.4° (95% CI 12.5-26.3, p<0.05).

The control group also showed a statistically significant increase in passive shoulder range of motion but this was not clinically significant. The increase in passive flexion was a mean of 10.2° (95% CI 5.6-14.8, p<0.05) and the increase in passive external rotation was a mean of 3.8° (95% CI 2.0-4.8, p<0.05)

CONCLUSION
Scapular protraction exercise was useful in reducing pain and increasing range of motion in a painful hemiplegic shoulder. It is recommended that immediate introduction of this exercise when shoulder pain is reported may prevent it from developing into a chronic condition.

KEYWORDS
hemiplegic, shoulder, pain, relief, exercise
Prescribing Patterns At Outpatient Pharmacy Department, Teluk Intan Hospital
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INTRODUCTION
Drug prescriptions should be made using generic names. However, prescribing using trade names and abbreviations are a common practice among health care professionals. Medication prescription patterns vary in the different clinics at Hospital Teluk Intan. This study audited the prescribing patterns at the Outpatient Pharmacy Department, Hospital Teluk Intan.

METHODOLOGY
The study was conducted retrospectively at the Outpatient Pharmacy Department.

All the prescriptions from 12 departments and clinics for 5 working days in June 2007 were audited. All the data were collected and evaluated using a structured form.

RESULTS
3,138 prescriptions with a total number of 11,425 drugs from 12 departments and clinics were reviewed. Of the 11,425 drugs prescribed, 38.7% were written in generic names, 24.5% were written using abbreviations while 36.9% were prescribed in trade names. Out of the 3,138 prescriptions only 11.2% had all drugs prescribed in full generic names. Medical Clinic (63.7%), Paediatric Clinic (64.1%) and Dental Clinic (55.3%) had the highest number of drugs prescribed in generic names. ENT Clinic (20.8%) and Eye Clinic (17.7%) had the least number of drugs prescribed in generic names. The Outpatient Department had the highest number (30.9%) of drugs prescribed using abbreviations. Prescriptions written in trade names were as high as 72% from the Orthopaedic Clinic, 62.5% from the ENT Clinic and 58.3% from the Eye Clinic.

CONCLUSION
The prescribing patterns at the Outpatient Pharmacy Department in Hospital Teluk Intan need to be improved. Further studies should be carried out to explore the causes of inappropriate prescription of medication. The implementation of electronic prescriptions could eliminate this problem.

KEYWORDS
prescribing patterns, generic, trade name, abbreviation.
Quality Of Life In Patients With Knee Osteoarthritis Attending Physiotherapy Treatment

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INTRODUCTION

The objective of this study was to evaluate the quality of life in knee osteoarthritis patients, which most affected them, and to describe their changes before and after physiotherapy care.

METHODOLOGY

A quantitative non-experimental study, using self-administrated SF 36 questionnaire, was conducted. The SF 36 questionnaire assessed eight health concepts and was used before starting and after physiotherapy rehabilitation. Thirty patients diagnosed with knee osteoarthritis (OA) were conveniently sampled during a 3-month study period at the Outpatient Physiotherapy Department, Hospital RPB Ipoh.

RESULTS

Patients’ pre-treatment scores were highest in poor emotional well-being (66%) followed by limited social functioning (61%) and role limitation due to emotional problems (58%). Patient’s pre-treatment scores were lowest in role limitation due to physical health (34%), physical functioning (44%) and pain (51%).

For all SF 36 domains, the difference between baseline and post-rehabilitation scores were statistically significant (p<0.001). The physical functioning score improved by 23.67 points (53.80%). The role limitation due to physical health score improved by 28.33 points (82.91%) while that of the role limitation due to emotional problem improved by 24.43 points (42.27%). The score for energy/fatigue domains improved by 15 points (28.20%). The score for emotional well-being domains improved by 13.60 points (20.52%). Social functioning score improved by 11.67 points (19.27%) and the score for pain domain improved by 15.43 points (19.27%).

CONCLUSION

Comprehensive physiotherapy rehabilitation had a positive effect on the health-related quality of life of individuals with knee OA. The health status measurement provided extra information that could supplement the usual measures of impairment in patients with OA knee. Inclusion of a health status measure in clinical practice could lead not only to improve documentation of progress of patients in rehabilitation but may improve outcomes.

KEYWORDS

Health-related quality of life, knee osteoarthritis, physiotherapy.
The Occurrence Of Haemolysed Blood Specimens In Hospital Seri Manjung

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INTRODUCTION

A haemolysed blood specimen can affect the reliability of test results and delays medical management as the specimen has to be redrawn. It also leads to increase hospital costs. This study was conducted to evaluate the effectiveness of specific remedial actions taken to reduce the occurrence of haemolysed blood specimens at Hospital Seri Manjung.

METHODOLOGY

This is a before and after cross-sectional study. The baseline study was conducted between November 2005 and January 2006, for 2 months. The post-intervention study was conducted from March to May 2006. Data was collected using a structured observational checklist and a questionnaire for staff interviews. 100 participants from various categories of staff were conveniently sampled for both data collections. The key interventions were staff education by a structured course, provision of more blood-taking trolleys and improved continual supervision of blood collection.

RESULTS

A total of 114 (7.9%) out of 1,448 specimens were rejected due to haemolysisation during the baseline study. Rejection rate decreased to 6.4% (97 out of 1,501 specimens) after the interventions.

Knowledge about the correct practice of blood-taking improved from 69% to 82%. Overall correct technique of blood-taking improved from 89% to 95.8%. Whilst phlebotomy skills improved from 77% to 85%. Blood specimens collected reaching the laboratory within 60 minutes had also increased from 80% to 88%.

CONCLUSION

The remedial actions taken were effective in reducing the occurrence of haemolysed blood specimens in Hospital Seri Manjung.

KEYWORDS

haemolysed, blood specimens
Mothers’ Perception On The Importance Of Antenatal Ultrasound

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INTRODUCTION

Antenatal obstetric ultrasounds play an important role in the management of the foetus. This study was to determine the knowledge and awareness among antenatal mothers in a government hospital about the importance of obstetric ultrasounds.

METHODOLOGY

A cross-sectional questionnaire survey of antenatal mothers attending the antenatal booking clinic in Hospital RPB Ipoh was conducted. These were antenatal mothers who were referred from peripheral antenatal clinics in the Ipoh area. A structured questionnaire was given to all the antenatal mothers selected by a convenient sample. The questionnaire was collected on the same day of their antenatal visit.

RESULTS

A total of 150 patients participated in this study. 136 respondents (90.6%) agreed that an obstetric scan is important to confirm pregnancy. 135 respondents (90.0%) agreed that the obstetric ultrasound scan is important for accurate dating. All the respondents felt that the obstetric ultrasound scan is an important tool to determine the sex of the foetus and is able to detect abnormal growth of the foetus. 135 (90.0%) respondents agreed that the obstetric ultrasound scan can detect foetal abnormalities. 103 (68.7%) of the respondents stated that they had heard about Down’s syndrome. 126 respondents (84.0%) had a prior early obstetrics ultrasound (below 24 weeks of gestation) while the others had a scan after 30 weeks gestation.

CONCLUSION

The level of knowledge about the use and importance of an obstetric scan is good in the population. A segment of antenatal mothers still needs to be educated about the importance of having an early obstetric ultrasound scan.

KEYWORDS

knowledge, awareness, antenatal ultrasound
The Impact Of Centralisation & Networking Of Service In Perak – The Hospital Raja Permaisuri Bainun Ipoh Experience

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INTRODUCTION
Since the middle of 2006, the histopathology services in hospitals of the Ministry of Health in Perak have been fully centralised. This means that all specimens from various district hospitals in Perak are sent to Hospital Raja Permaisuri Bainun Ipoh (HRPB) for processing. The workload in HRPB then increased tremendously from before implementation at 8,000 specimens in 2005 to 17,558 specimens in 2007 after implementation; an increment of 119.5%. This study was to evaluate the impact on the laboratory staff, in particular the Medical Laboratory Technologists (MLTs), as the total number of staff before and after centralisation were the same.

METHODOLOGY
The pre-analytical, analytical and post-analytical phases of an MLT’s work processes were taken into account and compared. The pre-analytical process involved demography, transportation of specimens and preparation before grossing of tissue. New equipment and work processes were compared in the analytical phase. The post-analytical phase included documentation, despatch, tracing of reports and archiving the reports.

RESULTS
Transportation of specimens from a normal ambulance to a courier service provided a better scheduled work plan. Data entry with networking reduced duplication of work, despatch of results with real-time printing reduced the stress of tracing results and automatic archiving provided accountability. New equipment like automatic staining helped to hasten the workflow. Receiving and checking of specimens increased by 119.5% (8000 before to 17558 after). Blocking tissues increased by 52% (22235 before to 33877 after). Sectioning increased by 46% (24311 before to 35482 after). Staining tissues increased by 46% (24311 before to 35482). Special stain increased by 14% (1777 before to 2027 after). Immunostaining increased by 53% (3533 before to 5393 after). However, with the same number of staff and an increased workload, quality in areas that required the human touch may have been affected.

CONCLUSION
The advantages of centralising the histopathology services seem to overshadow the disadvantages in the impact on the workflow of MLTs. However automation cannot totally replace the skilled work of MLT staff.

KEYWORDS
centralising, histopathology services, pre-analytical, analytical, post-analytical
A Preliminary Study On Urine Culture Samples
Received In The Microbiology Laboratory, Hospital
Raja Permaisuri Bainun Ipoh

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INTRODUCTION

It has been recommended and generally accepted that specimens for urine culture should be processed within 2 hours of collection. Recently, it was noted that there was an increased in number of mixed growths obtained from culture reports which could be due to various reasons. The purpose of this study was to preliminarily determine the outcome of urine cultures in relation to the duration of urine sample transportated to the laboratory.

METHODOLOGY

This was a retrospective cross-sectional study. A total of 675 request forms from various units or departments in Hospital RPB Ipoh and nearby district hospitals were reviewed and analysed. These were specimens sent to the Microbiology Laboratory for urine culture within a 20-day period (between 14 February to 3 March 2008. All specimens collected were labelled with written time and date of collection by the ward or clinic staff. When the sample arrived at the laboratory the date and time of was documented. Each culture report was subsequently analysed for type of growth obtained.

RESULTS

Of all 675 request forms analysed, only 260 forms (39%) were completely filled with time and date of sample collection. Of these 260 samples, 33 (13%) had significant growth of pure bacterial colonies, 121 (46%) had no growth, 28 (11%) had clinically not significant growth, and 78 (30%) samples had mixed growth. The number of mixed growth culture reports increased as number of days of transportation increased. The rate was 35% with one day and 54% after one day. This difference was statically significant (p = 0.004, odds ratio = 2.14, 95% CI 1.30 to 3.51).

CONCLUSION

The possibility of mixed and/or insignificant growth of urine culture is high if transportation of urine specimens is delayed without proper storage or preservation to reduce contamination. Appropriate and practical measures are to be undertaken to minimise urine contamination from delay in transportation of urine specimens.

KEYWORDS

urine collection, urine transportation, urine contamination
Pre-Analytical Venous Blood Sampling In Transfusion Practices Demand Improvement

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INTRODUCTION
Failure of patient identification and bedside labelling is currently the most common cause of all the near-misses and incorrect blood transfusions at Hospital RPB Ipoh. Proper venous blood sampling and identification of patient at the ward (bed side) play a major role to improve transfusion safety. This study was conducted to audit all the near misses and ABO incompatible transfusion occurring from Jan 2000 to April 2008 at Hospital RPB Ipoh.

METHODOLOGY
This was a retrospective investigation of transfusion reactions and near-misses cases which occurred from Jan 2000 to April 2008 at Hospital RPB Ipoh. Data was obtained and analysed from incident reporting forms collected from the wards which reported the errors. It is possible that there were unreported errors and were not identified.

RESULTS
A total of 60,362 patients were transfused from Jan 2000 to April 2008. 63 errors were reported from the wards (1.04 per 1000 transfusions). The rate of transfusion errors per 1000 transfusions was 0.59 for 2000, 0.97 for 2001, 1.26 for 2002, 0.56 for 2003, 0.85 for 2004, 0.36 for 2005, 1.07 for 2006, 0.90 for 2007 and 2.66 for 2008. Of the errors 57 were near misses. 6 were erroneously transfused due to wrong patient identification but there were no adverse reaction in 5 as patients were of the same blood group. One ABO incompatible blood transfusion resulted in death due to pre-analytical sample error as there was no previous record. The key pre-analytical blood sampling error was a failure to confirm the identity of the patient accurately with faulty labelling of samples not done at bedside.

CONCLUSION
Our results indicated a substantial risk of wrong patient identification and pre-analytical blood sample errors. Measures have been taken to improve the situation.

KEYWORDS
transfusion errors, near-misses, pre-analytical blood sampling
Impact Of Occupational Therapy On Carpal Tunnel Syndrome

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INTRODUCTION

The purpose of this study was to determine the impact of occupational therapy on carpal tunnel syndrome (CTS).

METHODOLOGY

This study was carried out on patients presenting with CTS at the Occupational Therapy Department, Teluk Intan Hospital. A questionnaire and standardised tools were used. The questionnaire was given to the respondents before and after five treatment sessions. It consists of 2 sections, section A was on demographic data and section B was on the severity of problems in performing activities of daily living (ADL). The tools used were dynamometer for assessment of handgrip power and a visual analogue scale (VAS) for pain measurement. The impact of occupational therapy on CTS was evaluated based on patient’s satisfaction.

RESULTS

20 patients with CTS were recruited. Before treatment, 73% experienced problems performing ADLs (writing, buttoning of clothes, holding a book while reading, gripping a telephone handle, opening of jars, etc). After treatment, 62.5% of respondents showed improvement in ADLs. All the respondents had increased their handgrip power after treatment; 50% to 0.5 kgF, 40% to 2 kgF and 10% to 1 kgF. Before treatment, VAS pain scores were 8-10 for 70% of patients. After treatment 50% had pain scores reduced to 5-7 and 30% to 0-4. 89% reported satisfaction with occupational therapy treatment.

CONCLUSION

Occupational therapy has an important role in the management of CTS and can decrease patient’s pain, improve their handgrip power and ADLs.

KEYWORDS

carpal tunnel syndrome, pain measurement, handgrip power, activities of daily living
INTRODUCTION

This study audited and evaluated the prevalence, causes and response to work-related musculoskeletal disorders (WRMDs) among physiotherapists in Perak government hospitals.

METHODOLOGY

A structured self-administered questionnaire was used to collect self-reported data on work-related musculoskeletal disorders among all working physiotherapists in Perak government hospitals (universal sample). The questionnaire evaluated presence of injuries, factors that were causative and outcomes.

RESULTS

Out of 50 physiotherapists sampled, 47 responded with completed questionnaires (response rate 94%). The prevalence of WRMDs over 12 months was 49%. More females suffered WRMD. Anatomically the neck (30%) sustained the highest prevalence of injury. The highest incidence of WRMD occurred at the outpatient rehabilitation setting (52%). The most reported type of injury was muscle strain (65%). WRMDs were most frequently caused by working when physically fatigued (39%) and maintaining a position for a prolonged period (35%). 91% of respondents had exacerbation of symptoms due to maintaining a position for a prolonged period (44%). The majority (83%) reported that they did not visit a physician for the WRMD and only 13% had officially reported it. Treatment options used included rest (39%), medication (9%) and own physiotherapy knowledge (100%).

CONCLUSION

Almost 50% of Perak physiotherapists sustained WRMDs. The majority did not officially report their injury and self-treated themselves. Reporting of workplace injury should be encouraged and barriers to official reporting need to be identified. Further research is required to develop preventive strategies.

KEYWORDS

physical therapy, prevalence, work-related musculoskeletal disorders
Preventing High Risk Situations Of Needle Stick Injury Among Health Care Professionals

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INTRODUCTION

The objective of this study was to evaluate safe injection practices during high risk situations for needle stick injury among health care professionals (HCPs) in the paediatric wards and subsequently apply an intervention to reduce unacceptable practices.

METHODOLOGY

This is an interventional study using a quasi-experimental design. An observational checklist was designed to evaluate injection practices and waste management in the paediatric wards. These included recapping needles, reusing needles, breaking of needles, separating needles from syringe, proper disposal of needles and clearing of sterile sets after use. Staff were evaluated by silent observers. Interventions included feedback to all ward staff concerned on their performance, re-emphasising the correct methods to prevent needle stick injuries and instituting a corrective mechanism for failures. Staff were revaluated after the intervention one month later.

RESULTS

There were overall improvement for all types of needle handling procedures involving high risk situations among HCPs. All HCPs (100%) were not reusing needles compared to before intervention (11.5%). All HCPs (100%) were not separating needles from syringes unnecessarily after the intervention compared to 35% prior to intervention. The practice of recapping needles reduced from 44% to 3%. There was also marked improvement in the usage of injection trolleys during procedures from 15% to 79%. The percentage of HCPs using sharps bin also improved from 20.8% to 66.2%. The HCPs also improved in clearing the sterile sets after using them from 70% to 85%. All the HCPs (100%) were already practising proper methods of disposal of sharps before and after intervention.

CONCLUSION

This study managed to significantly change some vital practices in HCPs by providing an audit/feedback to all HCPs in the paediatric wards via clear directives on correct practices and strengthening discipline among HCPs.

KEYWORDS

needle stick injury, health care professionals, prevention
INTRODUCTION

Health care professionals encounter difficulties when dealing with parents who are struggling to come to terms with impending death. The aim of this study was to evaluate the ability of health care professionals in caring for chronically ill dying children at the Paediatrics Department, Hospital RPB Ipoh.

METHODOLOGY

This was a cross-sectional study done among all health care professionals in the Paediatrics Department who had cared for chronically ill dying children. A questionnaire was designed and administered to the health care professional working in the PICU, Oncology and Thalassaemia Day Care. Participation was voluntary. The studies assessed many areas including the psychological impact on the health care professionals in caring for the chronically ill dying children and their parents.

RESULTS

49 out of 56 eligible staff agreed to participate in the study. 23 were doctors and 26 were nurses. Only 14% had prior training in the management of chronically ill dying children and their parents. The majority of doctors stated that they had insufficient time or manpower to care for these children and their parents as opposed to nursing staff. The majority of health care professionals were able to manage emotional/psychological symptoms in a dying child. They were of the opinion that there are support systems for them when caring for these children and parents. More than half (61%) of the health care professionals suffered from psychological impacts such as feelings of failure, burnout, depression and thoughts of the dying child. The majority (79%) of the health care professionals were able to talk with others about the death after it occurred.

CONCLUSION

This study showed that health professionals are involved in the care of chronically ill dying children and their parents. They however have needs and problems in delivering care. There is a need to provide training and improve the support systems for staff.

KEYWORDS

chronically ill, dying children, care, health professionals
INTRODUCTION

This study was to understand a female patient’s experience in performing cooking activities after having rheumatoid arthritis (RA) disease.

METHODOLOGY

A qualitative study (descriptive phenomenological analysis) using face to face interview was conducted with 5 patients who have had RA for more than 5 years. All these patients were home makers and do not have domestic helpers.

RESULTS

Although all 5 (100%) of the patients were able to cook, they were all having difficulties in perform cooking activities due to decreased hand strength (80%) and difficulty with object manipulation (20%). Frequency of cooking done by patients decreased to once in a day (60%), twice a day (20%) and only once a week (20%). Negative emotions experienced by the patients were sadness and frustration (40%), anger (80%), fear (20%), stress (60%), being a burden to their family members (20%), and limited understanding from family members about their condition (20%).

CONCLUSION

All the patients with RA experienced difficulty in performing cooking. Majority felt angry and stressed because of their disabilities. It is recommended that all patients with RA should be given counselling, encouragement to continue to come for therapy and join an RA support group.

KEYWORDS

rheumatoid arthritis, cooking activity, females
Specimen Rejection In Hospital Laboratory – Causes And Implications

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INTRODUCTION

The laboratory responsibility begins when the specimen arrives at the pathology department. The pathology department can only act upon the information provided. It was found that sizeable numbers of specimens were rejected daily at this laboratory. This study was conducted to determine the causes and find ways to overcome the problem.

METHODOLOGY

A prospective study was carried out from January 2008 to April 2008. Specimens received from all departments were included in the study. All specimens rejected during that period were recorded with the cause of rejection stated. Definitions used for sample rejection included incomplete form and patient information, wrong labelling and unsuitable test for investigation.

RESULTS

The study showed that a total number of 392,354 specimens were received during the study period, of which 984 specimens were rejected. Majority of the rejected samples were due to clerical errors, with included 78.9% with incomplete forms and patient information, 10.3% wrong labelling and 10.8% unsuitable test for investigation. The number of rejected specimens was also noted to be increasing in trend.

CONCLUSION

The causes of the rejected sample were identified and main causes were from human errors rather than the technical errors.

KEYWORDS

specimen, rejected, pathology department
Improving the Management Of Patients With Intravenous Therapy In Gerik Hospital

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INTRODUCTION
This study aimed to determine the possible causes in the increased occurrences of thrombophlebitis of patients admitted, with the intention to formulate and implement remedial measures to overcome the problem.

METHODOLOGY
This was a before and after cross-sectional study. A medical audit was retrospectively conducted on patients’ case notes with intravenous therapy (IVT). Prospective studies were carried out to identify the causative factors and to develop the appropriate model of good care. This was followed with a post-intervention study to evaluate the effectiveness of remedial measures.

RESULTS
A high incidence of thrombophlebitis was documented during the malaria outbreak from April 2007 to June 2007 with a total of 16 cases, 1.15% of all IVT. Monitoring of signs and symptoms of thrombophlebitis was not carried out in 78%. Staff did not mark on IV fluid bottles the date and time at which IV fluid commenced and finished in 48%. Date of IV catheter insertion was not documented in 45%. 42% of medical staff did not wash their hands before procedures. 25% had inaccurate calculation of IV regime/flow rate. No cases of thrombophlebitis were noted 5 months following implementation of remedial measures. Post-intervention study showed that there was improvement for the 5 variables in the model of good care even although the ideal standard had yet to be achieved.

CONCLUSION
This study showed that occurrence of thrombophlebitis is preventable with good and effective nursing care.

KEYWORDS
effective nursing care, reduction, thrombophlebitis
Contributing Factors Towards The High Turn Up Of Non-Fasting Patients For Contrasted Computed Tomography Examination

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INTRODUCTION

Computed Tomography (CT) is a special examination which uses a pencil beam of x-ray to obtain an image of a patient. In this examination, usage of IV contrast media is essential to opacify the blood vessels. Patients who need IV contrast have to fast for at least 6 hours prior to examination. Failure to do so will cause the case either to be delayed or postponed to another day. This study was carried out to determine the causes of a high rate of non-fasting patients for this procedure.

METHODOLOGY

A prospective study was carried out in the Taiping Radiology Department on non-fasting patients in the month of May 2008. Only patients with appointments with age ranging from 10-70 years were included in this study. Non-fasting patients were interviewed. A checklist was developed to obtain data.

RESULTS

A total number of 387 patients were examined in May 2008 and out of these, 149 were patients with appointments. 123 (82.6%) of patients with appointments were within the age range of 10-70 years. Of these, 91 patients were examined using IV contrast media. The study showed that 37 (40.6%) of the 91 patients came for examination without fasting. 15 patients stated that they were not told to fast, 8 patients said that they did not understand the explanation given, 9 did not read the preparation form and 5 others admitted that they forgot to fast.

CONCLUSION

The major contributing factors for failure to fast for IV contrast CT were lack of explanation to patients, patients’ understanding, failure to read the preparation form and unawareness of the importance of fasting. Measures need to be taken to address these factors. Awareness of the importance of fasting for CT scan with usage of IV contrast media has to be raised.

KEYWORDS

computed tomography, IV contrast, fasting
Response To Short Wave Diathermy Treatment In Supraspinatus Tendonitis

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INTRODUCTION

This study was to determine the response of short wave diathermy treatment for patients suffering from supraspinatus tendonitis.

METHODOLOGY

A cross-sectional survey was conducted on supraspinatus tendonitis patients, after completing 6 courses of short wave diathermy (SWD) treatment, at the Physiotherapy Unit, Hospital RPB Ipoh. A bilingual (English/Malay) structured questionnaire was given to voluntary respondents who were sampled conveniently to evaluate range of movement (ROM), daily activities and decrease in pain.

RESULTS

Out of 50 subjects recruited, 46 responded to the questionnaire. Results were based on the 46 responded. The majority (47.8%) were work related injuries and 67.4% had some form of other treatment prior to physiotherapy (SWD) treatment. 73.9% had benefited from SWD treatment which indicated that participants favoured heat treatment. 93.5% subjects showed improvement in range of movement (ROM) and 93.4% had a subjective decrease in pain. 43.5% of subjects improved fully in activities of daily living (ADL).

CONCLUSION

The findings showed that SWD treatment was able to improve supraspinatus tendonitis and therefore, patient’s quality of life. Findings were limited by the small sample size.

KEYWORDS

short wave diathermy, supraspinatus tendonitis, lifestyle
Depression Among Diabetic Patients In Outpatient Clinic in Sik Hospital

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INTRODUCTION

Studies have found a complicated relationship between major depression disorder (MDD) and diabetes mellitus (DM). Various studies have found a highly variable prevalence of depression among diabetic patients in different countries which range from 8-31%. There is no local data on the prevalence of depression among diabetic patients. This study was to document the prevalence of depression among diabetic patients at Hospital Sik.

METHODOLOGY

Diabetic patients who had visited the outpatient clinic at Hospital Sik from February to August 2008 were included into the study. Convenience sampling was used. Patients with diabetes mellitus without other comorbidities, who came to the diabetic follow-up clinic, were given a questionnaire for self-evaluation and the questionnaire was given back on the same day upon completion. Beck Depression Inventory II (BDI-II) was used for depression assessment.

RESULTS

Among 110 subjects, 40% (n=44) were male and 60% (n=66) were female. The majority (88%, n=97) were more than 40 years old, Malay (96%, n=106), received higher than primary education level (89%, n=98), had diabetes within the past 3 years (74%, n=82), had a history of admission due to uncontrolled diabetes (80%, n=88) and on more than one type of oral hypoglycaemic drug (73%, n=80). 52 (47%) of the patients had history of non-adherence to the diabetic treatment. Prevalence of depression in the study was 22% (n=24) with 11% (n=12) having mild, 7% (n=8) having moderate and 4% (n=4) having severe depression. Patients that were not educated (14.17 ± 9.10, p=0.009) or had income less than RM500 (10.44 ± 8.86, p=0.008) had significantly higher mean scores in BDI-II. Other variables were not found to have a significant association to BDI-II score.

CONCLUSION

The study showed a high prevalence of depression among diabetic patients as compared to other studies. The study was conducted in a rural community in Sik and does not represent the general population in Malaysia.

KEYWORDS

depression, diabetes mellitus, outpatient, beck depression inventory, prevalence
A Pilot Study Evaluating Patients’ Satisfaction And Quality Of Life Outcome Of A Pharmacist-Initiated Methadone Programme In A Malaysian Public Health Clinic

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INTRODUCTION

Globally, illicit drug abuse remains a concern of the society and government organisations, leading to the introduction of Methadone Maintenance Therapy (MMT) programmes in many parts of the world. This study aimed to assess the satisfaction and health-related quality of life (HRQoL) improvement of patients enrolled in a pharmacist-initiated MMT programme.

METHODOLOGY

A cohort study design was used to measure satisfaction and to evaluate changes in HRQoL of patients after one month of receiving pharmacist-initiated methadone treatment at the Taiping Health Clinic. Patient’s satisfaction was measured by using an 8-item pre-validated questionnaire. A post-survey reliability analysis of the questionnaire showed a high internal consistency of the items (Cronbach Alpha = 0.785). Meanwhile, the QoL was measured using a validated EQ-5D and EQ-VAS questionnaire. Both questionnaires were administered by face-to-face interviews in two phases, after a one month interval.

RESULTS

All 54 patients in the MMT clinic participated, but only 40 (74.1%) completed this study. Average methadone dose in both phases of the study were low (Phase One = 37.4 mg [SD=22.2], Phase Two = 44.4 mg [SD=21.3]) and this caused the majority of the respondents to wish to increase their current dose. Participants were not satisfied with needs to come to the clinic everyday (n=18, 33.4%) and did not believe that MMT clinic can help in cessation of drug abuse (n=9, 16.7%). These two major dissatisfaction items were significantly associated with distance of patients’ residence from the clinic (p = 0.001 and p = 0.039, respectively). Only pain/discomfort domain of the EQ-5D showed a significant improvement from the baseline (p = 0.035). However, EQ-VAS score significantly improved from 64.69 (SD = 16.7) at baseline to 71.43 (SD = 14.9) during the one-month follow-up (p = 0.008).

CONCLUSION

A pharmacist-run MMT Programme was able to improve patients’ QoL even in a short duration of time. Traveling distance and the needs to collect methadone daily from the clinic were reported as problems by the respondents. Inadequate methadone dose should be avoided to prevent treatment failure.

KEYWORDS

methadone maintenance therapy, quality of life, satisfaction, pharmacist, drug abuse
Prevalence Of Osteoporosis And Predictors Of Bone Mineral Density In Chronic Kidney Diseases of Stage 2 And 3 Among Type 2 Diabetics

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INTRODUCTION

Chronic kidney disease (CKD) and diabetes are both well known independent risk factors for osteoporosis. However there is data lacking on the prevalence of osteoporosis in this cohort of patients. In advancing kidney disease both diagnostic test and treatment for osteoporosis may be difficult, hence diagnosing osteoporosis in the early stage of CKD is meaningful. This study was to determine the prevalence of osteoporosis and predictors of bone mineral density (BMD) in CKD stage 2 and 3 in type 2 diabetes patients.

METHODOLOGY

This was a prospective cross-sectional study. 139 patients were sampled from type 2 diabetic patients with CKD stage 2 and 3 attending Hospital Taiping medical specialist and nephrology clinic. Demographic data and blood samples were obtained. BMD of the lumbar spine and total hip were measured using Hologic dual-energy X-ray absorptiometry. Baseline demographic and clinical data were analysed using descriptive statistics and the relationship between BMD and potential determinants were subjected to univariate and multivariate analysis.

RESULTS

The mean age group was 57.8 ± 9.1 years. 40 (68%) of females were post-menopausal with the mean duration post-menopausal of 10.3 ± 7.7 years. The mean duration of diabetes was 8.5 ± 8.0 years with 39 (28%) of them using insulin with a mean daily usage of 33.5 ± 28.9 units. 87 (63%) were in CKD stage 2 while the remaining 52 (37%) were in stage 3. The prevalence of osteoporosis was 20% at the spine and 5% at the hip. Independent predictors of low BMD at the hip were increasing age (p<0.001) and post-menopausal (p< 0.001). Predictors of high BMD at the hip were increasing body mass index (BMI) (p=0.004) and increasing total insulin dose (p=0.007). As for the spine, independent predictors of low BMD were history of menopausal (p< 0.001), whereas increasing BMI (p=0.001) and increasing total insulin dose (p=0.013) were associated with high BMD at the spine.

CONCLUSION

In representative type 2 diabetic patients with CKD stage 2 and 3, prevalence of osteoporosis is not higher than general population in Malaysia. Independent predictors of BMD are as for the general population. Renal function is not independently associated with BMD. There may be dose related protective effect of insulin on bone mineral density independent from the weight increase. Further studies on relationship between insulin dose and osteoporotic fracture risk in this cohort of patients are needed.

KEYWORDS

bone mineral density, chronic kidney disease, type 2 diabetes, osteoporosis, insulin
Evaluation Of Serum Concentrations And Toxicities In Cancer Patients Receiving High Dose Methotrexate In Hospital Raja Permaisuri Bainun Ipoh

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INTRODUCTION

Methotrexate (MTX) is a chemotherapy agent for which serum concentration is routinely monitored. Therapeutic drug monitoring (TDM) of MTX is done to monitor MTX elimination. The objective of this study was to evaluate MTX-related toxicities and serum MTX concentration in patients receiving high dose (≥ 1 gm/m²) methotrexate (HD MTX) for various types of malignancies.

METHODOLOGY

Using TDM records, all patients who had their first serum MTX concentration measured between January 2006 and December 2007 were identified. Patients’ medical records were retrieved from record office and data such as gender, age, body surface area, diagnosis, and dose of MTX were collected retrospectively. Toxicity was evaluated based on clinical observation and laboratory findings as documented in case notes. Toxicity was graded based on the National Cancer Institute (NCI) Common Toxicity Criteria. MTX concentrations were routinely measured either at 24 hours or 48 hours after starting MTX infusion, and then every 24 hours till ≤ 0.3 μmol/L and these data were obtained from TDM pharmacy. Data was analysed using SPSS 15.0.

RESULTS

39 patients (median age 10 years; range 1 to 69 years, male/female 26/13), received 106 cycles of HD MTX during the two-year period. 59% of patients experienced MTX-related toxicities, of which 60.5% were Grade 1 toxicities. Patient with delayed elimination had higher 24 hour MTX concentration (p = 0.013). 33/106 HD MTX cycles had elimination delay and was significant in older patients (p = 0.025). The maximum number of MTX-related toxicities were four (which in one patient). The number of toxicities was significantly higher in patients with toxic serum concentrations (p = 0.004). The number of toxicities experienced correlated positively with age of patients (r =0.635, p < 0.001) and the number of days serum MTX concentration was above 0.3 μmol/L (r = 0.498, p = 0.001).

CONCLUSION

Increasing age, toxic serum concentrations, and duration of MTX exposure predisposed patients to MTX-related toxicities. TDM of MTX beginning at 24 hours can help avoid the occurrence of untoward effects in such patients.

KEYWORDS

methotrexate, toxicity serum, concentration
Practice Of Sedation Of Neonates Before Intubation In The Neonatal Intensive Care Units

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INTRODUCTION

The purpose of this research was to determine the practice of sedation before intubation of neonates in Malaysian neonatal intensive care units (NICUs).

METHODOLOGY

This was a cross-sectional survey regarding written policy in the use of sedation before intubation in neonates in government, university and private NICUs. Audit of the policy was conducted via phone interviews using a prepared questionnaire. Contacts were made with neonatologists, paediatricians or the senior medical officer in charge of NICUs who were available at time of interview. This was to maintain consistency and ensure that the data provided by the interviewee would be the current practice in the NICU.

RESULTS

Out of 43 available NICUs, 39 agreed to participate in the study. A total of 29 government, 3 university and 7 private NICUs in Malaysia were interviewed. Only 7 (18%) of all the NICUs contacted had a written policy. There was no statistical significant difference between government and university NICUs for availability of a written policy. However, all the 7 private NICUs had no written policy. 30 (77%) NICUs used sedation during emergency intubation of neonates. Government and university NICUs were more likely to use sedation during emergency intubation than private hospitals (p = 0.03). Almost all the NICUs (97.4%) used sedation during planned intubation. The majority, 26 (66.6%) of NICUs use either morphine or midazolam with no preference. 9 (31%) of NICUs used muscle relaxants during intubation. Government and private hospital were more likely to use muscle relaxants than university NICUs.

CONCLUSION

The majority of government, university and private hospitals with NICUs use sedation during planned or emergency intubation. The majority do not have a written policy and the type and administration of drugs are not standardised. A national standard written policy regarding sedation use before intubation in neonate is required from the Ministry of Health.

KEYWORDS

sedation, before intubation, neonates, NICUs
Chikungunya Co-Infection Increases The Severity Of Dengue Infection

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INTRODUCTION

This study was to determine whether chikungunya co-infection increased the severity of dengue infection.

METHODOLOGY

A retrospective cross-sectional study of patients with dengue fever only, and dengue and chikungunya co-infection. Cases admitted to Hospital Seri Manjung from 26 September to 22 October 2008 during an outbreak of chikungunya with dengue co-infection were sampled. Data was extracted from case records using a structured data collection sheet. Diagnosis of chikungunya was confirmed by virus isolation. Diagnosis of dengue infection was confirmed by either virus isolation, PCR, NS1 antigen test or IgM antibody detection.

RESULTS

50 patients with dengue fever and 66 patients with dengue and chikungunya co-infection were included in the study. The dengue and chikungunya co-infection group had a higher percentage of dengue haemorrhagic fever (54.5% vs 28.0%, \( p = 0.005 \)) and dengue shock syndrome, (28.8% vs 8.0% \( p = 0.009 \)). More patients in the dengue and chikungunya co-infection group were being transfused (33.3% vs 10.0% \( p = 0.003 \)). Dengue and chikungunya co-infection group had a higher percentage of respiratory distress (21.2% vs 8.0%, \( p = 0.022 \)). Dengue and chikungunya co-infection group has higher percentage of occult bleeding (15.2% vs 6.0%, \( p = 0.1469 \)) and ICU admissions (28.8% vs 16.0%, \( p = 0.1245 \)). 3 (4.5%) patients from the dengue and chikungunya co-infection group and 1 (2%) patient from the dengue group required mechanical ventilation. Although the difference did not reach statistical significance but the trend was towards more severe disease among the co-infection group.

CONCLUSION

Chikungunya co-infection increases the severity of dengue infection.

KEYWORDS

dengue, chikungunya, co-infection, severity
Practice Of Rapid Sequence Intubation In The Emergency And Trauma Department, Hospital Raja Permaisuri Bainun Ipoh

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INTRODUCTION

This study was to evaluate the practice of rapid sequence intubations (RSI) in intubation of critically ill patients in the Emergency and Trauma Department (ETD), Hospital Raja Permaisuri Bainun Ipoh.

METHODOLOGY

A cross-sectional study with prospective sampling of patients receiving RSI at the resuscitation room, Hospital Raja Permaisuri Bainun Ipoh, from 21st May till 21st September 2008. Data collected included indications of RSI, complications and outcomes of procedure, key timing of RSI procedure, drugs used in RSI, personnel and seniority of the team leader and application of safety factors during the procedure.

RESULTS

Data from 219 RSIs were recorded in a 4-month period. In 210 cases the ETD medical officer was the personnel who performed the procedure. Mean RSI cases per month per attending medical officer was 50. Mean age of patients being intubated was 61 years old. In 74% of the cases the ETD medical officers were both the decision makers and the persons performing the RSIs. 45% of cases were intubated due to low Glasgow Coma Scale. 68% patients were non-trauma cases and 32% were due to trauma. Only 38% of the patients were intubated in between 1-10 minutes of their arrival to ETD. 64% of the patients were intubated at 1-5 minutes after the decision being made to intubate such cases. Induction agents used for RSI were Midazolam (55%), Etomidate (44%) and Ketamine (1%). As for paralytic agents, 53% cases received succynylcholine and 47% cases received rocuronium. Complications that arose from the RSI procedures included cardiac arrest post-intubation (1.5%), desaturation (3%) and hypotension (5%).

CONCLUSION

The majority RSI procedures were performed by the ETD medical officers and were conducted with minimal complications.

KEYWORDS

rapid sequence intubation, airway management, critical patients
Perception Of Nurses Toward The Implementation Of Nursing Care Plan With Nursing Process Approach As A Nursing Documentation In Seri Manjung Hospital

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INTRODUCTION
The aim of this study was to explore nurses’ perception towards the implementation of a nursing care plan as a nursing documentation within the nursing process, in relation to awareness, acceptability, usefulness and to determine any resistant factors to the implementation.

METHODOLOGY
This is a cross-sectional descriptive study which was done in the clinical areas at Hospital Seri Manjung (HSM). A total of 214 registered nurses responded to self-administered questionnaires (SAQ). Data processing and analysing was conducted using SPSS version 15.

RESULTS
Only 91 (42.7%) respondents were able to answer correctly the definition of the nursing process but 179 (83.6%) respondents agreed that the nursing process and nursing care plan are both important and essential in the nursing practice. 153 (74%) respondents agreed that the nursing process and nursing care plan makes nurses more empathic and effective in fulfilling their clients’ needs. 131 (67%) respondents were aware that a nursing care plan served as a nursing documentation for a nurse to pass over duty and for retrieval of a client’s information. Majority of the respondents (99.1%) viewed that increasing workload, due to shortage of nursing staff, is the main resistant factor for the nurses to implement a nursing care plan. Lack of knowledge and skill, and nurses’ attitude were the resistant factors. 153 (74.5%) of respondents felt that HSM needed to practise a nursing process and a nursing care plan with the suggestion that the management should provide sufficient nursing staff to clients ratio. 165 (84.2%) respondents said they could implement the nursing care plan confidently if there is sufficient nursing personnel. 148 (81%) respondents claimed that the current nursing report is satisfactory with the reason that it is short and reliable.

CONCLUSION
The nursing process and nursing care plan should still be practised in all the clinical areas to facilitate good nursing services to the public. This may be achieved with appropriate number of nursing personnel.

KEYWORDS
nursing process, care plan, practice, documentation
Pharmacoepidemiologic And Cost Evaluation Of Type 2 Diabetes Management At Taiping Hospital

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INTRODUCTION

This study was conducted at Hospital Taiping to look into the direct cost of diabetes treatment using antidiabetic medications with various treatment modes (oral hypoglycaemic agents only, combination of oral hypoglycaemic agents and insulin, or insulin only) in relation to attainment of diabetes treatment goals and patient characteristics that may contribute to it.

METHODOLOGY

A retrospective, cross-sectional study involving 203 type 2 diabetic patients on various antidiabetic medications. Their medical records were reviewed for age, ethnicity, duration of known diabetes, antidiabetic medicines received and HbA1c levels achieved.

RESULTS

Male patients were found to be significantly associated with achieving good glycaemic control (HbA1c <7%) as compared to female patients (61.2% vs. 38.8%, p = 0.001). HbA1c levels were significantly associated with the different treatment modes in this study. Patients treated only with oral hypoglycaemic agents were found to achieve significantly better (p=0.001) mean HbA1c values (HbA1c 8.09%) as compared to those who were treated with a combination of oral hypoglycaemic agents and insulin (HbA1c 9.69%). The different treatment modes used was not found to have significant effect on direct pharmacologic cost for patients who achieved or did not achieve good glycaemic control (p=0.99). There was also no significant difference in the estimated annual treatment cost between these two groups.

CONCLUSION

This study has shown that there was no significant difference in the estimated annual treatment cost (direct pharmacological cost) between patients who achieved good glycaemic control and the non-achievers. Therefore, cost should not be seen as a major limiting factor. Caregivers should aim to reach this HbA1c target and optimize treatment for non-achieving patients.

KEYWORDS

cost, antidiabetic medication, glycaemic control, HbA1c
Assessing The Impact A Structured Health Education Can Have On Improving Parents/Guardians Knowledge And Awareness Regarding Influenza A

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INTRODUCTION
This study was to determine the awareness, knowledge and behaviour of parents/guardians regarding Influenza A.

METHODOLOGY
Parents/guardians of children admitted to the paediatric ward were interviewed using a questionnaire focused on knowledge on Influenza A, progression of the disease, forms of presentation, the knowledge parents/guardians had regarding the causative agent, isolation, compliance and their sources of information that they possessed in relation to Influenza A. An observational survey was also conducted to determine the public’s knowledge on hand washing techniques, compliance to mask use, compliance to restriction of activity and isolation of the affected individuals.

RESULTS
Fifty (50) parents/guardians of children admitted in the ward for influenza-like-illness (ILI) were interviewed. Of these, 58% were aware that the transmission of the H1N1 virus was via droplet infection. The question on ‘progression of the disease’ showed some variable results with 38% saying that the infection was curable while 26% were of the opinion that it was fatal. All fifty parents/guardians interviewed gave upper respiratory tract symptoms as the form of presentation of the disease. When questioned about the causative agent, 82% knew it was a virus. However, it was observed that they were not aware of the details related to what a virus really was. 92% agreed that isolation was required if a patient was diagnosed with Influenza A. 98% of parents/guardians agreed that compliance to antiviral therapy was essential. Observation of parents/guardians showed that they understood the importance of proper hand washing, mask use and restriction of activity and limitation of visitors. However, parents/guardians were not aware of the ‘proper’ technique in which to adhere to hand washing and mask wearing. Parents/guardians were observed again after basic training in hand washing and mask wearing. It was noted that only 58% were able to adhere to proper hand washing techniques and only 20% were observed wearing masks.

CONCLUSION
The majority of parents/guardians of children admitted to the paediatric ward for ILI were aware of Influenza A, however there were gaps both in knowledge and practice. Better measures are required to educated parents/guardians of children on the importance of wearing masks to prevent the spread of the H1N1 virus.

KEYWORDS
influenza A, parents/guardians, hand wash, mask use
A Study Of Medically Compromised Children With Severe Early Childhood Caries

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INTRODUCTION

Severe Early Childhood Caries (SECC) is a common clinical entity among children referred to the Paediatric Dental Clinic. Children with SECC referred for dental management vary in their general medical health. Systemic disease or its treatment can both significantly affect provision of dental care for this category of patients. The aim of this study was to evaluate the prevalence of medically compromised children referred for SECC management, to establish the common presenting medical conditions and to determine implications of systemic disease with regards to dental management.

METHODOLOGY

A two-year retrospective cross-sectional study was undertaken of children with SECC referred to Paediatric Dental Surgery Department, Hospital RPB Ipoh. Data was collected from patients’ documents or clinic cards using a standard data collection sheet.

RESULTS

25% of children with SECC referred to the Paediatric Dental Clinic had medical problems with implications for dental treatment. 50% of these children were in the 3-6 years age group with a male to female ratio of 2:1. The most common presenting medical problem was congenital cardiovascular disorders. The appropriate dental treatment modifications to deal with some of the common medical problems were elaborated.

CONCLUSION

A significant number of children with SECC were medically compromised. There is an increase in morbidity in these children due to their dental disease or treatment undertaken.

KEYWORDS

severe early childhood caries, medically compromised, congenital cardiovascular disorders
Painful Symptoms In Patients With Depression

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INTRODUCTION

Pain symptoms are common in depression. Pain is a feeling of agony due to stimulation of specialised nerve endings that can be organic or psychological in origin. Unexplained pain and depression shares the same pathway, which involves serotonin and noradrenaline. The aims of this study were to observe the prevalence of pain among depressed patients, to investigate the relationship between socio-demographic data and pain symptoms in depressed individuals and to explore the change in the severity of pain after antidepressant treatment.

METHODOLOGY

This is a cross-sectional survey of consecutive patients with a diagnosis of depression attending Psychiatric Clinic in Hospital RPB. The study was carried out for a period of one month. The questionnaire consisted of socio-demographic data, antidepressant treatment history and a visual analog scale which was used to assess the type and the severity of pain. Analysis was done by SPSS version 12.

RESULTS

A total of 58 depressed patients were screened for a period of one month. The mean age was 46 years (SD 14.7, range 17 – 82), male and female were equal in number and many (74%) were married. Out of the total 58 patients, 37 (64%) complained of at least one or more pain system before there were started on antidepressant therapy. Headache being the most common 23 (62%) pain symptom followed by GIT pain 6 (16%) and chest pain 6 (16%). The most commonly 42 (72%) prescribed antidepressant was selective serotonin reuptake inhibitors (SSRI). Further analysis of these 37 subjects who presented with pain symptoms showed that females (p = 0.006), and those living with their family (p = 0.02) reported significantly more pain symptoms. There was significant improvement in severity of pain (p < 0.001), quality of sleep (p < 0.001) and activities of daily living (p < 0.001) after antidepressant treatment.

CONCLUSION

Pain symptoms are common among depressed patients which can be improved with antidepressant therapy. Prospective studies with larger samples need to be conducted to confirm these findings in the local context.

KEYWORDS

depression, pain, antidepressant
INTRODUCTION

Diabetes mellitus is a common disease with rapidly increasing prevalence worldwide. Diabetes is a chronic metabolic disorder resulting in multi-system complications causing severe restriction and disabilities in an individual’s life. This may give rise to depression and it has been reported that co-morbid psychiatry disorder cause further deterioration in quality of life (QoL) in diabetic patients. This study aimed to assess the effect of depression on quality of life in patients with diabetes mellitus.

METHODOLOGY

This is a cross-sectional study conducted at the Endocrinology Clinic of Hospital RPB Ipoh. Every consecutive patient with diabetes mellitus type I and II were recruited for the study. They were screened for depression using the Centre for Epidemiological Studies–Depression Scale (CES-D) and WHOQOL–BREF was used to determine the quality of life (QoL) with respect to physical health, psychological health, social relationship and environment. Patients with adequate cognitive functions to perform the interview and with no co-morbid psychiatric disorder were included in the study by consent. Patients aged below 20 were excluded. Results were analysed using SPSS version 12.0.

RESULTS

A total of 165 patients were interviewed with an age range of 21–85 years (mean 55.3 years). Females constituted 52.7%, most (81.2%) were married and living with their spouses. 61.2% had secondary education, 20% had primary education, 14% had tertiary education and the rest had no formal education. Majority (60.4%) of them were screened positive for depression with at least half of them (54%) having moderate to severe depressive symptoms. Significantly higher number of patients with lower education (p = 0.03) was found to be depressed. There was no significant difference between depression and other socio-demographic data. Depressed patients had significantly more diabetic complications (p = 0.03) but diabetic control based on HbA1c values were not significantly different (p = 0.16). Diabetics who were depressed had lower score on the quality of life compared to those who were not depressed. Depressed diabetic patients scored significantly low on physical health (p = 0.027), psychological health (p = 0.036), environment (p = 0.006), however there was no significant difference with social relationship (p = 0.08).

CONCLUSION

The study revealed that depression is a common co-morbid condition in the diabetics. Depressed diabetics had significantly more diabetic complications. The study also demonstrated that the presence of depressive symptoms had a negative impact on the quality of life of diabetic patients. It is imperative to identify and manage depression early for better outcome of diabetes.

KEYWORDS

depression, diabetes, quality of life
Impact Of A Multidisciplinary Intervention In A Cardiac Rehabilitation Programme On Post-Myocardial Infarction Patients At Teluk Intan Hospital

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INTRODUCTION

Cardiac Rehabilitation Programme (CRP) for post-myocardial infarction patients was introduced to stress the importance of patient education in both identifying the disease early and preventing recurrence by lifestyle modification. It involves a multidisciplinary team of health professionals working together. In some cases, there is a lack of multidisciplinary intervention due to logistics and patient factors. This study was aimed to determine the impact of multidisciplinary intervention compared to incomplete multidisciplinary intervention.

METHODOLOGY

A retrospective review on patient medical records for patients admitted for acute myocardial infarction in 2005 was reviewed from the NIA list and from the medical records office. Patients were selected randomly and details regarding mortality and re-hospitalisation (including other causes) until year 2009 were obtained. Phone calls were also made to all patients where data was incomplete. Kaplan-Meier’s survival analysis was used to compare the 5-year survival rate between full multidisciplinary intervention compared to non-complete multidisciplinary intervention. The statistical analysis was conducted using SPSS 15.0.

RESULTS

62 patients were randomly selected with average age of 58.1 years (SD = 11.6). The majority were male (90.3%) and Malay (62.9%). The number of complete multidisciplinary intervention patients was higher compared to non-complete (33 versus 29). The average re-hospitalisation rate for non-complete CRP programme was almost twice compared to patients who completed it (1.86 times vs 1.12 times) but was not statistically significant. There was no statistical significant difference between the survival rate of patients in the complete and non-complete programmes.

CONCLUSION

The comprehensive multidisciplinary cardiac rehabilitation programme had shown impact in mortality and re-hospitalisation rate of post-myocardial infarction patients at Hospital Teluk Intan but analysis did not show any significant difference due to the small sample size.

KEYWORDS

cardiac rehabilitation programme, multidisciplinary, complete
The Use Of Traditional And Complementary Medicine Among Diabetes Patients At Teluk Intan Hospital

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INTRODUCTION

In Malaysia, nearly 1.2 million people have diabetes and it is increasing yearly. At the same time, people tend to use traditional and complementary medicines to treat diabetes as it may be more congruent with their own values, belief and philosophical orientations towards health and life. A recent survey found that about 31% of diabetes patients use traditional and complementary medicine. This study was conducted to determine the use of traditional and complementary medicine in patients with diabetes at Hospital Teluk Intan.

METHODOLOGY

A cross-sectional study was conducted at the Outpatient Department of Hospital Teluk Intan using a standardised questionnaire. The use of herbal medication among randomly selected diabetes patients was determined. The Morisky medication adherence scale was used as a screening tool to determine adherence to diabetic medication. It is composed of 4 yes/no questions about past medication usage patterns during drug history interviews. The glucose control of the herbal users were also recorded. The data analysis was conducted using SPSS 15.0.

RESULTS

A total of 100 diabetes patients were randomly selected. The prevalence of herbal medication usage in patients with diabetes at Hospital Teluk Intan was 38%. Majority of them were female (71%) and Malay (66%) with an average age of 54.3 ± 9.5 years. Majority of patients (68%) took one type of herbal medication and most of them were taking Misai Kucing (34.2%). The herbal medication used was associated with the Morisky scale score (Z=-2.599, p=0.009, α<0.05), implying that compliance to diabetic medication was poorer with use of herbal medication. The Morisky score was also significantly correlated with the glucose level (r=0.207, p=0.04, α<0.05) implying that when compliance to diabetic medication was good, control was better. The other demographic factors were not associated with the use of herbal medication among diabetes patients.

CONCLUSION

There was a high prevalence of patients with diabetes taking herbal medication at Hospital Teluk Intan. Health care professionals need to be aware of the use of herbal medication in patients with diabetes to ensure that the use of herbal medication will not affect the current allopathic management.

KEYWORDS

herbal medication, patient with diabetes
INTRODUCTION

Febrile fits are a common occurrence among children and can either simply be benign febrile fits or a manifestation of meningitis. With the possible complications of lumbar punctures (LP), and the fear of LPs among many parents, it is important to evaluate the value of the procedure, especially since the introduction of the HIB vaccine nationally in 2002.

METHODOLOGY

This was a retrospective study of children with a discharge diagnosis of febrile fits (simple or complex) from the pediatric ward of Hospital RPB Ipoh prior to June 2007. 143 children were identified but only 101 case records were available for review. Data was extracted from case records using a structured data collection sheet. Information extracted included LP requests and outcome, source of infection and clinical diagnosis, HIB vaccination status, and type of seizures.

RESULTS

69 (68.3%) of the 101 children had an obvious source of infection. Of these 82.6% were minor upper respiratory tract infections, 5.8% unspecified viral fevers, 4.3% were urinary tract infections. In 32 (31.7%), no source of infection was identified. None of the children presented with clear signs of meningism except vomiting which was present in 32 children. 42 had LP requests, of which 26 parents consented, and none returned a positive result. Children between the ages of 6 to 18 months were more likely to have an LP request (77.5%) compared to children between 18 months to 4 years (18%) (p < 0.001). Children with only one seizure during this episode of illness were less likely (35.2%) to have an LP request as those with more than one seizure (56.7%) (p = 0.075). The majority of children presenting with febrile fits were finally diagnosed with either simple (78.2%) or complex febrile fits (17.8%). Only one child was diagnosed with ‘presumed meningitis’, although no lumbar puncture was performed in this child as parents did not consent to the procedure.

CONCLUSION

This study showed that the vast majority of children presenting with febrile fits have had a benign illness and not meningitis. Clinical signs of meningitis are possibly of more value in making decision for LP than the presence of a febrile fit in children in the post-HIB immunisation era.

KEYWORDS

lumbar puncture, children, febrile fits, HIB immunisation
Evaluation Of A Trend Of Management Practice And Outcome Of Breech Delivery At Tertiary Hospitals After An Emerging Evidence Of Term Breech Is Best Delivered By Caesarean Section: A Multi-Centre Study

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INTRODUCTION
The aim of this study was to examine the trend of management practices of term breech pregnancy and the outcome of breech delivery after the application of evidence-based practice in tertiary hospitals in Malaysia.

METHODOLOGY
This was a retrospective study on case records of breech deliveries from three participating tertiary hospitals. All sampling methods were applied and a systematic approach to identify term breech cases was used. The delivery registration books for the years 2004 to 2006 and case records of each were carefully scrutinised. Only term breeches at period of gestation 37-40 weeks without any other obstetric complications during the antenatal period and deemed suitable for vaginal delivery, were included in the study. Main outcome measures included were rate of vaginal breech birth, elective caesarean section, emergency caesarean section, serious maternal and perinatal morbidities and mortality.

RESULTS
A total of 881 cases of term breech deliveries were recorded in the 3 hospitals with an overall incidence of 13.5 per thousand live births. 74 (8.4%) had vaginal delivery while 334 (39%) had elective caesarean section (CS) and 463 (52.6%) had emergency CS due to various obstetric events. Before labour, the option for vaginal breech delivery was from 11 (4.7%) in 2004 to 7 (2.1%) in 2006 while the option for ECV was increasing in popularity from 40 (17.3%) to 62 (19%) in 2006. The rate of vaginal breech delivery significantly (p<0.01) decreased over the years from 34 (14.7%) in the year 2004 to 18 (5.5%) in the year 2006 while the rate of elective CS and CS significantly (p<0.01) increased over the years. Out of 571 patients who were planned to have elective CS, about 27 (5.2%) had vaginal breech delivery while another 210 (40.3%) had emergency CS due to various obstetric reasons. Of 170 patients who were planned for ECV, 9 (5.3%) had vaginal breech delivery and 114 (67.1%) had emergency CS. About 378 (43%) of term breeches were admitted to hospital in labour. Among them, 300 (79.4%) were in a active labour with a mean cervical dilatation of 6.3 ± 2.53 SD cm. 74 (19.8%) of mothers with term breech who were admitted in active labour, had vaginal breech delivery while 296 (78.7%) had emergency CS. 211 mothers had serious postpartum morbidity after term breech delivery and the occurrence of serious maternal morbidity was significantly associated with emergency caesarean section (n=139; 66%, P=0.002) as compared to vaginal breech delivery (n=22; 10%) and elective CS (n=50; 24%). Post-partum haemorrhage appeared to be the highest contributor to the maternal morbidity (n=93; 44%) followed by genital tract injury (n=36; 17%) and postpartum sepsis (n=82;39%). There was no significant difference in the rate of serious neonatal morbidity in all models of term breech delivery noted. All 138 (15.6%) newborns with serious morbidity after delivery recovered well and were discharged home with mother. There was no mortality noted.

CONCLUSION
An increased rate of emergency CS for term breech was significantly associated with an increased rate of serious maternal morbidity especially postpartum haemorrhage and postpartum sepsis. Vaginal delivery appeared to be equally as safe as operative delivery.

KEYWORDS
term breech pregnancy, breech delivery, outcome
Interventional Trial Comparing Perineal Cool Pads And A Standard Oral Analgesic In The Treatment Of Perineal Pain In The First Day After Vaginal Delivery

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INTRODUCTION

This was an interventional trial to compare the efficacy of perineal cool pads against standard treatment of oral analgesic (paracetamol 1000 mg 8 hourly).

METHODOLOGY

A prospective randomised control trial was conducted between 1st October 2008 to 31st March 2009 in Hospital Raja Permaisuri Bainun Ipoh. 120 women in their first pregnancy who had spontaneous vertex delivery or instrumental delivery were randomised to use either perineal cool pads in the interventional group or standard doses of paracetamol 1000 mg 8 hourly in the control group. The primary outcome desired was an improvement in pain score. Pain score was measured before the intervention, at 3, 6, 12, and 24 hours after intervention using a visual chart with zero indicating no pain, mild with a score of 1 to 3, moderate 4 to 6 and severe as 7 to 10. Secondary outcome measures were time required to ambulate and commencement of breast feeding.

RESULTS

59 patients in both the intervention (perineal cool pads) and control group had a spontaneous vertex delivery and one patient had instrumental delivery. Before treatment, 4 patients in the intervention and 4 in the control had severe pain, 40 patients in intervention and 42 patients in the control had moderate pain and 16 patients in intervention and 14 patients in the control group had mild pain. After intervention, 39 patients in the intervention group had mild pain within 3 hours and 41 patients in the control group had mild pain. Most of the patients (58/60) in the intervention group had mild pain within 12 hours. The 2 patients in the intervention group were pain free with 24 hours. In the control group, all of the patients (60/60) had mild pain within 12 hours. All mothers in both groups commenced breast feeding within 3 hours and had ambulated within 12 hours.

CONCLUSION

Perineal cool pads were an effective alternative to standard oral analgesic.

KEYWORDS

perineal cool pads, analgesia, perineal pain, vaginal delivery
Outcomes Of Ovarian Drilling Among Women With Polycystic Ovarian Syndrome (PCOS)

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INTRODUCTION
The objective was to evaluate the impact of laparoscopic ovarian drilling on menstrual patterns and fertility outcomes among women with polycystic ovarian syndrome treated with laparoscopic ovarian drilling.

METHODOLOGY
This was retrospective study comparing 40 women who had undergone laparoscopic ovarian drilling with 80 women who were treated with dietary modifications and oral medication between 1st June 2005 to 31st March 2008 at the Reproductive Unit at Hospital RPB Ipoh. Data compared included menstrual patterns, ovulation rates and pregnancy rate.

RESULTS
The proportion of patients who had undergone laparoscopic ovarian drilling showed significant improvement in terms of regularity of menstrual patterns (70%) and ovulation (58%). Almost one-third (31%) of the patients who had undergone laparoscopic ovarian drilling achieved clinical pregnancies. These results were relatively higher with 50% increase of cycle improvement, 22% improvement in ovulation and 10% increase in clinical pregnancy rates.

CONCLUSION
Laparoscopic ovarian drilling improves menstrual patterns and fertility outcomes among women with polycystic ovarian syndrome.

KEYWORDS
woman, laparoscopic ovarian drilling, polycystic ovarian syndrome, menstrual, fertility outcomes
INTRODUCTION
Anal incontinence is defined as loss of voluntary control of intestinal contents. In women, the most frequent etiological factor is injury to the pelvic floor structures due to childbirth. Quality of life of these women can be significantly improved after the appropriate diagnostic tests and subsequent individual therapy. The objective of this study was to observe the prevalence and its effect on quality of life in a sample size of 270 gynaecology patients at Hospital RPB Ipoh.

METHODOLOGY
During the one-year study period, patients with pelvic organ prolapsed were selected in a purposive sampling method. They were given a questionnaire on demographic data, type and frequency of anal incontinence and questions on quality of life.

RESULTS
Among women with symptoms of urinary incontinence and pelvic organ prolapsed, the prevalence of anal incontinence was 20%. The prevalence of anal incontinence in multiparous, vacuum and forceps delivery and patients with babies weighing more than 4 kg was statistically significant. It also affected their quality of life significantly.

CONCLUSION
There were a significant number of patients with anal incontinence in our study. These patients can be offered anal sphincteric repair at the same sitting as pelvic floor reconstruction. It is important to obtain such information during routine gynaecological examination.

KEYWORDS
woman, anal incontinence, childbirth, Quality of Life (QoL), pelvic organ prolapsed
Sonographic Detection Of Placenta Accreta In The Second And Third Trimesters Of Pregnancy

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INTRODUCTION

The purpose of this study was to determine whether ultrasonography can detect placenta accrete reliably in at-risk patients.

METHODOLOGY

A prospective study of all parentally diagnosed cases in Hospital RPB Ipoh from 2004 till 2008 was done. All patients with a previous cesarean delivery and an anterior placenta or placenta previa were evaluated prospectively at each visit for sonographic signs of placenta accreta (interruption of the posterior bladder wall uterine interface, absence of the retroplacental clear zone, placental lacunae and increased vascularity by colour Doppler). These patients were followed up closely and admitted at 28 weeks gestation.

RESULTS

There were a total of 18 cases over this period. Ultrasound and Doppler imaging done revealed positive signs of placenta accreta. Colour Doppler demonstrated increased vascularity with loss of plane between the bladder wall and uterus. All these patients had a caesarean hysterectomy performed as an elective procedure or emergency if in labour. Of these 18 cases, 15 cases were confirmed to have placenta accrete by histopathological examination.

CONCLUSION

Placenta accreta can be detected as early as 26 weeks of gestation in most at-risk patients by visualisation of irregular vascular spaces within the placenta (placental lacunae). Colour Doppler has been found to be a reliable and sensitive diagnostic tool for the detection for placenta accreta.

KEYWORDS

ultrasonography, placenta accreta, cesarean delivery, anterior placenta, placenta previa
INTRODUCTION

Thrombotic thrombocytopenia purpura (TTP) is a severe disorder affecting the microcirculation of multiple organ systems. Infections, pregnancy, cancers, drugs, and surgery were frequently associated with the initial episodes and relapses. Women who were either pregnant or in the postpartum period made up 10-25% of TTP patients. Clinically, TTP is characterised by the classic pentad of thrombocytopenia, Coombs-negative microangiopathic haemolytic anaemia, fever, fluctuating neurologic abnormalities and renal dysfunction. Aggressive treatment with plasma transfusion or plasmapheresis improves maternal and foetal survival rates. The study centre reported 2 cases of TTP.

Case 1 was a 32-year old para 2. Previously healthy, presented three days post-delivery with petechiae, anaemia, fever and renal impairment. Her clinical features were compatible with microangiopathy due to thrombotic thrombocytopenia purpura. She was disoriented and subsequently intubated as her condition deteriorated. She was treated with daily plasma exchange using cyro-plasma as a replacement fluid. The woman responded well to plasma exchange, and her focal neurological signs resolved. She was discharged well 44 days later.

Case 2 was a 24 primigravida at 24 weeks gestation who presented with hypertensive crisis, thrombocytopenia, anaemia and renal impairment. Investigations were suggestive of microangiopathic haemolytic anaemia as evidenced by low haemoglobin, schistocytes in peripheral blood smear, reticulosis, raised lactate dehydrogenase and thrombocytopenia. An ultrasound done confirmed an intrauterine death. She too was treated with plasma exchange and responded well. She went into spontaneous labour and delivered a 500 mg normally macerated still-birth. She was discharged well three weeks later.

CONCLUSION

Prior to introduction of plasma therapy, the mortality rate of patients with TTP was 90%. Current reviews have estimated survival rates of 70-90%. Relapses reported was 30-60%.

KEYWORDS

thrombotic thrombocytopenia purpura, women, pregnant, postpartum period, treatment, plasma transfusion, plasmapheresis
A Local Experience on the use of Cyclosporine for the Treatment of Psoriasis

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INTRODUCTION
The efficacy of cyclosporine in the treatment of psoriasis is well established. However widespread use of it has been limited by concerns over adverse effects such as hypertension, renal impairment and the potential risk of malignancy. The aim of this study was to determine the profile of local psoriasis patients treated with cyclosporine, their response to treatment, their tolerability and the side-effects experienced.

METHODOLOGY
This was a retrospective study of all psoriasis patients treated with cyclosporine for more than one month from January 1996 to June 2007 at the Dermatology Department, Hospital RPB Ipoh. Data was extracted from case notes retrospectively using a structured data capture sheet.

RESULTS
There were a total of 21 patients, 8 males and 13 females. Their mean age was 40 years. There were 10 Chinese, 7 Malays and 4 Indians. Cyclosporine was given as the second or third line of treatment. The average starting dose was 2.76 mg/kg and maximum dose was 3.89 mg/kg. Best response was noted after 3 months of treatment. Thirteen (61.9%) patients had excellent response, 4 (19%) had good response, 3 (14.3%) had moderate response and 1 (4.8%) had poor response. Thirteen (61.9%) patients developed raised serum creatinine level exceeding 30% of the baseline while on treatment but all of them improved when the dosage of cyclosporine was reduced. None of them developed renal failure. There were 5 patients who had hypertension while on cyclosporine therapy, 2 of them required antihypertensive agents, while for the remaining 3 blood pressure normalised after dosage reduction. Other side effects reported included gastrointestinal upset, gum hypertrophy and hypertrichosis.

CONCLUSION
Cyclosporine is effective in the treatment of psoriasis but close monitoring of serum creatinine and blood pressure is needed.

KEYWORDS
Cyclosporine, psoriasis, adverse effects
Improving the Clinical Response of Atopic Eczema Patients by Improving Their Understanding on the Proper Application of Topical Treatment

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INTRODUCTION

Atopic eczema is a common dermatological condition seen at Hospital RPB Ipoh in which the mainstay of treatment has been by topical medications. One of the main reasons for poor clinical response to therapy in atopic eczema is the lack of understanding of topical preparation usage and thus poor adherence to treatment. The aim of this study was to determine the effect of patient’s education and demonstration of topical therapies on the clinical response of atopic eczema.

METHODOLOGY

At the first visit, newly diagnosed atopic eczema patients who fulfilled the study criteria were randomised into 2 groups (Groups A and B). Group A received explanations and demonstrations on proper usage of topical medications whereas group B were not educated on these and received conventional care. All of them were assessed on their level of understanding of the proper usage of topical applications using a questionnaire. The severity of the eczema was recorded using the six area, six sign atopic dermatitis severity score (SASSAD) and patient assessment of itch, sleep disturbance and irritability were recorded on 10-cm visual analogue scales. At visit 2, which was 2 weeks after treatment, re-evaluation of their understanding and the severity of their skin condition were done. Following that, all patients from both groups were educated on the proper usage of topical medications. A third evaluation was done at visit 3 which was 2 weeks later.

RESULTS

At baseline, 70% of the patients did not understand the potency of topical corticosteroid and 20-30% of them did not know the correct sites, frequency, time and duration of each topical application prescribed. Two-thirds of patients said that they did not receive any explanation or demonstration from either their doctor or the pharmacy dispenser. After education on the proper usage of the topical medication, the level of understanding improved to 100% for group A at visit 2 and group B at visit 3. Clinical improvement measured by SASSAD score reduction was seen in both groups. In group A, a significant SASSAD score reduction of 49.5% (P=0.003) was seen after 2 weeks and it was sustainable, as evidenced by a further reduction to 67% (p=0.001) by week 4. In group B, a significant SASSAD score reduction (64.8%; p=0.002) was seen only by week 4 after giving education and demonstration to the patients. The magnitude of improvement in patients’ symptoms which included itch, sleep disturbance and irritability, measured by the patient using a visual analog score, were only significant for group A after 4 weeks.

CONCLUSION

This study reinforced the importance of education and demonstration on the proper use of topical applications for better clinical outcomes. Failure to explain how to use topical applications may lead to patient dissatisfaction, poor compliance and lack of treatment efficacy.

KEYWORDS

atopic eczema, patient’s education and demonstration, topical medication
Removal Of Foreign Bodies Under General Anaesthesia – A Review Of Rigid Endoscopy For Foreign Bodies Of The Hypopharynx And Oesophagus

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INTRODUCTION

Rigid endoscopy under general anaesthesia (GA) has traditionally been used by otorhinolaryngologist for diagnosis and management of a variety of disorders affecting the upper digestive tract including removal of foreign body. Rigid endoscopy is not without risks especially oesophageal perforation which has a high morbidity and potential mortality. Besides the surgical risks, the patients are also subjected to anaesthetic risks.

METHODOLOGY

A retrospective review was done for patients who underwent rigid oesophagoscopy and/or direct laryngoscopy under GA for suspected foreign body ingestion. 36 records were retrieved for patients admitted between January 2005 and March 2007. Information with regards to the age, sex, race, co-morbidities, lateral neck x-ray findings, intra-operative findings, duration of admission and complications. Children below the age of 12 were excluded.

RESULTS

There was no foreign body in 33.3% of the 36 patients. Co-morbidities were present in 33.3%. Morbidity and mortality from the procedure included one aspiration pneumonia, one lateral pharyngeal wall tear and one death (8.3%). X-ray findings were negative or inconclusive in 11 (45.8%) patients with a foreign body. The most common foreign body retrieved was fishbone accounting for 13 of the 24 foreign bodies detected, followed by chicken bone (5/24), mutton bone (2/24), dentures (2/24), prawn shells (1/24) and nutshell (1/24). Cervical oesophagus was the common site of foreign body impaction in this group of patients (15/24) followed by vallecula (5/24), tonsil (2/24), base of tongue (1/24) and posterior pharyngeal wall (1/24). The majority of patients, 85.7% required 2 to 3 days of admission of which 52.7% had no foreign bodies.

CONCLUSION

This review has shown that rigid endoscopy has a role in removal of foreign-bodies of the hypopharynx and oesophagus. However there is a small risk involved in the procedure.

KEYWORDS

foreign body ingestion, rigid oesophagoscopy, screening method
Trends Of DMARDs Prescribed In Rheumatoid Arthritic Patients In Malaysia – A Single Centre Study

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INTRODUCTION

The objective of this study was to evaluate the trends of disease-modifying anti-rheumatic drugs (DMARDs) used in the treatment of rheumatoid arthritis (RA).

METHODOLOGY

Patients who fulfilled the American College of Rheumatology (ACR) criteria for RA from the year of 1995-2006 who attended the Rheumatology clinic, Hospital RPB Ipoh were selected and their clinic record was evaluated. The use of DMARDs and changing trends in their use were determined.

RESULTS

One-hundred and twenty-eight patients with RA were identified. The most commonly prescribed DMARDs as monotherapy was sulphasalazine (47.7%), followed by methotrexate (35.9%) and hydroxychloroquine. Methotrexate and sulphasalazine were the most frequently prescribed DMARD of which the use of methotrexate increased 6-fold from the year of 1997 to the year of 2007 and the use of sulphasalazine remained around 30% to 50%. Combination methotrexate with leflunomide had significantly increased in usage during the study period. Meanwhile methotrexate with sulphasalazine combination showed decreasing trend of usage.

CONCLUSION

DMARDs are still the cornerstone in the treatment of RA patients. Changing trends and aggressive use of DMARDs has been markedly influenced by the patients’ awareness of early treatment, the incapacitating damage, availability of recently introduced leflunomide and the advancement of current recommended treatment protocol.

KEYWORDS

rheumatoid arthritis, changing trend, DMARD
Maternal Knowledge And Ability To Perform Cardiopulmonary Resuscitation On Babies Prior To Discharge At Hospital RPB Ipoh

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INTRODUCTION

The purpose of this research was to determine maternal knowledge and ability to perform cardiopulmonary resuscitation (CPR) on premature babies prior to discharge at Hospital RPB Ipoh.

METHODOLOGY

This is a cross-sectional study with a quasi-experimental element. It evaluated mothers of premature babies on their knowledge and ability to perform CPR. This study was conducted at the Special Care Nursery (SCN), Hospital RPB Ipoh on mothers with premature babies prior to discharge with their written consent. The standard Basic Life Support (BLS) protocol based on the American Heart Association was referred. The correct CPR technique for infants from the BLS protocol was determined, in consultation with the Perak State Neonatal and Paediatric Retrieval Team. A standard check list was designed to evaluate the capability of mothers to perform basic infant CPR. Data was collected via a questionnaire and a checklist on socio-demographic factors and prior experience. Mothers who had some knowledge on CPR were asked to demonstrate their ability on a mannequin. Their ability was evaluated using the standard checklist designed. All participating mothers were educated and given demonstrations on the correct technique of CPR. This was followed by a re-evaluation of their knowledge and CPR skills using the same tool.

RESULTS

Twenty participants were enrolled comprising 11 Malays, 6 Indians and 3 Chinese mothers. The majority (95%) were between the ages of 21 to 30 years old. 75% of them had secondary education and 25% tertiary education. Only 65% of mothers had prior knowledge about CPR. However most mothers (95%) were able to perform CPR efficiently after observing the correct technique. The total score for the CPR skills was 24 and majority of mothers (90%) obtained scores above 15 regardless of their educational level.

CONCLUSION

This study showed that BLS education could be easily taught and understood by mothers. Proper guidance and training will strengthen their knowledge and skill to perform CPR on their infants.

KEYWORDS

mothers, cardiopulmonary resuscitation, infant
Impact Of Pharmacist-Conducted Counselling Sessions On Patients At Warfarin Clinic, Teluk Intan Hospital

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INTRODUCTION

Studies on pharmacists managing anticoagulant therapy clearly documented its benefits for patients with warfarin therapy. Pharmacist-conducted counselling sessions were carried out at Hospital Teluk Intan with the hope that it would improve patients’ knowledge thus enhancing anticoagulation control. The study was conducted to evaluate the impact of pharmacist-conducted counselling sessions on warfarin therapy.

METHODOLOGY

A self-controlled study was conducted involving patients who have undergone regular follow-up at the warfarin clinic. Patients’ knowledge, compliance and anticoagulation control were assessed using a validated questionnaire and a formatted data collection form. A 90-day interval was given before and after intervention. The significant level of p<0.05 was used in inferential analyses.

RESULTS

A total of 52 patients with the average follow-up of about a year were randomly selected from the registry of anticoagulation. Average patient age was 59.96 ± 11.19 years old and there was no significant difference between the number of female and male subjects. The average percentage scores of knowledge before and after intervention were 43.92 ± 7.3% and 79.63 ± 20.8% respectively. The difference was statistically significant (t = 11.77, p< 0.01). Patient adherence to warfarin was also significantly increased with 50% before and 82.7% after intervention (χ² = 8.26, p< 0.01). The anticoagulation control (a ratio of number of days of the international normalised ratio within targeted range over 90 days) showed that average ratio after intervention was significantly higher compared to before intervention (0.34 ± 0.32 versus 0.81 ± 0.3; t = 8.785, p< 0.01).

CONCLUSION

This study showed that pharmacist-conducted-counselling sessions were beneficial in increasing patients’ knowledge, enhancing the adherence towards warfarin and more importantly improving anticoagulation control.

KEYWORDS

anticoagulation, warfarin, pharmacist-conducted counselling
High Incidence Of Hypotension After Spinal Anaesthesia In Lower Segment Caesarian Section Patients In Taiping Hospital

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OUTLINE OF PROBLEM

Lower segment Caesarian section (LSCS) contributed more than 80% of total obstetrics cases going for operation and the most popular anesthetic technique being used was sub-arachnoid block using hyperbaric bupivacaine as anesthetic agent. However, sub-arachnoids block (spinal anesthesia) sometimes can lead to haemodynamic disturbances especially hypotension which is associated with patient’s satisfaction and baby’s outcome.

OBJECTIVE

This study was to identify the probable causes of hypotension after spinal anaesthesia in LSCS patients, and to formulate and implement remedial measures in order to prevent this incidence.

KEY MEASURES FOR IMPROVEMENT

To reduce the incidence of hypotension cases to less then 10%

PROCESS OF GATHERING INFORMATION

It was found that the most common problem faced by anesthetists in LSCS patients undergoing anesthesia was ‘High incidence of hypotension after spinal anesthesia for LSCS patients’. A pre-remedial study was carried out at the Maternity Operating Theatre, Hospital Taiping, from 4th to 11th February 2006 to identify the magnitude of the incidence. A prospective study from 20th February to 20th March 2006 was on 80 patients, to identify the main contributing factors. Appropriate remedial action was implemented from 27th March to 15th April 2006. A re-evaluation study was conducted from 16th April to 16th May 2006 to evaluate the effectiveness of the remedial measures.

ANALYSIS AND INTERPRETATION

A prospective study performed on 80 patients found that 27.5% developed hypotension with ABNA of 17.5%. The main contributing factors identified were no or improper preload given, no pre-emptive ephedrine and lack of awareness among anesthetics’ team to take the preventive action. Minor factors included volume of the anesthetic drug used, patient’s weight and height or size of the baby.

STRATEGY FOR CHANGE

Remedial actions were targeted at anesthetic doctors and GA nurses in the Maternity Operating Theatre, Hospital Taiping. The remedial measures were pre-emptive ephedrine (vasoconstrictor), proper preload prior to commencement of spinal anesthesia of at least 500 ml of crystalloid and improvement personnel awareness by continuous reminders via CME and posters.

EFFECT OF CHANGE

The ABNA decreased from 17.5% to 4.8%.

THE NEXT STEP

Future interest could be to look at the benefit of reducing the dose of local anesthetic so as to prevent incidences of hypotension without compromising on a patient’s comfort and care. A continuous audit from time to time to ensure the continuity of preventive measures in incidences of hypotension after spinal anesthesia.

KEYWORDS

spinal anesthesia, lower segment Caesarian section, hypotension
High Incidence Of Peri-operative Cold And Shivering Among Patients Undergoing Lower Segment Caesarean Section In Taiping Hospital

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OUTLINE OF PROBLEM

Many pregnant mothers who undergo elective or emergency LSCS, experience cold and shivering, during intra-operatively or post-operatively. This causes much discomfort to the patients, and to some extreme level it can cause poor perfusion, faulty monitoring and arrhythmias. If appropriate early measures are taken, the shivering can be prevented. This study was aimed at identify the contributing factors and frequency of occurrences, and formulate and implement remedial measures to reduce the incidence of peri-operative cold and shivering.

KEY MEASURES FOR IMPROVEMENT

To reduce the incidence of shivering to about 10%

PROCESS OF GATHERING INFORMATION

A prospective study was done by giving questionnaires to patients and staff managing the patients. Using a standard of no more than 10%, about 30 patients were evaluated and 19% found to have either discomfort or intra-operative complication due to shivering.

ANALYSIS AND INTERPRETATION

Remedial measures identified included using warming accessories, covering patient well including the extremities and giving IV intravenous Pethidine. Post-remedial study was then conducted and another 100 patients were randomly selected and only 12% complained of shivering.

EFFECTS OF CHANGE

ABNA reduced from 19% to 12%.

THE NEXT STEP

This QA project gave standardised care for maternal patients undergoing LSCS to prevent perioperative shivering, thus improving patients’ comfort level and cooperation at the time of surgery and postoperatively in the recovery room. Besides that, it also helped in the monitoring of patients by staff and doctors.

KEYWORDS

patients undergoing lower segment Caesarean section, cold and shivering, intra-operatively or post-operatively
Improving Antibiotic Prescription In Dental Clinics In Larut, Matang And Selama District

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OUTLINE OF PROBLEM

Inappropriate antibiotic prescription in dental clinics can result in various problems, ranging from wastage of valuable resources to the escalating global problem of antibiotic resistance. Antibiotic resistance occurs when there is overuse or misuse of antibiotics, leading to an increase in microorganisms which are resistant to the drug. From our initial study, it was found that 23.1% of antibiotics prescribed by dental officers in Larut, Matang and Selama district were found inappropriate according to the current guidelines. The proposed factors which might cause inappropriate antibiotic prescriptions are 1) lack of knowledge among dental officers, 2) poor attitude and clinical practice, as well as other miscellaneous factors such as patient’s expectation, uncertainty of diagnosis and pressure of time and workload.

KEY MEASURES FOR IMPROVEMENT

The target was to improve the percentage of appropriate antibiotic prescription in accordance with the current guidelines.

PROCESS OF GATHERING INFORMATION

All (eleven) dental officers in the government dental clinics in Larut, Matang and Selama (LMS) district participated in this study. All respondents completed a written questionnaire, sat for a pre-test and submitted information regarding their antibiotic prescriptions. Three months after remedial measures were implemented, all respondents were asked to re-sit the same test and submit their antibiotic prescription information, respectively.

STRATEGY FOR CHANGE

A continuous professional development session was held in January 2008 covering basic principles of antibiotic therapy. Attendance was made compulsory for all dental officers in LMS district. Written guidelines and posters were distributed to be exhibited at all dental clinics. A checklist system was introduced where all dental officers were instructed to complete a simple checklist prior to prescribing antibiotics.

EFFECTS OF CHANGE

There was an improvement in the percentage of appropriate antibiotic prescription from 50.5% to 59.6% (+9.1%).

THE NEXT STEP

There seems to be a minor improvement in the prescription practice of the dental officers, despite their awareness of the impact of inappropriate antibiotic prescription. As a result of this, a continuous professional development (CPD) course on antibiotic therapy will be held every year in Larut, Matang and Selama district targeting new dental officers.

KEYWORDS

antibiotic prescription, dental officers
Improving Management Of Gestational Diabetics At All Clinics In The District Of Larut, Matang & Selama


Larut, Matang & Selama District Health Department

OUTLINE OF PROBLEM

Gestational diabetes mellitus (GDM) is defined as any degree of glucose intolerance with onset or first recognition during pregnancy. According to the American Diabetes Association, approximately 3-8% of pregnant mothers are diagnosed with GDM annually and 50-60% of women with GDM will develop Type II DM in 10 years time.

In the district of Larut, Matang and Selama, there has been an increased percentage of GDM over the last 5 years (1.7% in 2002 to 10.1% in 2006). Even with the increasing number of GDM, there was no proper implementation of the Guidelines on the Management of Gestational Diabetes. This QA project hopes to identify the contributing factors so as to formulate and implement remedial measures to improve management of GDM.

KEYS MEASURES FOR IMPROVEMENT

The target was to ensure that > 80% of the gestational diabetics in the district of Larut, Matang and Selama are managed appropriately.

PROCESS OF GATHERING INFORMATION

A cross-sectional study was done from March – December 2007. Baseline data was obtained from antenatal cards of 2006. Self-administered questionnaires were formulated to assess the knowledge of staff and GDM patients.

ANALYSIS AND INTERPRETATION

The important contributing factors were the poor implementation of guidelines and poor knowledge of gestational diabetes among the staff. Other factors included poor patient knowledge, improper colour coding, poor antenatal and postnatal follow-up.

STRATEGY FOR CHANGE

Remedial measures included the reinforcement of the implementation of guidelines and continuous medical education for staff of all categories (those who managed antenatal patients). A registry for gestational diabetics was introduced to ensure postpartum MGTT was done and these patients were followed-up (registered with the Pre-pregnancy Clinic). A comprehensive pamphlet on gestational diabetes for patient education was introduced. A checklist for investigations and stickers for antenatal cards were introduced so that these patients and investigations were not overlooked.

EFFECTS OF CHANGE

As a result of this intervention, the percentage of appropriately managed gestational diabetics increased from 20% to 68%. Achievable benefit not achieved (ABNA) was reduced from 60% to 12%.

THE NEXT STEP

Continuous monitoring and management of these patients gives an opportunity for primary care givers to play a role in their education, coordination and continuity of care. These patients are an available target group where management including health education and awareness can be optimised in view that 50-60% have risk of becoming diabetics in about 10 years time. There is a need to ensure that these patients are registered with the pre-pregnancy clinic so that pre-pregnancy care can be given.

KEYWORDS

gestational diabetes mellitus, pregnant mothers, pre-pregnancy care
Improving Recovery Time Of Amblyopic Patients in Eye Clinic, Taiping Hospital

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OUTLINE OF PROBLEM
Amblyopia or commonly referred to as “lazy eye” refers to reduced visual acuity even after correction with glasses or contact lenses in the absence of any obvious structural anomalies or ocular disease, usually caused by visual deprivation in childhood. Currently, the problem is poor recovery time in amblyopic patients. Faster recovery of amblyopia is important as visual pathways develop rapidly from birth to 6-8 years of age, after which the vision will stabilise.

KEY MEASURES FOR IMPROVEMENT
Improvement is taken as when the visual acuity in amblyopic eye improves two lines or more within 6 months from treatment prescribed. The standard set was 80% of patients seen.

PROCESS OF GATHERING INFORMATION
The retrospective data was collected from all amblyopic patients seen in 2007 based on existing data available from patients’ record.

ANALYSIS AND INTERPRETATION
Analysis done from January to December 2007 found 74% amblyopic patient with poor recovery time, ranging from one to five years. The contributing factors were poor visual therapy, lack of visual stimulus and variable management plan as there was no management guideline to follow. Management usually varies with optometrist’s clinical experience. ABNA was 54%.

STRATEGY FOR CHANGE
Remedial measures taken were to strictly ensure specific management of amblyopia based on established management guideline. This includes proper explanation and counselling of patient and parents, correct significant refractive error, prescribing occlusion therapy with complete written instruction and appropriate follow-up plan.

EFFECTS OF CHANGE
Definite improvement was seen in recovery time of amblyopic patients. Within the study period, 14 new amblyopia cases were seen and 78% of patients had good recovery time. The ABNA was reduced to 2%.

THE NEXT STEP
Continuous implementation of remedial measures to ensure quality management of amblyopia patients seen in Eye Clinic, Hospital Taiping.

KEYWORDS
amblyopic patients, visual deprivation in childhood, poor recovery time
Improving The Number Of Premature Babies Not Tolerating Feeding In NICU, Hospital Teluk Intan

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OUTLINE OF PROBLEM
Success or failure in the care of premature infants is largely dependent upon the nursing care that the infant receives during the early weeks of life. A major consideration in this is feeding of the premature babies. Babies not tolerating feeding is a common problem among premature babies and it is seen in NICU, Hospital Teluk Intan. How to feed a premature baby has been based on local practices and recently has been subjected to scientific investigation. Very premature babies have poor coordination of sucking and swallowing so they must be fed through a tube and the caregiver must decide the amount.

KEY MEASURES FOR IMPROVEMENT
Reducing the number of premature babies not tolerating feeding in NICU to less than 50%

PROCESS OF GATHERING INFORMATION
The retrospective analysis was from 1st September to 31st December 2007 and a prospective study was carried out from 1st March to 30th April 2008 after interventions.

ANALYSIS INTERPRETATION
The most important contributing factor identified was poor clinical condition and it involved babies who required resuscitation. The majority of cases were babies with extreme prematurity and sepsis.

STRATEGY FOR CHANGE
Remedials were stringent measures during feeding and to give expressed breast milk (EBM) to premature babies in the NICU. A baby who showed signs of sepsis was treated medically with gut rest if there was early necrotising enterocolitis (NEC). Remedial measures involved doctors and nurses in NICU, Hospital Teluk Intan.

EFFECTS OF CHANGE
Not tolerating feeding in premature babies reduced from 56.7% to 31.4%.

THE NEXT STEP
The QA project has raised awareness among the personnel regarding importance of feeding and the problems associated with it. It will impact on nutrition and prolong hospital stay if the child is not tolerating feeding. Mothers should be advised to room in and give EBM. They are also given counselling and explanation on problem of feeding with the clinical outcomes. The implemented remedial measures is an on-going process and have been in practice before this, but continued emphasis needs to be given. Similar studies need to be done in the future with bigger sample sizes and for longer durations to obtain more information on the problem.

KEYWORDS
premature infants, nursing care, not tolerating feeding
Inadequate Pain Relief During Venepuncture In All Healthy Term Neonates In The Special Care Nursery in Taiping Hospital

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OUTLINE OF PROBLEM
In view that the Paediatrics Department deals with children and neonates, there in an increasing concern in the management of pain in neonates as it causes physical and emotional trauma to clients. This has led to increasing parental concern and dispute with regards to crying neonates during procedures which also creates a poor working condition due to the wailing children.

KEY MEASURES FOR IMPROVEMENT
Re-introduction and reinforcement of pain score-nips score. Standard of pain score-nips of less than 3 were set to be not more than 10%.

PROCESS OF GATHERING INFORMATION
Nips score based on observational study was done. Questionnaire from staff nurse as a neutral observer and questionnaire from houseman and medical officer as a staff involved in carrying out a procedure were returned to establish data.

ANALYSIS AND INTERPRETATION
From the study, there is evidence of a dangerous level in the lack of pain management in neonates. There were multiple contributing factors identified such as staff factor, environmental factor, time factor and inadequate usage of analgesia

STRATEGY OF CHANGE
A few remedial measures were introduced such as enrichment of knowledge especially in a venepuncture procedure, adherance to pain management protocol, hands-on teaching by providing audio-visual aids as well as surveillance.

EFFECTS OF CHANGE
The percentage of pain score-nips (score more than 3) has reduced from 100% to only 5.02% after the implementation of remedial measures.

THE NEXT STEP
This quality assurance project and the remedial measures taken were successful in reducing the overall occurrence of this problem. In taking this forward, is the application of this remedial action in other age groups of children.

KEYWORDS
pain, venepuncture, neonates, nips score
Reducing Incidence Of Wrong Diabetic Diet Served To Patients In Third Class Ward, Taiping Hospital

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OUTLINE OF PROBLEM

Incidence of wrong diabetic diet served to patients in the third class ward will contraindicate a patient’s medical treatment, prolong medical management and affect quality of service. This project was aimed at reducing the incidence of serving the wrong diabetic diet to patients in the third class ward at Hospital Taiping.

KEY MEASURES FOR IMPROVEMENT

The objective was a reduction in the rate of serving the wrong diabetic diet to patients in the third class ward to less than 5% by the standard set at the local level for the quality improvement effort.

PROCESS OF GATHERING INFORMATION

A prospective study was conducted. 200 convenient samples from the third class ward were taken from 10 Mac till 11 April 2008. This was followed by a prospective study conducted in June to September 2008 to determine the effectiveness of remedial action undertaken.

ANALYSIS AND INTERPRETATION

The major contributing factors identified were insufficient supply from kitchen, no guidelines and lack of knowledge on portioning and distribution of a diabetic diet. Other minor factors included non-updated diet board, lack of supervision from staff nurses and non-awareness of dietitian’s prescription.

STRATEGY FOR CHANGES

The remedial measures taken included setting guidelines for diet portioning in the kitchen, setting guidelines for diet portioning in ward pantry and a few sessions of short briefing to Pembantu Perawatan Kesihatan (PPK) on portioning guidelines.

EFFECTS OF CHANGE

By instituting the remedial measures, a significant reduction from 12% to 7% was observed in the rate of wrong diabetic diet served after post-remedial action. The knowledge and awareness on diabetic diet also increased from 80% to 100%. The ABNA was reduced from 7% to 2%.

THE NEXT STEP

Remedial actions such as implementing the portioning guidelines and continuous education to PPK helped to reduce the incidence of wrong diabetic diet served. Further intervention such as centralised plating for therapeutic diet is planned to ensure correct therapeutic diet served to patient. At the same time, this might create awareness among ward staff to update the diet order not only at ward level but also in the kitchen.

KEYWORDS

wrong diabetic diet served, diet guideline
Reducing The Cancellation Rate Of Elective Daycare Cataract Surgery In The Department Of Ophthalmology, Hospital Raja Permaisuri Bainun Ipoh

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OUTLINE OF PROBLEM

High cancellation rate of elective daycare cataract surgeries not only results in wastage of time, cost and effort, but also deprives the opportunity for other patients and contributes to longer waiting time for cataract surgery. The incidence in 2006 was 10.2%. This QA project aimed to identify the contributing factors, formulate remedial measures and implement them to reduce the incidence.

KEY MEASURES FOR IMPROVEMENT

The objective is to reduce the cancellation rate of elective daycare cataract surgery to 5% or less

PROCESS OF GATHERING INFORMATION

Retrospective analysis from Jan 2006 to February 2007 was carried out to identify the contributing factors. A prospective interventional study from May until October 2007 was to evaluate the effectiveness of remedial measures, reflected by the cancellation rate of daycare cataract surgery.

ANALYSIS AND INTERPRETATION

The most important contributing factors identified were poor patient commitment and poor optimisation of patients. A minor factor was poor patient selection for daycare cataract surgery.

STRATEGY FOR CHANGE

Remedials were stringent measures during pre-clerking, strict criteria for selection of patients for daycare cases, requirement of receipt of IOL purchase on pre-clerking day and double-checking of patients during pre-clerking day by a specialist of the patient. Remedial measures involved all cataract surgeons and paramedic staff in the Department of Ophthalmology, Hospital RPB Ipoh.

EFFECTS OF CHANGE

A reduction in the cancellation rate of daycare cataract surgery from 11.13% to 7.27%.

THE NEXT STEP

The QA project successfully raised awareness among the personnel regarding importance of optimisation of patients for daycare cataract surgeries. Patients were also made to understand that lack of commitment would also result in others deprived of a chance for sight. However, emphasis on the daycare surgery assessment must be reinforced to new medical officers to avoid a lapse in quality. The implemented remedial measures will be continued and all staff will be constantly reminded. Continued emphasis will be carried out until the target is achieved.

KEYWORDS

cancellation, elective, daycare cataract surgery
Reducing The Rate Of Clean Wound Infection (Post-Toilet And Suture) At The Accident And Emergency Department, Batu Gajah Hospital

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OUTLINE OF PROBLEM

Performing toilet and suture (T&S) is among the most important activity and is the core business of the Accident and Emergency (A&E) Department. The inefficient management of the wound following T&S will increase the morbidity to patients, delay recovery and increase in the cost of further treatment. The rate of clean wound infection for December 2006 was 8%. The aim of this QA study was to identify the contributing factors, and to formulate and implement remedial measures to reduce the rate of clean wound infection following T&S at the A&E Department of Hospital Batu Gajah.

KEY MEASURES FOR IMPROVEMENT

Reducing the rate of clean wound infection post-T&S to 4%.

PROCESS OF GATHERING INFORMATION

This was a 2-phase descriptive study. Phase I was a prospective study from 15th February 2006 to 31st January 2007, involving 40 patients with clean wound who had undergone T&S at the A&E Department. During this phase, observation of practice of paramedics was also done and recorded. Phase II was also a prospective study done on 40 patients who had undergone the same procedure and also observation on the practice of paramedics. This was conducted after remedial measures were implemented in the department.

ANALYSIS AND INTERPRETATION

The most important contributory factors were non-adherence to aseptic techniques including no proper hand-washing before procedure and inadequate creation of surgical fields. Other minor factors included poor patient education given and poor attitude of staff.

STRATEGY FOR CHANGE

Remedial measures implemented in this QA study were implementation of a written Standard Operating Procedure (SOP) for all paramedics and doctors involved in the management of patient with wound, reminders for paramedics to practise surgical hand-washing and adherence to strict aseptic techniques and a standardised and comprehensive instruction pamphlet for wound care.

EFFECTS OF CHANGE

A significant reduction in the rate of clean wound infection from 7.5% to 2.5%.

THE NEXT STEP

This QA study had successfully raised awareness among paramedic staff about the importance of hand-washing and the practice of strict aseptic techniques in reducing the rate of clean wound infection. On-going Quality Improvement activities include hand-washing audit and wound infection audit every 6 months.

KEYWORDS

toilet and suture, clean wound, clean wound infection
Reducing The Rate Of Near Misses in Blood Transfusions in Hospital Raja Permaisuri Bainun Ipoh

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OUTLINE OF PROBLEM
Increasing incidences of near misses in blood transfer shows that health care providers lack awareness in the blood transfusion process. High awareness in blood transfusion process is required to ensure and avoid transfusion errors that can lead to fatality.

KEY MEASURES FOR IMPROVEMENT
Reducing the rate of near misses to zero incidence.

PROCESS OF GATHERING INFORMATION
Retrospective analysis was done from January 2004 until Mac 2008. Identification of the contributing factors was done. This was followed by a prospective interventional study from April 2008 to August 2009. Finally re-evaluation of the effectiveness of remedial measures was done.

ANALYSIS AND INTERPRETATION
The important contributing factors identified were errors in sampling and technical errors.

STRATEGY FOR CHANGE
Remedial measures were undertaken to improve on the process of patient identification, verification of patient sample and the infusion process in all wards.

EFFECT OF CHANGE
A reduction in the rate of near misses from 17 cases (0.17% of total numbers of cross-matched bloods in year 2008) to 5 cases of near misses in January until October 2009 (0.08% of total numbers of cross matched bloods). The percentage of reduction was 0.09%.

THE NEXT STEP
The QA project successfully raised awareness among our health care providers regarding all areas of the blood transfusion process. The importance of correct patient identification, correct blood-taking process and correct documentation of infusion process can ensure patient safety. The implementation of remedial measures will be continued and all staff will be constantly monitored until the achievement of the target.

KEYWORDS
near misses, blood transfusion, cross-matched blood
Reducing The Routine Use Of Episiotomy In The Labour Room, Hospital Raja Permaisuri Bainun Ipoh

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OUTLINE OF PROBLEM

Episiotomy rates in Hospital RPB Ipoh from 2004 to 2006 were 58% to 62% with the majority performed on primigravida. The average cost per year to repair episiotomy was RM12,500.00 (based on using 1 chromic gut per patient). The high incidence of routine episiotomy performed due to the wrong perception of medical personnel can lead to increased maternal morbidity such as severe perineal pain in post-partum period with increased blood loss. The objectives of the study were to reduce the percentage of routine episiotomy, identify possible factors associated with routine episiotomy, formulate remedial measures and evaluate effectiveness of remedial measures.

KEY MEASURES FOR IMPROVEMENT

The routine episiotomy rate should not exceed 30%.

PROCESS OF GATHERING INFORMATION

A retrospective case control study conducted from 1st May to 31st May 2007 with data collected from delivery book and maternity case records identified the possible contributing factors. A self-administered questionnaire was also given to medical personnel working in the Labour Room to assess their knowledge and attitude on a routine episiotomy. The second study was conducted from 1st to 31st May 2008 to evaluate the effectiveness of remedial measures.

ANALYSIS AND INTERPRETATION

The percentage of routine episiotomy was 48.9% which was above the standard of 30%. Factors associated with high incidence of routine episiotomy were primigravida patients, the medical officer as the labour accoucher and the use of epidural analgesia. The self-administered questionnaire showed that 37.5% of medical staff were still keen on practising episiotomy as a routine procedure and some of them thought that primigravida is one indication for selective episiotomy.

STRATEGY FOR CHANGE

Remedial measures included preparing a practice guideline and protocol on the use of episiotomy, informing and encouraging staff to practise selective episiotomy, educate medical staff and patients regarding antenatal perineal massage and allowing patients on epidural analgesia a longer duration of second stage of labour so long as the foetus is not compromised.

EFFECTS OF CHANGE

There is a reduction in the percentage of routine episiotomy from 48.9% to 45.0% which is still above the standard of 30%. The percentage of primigravida who had routine episiotomy was same.

THE NEXT STEP

This QA project had raised a positive practice among medical staff in Labour Room regarding the use of routine versus selective episiotomy. Informing primigravida patients regarding antenatal perineal massage needs to be done continuously. Policy of selective episiotomy will be included in the orientation of new staff.

KEYWORDS

episiotomy, primigravida, maternal morbidity, selective episiotomy, antenatal perineal massage
Reducing Wound Infection Rate For Diagnostic Skin Biopsy In The Dermatology Clinic, Hospital Raja Permaisuri Bainun Ipoh

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OUTLINE OF PROBLEM

Diagnostic skin biopsy is a common procedure in a skin clinic to assist dermatological diagnosis. Wound infection can complicate a diagnostic skin biopsy which will delay the healing process and increase cost of health care. Multiple risk factors can increase the risk of postoperative wound infection.

KEY MEASURES FOR IMPROVEMENT

A monthly census in early 2008 showed an average wound infection rate for diagnostic skin biopsy of around 10%. The aim of this study was to reduce skin biopsy wound infection rate to the national indicator target of less than 2%.

PROCESS OF GATHERING INFORMATION

A prospective study was conducted to assess the wound infection rate and to identify the contributing causes from October till November 2008. This is followed by implementation of remedial measures from December 2008 till February 2009. Reassessment of the wound infection rate was done from March till April 2009.

ANALYSIS AND INTERPRETATION

The wound infection rate for diagnostic skin biopsy during the prospective study was 20%. The risk factors identified included choice of post-operative topical dressing, poor wound closure technique, site of biopsy below waist, lack of wound care counselling, bigger punch size used, diabetes status, smoking status, improper procedure room, a break in aseptic technique and bigger size of suture used for wound closure. The ABNA was 18%.

STRATEGY FOR CHANGE

A seminar on proper skin biopsy techniques was conducted and a protocol on skin biopsy was formulated as a guideline at departmental level. Immediate post-operative dressing was standardised. Skin biopsy above the waist, use of smaller punch size and smaller suture size for wound closure were recommended. Wound care counselling and pamphlet on wound dressing at home were given to all patients. Changes to our procedure room were made. Education and advice were given to all diabetic patients and smokers.

EFFECT OF CHANGE

Following implementation of these remedial actions, the wound infection rate was brought down to 6.7%. The ABNA was reduced to 4.7%.

THE NEXT STEP

There is a need for continuous monitoring of wound infection rate and to sustain the remedial measures in order to provide high quality care for patients undergoing diagnostic skin biopsy.

KEYWORDS

wound infection rate, diagnostic skin biopsy
Lifespan Of Peripheral Intravenous Lines: A Form Of Quality In Patient Care

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OUTLINE OF PROBLEM

Problems related to maintenance of peripheral intravenous lines are an important aspect of care in the paediatric population. The lifespan of peripheral intravenous lines can be used as an indicator of quality assurance of the Paediatrics Department. This study aimed to increase the life span of peripheral intravenous lines in the General Paediatric Ward (6A) and the Paediatric ICU, Hospital RPB Ipoh without increasing the complications related to peripheral intravenous lines.

KEY MEASURES FOR IMPROVEMENT

The standard was set after a review of literature and by departmental consensus. The aim was that at least 30% of peripheral intravenous lines in the General Paediatric Ward (6A) and the Paediatric ICU, Hospital RPB Ipoh would have a duration of 72 hours or more.

PROCESS OF GATHERING INFORMATION

This was a 3-phase descriptive study in the PICU and General Paediatric Ward 6A, Hospital RPB Ipoh. The first phase was Guideline Development aimed at identifying a standard operating policy for peripheral intravenous line setting and maintenance. Phase 2 was a descriptive study whereby data collection was carried out to determine the magnitude of the problem. Phase 3 was when appropriate intervention methods were implemented. Subsequently, a prospective study was carried out to evaluate their effectiveness.

ANALYSIS AND INTERPRETATION

The pre-intervention study revealed that only 14.6% of the peripheral intravenous lines in the General Paediatric Ward (6A) and the Paediatric ICU had a duration of 72 hours or more. Problems identified during the study was that there were multiple attempts before seeking help; senior staff was not called to assist when initial attempts failed. There was no standardised method of securing and maintaining peripheral intravenous lines in these two wards. Also, there was no surveillance performed on peripheral intravenous lines in these two wards.

STRATEGY FOR CHANGE

Firstly, a standard operating policy for peripheral intravenous line setting and maintenance was formulated. All staff involved was subjected to training with credentialing by selected senior staff (IV Line Team). Secondly, was the use of a checklist (surveillance sheet) for all peripheral intravenous lines in PICU and Ward 6A. Thirdly, appropriate charts and diagrams to guide peripheral intravenous line setting and maintenance were displayed in the PICU and Ward 6A.

EFFECTS OF CHANGE

The first prospective study revealed that 69% of peripheral intravenous lines in the corrected population had a lifespan of 72 hours or more which was higher than the standard set.

THE NEXT STEP

This study demonstrated that accreditation of staff with a standard operating policy and surveillance system was able to result in improved maintenance of peripheral intravenous lines in Ward 6A and Pediatric ICU. With regular reinforcement and monitoring, this achievement could be maintained.

KEYWORDS

life span, peripheral intravenous lines
Improving Compliance Of Home Exercise For Osteoarthritis (OA) Knee Patients In Physiotherapy Outpatient Department, Taiping Hospital

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OUTLINE OF PROBLEM

Osteoarthritis (OA) of the knee is common and disabling. Exercise is effective in reducing pain and disability but long-term adherence to exercise regimens is disappointing and motivation to exercise in those with OA knee is poorly understood. Simple home-based exercise therapy produces small but significant reductions in knee pain. Poor patient compliance in home exercise is a common problem faced by physiotherapists and prevalence increases with a patient’s age. Long-term compliance to exercises is critical to long-term health benefits and reduction in pain. As compliance declines, pain may increase.

KEY MEASURES FOR IMPROVEMENT

The standard set was more than 70%. Our aim was that patients should be able to reproduce at least 3 out of the 5 selected exercises taught.

PROCESS OF GATHERING INFORMATION

Initial data collection was carried out to determine the magnitude of the problem from patients’ treatment cards. Subsequent data were collected from the Reproduction Exercise Checklist after appropriate intervention methods.

ANALYSIS AND INTERPRETATION

Problems identified were absence of a standardised exercise taught, as some physiotherapists do not use a standard protocol. No OA knee pamphlet were given to patients and exercises were not clearly demonstrated.

EFFECTS OF CHANGE

There was improvement in the compliance rate as more patients were able to reproduce the exercises through guidance provided by the therapists and the pamphlet given as reference.

THE NEXT STEP

This study demonstrated that providing patients with visual aids such as pamphlets, demonstration photographs of selected exercises, and the teaching with emphasis on correct ways of doing exercises, was able to improve on home exercise compliance. With regular reinforcement and monitoring this achievement could be maintained.

KEYWORDS

osteoarthritis knee, home-based exercise therapy, pain
Improving The Diagnostic Value Of Computed Tomography Scans Of The Cervical Spine In Acute Trauma Cases In The Department Of Radiology, Hospital Raja Permaisuri Bainun Ipoh

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OUTLINE OF PROBLEM

Computed tomography for cervical spine (CT CS) is a radiological examination of patients using a computer tomography scanner. This examination is performed when the patient has a head injury to rule out cervical fracture. The identification of cervical spine injuries can pose prohibitive problems to the treating physicians due to the complexity of injuries, patient co-morbidities and patient’s volume. Improved diagnostic accuracy can be achieved by scanning the patient. There have been complaints from orthopaedic doctors regarding the poor quality of CT CS radiographs. The objective of this study was to identify contributing factors to the problem, formulate remedial measures to overcome the problem and overall, reduce the rate of non-diagnostic CT CS in acute trauma cases.

KEY MEASURES FOR IMPROVEMENT

To improve the quality of CT CS to the standard of 85%.

PROCESS OF GATHERING INFORMATION

Possible contributing factors were identified in a prospective study from April to June 2007. Another study from July to September 2007 evaluated the effectiveness of remedial measures.

ANALYSIS AND INTERPRETATION

The most important contributing factor to the high rate of non-diagnostic CT CS in this department was inadequate technical skills on multiplanner reformatting and correction of rotation in all planes to produce good quality sagittal, coronal and axial images. Other factors were patient’s movement artifacts.

STRATEGY FOR CHANGE

Remedial measures included house lecture on the techniques and protocol needed. Printed guidelines of protocol and techniques placed at the CT control room. QAP group conducting house training for individual radiographs.

EFFECTS OF CHANGE

There was a vast improvement in the technique of imaging of CT CS and knowledge of the radiographers. Reviewed in June 2007, only 25% of CT CS was diagnostic. A year end review showed 78% of CT CS was diagnostic. This was slightly lower than the targeted percentage by 17% to achieve 85% of CT CS.

THE NEXT STEP

This QA project has successfully improved the skill, technique and knowledge of radiographers to perform diagnostic CT CS. Regular surveillance and continuous update in training is required to maintain and further improve.

KEYWORDS

computed tomography cervical spine, cervical fracture, cervical spine injuries, non-diagnostic CT CS
Increasing The Number Of Claimed Medications On To-Come-Again Date In “Farmasi Sahabat Anda” Patients

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OUTLINE OF PROBLEM
There are incidences of unclaimed medications on to-come-again (TCA) date among ‘Farmasi Sahabat Anda (FSA)’ patients. This may lead to non-compliance of the medications if the patient come later than the TCA date. On the other hand, medications may not be ready if patients come earlier. The objective is to increase the number of claimed medications on the TCA date of FSA patients.

KEY MEASURES FOR IMPROVEMENT
The standard was set by departmental consensus. The aim was so that 90% of FSA patients claim their medications on the TCA date.

PROCESS OF GATHERING INFORMATION
This prospective study was done in 2 phases in the Outpatient Pharmacy Department, Hospital Taiping. Phase 1 was to identify the extent of the problem through the percentage of claimed medications on TCA date of FSA patients. Phase 2 was done after implementation of remedial measures during 1st to 30th September 2008.

ANALYSIS AND INTERPRETATION
The pre-intervention study revealed that only 51.25% of the FSA patients claimed their medications on TCA. Problems identified during the study were that patients were given inadequate explanations regarding the FSA system. Other reasons were that patients were non-compliant to medications or have simply forgotten the TCA date. It was also probably due to inconvenience as patients was staying far away or was outstation on the date of TCA.

STRATEGY FOR CHANGE
First, the specific criteria for patients was determined so as to be recruited into the FSA system. Selected patients was then given a leaflet and detailed explanation regarding the function of FSA. Patients were then given an FSA card with TCA date. Other than that, an SMS system and a new plastic bag (imprinted with ‘Know Your Medicine’ logo) were also used to serve as a reminder for the patients.

EFFECTS OF CHANGE
The post-intervention study revealed an overall improvement. A total of 89.9% of the FSA patients claimed their medications on TCA date which was only 0.1% lower than the standard set.

THE NEXT STEP
This study demonstrated that the newly implemented strategies were able to improve the number of claimed medications of FSA patients on the TCA date. With regular reinforcement and monitoring this achievement could be maintained or even improved.

KEYWORDS
to-come-again (TCA) date, unclaimed medications, claimed medications, ‘Farmasi Sahabat Anda (FSA)’ patients
Increasing the Rate of Positive Microorganism Isolates in Blood Cultures in Medical Wards

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OUTLINE OF PROBLEM

There was a decrease in the positive microorganism isolates and a high rate of contamination in the blood cultures in the Medical Department. The rate of positive microorganism isolates was 8.4% and the rate of contamination was 5.13%. The objectives of this study were to identify the factors that contributed to the problem, formulate appropriate remedial measures to overcome the problem, evaluate the effectiveness of the remedial measures taken and to monitor them periodically.

KEY MEASURES FOR IMPROVEMENT

To increase the rate of positive microorganism isolates in the blood cultures to more than 10% and to reduce the rate of contamination to less than 3.5%.

PROCESS OF GATHERING INFORMATION

A retrospective study of all blood cultures taken in the Medical Department from September to December 2007 was conducted. A cross-sectional survey was also conducted in January 2008 to determine the common practice among doctors in taking blood for cultures. A prospective study of all blood cultures collected from February to May 2008 was done to evaluate the effectiveness of the remedial measures suggested.

ANALYSIS AND INTERPRETATION

The contributing factors in the decrease in positive microorganism isolates and the high rate of contamination in the blood cultures in the Medical Department were improper sets used for blood culture taking, unsuitable disinfectant used for disinfecting patients’ skin, non-aseptic technique in taking blood for culture and insufficient volume of blood taken for culture.

STRATEGY FOR CHANGE

Remedial measures taken were in-house training and teaching for all senior and junior house officers on the proper technique in taking blood culture, observing aseptic technique at all times, implementing use of proper set (blood C&S set), using chlorhexidine 1:200 in 70% alcohol as disinfectant and setting a requirement to withdraw a minimum of 8 to 10 ml of blood for culture.

EFFECTS OF CHANGE

The rate of positive microorganism isolates improved from 8.4% to 11.3%. The contamination rate decreased from 5.13% to 4.3%.

THE NEXT STEP

This QA study has been successful. In order to maintain or improve the standard, continued surveillance, proper aseptic technique and monitoring will be undertaken.

KEYWORDS

blood cultures, positive microorganism isolates, contamination, medical department
Reducing Delays In Administering First Dose Of Intravenous Antibiotic To Patients In the Intensive Care Unit, Taiping Hospital

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OUTLINE OF PROBLEM

In the Intensive Care Unit (ICU) ward, the patient’s condition is critical and early administration (within 4 hours after prescription ordered) of an antibiotic to the patient is important. Delays in the administration of the first dose of antibiotic might compromise the haemodynamic goal for the patient, thus increasing mortality rate. Incidences of delay (from 24th January to 10th February 2007) was 18.6% in ICU ward, Hospital Taiping. This aim of this study was to identify the contributing factors, and formulate and implement remedial measures to reduce its incidence.

KEY MEASURES FOR IMPROVEMENT

Reducing the delay of cases to less than 5%.

PROCESS OF GATHERING INFORMATION

A preliminary study was conducted from 24th January to 24th February 2007, prospectively in the ICU ward to identify the incidence of delay cases and contributing factors. Appropriate remedial actions were implemented from 4th April to 14th May 2007. A re-evaluation study was conducted from 15th May to 30th June 2007 to evaluate the effectiveness of the remedial measures.

ANALYSIS AND INTERPRETATION

The most important contributing factors were: prescriptions of specialist-signature-first (SS first) antibiotics were not signed by the specialist before being sent to the pharmacy, delays in taking C&S specimens by the doctor and late in administration by staff nurses. Minor factors included delays in collection of antibiotic supply from the pharmacy and unclear prescriptions.

STRATEGY FOR CHANGE

Remedial actions were targeted only to anesthetic doctors and all nurses in the ICU ward. ICU doctors were reminded to take C&S specimens within 2 hours, and orders of specialist-signature-first antibiotic be signed or countersigned by the specialist before despatch to the pharmacy. If a specialist is not around, the pharmacy is allowed to dispense the first dose and have the specialist countersign as soon as possible. Importance of early antibiotic administration was stressed to the staff nurses.

EFFECTS OF CHANGE

A reduction of delay cases from 16.7% to 5.7%.

THE NEXT STEP

This QA project raised awareness among the anaesthetic doctors and ICU staff nurses regarding the importance of early administration of first dose antibiotic to the patients. Remedial measures were successful in reducing the number of delayed cases. Audit will be done from time to time to ensure the continuity of early administration of first dose antibiotic to the patients.

KEYWORDS

ICU ward, first dose antibiotic
Towards Improving The Rate Of Contraceptive Usage By Postnatal Mothers in Perak Tengah District

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OUTLINE OF PROBLEM
Family planning is an essential part of perinatal care for all mothers. However, current contraceptive usage in postnatal mothers is low, thus increasing the rate of unintended pregnancies. This study aimed to improve the rate of contraceptive usage in postnatal mothers.

KEY MEASURES FOR IMPROVEMENT
First, the percentage of contraceptive usage in all postnatal mothers was targeted at 80%. Second, the percentage of contraceptive usage in postnatal mothers with previous complicated pregnancies was targeted at 90%.

PROCESS OF GATHERING INFORMATION
A cross-sectional study was conducted from March to October 2007 on postnatal mothers at 6 weeks to 2 years postpartum seen in the 6 health clinics in Perak Tengah district. Interviews were done by trained staff using questionnaires.

ANALYSIS AND INTERPRETATION
Out of the 130 subjects, only 55.4% used effective contraception. Contraceptive usage in postnatal mothers with previous complicated pregnancies was 58.1%. Out of the contraceptive users, 81.9% started usage within 6 months postpartum. The main reasons for not using contraception included fear of side-effects (15.5%), preference for traditional methods (15.5%) and still breastfeeding (13.8%).

STRATEGY FOR CHANGE
A Model of Good Care for family planning was developed and reinforced. Individual and group counselling were given to all mothers starting from the antenatal period. Pamphlets on contraceptive methods were distributed widely and a family planning workshop was conducted for all mothers and their spouses.

EFFECTS OF CHANGE
Post-intervention contraceptive usage increased to 73.8% (all postnatal mothers) and 78.8% (postnatal mothers with complicated pregnancies). Among the contraceptive users, 97.9% started usage within 6 months postpartum. Knowledge of contraceptive methods also increased.

THE NEXT STEP
Contraceptive usage in postnatal mothers is relatively low. However, this study showed that strategic intervention by way of education and follow-up of all mothers can increase the knowledge and usage of contraception.

The Model of Good Care will be extended to community clinics as well. Education and counselling of all mothers and their spouses will be reinforced. Continuous update of knowledge of healthcare providers and the supply of contraceptive methods would be ensured.

KEYWORDS
family planning, perinatal care, contraceptive usage, postnatal mothers, postnatal mothers with previous complicated pregnancies
Reduction Of Inappropriate Antibiotic Usage In Acute Exacerbation Of Chronic Obstructive Airway Disease Patients

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OUTLINE OF PROBLEM
There is an increasing trend of inappropriate treatment with antibiotics in acute exacerbation of chronic obstructive airway disease (AECOAD) patients in Hospital Taiping. This may promote the emergence of antibiotic resistant strains and lead to unnecessary hospital expenditure. This project aimed to identify the contributing factors and to formulate and implement remedial measures to reduce its incidence.

KEY MEASURES FOR IMPROVEMENT
The proportion of patients with AECOAD inappropriately treated with antibiotics was used to measure improvement.

PROCESS OF GATHERING INFORMATION
Retrospective data was collected for all AECOAD admissions from 1 January to 28 February 2008 to verify the inappropriate treatment with antibiotics in AECOAD patients in medical wards. Data collection forms were prepared to assess the time between requesting a chest radiograph, until the time it is done. This was followed by a prospective study conducted from March to April 2008, by distributing questionnaires to all doctors working in medical department since 1 January 2008. Questionnaires were prepared to assess awareness and daily practice of management of AECOAD as per guideline. The effectiveness of the remedial measures was evaluated by a prospective study of data for all AECOAD admissions from 1 June to 31 July 2008 and redistribution of questionnaires to all doctors in the medical department.

ANALYSIS AND INTERPRETATION
The contributing factors identified were inadequate knowledge among doctors regarding management of AECOAD, lack of clinical experience among junior doctors, unawareness of availability of clinical practice guidelines for AECOAD and non-adherence to guidelines.

STRATEGIES FOR CHANGE
The remedial measures taken included education of doctors via CME sessions on management of AECOAD at the departmental level and the distribution of the department antibiotic policy to all doctors in the Medical Department.

EFFECTS OF CHANGE
The percentage of AECOAD patients inappropriately treated with antibiotics reduced from 33.3% to 17.5% after implementation of remedial actions. The dual antibiotic usage was reduced from 51% to 28%.

THE NEXT STEP
This quality assurance project and the remedial measures taken were successful in reducing the overall rate of inappropriate treatment with antibiotics of AECOAD patients in medical wards, thus improving the quality of patient care. Further remedial measures include updating the antibiotic policy from time to time in accordance with the latest guidelines and distributing the antibiotic policy to all new doctors of the medical department.

KEYWORDS
AECOAD, antibiotic resistant strains, medical wards
Kegagalan Pesakit Psikiatri Hadiri Klinik Susulan

Hospital Bahagia Ulu Kinta

PENGENALAN MASALAH


PENGUKURAN UNTUK PENAMBAHBAIKAN

Kadar kegagalan kehadiran pesakit di klinik susulan Pakar Psikiatri HBUK pada tarikh dan masa yang ditetapkan mengikut Piawaian NIA ialah tidak melebihi 15%.

PROSES PENGUMPULAN MAKLUMAT


ANALISIS DAN INTERPRETASI

Kegagalan pesakit psikiatri menghadiri klinik Pakar Psikiatri disebabkan pesakit tiada kesedaran tentang penyakitnya, tiada sokongan keluarga dan tiada kemampuan.

STATEGI PERUBAHAN

2. Prosedur dijalankan untuk mengesan kes-kes ‘defaulter’.
3. Lawatan dilakukan oleh ‘Home Care Team’ bagi kes-kes yang gagal hadir.
4. Pesakit yang gagal hadir juga dihubungi melalui telefon.
5. Pesakit yang tidak berkemampuan dirujuk kepada Pegawai Kebajikan Masyarakat bagi pengecualian pembayaran dan untuk permohonan bantuan sara hidup bagi yang layak.
6. Sudut informasi kesihatan ditubuhkan untuk:
   a) pengedaran risalah klinik
   b) paparan papan tanda ‘positive reinforcement’

KESAN PERUBAHAN

Bilangan kes yang gagal hadir ke klinik Pakar Psikiatri berkurangan daripada 23.1% (Julai 2006) kepada 1.69% (April 2007). Tahap pengetahuan pesakit terhadap penyakit juga meningkat kepada 90%. Ini menunjukkan pesakit telah memahami tentang keperluan rawatan susulan.

LANGKAH SETERUSNYA

Langkah-langkah penambahbaikan diteruskan bagi mengekalkan piawaian yang telah ditetapkan.

KATA KUNCI

pesakit psikiatri, ‘defaulter’, Klinik Pakar Psikiatri HBUK
Kelewatan Menerima Keputusan Makmal Bagi Pesakit Yang Dirawat Di Jabatan Pesakit Luar, Hospital Selama

Anusha K, Norliza K, Che Noor Aini I, Suriani I, Ruzana R, Rosliza M,Salbiah
Hospital Selama

PENGGENALAN MASALAH

Masalah kelewatan menerima keputusan makmal adalah satu-satu masalah yang meningkat di unit Jabatan Pesakit Luar (JPL). Dengan ini “quality assurance project” yang tersebut di atas adalah dijalankan untuk membuat diagnosis yang awal dan rawatan yang cepat dan tepat.

PENGUKURAN DAN PENAMBAHBAIKAN

Bagi menangani masalah ini, faktor-faktor yang menyumbang dan kelemahan dalam sistem yang sedia ada telah dikenal pasti, serta mewujudkan langkah-langkah penambahbaikan bagi mengurangkan kadar kelewatan menerima keputusan makmal pada masa rawatan susulan.

PROSES PENGUMPULAN DATA

Kajian ini dijalankan secara prospektif dan retrospektif dengan mengumpul maklumat dan data melalui borang soal selidik yang bermula dari 3hb September hingga 1hb Oktober 2007.

ANALISIS DAN INTERPRETASI

Punca utama yang didapati ialah: spesimen dihantar ke hospital lain (30%), masalah teknikal (40%), dan pesakit tidak mematuhi TCA yang detetapkan (30%).

STRATEGI PERUBAHAN

Langkah-langkah penambahbaikan ialah: sistem label dan pengambilan spesimen yang lebih efektif dibuat di makmal dan pemberian TCA yang berpatutan kepada pesakit jika ujian makmal mereka dihantar ke hospital lain.

KESAN PERUBAHAN

Menurut langkah-langkah penambahbaikan, didapati kadar penerimaan keputusan makmal lewat telah menurun daripada 58% kepada 15% (piawaian ialah 10%). Walau bagaimanapun piawaian masih belum tercapai sebab punca masalah seperti, kelewatan menerima keputusan bagi spesimen yang dihantar ke hospital lain masih berlaku.

LANGKAH SETERUSNYA

Kajian QA ini telah berjaya mengurangkan kelewatan penerimaan keputusan makmal dan kaedah penambahbaikan ini akan diguna pakai secara berterusan di dalam pengurusan keputusan makmal untuk memberi mutu perkhidmatan yang lebih baik.

KATA KUNCI

kelewatan, keputusan makmal, jabatan pesakit luar
Mempercepatkan Pesakit Menerima Hasil Keputusan Ujian “Blood Urea And Serum Electrolyte/Creatinine” Di Unit Kecemasan, Hospital Slim River

Nordin, Johari, Shahrul, Nurul Ain, Rose Nani
Jabatan Kecemasan, Hospital Slim River

PENGEDALAN MASALAH
Masalah keputusan ujian “BUSE/creatinine” yang tidak dapat diperolehi dalam tempoh waktu 70 minit, adalah tinggi di Unit Kecemasan, Hospital Slim River. Jika masalah ini tidak ditangani dengan segera, ia boleh menyebabkan rawatan, intervensi dan diagnosis tertangguh, ketidakpuasan pelanggan meningkat dan imej jabatan dan hospital terjejas.

PENGUKURAN DAN PENAMBAHBAIKAN
Bagi menangani masalah ini, faktor-faktor penyumbang dikenal pasti dan seterusnya langkah-langkah penambahbaikan diambil supaya mengurangkan kadar kelewatan penerimaan keputusan ujian “buse/creatinine”.

PROSES PENGUMPULAN MAKLUMAT
Kajian deskriptif dan prospektif telah dijalankan dengan pengumpulan data pertama pada 10hb Mac sehingga 21hb Mac 2008 dan pengumpulan data kedua pada 2hb Jun sehingga 13hb June 2008. Maklumat data diperolehi melalui borang kaji selidik, buku rekod di makmal biokimia dan buku rekod di Unit Faber.

ANALISIS DAN INTERPRETASI
Melalui analisis data, didapati masalah penghantaran dan penerimaan spesimen berpunca daripada penggunaan pneumonik tube dan kelambatan pemprosesan ujian.

STRATEGIK PERUBAHAN
Langkah penambahbaikan yang dijalankan ialah penerangan ringkas oleh Unit Faber mengenai penggunaan ‘pneumonik tube’ dengan cara yang betul supaya dapat mengurangkan kerosakan alat tersebut. Selain itu, satu latihan pengambilan darah dengan cara yang betul dan cekap telah diadakan di Unit Kecemasan. Penerangan juga telah diberikan kepada staf di makmal supaya mengutamakan specimen yang dihantar dari Unit Kecemasan.

KESAN PERUBAHAN
Kadar penerimaan keputusan dalam waktu 70 minit meningkat daripada 65% kepada 88.9% (piawaian ialah 75%). Kerosakan alat ‘pneumonik tube’ menurun daripada 37 kali kepada 15 kali dalam tempoh kajian yang dijalankan.

LANGKAH SETERUSNYA
Setelah penambahbaikan diperkenalkan, didapati masalah telah diatasi, dan langkah-langkah penambahbaikan diteruskan pada pengurusan penerimaan hasil keputusan ujian “Buse/Creatinine”.

KATA KUNCI
keputusan ujian, BUSE/creatinine, unit kecemasan
Mempercepatkan Proses Menghantar Pesakit Dari Hospital Gerik Ke Hospital Berpakar

Hospital Gerik

PENGENALAN MASALAH

Kebelakangan ini terdapat peningkatan kes yang dirujuk dari Hospital Gerik ke Hospital Berpakar. Statistik menunjukkan peningkatan kepada 1,468 kes pada tahun 2007 berbanding 1,124 kes pada 2006. Oleh yang demikian satu kajian perlu dijalankan untuk mengenal pasti kelewatan penghantaran kes ke Hospital Berpakar. Kecepatan dapat mengurangkan kadar mortality dan morbiditi pesakit di Hospital Gerik.

PROSES MENGUMPUL MAKLUMAT


ANALISIS DAN INTEPRETASI

Punca kelewatan penghantaran kes ke Hospital Rujukan telah dikenal pasti. Antara punca kelewatan ialah sistem jadual on call dan keadaan waris pesakit (85.7%).

STRATEGI PERUBAHAN

Beberapa langkah penambahbaikan telah dijalankan untuk mempercepatkan proses penghantaran pesakit supaya kurang daripada 45 minit selepas penerimaan arahan Pegawai Perubatan. Antara langkah penambahbaikan ialah:

i) Perubahan jadual roster oleh Ketua Jururawat dan Penyelia.
ii) Penyediaan tempat tinggal semasa bertugas panggilan, untuk kakitangan yang tinggal jauh.
iii) Kemudahan pengangkutan untuk kakitangan yang tiada pengangkutan peribadi ke tempat kerja semasa tugas panggilan.

KESAN PERUBAHAN

Kajian post intervensi menunjukkan 80% kes telah dihantar kurang daripada 45 minit berbanding 72% kes semasa kajian pra intervensi. Ini menunjukkan bahawa langkah penambahbaikan yang telah dijalankan berjaya untuk mempertingkatkan proses penghantaran kes rujukan ke Hospital Berpakar.

KATA KUNCI

hospital berpakar, kelewatan penghantaran kes, kes yang dirujuk
Mengurangkan Masa Menunggu Di Unit Kecemasan Hospital Kampar Selepas Waktu Pejabat

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PENGENALAN MASALAH

Sejak kebelakangan ini, terdapat peningkatan bilangan kes yang bukan kecemasan di Unit Kecemasan Hospital Kampar selepas waktu pejabat terutamanya pada hujung minggu. Situasi ini mengakibatkan peningkatan masa menunggu di Unit Kecemasan kerana kebanjiran pesakit tidak selaras dengan bilangan anggota yang bertugas di Unit Kecemasan. Keadain ini juga berkait rapat dengan taraf sosio-ekonomi penduduk terutamanya di kalangan mereka yang mempunyai tanggungan yang ramai dan kurang mampu mendapat rawatan di klinik atau hospital swasta.

PENGUKURAN UNTUK PENAMBAIKAN

Tujuan kajian ini adalah untuk mengenal pasti faktor penyumbang kepada peningkatan tempoh menunggu di Unit Kecemasan selepas waktu pejabat dan seterusnya mengambil langkah-langkah penambahbaikan untuk mengurangkan tempoh menunggu. Kementerian Kesihatan telah menetapkan masa menunggu di kes-kes zon hijau ialah 90 minit.

PROSES PENGUMPULAN MAKLUMAT


ANALISIS DAN INTERPRETASI

Hasil kajian menunjukkan bahawa faktor penyumbang kepada peningkatan tempoh masa menunggu ialah kekurangan anggota yang bertugas di Unit Kecemasan untuk menampung beban tugas yang meningkat. Faktor-faktor lain yang turut menyumbang ialah: pesakit kurang faham akan peranan dan tatacara Unit Kecemasan, perlaksanaan ‘triage’ yang kurang berkesan, dan ruang pemeriksaan yang sempit sehingga tidak dapat menampung ramai pesakit.
Meningkatkan Amalan Perancang Keluarga Di Kalangan Ibu Berisiko Di Klinik Kesihatan Plang

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Klinik Kesihatan Ibu dan Anak, Klinik Kesihatan Plang, Pejabat Kesihatan Daerah Hulu Perak

PENGENALAN MASALAH

3 daripada 4 kematian perinatal adalah kes kehamilan berisiko tinggi. Berpandukan data asas antenatal 2006, 2 daripada 235 kes iaitu 12.77 per 1000 kelahiran. Jumlah kes antenatal berisiko ialah 133 kes berbanding dengan jumlah kedatangan baru 167 (79.6%). Kes berisiko boleh meningkatkan morbiditi dan mortaliti kepada ibu dan anak.

PENGUKURAN UNTUK PENAMBAHBAIKAN

Tujuan kajian ini ialah untuk meningkatkan pengamalan perancang keluarga di kalangan ibu hamil yang berisiko daripada 33% kepada 60%. Dengan ini akan mengurangkan kadar kehamilan di kalangan ibu yang berisiko tinggi dan dapat mengurangkan morbiditi dan mortaliti kepada ibu dan anak.

PROSES PENGUMPULAN MAKLUMAT


ANALISA DAN INTERPRETASI

Pada akhir kitaran Januari hingga Disember 2007, peratusan ibu berisiko tinggi yang mengamalkan perancang keluarga telah meningkat kepada 78% berbanding dengan 33% pada tahun 2006. Perlaksanaan kajian QA ini telah meningkatkan penjagaan ibu berisiko tinggi ke arah amalan perancang keluarga di kawasan operasi Klinik Kesihatan Plang mengikut Model Idaman.
Meningkatkan Kadar Pesakit Yang Menepati Temujanji Di Klinik Pakar Bedah Mulut, Hospital RPB Ipoh

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Klinik Pakar Bedah Mulut, Hospital RPB Ipoh

PENGENALAN MASALAH

Kegagalan pesakit menepati masa temujanji yang ditetapkan di Klinik Pakar Bedah Mulut, Hospital Raja Permaisuri Bainun Ipoh, boleh mengganggu kelancaran rawatan pesakit temujanji yang lain. Seterusnya ini akan memanjangkan masa menunggu pesakit dan menyebabkan perkhidmatan yang tidak efisien.

PENGUKURAN UNTUK PENAMBAHBAIKAN

Tujuan kajian dijalankan ialah untuk mengenal pasti faktor-faktor penyumbang kepada masalah ini dan seterusnya mengambil langkah-langkah penambahbaikan yang sesuai supaya meningkatkan kehadiran pesakit yang menepati temujanji.

PROSES PENGUMPULAN MAKLUMAT


ANALISIS DAN INTERPRETASI

Faktor–faktor penyumbang yang telah dikenal pasti sebagai punca kelewatan pesakit menepati masa temujanji ialah: kurang kesedaran pesakit mengenai kepentingan menepati masa temujanji, pengalaman pesakit menunggu lama sebelum ini, kelemahan cara kerja anggota dari segi penggunaan bahasa yang bersesuaian, tiada percakapan dan tiada penerangan jelas semasa penetapan masa temujanji.

STRATEGI PENAMBAHBAIKAN

Langkah-langkah penambahbaikan berfokus kepada meningkatkan kesedaran pesakit mengenai kepentingan masa temujanji dan rawatan susulan melalui perubahan cara kerja anggota.

KESAN PERUBAHAN

Terdapat peningkatan kadar pesakit yang menepati temujanji iaitu 87.4% selepas penambahbaikan berbanding 72.7% dalam bulan Oktober 2007 sehingga Januari 2008, peningkatan sebanyak 14.7%.

LANGKAH SETERUSNYA

Meneruskan langkah-langkah penambahbaikan dan inisiatif untuk menghasilkan nota peringatan temujanji dalam berbagai bahasa utama diharap dapat meningkatkan lagi pemahaman pesakit. Pemantauan akan diteruskan bagi memastikan terdapat keberkesanan penambahbaikan yang berterusan.

KATA KUNCI

menepati temujanji, klinik pakar bedah mulut
Penambahbaikan Pengurusan Keputusan Biokimia Semasa Rawatan Susulan Di Klinik Kesihatan Pulau Pangkor

Ling HM, Yeoh SF, Mashitah A, Sarahanna, Sujider S, Salbiah M, Razita H, Habsah AB
Klinik Kesihatan Pulau Pangkor

PENGENALAN MASALAH
Masalah keputusan ujian biokimia yang tidak diperolehi semasa rawatan susulan adalah tinggi di Klinik Kesihatan Pulau Pangkor. Jika masalah ini tidak ditangani dengan segera ia boleh menjejaskan rawatan dan intervensi, diagnosis tertangguh, kepuasan pelanggan berkurangan dan imej klinik terjejas.

PENGUKURAN DAN PENAMBAHBAIKAN
Bagi menangani masalah ini, faktor-faktor penyumbang dikenal pasti dan seterusnya langkah-langkah penambahbaikan diambil bagi mengurangkan kadar kejadian keputusan ujian biokimia tidak diperolehi semasa rawatan susulan.

PROSES PENGUMPULAN MAKLUMAT
Kajian prospektif telah dijalankan dengan pengumpulan maklumat melalui borang audit pada Disember 2006. Punca data diperolehi melalui buku rekod makmal dan kad rawatan pesakit.

ANALISIS DAN INTERPRETASI
Melalui analisis data, didapat bahawa punca utama kepada masalah di atas ialah: salah ‘despatch’, ujian tidak dapat dilakukan dan keputusan lewat diterima.

STRATEGI PERUBAHAN
Langkah penambahbaikan yang telah dibuat termasuk buku senarai semak yang lebih sistematik, cop yang lebih jelas, menyediakan rak ‘despatch’ dan mendapatkan salinan pendau.

KESAN PERUBAHAN
Hasil yang didapati ialah kadar keputusan ujian biokimia yang tidak diperolehi menurun daripada 13.5% kepada 7.8% (piawaian ialah 6.8%). Piawaian masih belum tercapai kerana punca masalah seperti ujian tidak dapat dilakukan dan salah ‘despatch’ masih berlaku. Penambahbaikan kedua telah dibuat di mana taklmat diberikan kepada kakitangan dan pengasingan spesimen dilakukan. Keputusan menurun kepada 0.4%.

LANGKAH SETERUSNYA
Setelah langkah-langkah penambahbaikan dilaksanakan, didapati masalah di atas telah berjaya di atasi dan kaedah ini terbukti sangat berkeseran. Ia perlu diguna pakai secara berterusan untuk pengurusan keputusan ujian biokimia dan pemantauan perlu dilakukan setiap 3 bulan.

KATA KUNCI
keputusan ujian biokimia, keputusan ujian biokimia yang tidak diperolehi, rawatan susulan
Pengurangan Kos Pembaziran Ubat-Ubatan Di Wad-Wad Hospital Bahagia Ulu Kinta Yang Mengamalkan Sistem Pembekalan Konvensional

Hospital Bahagia Ulu Kinta

PENGENALAN MASALAH

Senario pembaziran ubat-ubatan HBUK terutamanya di wad-wad yang mengamalkan sistem pembekalan konvensional (pukal) agak membimbangkan. Ianya didapati boleh menyumbang kepada peningkatan perbelanjaan ubat-ubatan terutamanya apabila melibatkan “atypical” antipsikotik yang mahal. Dengan keluasan melebihi 500 ekar serta 79 buah wad yang menampung seramai 1,800 orang pesakit, trend ini dijangka akan berterusan jika tiada pengawalan serta langkah penambahbaikan dilakukan. Berdasarkan pengumpulan data 3 bulan secara retrospektif, didapati kos pembaziran yang terlibat ialah sebanyak RM58,663.59 iaitu 9.23% daripada kos perbelanjaan ubat-ubatan. Justeru itu, tujuan kajian ini adalah untuk mengambil tindakan pembetulan yang perlu demi mengurangkan pembaziran ubat-ubatan di HBUK.

Didapati 3 faktor utama yang menyumbang kepada permasalahan ini iaitu sistem pembekalan yang kurang efektif, pengurusan staf yang lemah serta masalah logistik (bilangan wad yang banyak dan berjauhan dari unit farmasi).

PENGUKURAN UNTUK PENAMBAHBAIKAN

Indikator yang dipilih adalah kos pemulangan ubat (pembaziran) berbanding dengan kos pembekalan ubat ke wad. Piawaian yang ditetapkan adalah pembaziran tidak melebihi 5%.

PROSES MENGUMPUL MAKLUMAT


STRATEGI PENAMBAHBAIKAN

Strategi penambahbaikan yang diambil termasuklah:

(i) Memperkenalkan sistem UoU (Unit Of Use).
(ii) Meningkatkan penyeliaan dengan melakukan pemeriksaan wad secara berkala.
(iii) Memberikan pendidikan berterusan kepada kakitangan melalui taklimat dan penerangan semasa sesi pemeriksaan wad.
(iv) Menyediakan sistem “folder” bagi mengatasi masalah logistik.

KESAN PERUBAHAN

Sepanjang kajian kos pembaziran dapat dikurangkan dari 9.23% kepada 1.88% (piawaian yang ditetapkan 5%).
Pemahaman anggota terhadap prosedur pengendalian ubat juga dapat dipertingkatkan daripada 60% kepada 83.82% selepas kajian. Selain itu cara penyimpanan ubat serta dokumentasi yang lebih sistematik dapat diimplementasi selepas proses penambahbaikan

LANGKAH SETERUSNYA

Meneruskan strategi penambahbaikan bagi mengekalkan piawaian yang telah ditetapkan.

KATA KUNCI

pembaziran ubat-ubatan, sistem pembekalan konvensional, perbelanjaan ubat-ubatan
Genetic And Environmental Effects On Age Of Menarche, And Its Relation With Reproductive Health

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INTRODUCTION

Menarche or first menstrual period is a landmark in the reproductive life span and it is the most prominent change of puberty. The timing of menarche can be under the influence of genes as well as individual environmental factors interacting with genetic factors. This study was aimed at investigating the heritability of age of menarche using a basic approach and modern twin analysis.

METHODOLOGY

A group of identical (n=108, 58 pairs) and non-identical twins (n=68, 34 pairs) were identified from twin registries of Malaysia and Iran. Age of menarche was asked using telephone interviews of both twins. New and conventional twin statistical analyses were used.

RESULTS

Heritability was found to be 66% using basic approach analysis and 15% using univariate twin analysis. Model analysis revealed that shared environmental factors have a major contribution in determining the age of menarche (82%) followed by non-shared environment (18%).

CONCLUSION

Result of this study is consistent with that of the literature. Timing of menarche could be under the influence of shared and non-shared environmental effects. Hirsutism was found to have a higher frequency among subjects with late menarche. Females of opposite-sex twins had similar age of menarche when compared with females of same-sex twins.

It is concluded that twin models provide a powerful means of examining the total genetic contribution to age of menarche. Longitudinal studies of twins may clarify the type of environmental effects that determine the age of menarche.

KEYWORDS

twin, menarche, reproductive health
Awareness Of The United Nations Convention On The Rights Of The Child Among Doctors Working With Children In Malaysia

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INTRODUCTION

The purpose of this research was to assess the knowledge about the United Nations Convention on the Rights of the Child (UNCRC) and its application among doctors working with children and young people in Malaysia.

METHODOLOGY

This was a cross-sectional, using self-administered questionnaires to specifically evaluate the level of knowledge about UNCRC and its application at 14 regional government paediatric hospitals in Malaysia. The questionnaire used three pre-tested clinical scenarios to evaluate participants’ knowledge of applying UNCRC in the health care setting. Participants were selected by random sampling with blinding and responses were anonymous. Junior medical officers were excluded from the study. Stamped, addressed envelopes for return were provided. The minimum sample size required was 97 and this was adjusted for a 30% failure in response.

RESULTS

148 questionnaires were distributed to 14 regional centres. 106 questionnaires were returned (71.6%) of which 102 were completed. The response rate was 71.6%. 40 (39%) were Paediatricians and 62 (61%) Medical Officers. Out of 102 participants, 63 (62%) doctors were aware of the UNCRC but only 19 (18.6%) could list some articles of the UNCRC. Doctors with >5 years experience in paediatrics were significantly more likely to have some level of knowledge on the UNCRC demonstrated by their ability to list some articles. Most quoted articles are rights to education and best available health care. Using scenarios-based questions to evaluate application of the UNCRC, 13 (13%) doctors were able identify the rights to survive and best available health care. Less than 10% doctors knew the right to participate and disability right in two health care scenarios.

CONCLUSION

The level of knowledge of UNCRC among doctors working with children in Malaysia remained suboptimal. Further training in this area is needed to prepare us to be better advocates for children and young people.

KEYWORDS

UNCRC, paediatric doctors, children rights
INTRODUCTION
A large proportion of the population with RBS 5.6–11.0 mmol/l, who are probably pre-diabetic, are not receiving sufficient attention. More effort could be done to prevent this group from developing diabetes mellitus (DM). This study looked at the possibility of intervening in this group of adults.

METHODOLOGY
This was a community trial based at health clinics. Subjects were selected from the outpatient clinics via systematic random sampling. They were then interviewed by the medical assistants or nurses to identify if they have had any risk factors for diabetes or heart diseases. Subjects with 1 or more risks were subjected to a random blood sugar (RBS) test. Those with RBS level 5.6-11 mmol/l were subjected to a modified glucose tolerance test (MGTT). Consent was taken from pre-diabetic subjects who were interested to be in the study. These subjects were allowed to choose to be in the exercise group or in the control group. Subjects in the exercise group were given advice on a healthy diet and were asked to perform a structured exercise which consists of 30 minutes of brisk walking, 5 days a week, at the intensity of reaching 40-60% of their targeted heart rate. One session per week was supervised by the paramedics. The control group was given advice on a healthy lifestyle. Baseline data from both groups were collected at the onset of the study. The data collected were blood glucose levels, BMI, waist to hip ratio, blood pressure, body fat composition (skin fold thickness) and SF 8 (quality of life). The data were collected again at 3 and 6 months after intervention.

RESULTS
1,738 adults were screened with an RBS and 1,034 (59.5%) were suspected to be in the pre-diabetes group. 649 (62.7%) of them underwent MGTT. 51.4% were confirmed pre-diabetic and 13.1% were diabetic. 135 (40.4%) with pre-diabetes consented to be involved in the study. Of these, 81 (60%) were in the exercise group and 54 (40%) were in the control group. 78 (57.8%) were female and 57 (42.2%) were male. Majority of the subjects have 3 (31.9%) or 4 (30.4%) risk factors and 74% were either obese or overweight. After 6 months intervention, the exercise group showed 26.6% improvement in waist circumference, 65.0% in BP and 64.3% in Body Fat. There was significant improvement in body fat (p< 0.05) in both groups after 6 months intervention.

After 3 months of intervention, 53.3% subjects with impaired fasting glucose (IFG) status in the exercise group became normal compared to 50% in the control group. None of them in the exercise group became DM, while 8.3% became DM in the control group. 25% of subjects with impaired glucose tolerance (IGT) status in the exercise group became normal compared to none in the control group. None of subjects with IGT status in exercise group become DM, compared with 20% in the control group. 21.1% of subjects in the exercise group and 18.2 % in the control group became normal at 3 months intervention in subjects who presented with both IGT and IFG status. In this group of subjects, 3.6% in the exercise group and 9.1% in the control group became DM.

After 6 months of intervention, 33.3% subjects with impaired fasting glucose (IFG) status in the exercise group became normal, compared to 50% in the control group. 13.3% in the exercise group became DM while none in the control group. 44.4% of subjects with impaired glucose tolerance (IGT) status in the exercise group and 100% in the control group became normal. Subjects who presented with both IGT and IFG became normal at 33.3% in the exercise group and 37.5% in the control group. 11.1 % in the exercise group became diabetic but none in the control group.

CONCLUSION
The structured exercise for pre-diabetic subjects was beneficial but this was not significant when compared to a control group.

KEYWORDS
pre-diabetes, structured exercise
Intestinal Parasitic Infections In Orang Asli (Aborigines) Schoolchildren In Bota District, Perak, Malaysia

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INTRODUCTION

Intestinal parasitic infections are still a major public health problem in most developing countries. Previous studies have indicated a high prevalence in Malaysia. The objective of this study was to determine the prevalence of intestinal parasitic infections amongst the Orang Asli schoolchildren in Bota town, Perak Tengah District, Perak, Malaysia and to correlate the findings with the demographic data of the study population.

METHODOLOGY

This was a cross-sectional study. 75 out of the 96 Orang Asli schoolchildren were sampled. A questionnaire was used to collect the demographic profile of the schoolchildren and at the same time stool containers were distributed and collected two days later. Laboratory examinations were carried out using the direct smear, Brine flotation (saturated salt) and formal-ether sedimentation techniques to detect the intestinal parasitic infections.

RESULTS

77.3% of the schoolchildren were positive for parasitic infections. The most common parasites detected were Trichuris trichiura (66.7%), followed by hookworm (33.3%), and Ascaris lumbricoides (20.0%). Protozoa infections were relatively less common when compared with nematode infections. The most common protozoa isolated were Entamoeba histolytica (5.3%), Giardia lamblia (4.0%), Entamoeba coli (2.7%) and Blastocystis hominis (2.7%) respectively.

KEYWORDS

intestinal parasitic infection, schoolchildren, Orang Asli
Factors Affecting Drawing Ability In Children Aged 4-6 Living In The Rural And Urban By Socio-Demography Aspects

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INTRODUCTION

Drawing age is often used as a proxy for a child’s ability. The aim of the study was to investigate whether age, sex, ethnicity, social class, media influences, age started schooling, peer influences, art materials, attending art classes, living environment, and influence of the parents affect the drawing age of the children aged 4-6 years old.

METHODS

A convenient sample of children living in Perak in the rural and urban communities, aged 4-6 years old and free from any major impairment was chosen. The drawing age of the children who took part in the study was calculated using the “Goodenough Draw-A-Man Test”. Factors influencing the drawing age of the children was assessed by giving out multilingual questionnaires, based on their ethnicity, to their parents with the help of kindergarten staff who took part in the study.

RESULTS

179 children were selected, 100 were urban and 79 rural. 155 children (87%) showed that their drawing age was the same or better than their chronological age. Children in rural areas (mean 7.43) had better drawing age than urban children (mean 7.213) but the difference was not significantly different. Mean drawing age of the urban Malay children (7.89) were significantly better than rural Malay children (6.49). However for the Chinese children the mean drawing age of rural children (8.42) were significantly better than urban children (6.71). Children who watched television and owned books had a better drawing age than compared to those who did not. A child who was allowed to do indoor activities with their friends had a better or same drawing age than those who did not play with friends.

CONCLUSION

The findings revealed that there is no significance difference between the drawing age of children from the rural and urban areas. 87% of children from both the urban and rural areas have higher drawing age than their chronological age. Significant ethnic differences according to environment found in this study require further evaluation.

KEYWORDS

drawing age, children, Goodenough Draw-A-Man test, ethnicity, rural, urban,
Sinonasal Malignant Melanocytic Melanoma: A Rare Case Report

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INTRODUCTION

Malignant melanocytic melanoma is a rare sinonasal malignancy. Sinonasal malignant melanocytic melanoma is a rare malignancy. It accounts for less than 1% of all malignant melanomas and has a 5-year survival rate of 0% to 30%. We present a case report of an elderly lady who presented with epistaxis and intranasal polyps. The mass was removed via endoscopic medial maxillectomy. Histopathology examination revealed sinonasal melanocytic malignant melanoma.

CASE REPORT

An 80-year-old Malay lady presented with complaints of intermittent nasal bleeding and blockage of a few months duration. Endoscopic examination showed a polypoidal growth in the left nostril which was extending to the nasopharynx and entering the right posterior choanae. Biopsy was taken and it revealed malignant melanocytic melanoma. Computed tomography revealed a soft tissue mass in the oropharynx with some extension into the nasopharynx, posterior nasal spaces, left ethmoid sinus and left nasal cavity. Both fossa of rosenmuller were obliterated. The left maxillary sinus was also entirely occupied by the mass. Few lymph nodes were seen in the left posterior triangle of the neck which were of insignificant size i.e., less than 1 cm and clinically not palpable. There was no bony erosion or extension into the brain and/or lung metastasis. She was staged as T3N0Mx from the above evidence. The mass was excised endoscopically. A medial maxillectomy was done due to the extent of the polypoidal growth. On microscopic examination, the tumour tissue was composed of closely packed large polygonal cells with markedly pleomorphic nuclei containing single to multiple prominent nucleoli. In areas, the tumour cells were spindle shaped. Some of the tumour cells contained melanin. The tumour cells reacted strongly with immunohistochemical staining for anti-S-100 protein, HMB-45 and antivimentin. Post-operative histopathological examination was consistent with the biopsy histology. At 19 months post-operative period the patient is well and symptom free. Her recent endoscopic examination does not show any evidence of locoregional recurrence.

CONCLUSION

The endoscopic approach is currently the preferred technique as it offers less morbidity compared to the open approach. With more advanced endoscopic instruments, even tumours which are aggressive and extensive, as was in this case, can be excised with possible curative surgical intention with less morbidity. The patient has so far remained free of locoregional recurrence and thus this approach could be a suitable alternative to open approaches for curative surgical intentions.

KEYWORDS

epistaxis, nasal polyps, sinonasal malignant melanocytic melanoma, elderly
An Arrow In The Maxillary Sinus

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INTRODUCTION

Foreign-bodies are routinely encountered in ENT practice and metal foreign bodies are occasionally found in the sinuses. Most literature reported cases in which the foreign body was of dental origin, war injury or accident. Since the mid-80s, due to the development of techniques using osteointegrated implants to treat edentulousness, the complication of mal positioning of metal fixtures within the maxillary sinus has become very common. The Caldwell-Luc procedure is the classic surgical technique used for the removal of foreign bodies within the maxillary sinus. It involves opening of the anterior wall of the maxillary sinus. A patient presented with an arrow that was accidentally triggered while fishing, piercing the cheek and lodged within the maxillary sinus.

CASE REPORT

A 40-year-old Orang Asli (aborigine) presented to the emergency department with an arrow that pierced into his left maxillary sinus. Upon review, he gave history of a self-triggered arrow-gun that had slipped and released straight into his left cheek while he was fishing. Surprisingly, he presented with only minimal pain with no history of bleeding, blurring of vision or any nasal symptoms. Clinical assessment revealed, a rusty arrow, about 15 cm long, which had pierced into his left maxillary sinus region at the level of the nose tip corresponding to the mid-pupillary line. Radiological examination showed an arrow lodged into the left maxillary sinus and abutting its posterior wall. Caldwell-Luc procedure was performed on the same day under general anaesthesia and the arrow was removed. Post-operative recovery was unremarkable – the patient was free from complications for more than 18 months.

CONCLUSION

A situation was experienced whereby a patient walked into the emergency department with an arrow accidentally triggered while fishing. The foreign body was lodged in the maxillary sinus and was removed via the Caldwell-Luc approach with no subsequent complication. Therefore the Caldwell-Luc procedure should remain in the surgical repertoire for an ENT surgeon to deal with difficult cases of foreign bodies which cannot be removed endoscopically.

KEYWORDS

foreign body, maxillary sinus, arrow
Endoscopic Resection Of Primary Nasoseptal Chondrosarcoma

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INTRODUCTION

Nasal septum chondrosarcoma is an extremely rare tumor accounting for only 10% to 20% of primary bone tumors, with approximately 10% found in the head and neck. Surgical resection is the primary modality of choice. Adjuvant therapy is reserved for residual or recurrent disease and palliation. Various surgical procedures have been described in the literature. This is a description of one case whereby the tumour was successfully resected endoscopically.

CASE REPORT

A 15-year-old Chinese boy presented to the ENT clinic in May 2007 with history of progressive nasal block and epistaxis for the past four months. Office nasal endoscopic examination revealed a large, firm midline mass occupying both sides of the nasal cavity. A subsequent biopsy was reported as chondrosarcoma. A CT scan of the brain and orbits demonstrated a large, heterogenously enhancing mass occupying the nasal cavity and extending into the right sphenoid sinus and the ethmoid air cells. There was bony expansion and destruction of the anterior wall of sphenoid sinus. A chest x-ray did not show any evidence of metastasis. The lesion was completely resected endoscopically. Intra-operative frozen sections confirmed negative margins. The histopathological diagnosis was confirmed as chondrosarcoma of the nasal septum (Grade II). A repeated biopsy of the sphenoid cavity two weeks later showed complete clearance of the tumour. The patient was followed-up for one year and showed no signs of recurrence. Post-operative CT scan of the paranasal sinuses after one year revealed no tumour recurrence.

CONCLUSION

Endoscopic excision has been reported in the literature. Lesions limited to the nasal cavity, without evidence of intracranial, skull base or orbital extension, are suitable for endoscopic resection. Endoscopic surgery provides superior magnification, illumination, no facial scarring, superior cosmesis and angled visualisation facilitating complete endonasal tumour resection. In contrast to many external approaches, preservation of normal sinonasal physiologic function and mucociliary clearance patterns is achieved with the endoscopic approach. Potential morbidity with the more open and extensive approaches can also be spared. Hospital stay is minimised and post-operative care is similar to any other patient undergoing endoscopic sinus surgery.

KEYWORDS

chondrosarcoma, nasal septum, endoscopic resection
Nutrition Support For A Hyponatreamia Patient With Old Cerebral Vascular Accident – A Case Report

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INTRODUCTION

Malnutrition is a common problem that can develop during the course of a critical illness. Prolonged under-nourishment can lead to death. The objective of nutrition support is to provide adequate nutrients consistent with the patient’s medical condition, nutritional status, and available route of nutrient administration by proper nutritional assessment and intervention.

CASE REPORT

A 63-year-old Indian lady was admitted to the medical ward with malaise symptoms, high blood pressure and an old cerebral vascular accident (CVA) with right hemiparesis. The patient had stopped talking and was not taking orally for 2 days. The estimated weight on admission was 40 kg. At the medical ward she was diagnosed having hyponatraemia (Na 109 mmol/l) secondary to poor oral intake. She was referred to a dietitian for nutritional assessment and dietary intervention. 1,300 kcal energy and 60 g protein was prescribed. Enercal Plus formula via Ryles tube feeding was given in order to meet her requirement. The feeding was started with initial volume (100 ml 3-hourly). Then the feeding was increased gradually step by step to ensure patient’s tolerance. After 5 days of good tolerance to feeding as planned, the patient was allowed to take soft diet orally as the appetite had improved. Serum sodium levels improved from 116 mmol/l on the first day of feeding to 129 mmol/l on the day of discharge.

This patient achieved optimum nutrition in the ward with the regime prescribed. Further malnutrition was prevented. The condition of the patient improved and sodium levels showed an increasing trend from the day feeding was started until the day patient was decided to be discharged from the ward. The patient became more alert, moved her limbs and was able to take orally as her appetite improved.

CONCLUSION

Proper nutritional assessment and nutritional intervention can help improve outcomes in chronically ill patients.

KEYWORDS
hyponatraemia, nutritional assessment, malnourish
Spurious WBC Count On Haematology Analyser – A Case Report

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INTRODUCTION

Haematology analysers provide quick and accurate results in most situations. However, spurious results, related either to platelet or to other parameters from the cell blood count may be observed in several instances. The main objective of this case study was to increase awareness among the medical laboratory technologist about spurious count of white blood cell (WBC) related to infections.

CASE REPORT

A 36-year-old man, suspected to have a psoas abscess, was admitted to the medical ward. As part of the investigations, a full blood count (FBC) was requested. The FBC result showed a mildly elevated WBC count (17,100). A full blood picture (FBP) was subsequently requested. Examination of the peripheral blood film revealed that there were aggregates of polymorphonuclear neutrophils (PMN) with a WBC of 7,600 (N 40%, L 36%, M 12%). The sample was then prewarmed and a FBC repeated. It was then noted that the WBC count was actually higher at 30,100 and there was leucocytosis with predominantly neutrophilia.

Spuriously low WBC counts may be observed because of agglutination in the presence of ethylenediamine tetra-acetic acid (EDTA). Cryoglobulins, lipids, insufficiently lysed red blood cells (RBC), erythroblasts and platelet aggregates are common situations increasing WBC counts. In most of these instances flagging and/or an abnormal WBC differential scattergram will alert the operator. Failing which it will be detected on doing a peripheral blood film. Although no pathology or no specific disease is associated with clustering of PMN, an acute or chronic inflammation is always attributed. Pre-analytical and analytical variables should be considered first within the laboratory when spurious results from the Hematology Analyser (HA) are found.

CONCLUSION

It is important to recognise spurious WBC counts on haematology analysers to provide an accurate result.

KEYWORDS

spurious WBC count, haematology analyser, prewarming (manual)
Kimura’s Disease

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INTRODUCTION
This case report described the background, clinical history, presentation, histopathological findings and treatment of one patient with Kimura’s disease at Hospital Teluk Intan.

CASE REPORT
A patient presented with a 5 × 6 cm right post-auricular subcutaneous swelling which obliterated the ear crease and extended towards the right upper deep cervical region and a 2 × 3 cm right infra-auricular/parotid swelling. A CT scan showed an ill-defined enhancing soft tissue lesion in the right post-auricular area that extended inferiorly to involve the superficial part of the right parotid gland. An initial FNAC report from the right parotid swelling was in favour of reactive lymphoid tissue. Subsequently, treatment proceeded with a right superficial parotidectomy. A histopathological report after the excision confirmed the diagnosis of Kimura’s disease.

CONCLUSION
A complete excision of any suspicious mass with subsequent histopathological examination can lead to a diagnosis of any mass with diagnostic difficulties. The patient was 6 months post-operatively doing well.

KEYWORDS
Kimura’s disease, post-auricular subcutaneous swelling
Modified Lung Recruitment Manoeuvre In An Infant: A Case Report

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INTRODUCTION

Lung recruitment manoeuvres are crucial in managing cases of acute respiratory distress syndrome (ARDS) and acute lung injury (ALI). These manoeuvres not only help to improve oxygenation and ventilation but also help to prevent or reduce ventilator induced lung injury (VILI).

CASE REPORT

A case was presented of a successful application of a recruitment manoeuvre modified from the Maquet Servo-i Open Lung Tool® guideline on a 2-month old Orang Asli boy who was referred from a district hospital for severe pneumonia. A retrieval team was sent to retrieve the patient. At the district hospital, there was much difficulty in maintaining oxygenation in spite of high ventilator settings. After three hours of resuscitation, a decision was made to transport the child out to the referral hospital. Modified lung recruitment manoeuvre was performed on the child and there was marked improvement in the oxygenation, from a 60-80% range to 99%, with marked improvement in pO₂ from 30 mmHg to 139 mmHg post recruitment. However, due to the severity of the illness, the child gradually deteriorated and passed away twenty-one hours after admission.

CONCLUSION

This modified recruitment manoeuvre may be used as a rescue manoeuvre in severe pneumonia with poor oxygenation. However, further research needs to be conducted to verify the feasibility and safety of this manoeuvre.

KEYWORDS

lung recruitment, acute respiratory distress syndrome
Facial Cleft Lip And Palate: Sonographic Diagnosis And Associated Anomalies

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INTRODUCTION
To determine the relationship of facial cleft lips with associated malformations.

CASE REPORT
A retrospective analysis using ultrasound to evaluate twenty-nine foetuses with cleft lip and/or palate for associated anomalies at a tertiary referral centre (Foetal Diagnosis and Therapeutic Unit, Hospital RPB Ipoh).

Twenty-nine foetuses had a cleft lip with or without cleft palate. Among these foetuses, 24 foetuses had associated anomalies. Eight foetuses had multiple anomalies or appeared syndromic, nine foetuses had central nervous system abnormalities, 3 had renal disorders and one had a diaphragmatic hernia.

CONCLUSION
Foetal anomalies are commonly detected among foetuses with cleft lip with or without cleft palate.

KEYWORDS
facial cleft lip/palate, sonographic diagnosis
Foetal Anomalies Associated With Twin Pregnancies

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INTRODUCTION

This case was an evaluation, using ultrasound, of foetal anomalies associated with twin pregnancies.

CASE REPORT

This was a retrospective analysis of all twin pregnancies evaluated by ultrasound between 1st January 2006 to 31st March 2008 at the Foetal Diagnosis and Therapeutic Unit at Hospital RPB Ipoh.

During the period there were 80 twin pregnancies. There were 46 dichorionic twin pregnancies and 33 monochorionic twins and in one twin, a co-existent molar pregnancy. Among the monochorionic twin pregnancies, two were monoamniotic, one was an acardiac twin, one was a parasitic twin and nine had evidence of twin to twin transfusion syndrome. Among the dichorionic twins, 39 twin pairs had no gross anomalies and among the remaining 7 foetuses, 2 foetuses had an intrauterine death and 6 foetuses were abnormal. Of these 4 had lethal congenital abnormalities, one lung lesion and one abdominal involvement. Among the monochorionic diamniotic twins there was one pair of twins with rhabdomyoma and in another pair, one twin had anencephaly.

CONCLUSION

Foetal anomalies are common among twin pregnancies.

KEYWORDS

foetal anomalies, twin pregnancies
Foetal Lung Lesions: Management And Outcome

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INTRODUCTION

This was a retrospective review of foetal lung lesions diagnosed antenatally by ultrasound at the Foetal Diagnosis and Therapeutic Unit, Hospital RPB Ipoh between 1st January 2004 and 31st March 2008. The emphasis of this study was on natural history, management and outcome.

CASE REPORT

This was a retrospective review of 13 cases of lung lesions diagnosed antenatally by ultrasound at a single tertiary referral centre.

There were 10 cases of congenital cystic adenomatoid malformations, 1 case of pulmonary sequestration syndrome and 2 cases of unilateral pleural effusions. Bilateral pleural effusions were not included in this review.

CONCLUSION

The above lung lesions occurred as an isolated lesion in the majority of cases. Only one case of congenital cystic adenomatoid malformations and one case of unilateral pleural effusion was associated with other anomalies. The outcomes of isolated lung lesions were favourable in this review.

KEYWORDS

foetal, lung lesion, antenatally, ultrasound
Foetal Ovarian Cyst: Prenatal Diagnoses And Postnatal Outcomes

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INTRODUCTION
This was a study of antenatal and postnatal outcomes of foetal ovarian cysts in relation to their ultrasonographic pattern and size.

CASE REPORT
Prospective studies of all prenatally diagnosed cases in Hospital RPB Ipoh from 2004 till 2008 were done. The foetuses with ovarian cysts were diagnosed on prenatal ultrasonography and followed up with serial ultrasonography in utero and after birth until spontaneous or surgical resolution.

There were 10 cases during the study period. All these foetal ovarian cysts were simple cysts. The mean maximum diameters of the ovarian cysts before delivery were 50 ± 10 mm. Eight of the simple cysts resolved spontaneously on follow-up imaging by ultrasound. One of the foetuses had a large ovarian cyst measuring 88.6 × 84.5 mm and was managed conservatively. The other neonate was still under follow-up. None of these neonates required any form of surgical intervention.

CONCLUSION
In this study, cyst size did not predict the risk of ovarian loss. Most of these cases could be managed conservatively as these cysts resolved spontaneously in the postnatal period.

KEYWORDS
foetal, ovarian cysts, prenatal, ultrasonography
Perinatal Outcomes After Prenatal Diagnoses Of Placental Chorioangioma

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INTRODUCTION

Chorioangioma, or haemangioma of the placenta, is the most frequent non-trophoblastic placental tumour. The incidence of chorioangioma is approximately 1%. A large chorioangioma may be associated with hydramnios, preterm childbirth, antepartum haemorrhage, and delay in intrauterine growth and arteriovenous shunt in the foetal circulation followed by congestive heart failure. This is a report of 3 cases with different outcomes.

CASE REPORT

Case 1 was a 37-year-old Malay G10P9 with twin pregnancy and was noted to have a large round mass in the placenta on ultrasound examination at 28 weeks gestation. The patient went into preterm labour and delivered at 30 weeks gestation. Both babies died of severe prematurity after two days.

Case 2 was a 36-year-old Indian primigravida who was noted to have a mass in the placenta by ultrasonographic examination at 36 weeks of gestation. Detailed scan revealed large a placental mass suggestive of features of chorioangioma vis hypo-echoic mass and demonstration of blood flow by colour Doppler imaging. The foetus was closely monitored. A healthy baby girl weighing 2.8 kg was delivered at 38 weeks gestation.

Case 3 was a 40-year-old Malay G9P7+1 who was found to have a mass in the placenta by ultrasonographic and Doppler imaging at 23 weeks of gestation. A repeat scan at 27 weeks showed an increase in the size of the mass with complication of polyhydramnios and hydrops. In view of the above complications, a caesarean section was done at 27+6 weeks gestation. A baby girl weighing 1.5 kg was delivered and required blood transfusion. The baby was discharged well from neonatal unit 4 weeks later.

In all the above cases, histopathological examination confirmed chorioangioma.

CONCLUSION

Placental chorioangioma is associated with an increased risk of pregnancy complications, the most common being polyhydramnios and preterm delivery. Foetuses who develop hydrops are at the highest risk for perinatal death with limited therapeutic options being available.

KEYWORDS

perinatal, placental chorioangioma, hemangioma
Impact Of Delayed Diagnosis And Appropriate Management Of Churg Strauss Syndrome – Case Report

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INTRODUCTION

A case of Churg-Strauss Syndrome (CSS) diagnosed following an episode of acute myocardial infarction (AMI) is reported.

CASE REPORT

A male patient presented with manifestations of CSS which developed gradually i.e. vasculitic lesion with Raynaud’s phenomenon and hypereosinophilia, leucocytoclastic vasculitis with eosinophilic infiltration from skin biopsy, followed by asthmatic symptoms and later peripheral neuropathy. The perinuclear pattern of antineutrophil cytoplasmic autoantibodies was however, negative. His vasculitic and neurologic symptoms improved following high dose steroid and azathioprine over the years. Coronary angiography was normal.

CONCLUSION

Early diagnosis and prompt treatment with steroid and immunosuppressant agent are important because these have great impact on the morbidity and mortality attributed to this condition.

KEY WORDS

Churg Strauss syndrome, coronary vasculitis, early treatment.
Instructions
To Authors

Papers should be sent to the:
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