Publications by Redcliffe, Caboolture and Kilcoy Staff (includes abstract)

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Background: Cardiac Troponin I (cTnI) is frequently measured in patients presenting with symptomatic atrial fibrillation (AF). The significance of elevated cTnI levels in this patient cohort is unclear. We investigated the value of cTnI elevation in this setting and whether it is predictive for significant coronary artery disease (sCAD);

Methods: We conducted a retrospective, single-center, case-control study of 231 patients who presented with symptomatic AF to The Prince Charles Hospital emergency department, Brisbane, Australia between 2006 and 2014. Patients who underwent serial cTnI testing and assessment for CAD were included. Clinical variables that are known to predict CAD and could potentially predict cTnI elevation were collected. Binary logistic regression was performed to identify predictors of sCAD and cTnI elevation;

Results: Cardiac Troponin I elevation above standard cut off was not predictive for sCAD after adjustment for other predictors (OR 1.62, 95% CI 0.79-3.32, p=0.19). However, the highest cTnI concentration value (cTnI peak) was predictive for sCAD (OR 2.02, 95% CI 1.02-3.97, p=0.04).

Dyspnea on presentation (OR 4.52, 95% CI 1.87-10.91, p=0.001), known coronary artery disease (OR 3.44, 95% CI 1.42-8.32, p=0.006), and ST depression on the initial electrocardiogram (OR 2.57, 95% CI 1.11-5.97, p=0.028) predicted sCAD in our cohort, while heart rate on initial presentation was inversely correlated with sCAD (OR 0.99, 95% CI 0.971-1.00, p=0.034);

Conclusion: Troponin elevation is common in patients presenting to hospital with acute symptomatic AF and it is not a reliable indicator for underlying sCAD in this patient cohort. However, cTnI peak was a predictor of significant coronary artery disease;

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Objectives: To explore if active learning principles be applied to nursing bioscience assessments and will this influence student perception of confidence in applying theory to practice?; Design and Data Sources: A review of the literature utilising searches of various databases including CINAHL, PUBMED, Google Scholar and Mosby's Journal Index.; Methods: The literature search identified research from twenty-six original articles, two electronic books, one published book and one conference proceedings paper.; Results: Bioscience has been identified as an area that nurses struggle to learn in tertiary institutions and then apply to clinical practice. A number of problems have been identified and explored that may contribute to this poor understanding and retention. University academics need to be knowledgeable of innovative teaching and assessing modalities that focus on enhancing student learning and address the integration issues associated with the theory practice gap. Increased bioscience education is associated with improved patient outcomes therefore by addressing this "bioscience problem" and improving the integration of bioscience in clinical practice there will subsequently be an improvement in health care outcomes.; Conclusion: From the literature several themes were identified. First there are many problems with teaching nursing students bioscience education. These include class sizes, motivation, concentration, delivery mode, lecturer perspectives, student's previous knowledge, anxiety, and a lack of confidence. Among these influences the type of assessment employed by the educator has not been explored or identified as a contributor to student learning specifically in nursing bioscience instruction. Second that educating could be achieved more effectively if active learning principles were applied and the needs and expectations of the student were met. Lastly, assessment influences student retention and the student experience and as such assessment should be congruent with the subject content, align with the learning objectives and be used as a stimulus tool for learning.;

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Background Holocarboxylase synthetase deficiency results in impaired activation of enzymes implicated in glucose, fatty acid and amino acid metabolism. Antenatal imaging and postnatal imaging are useful in making the diagnosis. Untreated holocarboxylase synthetase deficiency is fatal, while antenatal and postnatal biotin supplementation is associated with good clinical outcomes. Although biochemical assays are required for definitive diagnosis, certain radiologic features assist in the diagnosis of holocarboxylase synthetase deficiency. Objective To review evidence regarding radiologic diagnostic features of holocarboxylase synthetase deficiency in the antenatal and postnatal period. Materials and methods A systematic review of all published cases of holocarboxylase synthetase deficiency identified by a search of Pubmed, Scopus and Web of Science. Results A total of 75 patients with holocarboxylase synthetase deficiency were identified from the systematic review, which screened 687 manuscripts. Most patients with imaging (19/22, 86%) had abnormal findings, the most common being subependymal cysts, ventriculomegaly and intraventricular hemorrhage. Conclusion Although the radiologic features of subependymal cysts, ventriculomegaly, intraventricular hemorrhage and intrauterine growth restriction may be found in the setting of other pathologies, these findings should prompt consideration of holocarboxylase synthetase deficiency in at-risk children.


• Characterization of Trypanosoma teixeirae sp. n. from a little red flying fox.
• First trypanosome species associated with clinical disease in an Australian bat.
• Morphological and molecular analyses.
• T. teixeirae sp. n. clustered within the T. cruzi clade.
• Evolutionary implications discussed.

Little is known about the genetic diversity and pathogenicity of trypanosomes in Australian bats. Recently a novel trypanosome species was identified in an adult female little red flying fox (Pteropus scapulatus) with clinical and pathological evidence of trypanosomosis. The present study used morphology and molecular methods to demonstrate that this trypanosome is a distinct species and we propose the name Trypanosoma teixeirae sp. n. Morphological comparison showed that its circulating trypomastigotes were significantly different from those of Trypanosoma pteropi and Trypanosoma hipposideri, two species previously described from Australian bats. Genetic information was not available for T. pteropi and T. hipposideri but phylogenetic analyses at the 18S ribosomal RNA (rRNA) and glyceraldehyde phosphate dehydrogenase (gGAPDH) loci indicated that T. teixeirae sp. n. was genetically distinct and clustered with other bat-derived trypanosome species within the Trypanosoma cruzi clade.


Objectives To decrease the risk of health-care associated infections, Australian National Safety and Quality Standard (NS) 3.10: requires clinical staff to be trained in aseptic technique, regularly audited and action taken to increase compliance with aseptic technique. A baseline audit using a standardised observation tool of the metropolitan acute hospital's clinical staff yielded an extremely low compliance with aseptic technique. The objective of this program was to improve compliance with aseptic technique.

Methods A Safety Quality and Practice Unit escalation report indicated the need for a permanent Aseptic Non-Touch Technique (ANTT®) clinical nurse position, affiliated with the Infection Management and Prevention Service (IMPS). This position utilised the ANTT® program developed by the Association for Safe Aseptic Practice in the United Kingdom. Over 6 months, all 1000 clinical staff were trained using a multi-faceted approach. The training based on issues identified in the pre-audit included diverse strategies of: identification of role modelling and peer teaching sessions for the senior staff; use of audience-response system, participation in junior and senior teaching programs, case studies of bacteraemias and indwelling catheter (IDC)-related infections; and unit specific practices. Intravenous cannulation for relevant staff; intravenous therapy for Registered Nurses and Radiographers; scrub, gowning and gloving for theatre staff, and open gloving for Physiotherapists. An IDC training video was produced entitled: ‘An IDC to Remember’ demonstrates common breaches in aseptic technique. Results A post-training audit showed a 56% improvement in compliance with aseptic technique. Conclusion Through the implementation of the ANTT® clinical nurse role and a multi-modal training program utilising ANTT® principles, a significant increase in aseptic technique compliance has been achieved, decreasing the risk of health-care associated infections.


Introduction: Endometriosis is usually a disease involving women of reproductive age. Colonic endometriosis is a rare sequela. It usually presents vaguely with nonspecific abdominal pain, dyspareunia, fecal tenesmus, rectal bleeding or painful defecation. There are very few case reports of sigmoid endometriosis in the literature, more so ones involving post-menopausal women. Our report highlights such a case, mimicking a malignant rectosigmoid stricture leading to a large bowel obstruction.

Aim: Haemodynamic progression of Aortic stenosis (AS) from mild to severe obstruction usually occurs over 5-10 years or more. This study aimed to evaluate the rate of progression and contributing clinical factors in a cohort of patients from a small suburban Hospital in Queensland. Methods: Retrospective review of patients for the period 2006-2015. Patients with clinical and echocardiographic evidence of aortic sclerosis and AS were included. Clinical risk factors and echocardiographic haemodynamic data were recorded. Results: Of the 53 patients 22 were female. Age (years) ranged from 57 to 95, median at presentation being 79. Five patients (9%) had bicuspoid aortic valve. Hypertension was the most common comorbidity (79%) followed by hypercholesterolaemia (40%) and diabetes (30%). Eight patients (15%) had sclerosis. During the follow-up 45% progressed to severe AS; 9 of them (17%) had mild AS initially. 42% developed heart failure. Although more females tended to have severe AS (50% versus 42% male) in this study, males had a higher intervention rate (19% versus 14% female). Eight patients (15%) died, including a sudden death and another from complications of endocarditis, others causes were mostly attributed to co-morbid conditions. Conclusion: Though increasing age is the most common association in calcific aortic stenosis, presence of modifiable clinical factors like hypertension and hypercholesterolaemia may contribute to onset and progression of disease and adequate management of these may delay onset or progression. Mortality remains high even in less severe disease, due mostly to complicating co-morbidities of old age.


Introduction/Aim: Community acquired pneumonia (CAP) is a common reason for hospital admission. Intravenous antibiotics are almost always administered in this setting. The aims of the study were the following: (i) determine emergency department (ED) and admitting medical team (AT) compliance with therapeutic guidelines (TG) for the prescription of antibiotics, and (ii) describe the rate and suitability of referral to the hospital in the home (HITH). Methods: Retrospective review of patients admitted to Caboolture Hospital between January 1st and June 30th, 2015. Patient were included if they had either a radiological or clinical diagnosis of CAP. Suitability for HITH was decided by clinical stability and need for further intravenous antibiotics. Results: Of the 78 patients included in the study, the TG was adhered to in the ED for 25 (32%) and 17 (22%) by AT. 41 patients (53%) were referred for HITH; median duration of stay at HITH was 4 days. Referral for HITH was deemed appropriate for 20 (48%) patients. Six patients assessed as appropriate for HITH but did not receive HITH care. Twenty-seven patients were referred for HITH but HITH treatment was assessed as being inappropriate on the basis that they likely no longer required intravenous antibiotics. Median length of stay for those not on HITH was 3 days. The mortality rate was 2.3%. Conclusion: The antibiotics guidelines for CAP were rarely followed by both emergency and admitting teams. The AT non-adherence to TG is largely related to admission to HITH with subsequent administration of broad spectrum antibiotics. Over 50% of admissions to HITH were deemed inappropriate contributing to increased costs of care and potentially antibiotic resistance. Education of staff in the use of pneumonia severity scores is required to guide antibiotic choice and reduce unnecessary intravenous antibiotics and admission. Regular auditing is required to monitor this.


Objective: To explore the condition of misophonia, its definition, possible neurological correlates, its associated morbidity, its possible psychiatric relevance and potential treatment.

Method: Provision of an illustrative case vignette and a review of the limited literature. Results: Misophonia is a symptom associated with obsessive-compulsive disorder and anxiety disorders and may be a syndrome in itself associated with significant distress and avoidance. Treatments are not well validated.

Conclusion: Misophonia may be an under-recognised condition of psychiatric relevance. (PsycINFO Database Record (c) 2016 APA, all rights reserved)


Study Objective: Peripheral intravenous catheters are the most common invasive device in health care yet have very high failure rates. We investigate whether the failure rate could be reduced by the addition of skin glue to standard peripheral intravenous catheter care.

Methods: We conducted a single-site, 2-arm, nonblinded, randomized, controlled trial of 380 peripheral intravenous catheters inserted into 360 adult patients. The standard care group received standard securement. The skin glue group received standard securement plus cyanoacrylate skin glue applied to the skin insertion site.

Results: Peripheral intravenous catheter failure at 48 hours, regardless of cause. Secondary outcomes were the individual modes of peripheral intravenous catheter failure: infection, phlebitis, occlusion, or dislodgement.

Conclusions: This study supports the use of skin glue in addition to standard care to reduce peripheral intravenous catheter failure rates for adult emergency department patients admitted to the hospital; Copyright © 2015 American College of Emergency Physicians. Published by Elsevier Inc. All rights reserved.


An abdominal CT scan was performed, showing markedly dilated small bowel (up to 9 cm) with air-fluid levels (Fig. 1). [...] A small proportion have identifiable congenital deficiencies in a number of genes regulating bowel motility, including defects involving the interstitial cells of Cajal (intestinal pacemaker cells) or visceral smooth muscle.2 In secondary CIPO, systemic conditions secondarily impair gut neuromuscular function.


Background: Tacrolimus is lipophilic and insoluble in water, and is a substrate for the drug efflux pump, p-glycoprotein, and the metabolising enzyme cytochrome P450 (CYP)3A. It has a narrow therapeutic window and thus therapeutic drug monitoring is essential for maintaining efficacy and minimising tacrolimus toxicity. There are no reports which have examined the mechanisms of toxicity of tacrolimus in humans.

Case Report: In February, 2016, a 26-year-old Caucasian female presented with biliary sepsis in the setting of fever and right upper quadrant pain. Her creatinine deteriorated from a baseline of 120 μmol/L to 350 μmol/L, C-reactive protein 150, tacrolimus level 6 and bilirubin 130. A magnetic resonance cholangiopancreatography showed intrahepatic biliary duct dilatation, with a 12mm dilated main bile duct to the level of biliary-enteric anastomosis. There was biliary sludge present at the main duct. On day 4 post admission, her creatinine rose to 499 μmol/L and her tacrolimus level to 45. She became delirious, developed tremors and experienced severe nausea and vomiting. Tacrolimus was withheld.

Given the anatomical difficulties of removing the stones, a Fogarty balloon was used to dispel the biliary stones. The interna-external biliary drain was downsized to allow for free biliary drainage. Resolution of tacrolimus toxicity occurred, and renal and liver function improved. Tacrolimus was re-instituted.

Conclusions: The mechanism of tacrolimus induced toxicity has been hypothesised to be accumulation of bile acids in liver tissue, because biliary obstruction which leads to production of free radicals, activation of hepatic stellate cells, and liver fibrosis. This is the first case report documenting the mechanisms of tacrolimus induced toxicity from biliary sepsis in humans, mirroring what has been documented in preclinical experimentation.

Background: Burnout is an acknowledged major problem for the Medical Oncologists. Over the years many strategies have been suggested to combat burnout, however we are not aware of any attempt to verify whether the suggested strategies have been effective. This study attempts to verify this by looking at the comparable data on burnout rate amongst Oncologists longitudinally. Methods: Review of the available data made on Medline using keywords “Burnout” and “Medical Oncologist” revealed 71 articles. When further reviewed looking for “Number of responders” and a “burnout rate” 6 articles fitting this criteria were discovered. One further study was discovered by checking the first ten pages on “Google” Results: There were 7 studies discovered, the earliest in 1991 to the latest in 2015. 4 studies were conducted in USA, 2 in Brazil and 1 in Europe. Maslach Burnout Inventory (MBI) is the most common test administered and was used in 5 of the 7 studies. The sample size and response rate in the studies varied markedly. Reported burnout rates varies in the studies from 34-88% with no clear trend over time. Conclusion: Burnout is a common problem for Medical Oncologists and over the last 25 years there has been little change in burnout rates despite suggestions made to improve the situation. Current measures to address burnout amongst Medical Oncologists should be looked at. (Table Presented).


Background: The transition shock or Imposter Phenomena sometimes associated with moving from student to Registered Nurse can lead to feelings of self-doubt and insecurity especially with the increased expectations and responsibilities that registration brings. Aim: The aim of this study was to examine the extent at which imposter phenomenon is evident in four final year nursing student cohorts in Australia, New Zealand and the UK. Design: A survey design. Settings The study took place at four higher education institutes—two metropolitan campuses and two regional campuses between October 2014 – February 2015 in Australia, New Zealand and the UK. A sample of 223 final year nursing students undertaking nationally accredited nursing programmes were approached. Results: Each cohort exhibited mild to moderate feelings of Imposter Phenomena. A positive weak correlation between imposter phenomena and preparedness for practice was found. The New Zealand cohort scored higher than both the Australian and UK cohorts on both feelings of imposterism and preparedness for practice. Conclusions: Nursing students possess internalized feelings which suggest their performance and competence once qualified could be compromised. There is some speculation that the respective curriculums may have some bearing on preparing students for registration and beyond. It is recommended that educational programmes designed for this student cohort should be mindful of this internal conflict and potential external hostility. (PsycINFO Database Record (c) 2017 APA, all rights reserved)


Although there is a biological precedent for administration of β-lactam antibiotics by continuous or extended infusion, there is no definitive evidence of a survival benefit compared with intermittent administration. The aim of this study was to explore clinician uncertainty with regard to the administration of β-lactam antibiotics by continuous infusion. Doctors and pharmacists in Australian and New Zealand intensive care units (ICUs) were surveyed to investigate current β-lactam antibiotic administration practices as well as the degree of uncertainty regarding the benefit of continuous infusion of two commonly used broad-spectrum β-lactams, namely meropenem and piperacillin/tazobactam (TZP). There were 111 respondents to the survey. Intermittent infusion was reported as standard practice for meropenem (73.9%) and TZP (82.0%). A greater proportion of pharmacists compared with doctors believed continuous infusion to be more effective than intermittent administration (85.4% vs. 34.3%, respectively; P <0.001). Both groups reported uncertainty as to whether administration by continuous infusion resulted in better patient outcomes (65.9% and 74.6%, respectively; P = 0.85). Overall, 91.0% of respondents were prepared to enrol eligible patients into a definitive randomised controlled trial on β-lactam antibiotic administration. In conclusion, there is equipoise among clinicians working in Australian and New Zealand ICUs as to whether administration by continuous infusion offers a survival benefit in critically ill patients; Copyright © 2016 Elsevier B.V. and International Society of Chemotherapy. All rights reserved.
Background: Breast milk provides optimal nutrition for term and preterm infants, and the ideal way for infants to receive breast milk is through suckling at the breast. Unfortunately, this may not always be possible for medical or physiological reasons such as being born sick or preterm and as a result requiring supplemental feeding. Currently, there are various ways in which infants can receive supplemental feeds. Traditionally in neonatal and maternity units, bottles and nasogastric tubes have been used; however, cup feeding is becoming increasingly popular as a means of offering supplemental feeds in an attempt to improve breastfeeding rates. There is no consistency to guide the choice of method for supplemental feeding.; Objectives: To determine the effects of cup feeding versus other forms of supplemental enteral feeding on weight gain and achievement of successful breastfeeding in term and preterm infants who are unable to fully breastfeed.; Search Methods: We used the standard search strategy of the Cochrane Neonatal Review group to search the Cochrane Central Register of Controlled Trials (CENTRAL 2016, Issue 1), MEDLINE via PubMed (1966 to 31 January 2016), Embase (1980 to 31 January 2016), and CINAHL (1982 to 31 January 2016). We also searched clinical trials’ databases, conference proceedings, and the reference lists of retrieved articles for randomised controlled trials and quasi-randomised trials.; Selection Criteria: Randomised or quasi-randomised controlled trials comparing cup feeding to other forms of enteral feeding for the supplementation of term and preterm infants.; Data Collection and Analysis: Data collection and analysis was performed in accordance with the methods of Cochrane Neonatal. We used the GRADE approach to assess the quality of evidence. The review authors independently conducted quality assessments and data extraction for included trials. Outcomes reported from these studies were: weight gain; proportion not breastfeeding at hospital discharge; proportion not feeding at three months of age; proportion not feeding at six months of age; proportion not fully feeding at hospital discharge; proportion not fully breastfeeding at three months of age; proportion not fully breastfeeding at six months of age; average time per feed (minutes); length of stay; and physiological events of instability such as bradycardia, apnoea, and low oxygen saturation. For continuous variables such as weight gain, mean differences and 95% confidence intervals (CIs) were reported.; Main Results: The experimental intervention was cup feeding and the control intervention was bottle feeding in all five studies included in this review. One study reported weight gain as g/kg/day and there was no statistically significant difference between the two groups (MD -0.60, 95% CI -3.21 to 2.01); while a second study reported weight gain in the first seven days as grams/day and also showed no statistically significant difference between the two groups (MD -0.10, 95% CI -0.36 to 0.16). There was substantial variation in results for the majority of breastfeeding outcomes, except for not breastfeeding at three months (three studies) (typical RR 0.83, 95% CI 0.71 to 0.97) which favoured cup feeding. Where there was moderate heterogeneity meta-analysis was performed: not breastfeeding at six months (two studies) (typical RR 0.83, 95% CI 0.72 to 0.95); not fully breastfeeding at hospital discharge (four studies) (typical RR 0.61, 95% CI 0.52 to 0.71). Two studies reported average time to feed which showed no difference between the two groups. Two studies assessed length of hospital stay and there was considerable variation in results and in the direction of effect. Only one study has reported gestational age at discharge, which showed no difference between the two groups (MD -0.10, 95% CI -0.54 to 0.34).; Authors’ Conclusions: As the majority of infants in the included studies are preterm infants, no recommendations can be made for cup feeding term infants due to the lack of evidence in this
population. From the studies of preterm infants, cup feeding may have some benefits for late preterm infants and on breastfeeding rates up to six months of age. Self-reported breastfeeding status and compliance to supplemental interventions may over-report exclusivity and compliance, as societal expectations of breastfeeding and not wishing to disappoint healthcare professionals may influence responses at interview and on questionnaires. The results for length of stay are mixed, with the study involving lower gestational age preterm infants finding that those fed by cup spent approximately 10 days longer in hospital, whereas the study involving preterm infants at a higher gestational age, who did not commence cup feeding until 35 weeks’ gestation, did not have a longer length of stay, with both groups staying on average 26 days. This finding may have been influenced by gestational age at birth and gestational age at commencement of cup feeding, and their mothers’ visits; (a large number of mothers of these late preterm infants lived regionally from the hospital and could visit at least twice per week). Compliance to the intervention of cup feeding remains a challenge. The two largest studies have both reported non-compliance, with one study analysing data by intention to treat and the other excluding those infants from the analysis. This may have influenced the findings of the trial. Non-compliance issues need consideration before further large randomised controlled trials are undertaken as this influences power of the study and therefore the statistical results. In addition, larger studies with better-quality (especially blinded) outcome assessment with 100% follow-up are needed.


Background: Cervical auscultation (CA) may be used to complement feeding/swallowing evaluations when assessing for aspiration. There are no published pediatric studies that compare the properties of sounds between aspirating and nonaspirating swallows.; Aim: To establish acoustic and perceptual profiles of aspirating and nonaspirating swallow sounds and determine if a difference exists between these 2 swallowing types.; Methods: Aspiration sound clips were obtained from recordings using CA simultaneously undertaken with videofluoroscopic swallow study. Aspiration was determined using the Penetration-Aspiration Scale. The presence of perceptual swallow/breath parameters was rated by 2 speech pathologists who were blinded to the type of swallow. Acoustic data between groups were compared using Mann Whitney U-tests, while perceptual differences were determined by a test of 2 proportions. Combinations of perceptual parameters of 50 swallows (27 aspiration, 23 no aspiration) from 47 children (57% male) were statistically analyzed using area under a receiver operating characteristic (aROC), sensitivity, specificity, and positive and negative predictive values to determine predictors of aspirating swallows.; Results: The combination of post-swallow presence of wet breathing and wheeze and absence of GRS and normal breathing was the best predictor of aspiration (aROC = 0.82, 95% CI, 0.70-0.94). There were no significant differences between these 2 swallow types for peak frequency, duration, and peak amplitude.; Conclusion: Our pilot study has shown that certain characteristics of swallow obtained using CA may be useful in the prediction of aspiration. However, further research comparing the acoustic swallowing sound profiles of normal children to children with dysphagia (who are aspirating) on a larger scale is required.; © The Author(s) 2016.


Purpose: Limited data exist that support the reproducibility of cervical auscultation (CA) use in children. This study aimed to determine the reliability of CA in detecting oropharyngeal aspiration (OPA) in children within a controlled environment.; Method: This observational study included eight speech-language pathologists who rated clips of 40 normal and 40 OPA swallowing sounds on two separate occasions (i.e.160 sound clips rated by each speech-language pathologist) to comprise a total of 1280 swallow clips rated. Swallowing sound clips were collected from (1) a volunteer sample of 20 healthy children from the general community (mean 16.2 ± 10.7 months; 65% female); (2) a referred sample of 19 children with demonstrated OPA (mean 22.8 ± 25.5 months; 36.8% female), as determined on videofluoroscopic swallow studies (VFSS) using the Penetration-Aspiration Scale (PAS) (≥6 score).; Result: Inter-rater reliability was very good (kappa =0.81, 95%CI 0.79-0.84). Intra-rater reliability for each rater was good to very good (kappa range 0.72-0.98). Overall sensitivity was 93.9% (95%CI 91.8-95.6) and specificity was 94.5% (95%CI 92.5-96.2). High reliability values were found for the detection of OPA versus normal swallows using CA alone.; Conclusion: Future research should investigate the use of CA in a variety of clinical settings with less environmental control before CA can be advocated for use in routine clinical practice.;


Children admitted to emergency departments (EDs) in Australia are often placed in an environment better suited to the treatment of adult patients. This can lead to problems because ED staff are unfamiliar with specialist paediatric care and children often find adult EDs frightening. The development of the paediatric flow nurse (PFN) role at Caboolture Hospital has meant children are treated and supported by a trained paediatric nurse and triaged and treated quickly and effectively. The PFN team collaborates with ED nursing and medical staff to start treating patients and to help move children from the ED to the paediatric emergency short stay unit or inpatient paediatric beds. Each week, the PFN team sees about 30-50 children, many of whom are cared for and discharged directly from the ED.


Admitting children to emergency departments (EDs) often places them in an environment better suited to the treatment of adult patients. These children are often triaged and treated as adults, resulting in children being given the wrong triage categories and having their treatment delayed. EDs have problems giving drugs to children, staff are unfamiliar with children’s emergency care, and children find EDs frightening. A paediatric emergency short stay unit (PESSU) was opened at Caboolture Hospital, Queensland, Australia, in January 2014. Admission to the PESSU has significantly reduced waiting times for children arriving at the ED and enabled specialist nursing and medical care to be provided quickly. This has been supported by the development of the paediatric flow nurse role (Gray et al 2016).


The readiness of a child or young person for discharge includes patient safety, the family's ability to care for the child at home and the ongoing treatment they will need, which has a direct influence on their health outcomes and future readmissions to hospital. There are no standard criteria for discharge practice and registered nurses have reported concerns about their ability to provide education and discharge planning to meet the needs of the patient and their family. A literature review was carried out to ascertain the current discharge principles adhered to in practice and the implemented tools used. The problems faced by registered nurses include ineffective communication, poorly defined role in discharge planning and lack of agreement with the multidisciplinary team. The standardisation of discharge procedures may reduce the risk of readmission and health deterioration of the patient and ensure positive health outcomes, improve family health literacy and continuity of care;


Non-invasive cardiac output monitoring techniques provide high yield, low risk mechanisms to identify and individually treat shock in the emergency setting. The non-invasive ultrasonic cardiac output monitoring (USCOM) device uses an ultrasound probe applied externally to the chest; however limitations exist with previous validation strategies. This study presents the in vitro validation of the USCOM device against calibrated flow sensors and compares user variability in simulated healthy and septic conditions. A validated mock circulation loop was used to simulate each condition with a range of cardiac outputs (2-10 l/min) and heart rates (50-95 bpm). Three users with varying degrees of experience using the USCOM device measured cardiac output and heart rate by placing the ultrasound probe on the mock aorta. Users were blinded to the condition, heart rate and cardiac output which were randomly generated. Results were reported as linear regression slope (β). All users estimated heart rate in both conditions with reasonable accuracy (β = 0.86-1.01), while cardiac output in the sepsis condition was estimated with great precision (β = 1.03-1.04). Users generally overestimated the cardiac output in the healthy simulation (β = 1.07-1.26) and reported greater difficulty estimating reduced cardiac output compared with higher values. Although there was some variability between users, particularly in the healthy condition (P < 0.01), all estimations were within a clinically acceptable range. In this study the USCOM provided a suitable measurement of cardiac output and heart rate when compared with our in vitro system. It is a promising technique to assist with the identification and treatment of shock;

A voluntary, anonymous, cross-sectional online survey was conducted among 997 Fellows of the Australian and New Zealand College of Anaesthetists, using an electronic questionnaire. Details about their demographics, employment, research experience and barriers they had encountered, their perception about research and their future intentions to participate in research, were collected. The survey response rate was 24.6%. At the time of the survey, 29% of the survey respondents were involved in research. Respondents currently involved in research were more likely to be practising at a tertiary hospital, to have previously presented at conferences, to believe in the importance of research and to intend to undertake further research training (P <0.05). Time constraints were the most commonly cited reason for not currently performing research. Those who were involved in research spent about 6.3 more hours per week in public practice than those who were not (P=0.012) and had about 4.4 more hours per week of non-clinical time (P <0.001). In terms of barriers encountered during previous projects, 91% of the respondents cited methodological issues, which included complicated ethics approval processes, difficulty in coordinating teams or recruiting participants, non-compliant patients and difficulty in publishing. Sixty-three percent of those surveyed believed more exposure to research activities during training would increase the number of anaesthetists involved in research and scholarly activities. Through this survey, we have identified several areas that, if satisfactorily addressed, could enhance interest and participation in research amongst anaesthetists in Australia and New Zealand.


Objective: There is little current evidence regarding which therapeutic agents are actually used within existing aeromedical services. The Greater Sydney Area Helicopter Emergency Medical Service operates a large, physician-staffed, multimodal, prehospital and interhospital retrieval service. The aim of the present study was to identify the range and frequency of drug, fluid and blood product use within our service.; Methods: This was a retrospective cross-sectional study. Case sheets relating to a 12 month period were inspected to identify the therapeutic agents used by retrieval teams during each mission. Corresponding case notes, demographic data (age, sex) and case data (prehospital vs interhospital, trauma vs medical) were extracted from an electronic database.; Results: Of 2566 missions, 848 were prehospital, 1662 interhospital and 56 mixed. Prehospital missions were associated with fewer agents per case (median, 2 vs 3) and a narrower range of agents overall (45 vs 117) compared to interhospital missions. In both mission types, the most frequently used agents included morphine, fentanyl, Hartmann’s solution, ketamine, rocuronium, ondansetron and midazolam. Noradrenaline, propofol and metaraminol were used frequently in interhospital missions only. A number of stocked and unstocked agents were used less commonly, or not at all, over the study period.; Conclusions: The results of the present study form a practical guide to aid prehospital and retrieval services in establishing or reviewing their medical agent formularies. Key practice points illuminated by the data provide insights into current practice in critical care. There remains a clear need for similar studies from other services worldwide.; © 2016 Australasian College for Emergency Medicine and Australasian Society for Emergency Medicine.


Background: Ectopic pregnancy post-hysterectomy is an exceedingly rare event that has been reported fewer than 100 times in the literature. It is a dangerous diagnosis that is often missed and post-hysterectomy patients are rarely investigated for an ectopic pregnancy. Case: A 30-year-old woman presented to the emergency department following a 10-day history of progressive, severe lower abdominal pain and mild vaginal bleeding associated with subjective fevers, nausea and bloating. She had undergone an emergency total hysterectomy at caesarean section 3 years prior performed for intractable haemorrhage during an emergency caesarean section. On presentation she was alert and orientated but uncomfortable. Examination revealed tachycardia with a lowgrade fever of 37.8°C. Other vitals were normal. Abdomen was soft with significant suprapubic tenderness. Speculum examination revealed a small amount of old blood in the vault. Routine bloods fortuitously included a bHCG which returned positive at 2800 IU/L. Haemoglobin was 118 g/L. Pelvic ultrasound revealed an 87 × 48 × 69 mm large, illdefined heterogenous area superior to the vaginal vault. MRI abdomen reported no local invasion, pelvic lymphnodes or ascities were against advanced malignancy or choriocarcinoma, however germ cell tumour could not be excluded. Tumour markers were normal except for a Ca125 of 39 kU/L. CT chest did not show any signs of metastatic disease. Laparotomy 13 days later found an organised haematoma and bilaterally dilated fallopian tubes. Frozen section of the resected mass found no signs of malignancy. Final histology revealed a left fallopian tube showing recent rupture lined by organising haematoma with no products of conception noted. The diagnosis of ruptured tubal ectopic pregnancy was made from the elevated bHCG, pelvic haematoma and acute clinical picture. The patient's recovery was

Introduction: The medical oncology curriculum covers five domains including basic sciences, public health, professional qualities, basic principles of the management of cancer and specific cancers of the body. The fifth domain requires knowledge in the management of all cancers, specifically assessing, managing and treating cancers in specific areas of the body. The majority of clinical training in this domain is routinely performed in an outpatient setting with experience from new patient clinical encounters (NPCEs). We aimed to assess whether NPCE over 2 years addresses this part of the medical oncology curriculum. Methods: Basic clinical information and management from all NPCE seen from February 2014 to February 2016 in the medical oncology outpatient’s department over three sites in QLD, Australia, was collected prospectively. The diagnosis and management of patients were recorded. Results: In total, 290 patients were seen across three sites; site A (n = 96) over 6 months, site B (n = 72) over 6 months and site C (n = 122) over 12 months. The median age was 64 (range 21-93) years. Common sites of solid organ malignancies included breast (n = 70), gastrointestinal (n = 74), pulmonary (n = 31), prostate (n = 23), head and neck (n = 20), genitourinary (n = 16) and gynecological (n = 15). Other sites included melanoma (n = 8), central nervous system (n = 5), neuro-endocrine (n = 9), anal canal (n = 4), sarcoma (n = 1) and others (n = 14). The intent of treatment was curative in 164 patients. Prescribed drug treatment included chemotherapy (n = 151) and targeted agents including endocrine management (n = 49). Discussion: Our experience has shown that a medical oncology trainee in Queensland has exposure to a variety of clinical encounters and management approaches in multiple tumor streams. To assess, manage and treat cancers, NPCEs are a great learning opportunity. Areas of improvement include further exposure to sarcoma.A 3-year clinical training programme could address this and consolidate our training with a greater ability to make treatment decisions.
Introduction: Medical officer (MO) hand hygiene (HH) compliance has historically been below the national threshold of 70% and 17-18 percentage points lower than nursing staff. Routine HH audits have an external reporting focus and do not collect results by individual, team or practitioner level. This MO hand hygiene initiative aimed to improve HH compliance by focussing on awareness and barriers to compliance at Redcliffe Hospital.

Methods: Interns were trained and rostered to audit MO HH compliance for 1 hour during a two-week period in ward, emergency department and theatre settings. Interns did not audit their own team and used a photo-board to identify individuals. The audit was conducted in 2015 and 2016. Results were presented to medical staff. Monthly compliance was monitored by routine audit.

Results: Twenty interns audited 284 moments (72 MOs) in March 2015. Overall compliance was 69%; highest compliance was observed after a procedure (74%) and for registrars/principal house officers (71%). Barriers included accessibility of hand rub (n=32) and use of gloves without hand washing (n=9). In April 2016, 22 interns audited 333 moments (94 MOs). Overall compliance was 80% with highest compliance amongst interns (94%) and after touching a patient or procedure (87%). Inaccessibility of hand rub was low (n=4); gloves were used without hand washing in 6 cases. Mean compliance in the 14 months prior to each MO audit increased from 62% to 69% (p = 0.021).

Conclusion: MO involvement in training and peer review, combined with individual/team accountability, may contribute to improved HH compliance.


Background: To evaluate immunisation coverage, timeliness and predictors of delayed receipt in urban Australian Indigenous children during the first 18 months of life;

Methods: Cross-sectional retrospective analysis of data collected from 140 Australian Indigenous children aged < 5 years at the time of enrolment in a prospective cohort study on respiratory illness between 14 February 2013 and 28 January 2015. Children were recruited through an urban community primary health care centre in the Northern suburbs of Brisbane, Queensland.

Results: The proportion of children with completed immunisation schedules was 50 of 105 (47.6%) at 7 months, 30 of 85 (35.3%) at 13 months and 12 of 65 (18.5%) at 19 months. Timely receipt of diptheria-tetanus-pertussis decreased from 78.4% at 2 months of age to 63.7 and 59.3% at 4 and 6 months respectively. Amongst the 105 parents/guardians with children ≥7 months at enrolment, 71 (67.6%) incorrectly reported their child's immunisation status. Delayed vaccine receipt was significantly associated (p ≤0.05) with having multiple children in the household, mother's unemployment and premature birth.

Conclusions: Coverage and timeliness among this population is suboptimal and decreases as children age. Parent/guardian reporting of vaccination status was unreliable. Children of unemployed mothers and those with multiple siblings should be targeted to improve community immunisation timeliness due to a greater risk of vaccination delay. High quality trials, conducted in several settings to account for the diversity of Australian Indigenous communities are urgently needed to identify culturally appropriate, effective and sustainable strategies to improve immunisation targets in children.


Background: Before pandemic H1N1 vaccines were available, the potential benefit of existing seasonal trivalent inactivated influenza vaccines (IIV3s) against influenza due to the 2009 pandemic H1N1 influenza strain was investigated, with conflicting results. This study assessed the efficacy of seasonal IIV3s against influenza due to 2008 and 2009 seasonal influenza strains and against the 2009 pandemic H1N1 strain.

Methods: This observer-blind, randomized, placebo-controlled study enrolled adults aged 18-64 years during 2008 and 2009 in Australia and New Zealand. Participants were randomized 2:1 to receive IIV3 or placebo. The primary objective was to demonstrate the efficacy of IIV3 against laboratory-confirmed influenza. Participants reporting an influenza-like illness during the period from 14 days after vaccination until 30 November of each study year were tested for influenza by real-time reverse transcription polymerase chain reaction.

Results: Over a study period of 2 years, 15,044 participants were enrolled (mean age ± standard deviation: 35.5 ± 14.7 years; 54.4% female). Vaccine efficacy of the 2008 and 2009 IIV3s against influenza due to any strain was 42% (95% confidence interval [CI]: 30%; 52%), whereas vaccine efficacy against influenza due to the vaccine-matched strains was 60% (95% CI: 44%; 72%). Vaccine efficacy of the 2009 IIV3 against influenza due to the 2009 pandemic H1N1 strain was 38% (95% CI: 19%; 53%). No vaccine-related deaths or serious adverse events were reported.

Solicited local and systemic adverse events were more frequent in IIV3 recipients than placebo recipients (local: IIV3 74.6% vs placebo 20.4%, p < 0.001; systemic: IIV3 46.6% vs placebo 39.1%, p < 0.001).

Conclusions: The 2008 and 2009 IIV3s were efficacious against influenza due to seasonal influenza strains and the 2009 IIV3 demonstrated moderate efficacy against influenza due to the 2009 pandemic H1N1 strain. Funded by CSL Limited, ClinicalTrials.gov identifier NCT00562484; Copyright © 2016 The Authors. Published by Elsevier Ltd. All rights reserved.

Although the most common cause of cholecystitis is gallstones, other conditions may present as acute cholecystitis. We describe a case of eosinophilic cholecystitis with common bile duct stricture. A 36-year-old woman initially had generalised abdominal pain and peripheral eosinophilia. Diagnostic laparoscopy showed eosinophilic ascites and necrotic nodules on the posterior abdominal wall. She was treated with anthelmintics on presumption of toxacara infection based on borderline positivity of serological tests. She later presented with acute cholecystitis and had a cholecystectomy and cholecodotomy. Day 9 T-tube cholangiogram showed irregular narrowing of the distal common bile duct. The patient’s symptoms were improved with steroids and the T-tube was subsequently removed; 2016 BMJ Publishing Group Ltd.


Background: The non-operative time during the process of patient change-over between operating theatre cases is a significant source of delay and overall theatre inefficiency. The aim of this study was to integrate and trial a working strategy to improve this change-over time.; Method: This was a single-blinded, randomised controlled intervention study comparing a surgeon-led, team-based model of strategies versus routine patient change-over. This model was trialled by a single surgeon, and the primary outcome was the difference in change-over times compared with 4 other surgeons who were blinded and served as controls. Secondary outcome measures included overall differences in complications between the groups, and the number and differences in operative case cancellations due to inadequate theatre time.; Results: 1265 patients were randomised into 5 general surgical lists, and included all major and minor cases. Median number of operative cases were 214 per surgeon, with an overall median change over time of 17.9 ± 3.7 min. Surgeon A in the intervention group had a median change-over time of 12.1 ± 5.4 min (p < 0.001), with a median difference of 8.5 min ± 21.4 min (p < 0.0001), translating to a 58% reduction in median change-over time between the intervention and control groups. There were no differences in complication rates amongst the groups. The intervention group had no cancellations due to lack of time, compared with 37 cancellations in the control group.; Conclusion: This study demonstrates a statistically significant improvement in median change-over times using this model. This re-design can be implemented without incurring extra costs, staff, or operating theatres.; Copyright © 2016 IJS Publishing Group Ltd. All rights reserved.


Background: The presence of mucosal inflammation within appendicectomy specimens is poorly described in the literature, and there is debate regarding the clinical significance of this histological finding. The aim of this study is to correlate clinical and radiological data with histologically confirmed acute mucosal appendicitis (MA); Methods: A retrospective cohort study was performed to identify all patients who underwent appendicectomy over 5 years at Cabooclute Hospital. Data were collected in regards to clinical Alvarado score, pathological specimen findings, radiological findings and coincidental conditions, and comparison made between MA and negative appendicectomy groups.; Results: A total of 1347 appendicectomy specimens and data were reviewed. Of these, 219 (16%) specimens were microscopically confirmed to have acute mucosal inflammation, 150 (68%) were females. Median age was 19 ± 14 years. A total of 243 (18%) were histologically negative. There was a statistically significant difference in mean Alvarado score in the MA group (5.0 ± 1.9 versus 4.3 ± 1.8, P = 0.0002). Patients with MA are more likely to report migratory pain (48.4 versus 31.4%, P = 0.0001) and rebound tenderness (24.9 versus 14.6%, P = 0.002). Computed tomography and ultrasound scans were negative in 74.1 and 72.6%, respectively, in patients with MA. More MA patients benefited from appendicectomy compared with the negative appendicectomy group (82 versus 63%, P < 0.0001); Conclusion: There is a subgroup of patients with MA who are young females with low Alvarado scores, have non-diagnostic imaging, and may represent almost one-fifth of appendicectomy specimens. This study supports the probability that MA is a pathological entity.; © 2016 Royal Australasian College of Surgeons.

Introduction: De Garengeot hernia is a rare type of femoral hernia, defined as a sac containing a vermiform appendix. Due to its rare occurrence the information available on diagnosis and management is scarce. We report the use of a recently described technique for femoral hernia repair and appendicectomy.; Presentation Of Case: A 67 year old female presented to the emergency department with features of incarcerated femoral hernia. CT imaging revealed an incarcerated appendix within a femoral hernia. The patient subsequently underwent surgery, where the femoral hernia was repaired and appendicectomy performed concurrently.; Discussion: Clinical diagnosis is difficult, and there have only been a few documented cases of pre-operative CT diagnoses in the literature. The usual risk factors for developing a hernia would apply to this pathology, and other anatomical and embryological considerations are explored. The King’s College technique for femoral hernia repair involves an incision that allows repair of the hernia and also the ability to enter the peritoneal cavity using the same incision. This approach was used in this case, where the abdominal cavity had to be entered to perform the appendicectomy, before the femoral hernia could be repaired.; Conclusion: Pre-operative diagnosis of De Garengeot hernia is difficult, as it may mimic an incarcerated femoral hernia containing other contents. The diagnosis becomes apparent intra-operatively. The clinical significance lies in that intra-abdominal access may be required to safely perform an appendicectomy before the repair of the hernia defect, and this article includes a description of a suitable technique for this particular pathology.; Crown Copyright © 2015. Published by Elsevier Ltd. All rights reserved.


Objective: The aim of study was to assess the number of undetectable chronic acalculous cholecystitis cases on hepatobiliary iminodiacetic acid (HIDA) scan and role of cholecystectomy in clinical management of such cases. Methods: Retrospective data was collected from 2002 to 2014 for immunocompetent patients with recurrent biliary symptoms who had HIDA scan. The hospital records were interrogated for clinical outcome of such cases in terms of operative management and histological reports. Results: Clinical and radiological data of total 398 patients who had HIDA scans for recurrent biliary symptoms were collected. Out of 398 patients, 77 underwent cholecystectomy. All of them had histologically proven chronic cholecystitis. Those cases were reviewed in the retrospective order to see the results of their preoperative HIDA and USG scans. Forty-six chronic cholecystitis cases (59%) had negative preoperative USG and HIDA scans. Six-week clinical follow up showed improved symptoms after surgery. Thus after combining the true and falsely detected cases in the diagnostic tests, positive (21%) and negative predictive values (84%) of HIDA scan were calculated. Conclusion: In immunocompetent patients with recurrent biliary symptoms, image negative chronic cholecystitis should be considered as a separate disease entity and cholecystectomy is a justified treatment modality.


It has been identified that lymphedema management services within the northern sector of the Metro North Hospital Health Service (MNHHS) were not being delivered to the same capacity as those in the southern sector. A consultation process including consumers, MNHHS staff, private service providers and nongovernment organizations identified that development of a clinical pathway in accordance with best practice models could assist with the provision of improved services to the northern sector. This informed the development of the MNHHS Lymphoedema Clinical Pathway Project. The pathway was launched in April 2016, with evaluation exempt from ethics review. It seeks to link patients more effectively with available lymphedema management services and to improve the utilization of primary care services instead of hospital-based services. A government-funded program has increased the capacity for the identification and management of cancer-related lymphedema within primary care. The pathway recommends that patients are screened for their risk of developing cancer-related lymphedema and if risk is determined, they are monitored by a trained GP. The GP then refers to a trained community health professional to manage this lymphedema. To date, 37 community health professionals (GPs and practice nurses) have been trained in the early identification of lymphedema. Results from training indicate a 3.3-point increase in self-rated confidence and a 3.3-point increase in self-rated knowledge levels (on a 10-point scale) related to monitoring patients with risk for lymphedema. 38 patients have been screened and assessed to have lymphedema risk. NGO lymphedema referrals have increased up to 161% since nine NGO staff completed lymphedema management training. The intended outcome of this pilot is a decrease in reliance on the hospital as the primary center for lymphedema management, with potential application to other clinical services.


To determine the compliance, barriers, and effects of participation in a 4-week exercise intervention aimed at reducing risk factors for noncommunicable diseases among community-dwelling adults from a low-resourced area of South Africa. An exercise program and associated pre-posttest were performed by 76 participants (men, n = 26 and women, n = 50) aged 35 to 65 years. Baseline and end tests included height, weight, hip and waist circumference, heart rate, blood pressure, glucose, cholesterol, quality of life, and cardiorespiratory fitness measurements. The intervention consisted of 3 days/week combined aerobic and resistance exercise at an intensity of 70% heart rate reserved as determined at baseline. Compliance and barriers to participation were determined post-intervention by means of attendance registers and interviews. ANCOVA with adjustment for pretest was performed for all repeated variables. The Cronbach’s alpha coefficients for exercise benefits were 0.81 and for barriers 0.84. Of the 26 men (40.8 ± 5.45 years) and 50 women (43.6 ± 7.8 years) recruited, 54 completed the intervention (71% compliance). The 4-week aerobic exercise intervention significantly reduced body mass, rate of perceived exertion, and mental components summary in men, and body mass, body mass index, VO2max, rate of perceived exertion, glucose, physical components summary, and mental components summary in women. Participants reported that the exercise milieu as a major barrier to exercise compliance while the interviews reported lack of time. A 1-month exercise intervention elucidated positive changes in risk factors for noncommunicable diseases in a low-resource community. A drop-out rate of 29% in this study is consistent with other exercise intervention trials. Exploration of the reported barriers may be useful for planning to increase compliance with future programs.; © The Author(s) 2016.


Aim: To characterise usage and monitoring of intravenous tobramycin in cystic fibrosis (CF) patients in Australia and the UK. Methods: An anonymous, online survey of healthcare professionals caring for CF patients was conducted. Survey questions were designed to obtain information on tobramycin dosing, therapeutic drug monitoring and toxicity monitoring. Results: The survey was sent to pharmacists and clinicians in 73 CF centres. Responses were received from 32 and 40 healthcare professionals, from Australia and the UK, respectively. Once-daily dosing of tobramycin was the preferred administration regimen for 93.8 and 67.5% of participants in Australia and the UK, respectively. Among them 68.8% of Australian and 55% of UK participants initiated tobramycin therapy at a dose of 10 mg/kg/day or greater. Australian participants most commonly adjusted tobramycin dosage using log-linear regression analysis (40.6%) or trough measurements (28.1%). UK participants most commonly adjusted tobramycin dosage using trough (55%) or peak and trough measurements (37.5%). In 90.6% of Australian and 95% of UK participants practices, serum creatinine was routinely monitored during admission. Standard pure tone audiometry was performed by 15.6% of Australian and 17.5% of UK participants and high-frequency pure tone audiometry was performed by 15.6% of Australian and 10% of UK participants, once or twice a year. Conclusions: Many discrepancies exist between Australia and the UK and within each country with respect to monitoring of intravenous tobramycin in CF patients. Greater ototoxicity monitoring is likely necessary in both countries. Further education of health professionals about the existence of national guidelines and guidance on how they can be applied in practice is likely required.


Background: As CC becomes increasingly complex clinicians face the challenge of meeting patients’ holistic care needs within limited time. Moreover, inefficient information technology systems (ITS) and multiple OST can impact upon time spent on direct CC. We explored the quantity of OST in OOE.

Methods: Two separate focus groups were conducted at a tertiary institution with oncology specialists (5) and trainees (5) to explore scope of OST required in each OOE. Content analysis was performed to define: Core, Contested, and Peripheral tasks related to direct CC. Core tasks were excluded. Contested and Peripheral tasks were further grouped into 4 themes: Script, Wait, Chase, and Consent. An audit tool was devised under these 4 themes and consensus obtained for OST item list. A prospective audit was then performed over a 2 week period for OOE at 2 tertiary institutions. Frequency data per task were

Anticoagulant and antiplatelet drugs are important standard therapies used to prevent clot formation in the treatment and prevention of cardiovascular and cerebrovascular diseases. Recent advances in these therapies have seen the introduction of a number of new oral anticoagulant and antiplatelet drugs available in Australian clinical practice. These drugs although equally effective than their predecessors still may pose a risk to patients who use these in combination with complementary and alternative medicines (CAMs). This paper aims to provide an overview of the new oral anticoagulant and antiplatelet agents and highlight the current paucity of research which exists regarding how these agents interact with CAMs.


Introduction There is growing evidence for natural recovery from cannabis use by people with psychosis, but mechanisms underpinning it need further exploration. This study prospectively explored this issue. Method Twenty-two people with psychosis and cannabis misuse were recruited: 19 provided data for at least one follow-up assessment, and 13 of these (68%) reduced or ceased using cannabis. A semi-structured interview with the latter group explored reasons for initiating the attempt, strategies they employed, and context/s where any relapse occurred. Interpretative phenomenological analysis was used to identify themes. Results Participants who reduced or ceased cannabis use had fewer negative symptoms at Baseline, and were more likely to only use cannabis. Major reasons for starting an attempt were worsening mental health, relationship and lifestyle difficulties. Effective strategies fell into psychological, relationship, lifestyle and medication themes. Only three participants reported a relapse: triggers involved substance-using peers, relationship difficulties, and problems with negative emotions including ones from past trauma. Conclusions An encouragingly high rate of maintained reductions in cannabis use was seen. Increased awareness of the benefits across multiple life domains from addressing cannabis use may be critical to the initiation and maintenance of attempts, both to maximise motivation, and avoid over-dependence on improvements in any single domain. Negative symptoms, multiple substance use, dysphoria and pressure from substance-using peers clearly offer additional challenges for control.


The need to address substance use among people with psychosis has been well established. However, treatment studies targeting substance use in this population have reported mixed results. Substance users with psychosis in no or minimal treatment control groups achieve similar reductions in substance use compared to those in more active substance use treatment, suggesting a role for natural recovery from substance use. This meta-analysis aims to quantify the amount of natural recovery from substance use within control groups of treatment studies containing samples of psychotic substance users, with a particular focus on changes in cannabis use. A systematic search was conducted to identify substance use treatment studies. Meta-analyses were performed to quantify reductions in the frequency of substance use in the past 30 days. Significant but modest reductions (mean reduction of 0.3-0.4 SD across the time points) in the frequency of substance use were found at 6 to 24 months follow up. The current study is the first to quantify changes in substance use in samples enrolled in no treatment or minimal treatment control conditions. These findings highlight the potential role of natural recovery.
from substance use among individuals with psychosis, although they do not rule out effects of regression to the mean. Additionally, the results provide a baseline from which to estimate likely changes or needed effects sizes in intervention studies. Future research is required to identify the processes underpinning these changes, in order to identify strategies that may better support self-management of substance use in people with psychosis.; Crown Copyright © 2016. Published by Elsevier B.V. All rights reserved.


Thromboangiitis obliterans is an uncommon nonatherosclerotic segmental inflammatory disease that predominantly affects the small and medium-sized arteries and veins of the distal extremities. It was first described in 1879 and is also known as Buerger’s disease. Buerger’s usually begins with ischemia of small vessels producing digital infarcts and may progress to more proximal arteries and veins, producing claudication of the feet, legs, hands, or arms. Tobacco smoking is essential to the initiation and the progression of disease and it typically occurs in males under the age of 45 years. Although Buerger’s most commonly affects the arms, hands, legs, and feet, it has also been reported in other vascular beds including cerebral, coronary, renal, mesenteric, and pulmonary arteries. There are also a small number of cases involving the male genitalia. To our knowledge, there has only been one English case of Buerger’s involving the testis, published in 1940. Here, we present a new case of Buerger’s presenting as a testicular mass in a 17-year-old cannabis smoker.


Background: The objective of this study was to evaluate clinical outcomes from our initial experience with laparoscopic nephron sparing surgery (LNSS) for small renal masses in Australian practice.;

Methods: A retrospective review was performed on an initial 50 patients undergoing LNSS. All procedures performed between April 2006 and September 2012 were included with median follow-up of 30 months. Outcomes measured were: positive surgical margin, warm ischaemic time, total operative time, blood transfusion and complications in the first 30 days after surgery.;

Results: The mean age of patients was 57 years. The mean pre-operative creatinine was 85 μmol/L and the mean post-operative creatinine was 89 μmol/L. Sixty-four per cent of the tumours were malignant tumours. The mean size of tumours was 2.5 cm. There were two malignant positive surgical margins on histology. The mean total operative time was 224 min and the mean warm ischaemic time was 24 min. Nine patients had complications with Clavien-Dindo grade III or lower. There was no grade IV or V complication. No patients were lost to follow-up and there have been no tumour recurrences to date.;

Conclusions: LNSS is emerging as a viable alternative to open NSS for small renal tumours with lower morbidity and equivalent oncological and functional outcomes. There is, however, a steep learning curve associated with the procedure.; © 2015 Royal Australasian College of Surgeons.


Rationale: Optimization of β-lactam antibiotic dosing for critically ill patients is an intervention that may improve outcomes in severe sepsis.;

Objectives: In this individual patient data meta-analysis of critically ill patients with severe sepsis, we aimed to compare clinical outcomes of those treated with continuous versus intermittent infusion of β-lactam antibiotics.;

Methods: We identified relevant randomized controlled trials comparing continuous versus intermittent infusion of β-lactam antibiotics in critically ill patients with severe sepsis. We assessed the quality of the studies according to four criteria. We combined individual patient data from studies and assessed data integrity for common baseline demographics and study endpoints, including hospital mortality censored at 30 days and clinical cure. We then determined the pooled estimates of effect and investigated factors associated with hospital mortality in multivariable analysis.;

Measurements and Main Results: We identified three randomized controlled trials in which researchers recruited a total of 632 patients with severe sepsis. The two groups were well balanced in terms of age, sex, and illness severity. The rates of hospital mortality and clinical cure for the continuous versus intermittent infusion groups were 19.6% versus 26.3% (relative risk, 0.74; 95% confidence interval, 0.56-1.00; P = 0.045) and 55.4% versus 46.3% (relative risk, 1.20; 95% confidence interval, 1.03-1.40; P = 0.021), respectively. In a multivariable model, intermittent β-lactam administration, higher Acute Physiology and Chronic Health Evaluation II score, use of renal replacement therapy, and infection by nonfermenting gram-negative bacilli were significantly associated with hospital mortality. Continuous β-lactam administration was not independently associated with clinical cure.;

Conclusions: Compared with intermittent dosing, administration of β-lactam antibiotics by continuous infusion in critically ill patients with severe sepsis is associated with decreased hospital mortality.;

Aim: To investigate the indications for, side effects and diagnostic utility of computed tomography coronary angiography (CTCA) in a small peripheral hospital over a six month period. The study also aimed to evaluate MACE (major adverse cardiac events) in patients with minor or normal CTCA results at thirty-six months. Results: A total of 50 patients had a CTCA during the 6 month period. The primary indication for CTCA is provided in Table 1. Twelve out of 50 patients had a TIMI score ≥3. A total of 15 patients had more than mild (>50%) stenosis on CTCA. Of these “positive” results 3/15 had more than moderate (>70%) stenosis and underwent invasive coronary angiography (ICA). The positive predictive value (PPV) was 66%, when compared with ICA.35 out of 50 patients had mild (<50% stenosis) or normal coronary arteries. Of these 35 patients, one patient went on to have a cardiac arrest complicating a myocardial infarction 6 months following CTCA. No other adverse events were recorded, giving a follow-up MACE rate of 2.85%. There were no documented adverse events related to performance of the CTCA test (Table presented). Conclusion: In a small peripheral hospital, CTCA demonstrated a low MACE rate in patients with normal or only minor disease. Furthermore, CTCA was tolerated well with no adverse side effects documented.


Objective: Wide implementation of off-pump coronary artery bypass grafting (OPCAB) into the clinical practice raised the question of feasibility of this type of surgery in the high risk patients such as with left main stem coronary artery disease. As a matter of fact, conventional coronary artery bypass surgery (CABG) with cardiopulmonary bypass in these patients is associated with high frequency of complications and mortality. The aim of the study was to analyse the results of OPCAB surgery in the patients with stem coronary artery disease. Methods: A comparative analysis of the results of CABG in 96 patients with coronary artery disease operated on at our hospital in the year 2014 was done. The patients were divided into two groups: the first group consisted of 32 patients with left main stem coronary artery disease (33.3%), and the second group included 64 patients with nonstem coronary artery disease (66.7%). Both groups were similar by gender, age and clinical and functional parameters. Male patients represented majority (90.6%) whereas female patients were 85.5%. Acute coronary syndromes were present in 45.2% of the first group patients, and in 54.9% of the second group patients. Results: The mean quantity of grafts in the patients of the first group was 2.8 (range, 1 to 4 grafts) and 2.9 in the second group of patients (range, 1 to 4 grafts). Longevity of the operations in the first and second group of patients was 284.5 + 15 minutes and 279 + 10.2 minutes, respectively. There was no mortality in our study. Inotropic support was required intraoperatively and immediate after surgery in 4 patients of the first group (12.5%) and in 6 patients of the second group (9.4%). The mean intensive care unit (ICU) stay was 19.2 ± 1.06 hours in the first group and 18.7 ± 3.2 hours in the second group. The frequency of non-fatal complications (perioperative myocardial infarctions, prolonged ventilation, bleeding, arrhythmias, cerebrovascular accidents and others) was more in the first group (4 patients, 12.5%) versus the second group (7 patients, 10.9%). Conclusions: OPCAB surgery is feasible for patients with left main stem coronary artery disease and it provides acceptable results with low complications and mortality rate.


Introduction: The sessile neoplasia pathway accounts for between 15% and 35% of colorectal carcinoma. Detection of these polyps is increasingly recognized as the new qualitative target for colonoscopy. However, they are more challenging to detect during colonoscopy as they are more difficult to see than adenomas. This study aimed to compare the polyp detection rates between gastroenterologists and general surgeons in a single institution over a 12-month period. Methods: A retrospective review was performed where colonoscopy data were obtained from a single institution from 1 January 2015 to 31 December 2015 by using Provation software. Polyp detection rate (PDR), adenoma detection rate (ADR), proximal serrated polyp detection rate (PSPDR), and hyperplastic polyp detection rate (HPDR) along with withdrawal times were determined for comparison amongst surgeons and gastroenterologists. The associations between these parameters were assessed by calculating the Pearson r correlation coefficient. All lesions were assessed histopathologically by senior consultant histopathologists at a tertiary laboratory. Results: All patients who underwent an elective colonoscopy in the year 2015 were analyzed. A total of 1,003 patients underwent colonoscopy by either a gastroenterologist or a general surgeon during this time. The overall PSPDR was 9.4%. The gastroenterologists group had a significantly higher PDR (73.5% vs. 63.1%; P = 0.048) and PSPDR (19.1% vs. 5.6%; P < 0.0001) than the surgeons. The ADR was also higher in the gastroenterologists group; however, this was not significant (48.4% vs. 45.8%;
The stigmatisation of pregnancy: societal influences on pregnant women

Abstract Many women going through the major life transition of pregnancy experience decreases in physical activity behaviour, which may compromise maternal and infant health and wellbeing. Although research suggests that the social environment plays a large role in influencing women's physical activity behaviour, little is known about the association between societal attitudes and physical activity behaviour during the course of pregnancy. Through a qualitative longitudinal study, we explored women's physical activity experiences throughout pregnancy and how these were formed, supported and/or opposed by their social environment. This research included telephone interviews with 30 pregnant participants, recruited via a regional public hospital. Using a feminist standpoint analysis incorporating modern dialectics, three major tensions were identified, reflecting dominant societal discourses around physical activity and pregnancy: (1) engaging in physical activity and keeping the baby safe, (2) engaging in physical activity and obtaining social approval and (3) listening to oneself and to others. These findings present previously unrecognised opportunities for developing tailored and effective physical activity interventions among pregnant women.

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Simulation is increasingly valued as a teaching and learning tool in emergency medicine. Bringing simulation into the workplace to train in situ offers a unique and effective training opportunity for the emergency department (ED) multiprofessional workforce. Integrating simulation in a busy department is difficult but can be done. In this article, we outline 10 tips to help make it happen.; Published by the BMJ Publishing Group Limited. For permission to use (where not already granted under a licence) please go to http://www.bmj.com/company/products-services/rights-and-licensing/


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A necessary step to evaluating practice is the accurate specification of social work interventions. Interventions delivered to 27 families with a relative with traumatic brain injury (TBI) admitted to a specialist inpatient brain injury rehabilitation service were coded (655 hr of social work services). The most frequent interventions were counseling, education, and case management. Services addressed person-oriented (65%; e.g., adjustment to hospital, adjustment to disability, family conflict) and environment-oriented (35%; e.g., transport, accommodation, finance, legal, and immigration) issues. This is the first description of a family intervention program after TBI delivered in an inpatient setting and lays the groundwork for future evaluation;


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Abstract Many women going through the major life transition of pregnancy experience decreases in physical activity behaviour, which may compromise maternal and infant health and wellbeing. Although research suggests that the social environment plays a large role in influencing women's physical activity behaviour, little is known about the association between societal attitudes and physical activity behaviour during the course of pregnancy. Through a qualitative longitudinal study, we explored women's physical activity experiences throughout pregnancy and how these were formed, supported and/or opposed by their social environment. This research included telephone interviews with 30 pregnant participants, recruited via a regional public hospital. Using a feminist standpoint analysis incorporating modern dialectics, three major tensions were identified, reflecting dominant societal discourses around physical activity and pregnancy: (1) engaging in physical activity and keeping the baby safe, (2) engaging in physical activity and obtaining social approval and (3) listening to oneself and to others. These findings present previously unrecognised opportunities for developing tailored and effective physical activity interventions among pregnant women.

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An association between non-opioid analgesic agents and chronic kidney disease has long been suspected. The presumed development of chronic renal impairment following protracted and excessive use of non-opioid analgesia is known as analgesic nephropathy. Many clinicians accept analgesic nephropathy as a real entity despite the paucity of scientific evidence. This narrative review aims to summarize the literature in the field. The weight of available observational literature suggests that long-term ingestion of paracetamol and combination mixtures of aspirin and paracetamol are likely to contribute to chronic renal impairment. However, there is no convincing data to implicate non-steroidal anti-inflammatory drugs or aspirin monotherapy in the development of analgesic nephropathy. In the absence of high-level evidence, while controversy persists, it may be prudent for physicians to consider all non-narcotic analgesics to be nephrotoxic with long-term use.


Background: The term renal tubular acidosis (RTA) describes a group of uncommon kidney disorders characterized by defective acid-base regulation. Reaching the diagnosis of RTA is complex and often delayed, resulting in suboptimal treatment; Methods: This article provides an overview of the clinical features of RTA and diagnostic approaches in a format accessible to physicians for everyday use; Results: The 3 major forms of disease are classified by their respective tubular transport defects, each of which produces persistent hyperchloremic metabolic acidosis. Distal RTA is characterized by limited urinary acid secretion, proximal RTA by restricted urinary bicarbonate reabsorption, and hyperkalemic RTA by absolute or relative hypoaldosteronism. RTA is often detected incidentally as a biochemical diagnosis in asymptomatic individuals. When present, clinical features may range from mild nonspecific complaints to life-threatening physiologic disturbances.; Conclusion: RTA is a complex condition that requires thoughtful investigation. Physicians should be aware of the presentation of RTA and the investigative options available to confirm the diagnosis.;


Urinary tract cancers are common and comprise a gamut of lesions ranging from small benign tumors to aggressive neoplasms with high mortality. The predominant urinary tract malignancy is bladder cancer. The clinical challenge is early detection and adequate follow-up because recurrence is high and delayed diagnosis is associated with poor prognosis. Primary care physicians form a key part of the management apparatus for these patients and may be responsible for ensuring adequate ongoing surveillance. This article aims to outline the evaluation of patients in whom urinary tract cancer is suspected and briefly review the general principles of treatment.;


Introduction Computer tomography colonoscopy (CTC) is an increasingly prevalent procedure for the investigation of colorectal symptoms, or as a component of colorectal cancer screening. It is considered a low risk procedure, however colonic perforation is a recognized significant complication. Case Report We report the case of an 81-year-old female patient who underwent CTC after failed optical colonoscopy as part of routine colorectal cancer screening. Perforation of the rectum with surrounding pararectal air was confirmed on CTC. The patient had minimal symptoms and was treated successful non-operatively with bowel rest and antibiotics. Conclusion Perforation sustained during CTC is an uncommon complication. The incidence of perforation during CTC is still lower than that during optical colonoscopy. In the absence of significant abdominal signs and symptoms, this rare complication may be successfully managed non-operatively;