
OBJECTIVE: To investigate the risk of death from cardiovascular disease between patients who were and were not prescribed antihypertensive medication following stroke or TIA. METHODS: This was a large cohort study using routinely collected prospective data from the Australian Stroke Clinical Registry. Patients registered between 2009 and 2013 who were discharged to the community or rehabilitation were included. Cases were linked to the National Death Index to determine the date and cause of death. Propensity score matching with stratification was utilized to compare between similar subgroups of patients. Multivariable competing risks regression, with noncardiovascular death as a competing risk, was conducted to investigate the association between the prescription of antihypertensive medications and cardiovascular death at 180 days after admission. RESULTS: Among 12,198 patients from 40 hospitals, 70% were prescribed antihypertensive medications. Patients who were older, were treated in a stroke unit, and had better socioeconomic position were more often discharged from hospital with an antihypertensive medication. Including only patients within propensity score quintiles with acceptable levels of balance in covariates between groups (n = 8,786), prescription of antihypertensive medications was associated with a 23% greater reduction in the subhazard of cardiovascular death compared to those who were not prescribed these agents (subhazard ratio 0.77; 95% confidence interval 0.61 to 0.97).

CONCLUSIONS: People who are prescribed antihypertensive medications at discharge after a stroke or TIA demonstrate better cardiovascular and all-cause survival outcomes than those not prescribed these agents.


BACKGROUND: The laparoscopic approach to cholecystectomy has overtaken open procedures in terms of frequency, despite open procedures playing an important role in certain clinical situations. This study explored exposure and confidence of Australasian surgical trainees and new fellows in performing an open versus laparoscopic cholecystectomy. MATERIALS AND METHODS: An online survey was disseminated via the Royal Australasian College of Surgeons to senior general surgery trainees (years 3-5 of surgical training) and new fellows (fellowship within the previous 5 years). The survey included questions regarding level of experience and confidence in performing an open cholecystectomy and converting from a laparoscopic to an open approach. RESULTS: A total of 135 participants responded; 58 (43%) were surgical trainees, 58 (43%) were fellows and 19 (14%) did not specify their level of training. Respondents who were involved in more than 20 open cholecystectomy procedures as an assistant or independent operator compared with those less exposed were more likely to feel confident to independently perform an elective open cholecystectomy (87.8% vs. 57.3%, P=0.001), independently convert from a laparoscopic to open cholecystectomy (87.8% vs. 58.7%, P=0.001) and independently perform an open cholecystectomy as a surgical consultant based on their level of exposure as a trainee.


Echogenic bowel is a 'soft marker' on prenatal ultrasound, which can be associated with a variety of conditions including chromosomal disorders, intrapartum infections, antepartum events and cystic fibrosis. Identification of this marker should prompt a further search for other soft markers, structural defects and placental abnormalities. We explore three cases of echogenic bowel identified on routine ultrasound scan. The first case highlights the potential for echogenic bowel to be a benign feature. Echogenic bowel was identified at eighteen weeks, which was attributed to intra-amniotic haemorrhage and consequent fetal ingestion of blood products. In contrast, the next two cases highlighted the pathological causes of echogenic bowel. In case 2, echogenic bowel was identified at seventeen weeks with associated cystic hygromas. The fetus had positive testing for Turner syndrome, and notably, there was a family history of cystic fibrosis. The third case discusses a case of congenital cytomegalovirus infection, which was diagnosed with amniocentesis and maternal serology testing when echogenic bowel was identified. A review of the literature suggests that the risk of adverse outcomes is increased with the presence of multiple soft markers, associated deformities, poor growth, persistent echogenic bowel in the third trimester and increased echogenic resolution. Despite these factors, it is important to note the poor ultrasonographic sensitivity of less than 50% in neonates with congenital cytomegalovirus infection and the consequent importance of invasive testing. Therefore, we aim to propose an action plan for clinicians who identify echogenic bowel on prenatal scans in order to critically exclude detrimental pathology.


Background Effective communication between health professionals contributes to safe and efficient patient care, whereas communication breakdown can lead to adverse patient outcomes and increased healthcare expenditure. Information on how pharmacists and doctors communicate with each other in hospitals is limited. Objective To explore usage and perceptions of communication methods by doctors and pharmacists in hospital settings. Setting Four public hospitals in Australia. Method A mixed method study utilising a pilot questionnaire, semi-structured interviews, and electronic survey was designed. Frequentist statistics and logistic regression were used to analyse survey data. Thematic analysis was conducted to evaluate semi-structured interview data and free-text survey comments. MAIN OUTCOME MEASURES: Frequency of use of communication methods, perceptions of the convenience, time taken to use, accuracy and effectiveness of each method. Results More than 95% of doctors and pharmacists combined used face-to-face and phone calls to communicate with each other, 70% used a medication management plan, and 62% used progress notes. A preference for oral communication was confirmed with the expressed need for building professional rapport and receiving responses. Perceptions regarding effectiveness of oral communication methods were related to perceptions of their convenience and accuracy. Professional groups described differences in perceived ownership of various modes of communication. Conclusions Preferences for oral communication create potential issues with recall and comprehension. Integrating oral communication features into written communication methods, e.g. creating responses, conversations, building rapport, may change doctors' and pharmacists' perceptions of effectiveness. Communication receipt and response functionality in electronic medication and record management systems may improve communication.


Abdominal wall endometrioma () is a rare condition (incidence 1% following caesarean section) with a significant variation in clinical symptoms, imaging findings and interval between initial procedure and diagnosis. We present two cases with differing clinical presentations, may be difficult to diagnose pre-operatively, with as many as 75% of lesions diagnosed incorrectly prior to surgical excision. Ultrasonography is a useful tool in determining the extent of the endometrioma and can help exclude differential diagnosis such as hernia. Ultrasound appearance of is often variable however, the most common presentation is of a solid hypoechoic mass lesion with peripheral vascularity. Margins may be irregular and infiltrate the surrounding soft tissues. Lesions may be cystic or multicystic or may have both solid and cystic components. Power Doppler may demonstrate internal vascularity. If
ultrasound findings are inconclusive, computed tomography (CT) or magnetic resonance imaging (MRI) should be considered to assist in making the diagnosis. Ultrasound-guided fine needle aspiration of the lesion may assist in the diagnosis, but seeding of the needle tract has been reported and must be included in the resection margins. Sonoelastography has shown some promise in early studies for improving diagnostic accuracy for.


There is much debate between neonatologists and paediatricians about appropriate oxygen saturation targets for babies with chronic neonatal lung disease (CNLD). Overnight oximetry is used to guide the fraction of inspired oxygen to use. We did this literature review to examine the current literature on the use of overnight oximetry in term infants, preterm infants and babies with CNLD (especially relevant to ex-preterm babies with CNLD going home on oxygen). We reviewed the literature from January 1990 to October 2017 by searching the following databases: Cochrane Central Register of Controlled Trials, The Joanna Briggs Institute, CINAHL, MEDLINE, Scopus, EMBASE, ProQuest and Science Direct. Sixteen articles were included in the review. The literature available on overnight oximetry in neonates is limited, it is not contemporary, and it reports studies that did not use oximeters with modern software for data collection and analysis. It is imperative that reference ranges be defined for overnight oximetry parameters so that babies are not inadvertently administered inappropriate amounts of oxygen.


An 84-year-old male Jehovah's Witness presented to the emergency department 1 hour after onset of left facial droop and left upper limb weakness. Thrombolytic stroke treatment was commenced as per local thrombolytic protocol with intravenous recombinant tissue plasminogen activator (rtPA) at 2 hours and 25 min following onset of symptoms. Almost immediately after rtPA infusion the patient reported chest pain and had ECG changes consistent with a diagnosis of anterior ST elevation myocardial infarction. At angiogram, a graft study showed severe native coronary artery disease. The left internal mammary artery graft was patent to the left anterior descending artery (LAD); however, the apical LAD was occluded, with the appearance suggestive of embolic occlusion.


This paper reports on the Perinatal Mental Health and Wellness Project which aimed to develop and evaluate a collaborative model for mental health promotion, illness prevention and early intervention in the perinatal period. The project took on a place-based action research approach, developing and trialling the model with expectant parents (n=537) engaged with Redcliffe Hospital Maternity Services in the Metro North Hospital and Health Service in Queensland, Australia, from 2015 – 2017.

In Australia, at least 16% of expecting and new mothers and 10% of expecting and new fathers experience depression and/or anxiety to a clinically significant degree.1 Supporting and protecting the mental health and emotional wellbeing of expectant and new parents not only benefits the parents but has lifelong benefits for the infant, reducing demand for social and health services across the lifespan.

Based on this evidence and the identified need for more effective models of promotion, prevention and early intervention in perinatal mental health, a collaborative project was developed. The project was jointly funded by the Queensland Mental Health Commission and the Statewide Maternity and Neonatal Clinical Network, Clinical Excellence Division, with in-kind support from participating organisations including Children's Health Queensland Hospital and Health Service, Metro North Hospital and Health Service, Hope's Room Incorporated, and Women's Health Queensland Wide.

A key component of the model included closer collaboration among public health services, non-government services and peer-led services, to provide information and resources to support the emotional health and wellbeing of expectant and new parents and their infants and families. This was achieved by the establishment of new relationships between project partner organisations and the First 5 Forever Program, Moreton Bay Regional Council, Playgroup Queensland and Brisbane North Primary Health Network, which resulted in their collaborative contribution to the model of service.

Project findings support the premise that partnerships and collaborations have the benefit of bringing together varied skills and resources for more successful outcomes. Collaborative partnerships require a clear purpose, add value to the work of partners and have a bigger impact than if partners were working alone. Our project was mindful of these factors in creating a successful collaboration.
Feedback received from members of the collaboration indicates that the establishment and strengthening of relationships has resulted in increased connectedness of the community sector with the health sector, co-production and co-branding of resources, review and improvement to referral processes and increased opportunities to engage with fathers which otherwise would have been limited.

Cross-sectoral collaboration, especially the initial building of relationships, requires considerable time and effort. While such an innovative project presented challenges at many levels, evaluation has been overwhelmingly positive and the model is seen as holding considerable promise for implementation in other areas.

References:


An 83-year-old female presented to the Emergency Department with a 12-month history of left-sided abdominal pain, nausea but no vomiting and poor oral intake. She had lost 6 kg of body weight over this time. Colonoscopy 3 years prior was normal.


Minimally invasive approaches to hysterectomy have been shown to be safe, effective and have recovery advantages over open hysterectomy, yet in Australia 36% of hysterectomies are still conducted by open surgery. In 2006, a survey of Australian gynaecological specialists found the main impediment to increasing laparoscopic hysterectomy to be a lack of surgical skills training opportunities. We resurveyed specialists to explore contemporary factors influencing surgeons’ approaches to hysterectomy; 258 (estimated ~19%) provided analysable responses. Despite >50% of surveyed specialists wishing to practise laparoscopic hysterectomy in the future, lack of surgical skills, arising from the lack of training opportunities, remains the main impediment.


Herpes zoster is a common viral infection, which is frequently seen in elderly or immunocompromised patients. It usually presented with painful neuropathy. However, it can rarely manifest as motor weakness. An 82-year-old male presented with L2–L4 myotomal weakness two-week post shingles. Diagnosis was made based on only history taking and physical examination. Other possible differential diagnoses were ruled out through imaging and blood tests at that time. The patient made good recovery through analgesia and physiotherapy. Postherpetic spinal segmental paralysis is a rare complication arising from shingles. There was no consensus on diagnostic criteria and the underlying pathophysiology is still poorly understood. The main treatment modality of this condition is intensive physiotherapy and pain management.


The delivery of public out-patient services is an essential part of complex healthcare systems, but the contribution of public out-patient services is often ill defined and poorly evaluated. The aim of this study was to identify and better understand those factors that may affect the performance of out-patient services to provide health service managers, clinicians and executives with a conceptual framework for future decision-making processes. The present qualitative research involved five exploratory case studies. These case studies were conducted across two specialties at hospitals in the Metro North Hospital and Health Service in Queensland. Data were obtained from 38 interviews and 15 focus groups, and were analysed to identify common themes. Further analysis helped identify the most significant factors and build a conceptual framework for understanding the relationships between those factors and their effect on performance. Across both specialties there were 10 factors (scheduling, performance, service framework, categorisation or prioritisation of patients, internal and external stakeholders, resources, service demand, culture, system challenges and medical stakeholders) identified that may affect the performance of out-patient services. These factors were condensed into five core domains: culture, stakeholders, resources, demand and system reform. Strategies to address the five core domains identified may provide a framework for sustainable improvement in the delivery of out-patient services. The provision of specialist out-patient services is an essential element of health service delivery. Access to specialist services in the public sector is challenging because of the escalating demand associated with an increasing and aging demographic. The factors that may affect the delivery of out-patient services need to be addressed for long-term sustainable improvement. This paper provides a conceptual framework grounded in rigorous qualitative data analysis for understanding the internal and external factors that affect waiting times for specialist out-patient services. The results of this qualitative research indicate that there are five core domains that may influence waiting times in the public out-patient setting. When these domains are addressed at the strategic, tactical and operational levels, they have the potential to provide significant improvement in the delivery of out-patient services. This paper guides the attention of relevant stakeholders towards the five core domains identified (culture, stakeholders, resources, demand and system reform) that influence the performance of waiting times at the operational, tactical and strategic levels within the public hospital setting.


Jane Orbell-Smith, Health Librarian for Redcliffe and Caboolture Hospital Libraries, discusses the role that librarians might play in a scoping review, helpfully articulating differences between them and systematic reviews, and clearly detailing the steps involved in ensuring that they meet client needs.


Background: Chronic wounds are a silent epidemic in Australia. They are an under-recognised public health issue, and their significant health and economic impact is underestimated. Evidence-based practice in wound care has significant health and economic benefits, yet there are still considerable evidence-practice gaps. Methods: Stakeholders attended a national forum to refine and prioritise solutions to the chronic wounds problem in Australia. A survey was administered to identify key priorities and recommendations. Results: Stakeholders agreed on 17 recommendations and strategies to improve the outcomes of Australians with chronic wounds. The identified priorities for immediate action were to raise awareness of the significance of chronic wounds, and to make chronic wounds a strategic priority for governments. The Chronic Wounds Solutions Collaborating Group was established to encourage, support and monitor action on the implementation of these recommendations. Conclusions: Large health and economic gains can be achieved with modest investments in evidence-based strategies for the prevention and control of chronic wounds in Australia. We call for a critical and sustained national effort to prevent and treat chronic wounds in Australia. Urgent action is needed at all levels if Australia is to reduce the significant preventable burden of chronic wounds and improve patient outcomes.
The use of social media platforms to disseminate information, translate knowledge, change clinical care.


The use of social media platforms to disseminate information, translate knowledge, change clinical care and create communities of practice is becoming increasingly common in emergency and critical care. With this adoption come new lines and methods of inquiry for research in healthcare. While tools exist


Objective: Piperacillin-tazobactam is a commonly used antibiotic in critically ill patients; however, controversy exists as to whether mortality in serious infections can be decreased through administration by prolonged infusion compared with intermittent infusion. The purpose of this systematic review and meta-analysis was to describe the impact of prolonged infusion piperacillin-tazobactam schemes on clinical endpoints in severely ill patients. Design: We conducted a systematic literature review and meta-analysis searching MEDLINE, Cumulative Index to Nursing and Allied Health Literature, and the Cochrane Library from inception to April 1, 2017, for studies. Interventions: Mortality rates were compared between severely ill patients receiving piperacillin-tazobactam via prolonged infusion or intermittent infusion. Included studies must have reported severity of illness scores, which were transformed into average study-level mortality probabilities. Measurements and main results: Two investigators independently screened titles, abstracts, and full texts of studies meeting inclusion criteria for this systematic review and meta-analysis. Variables included author name, publication year, study design, demographics, total daily dose(s), average estimated creatinine clearance, type of prolonged infusion, prevalence of combination therapy, severity of illness scores, infectious sources, all-cause mortality, clinical cure, microbiological cure, and hospital and ICU length of stay. The review identified 18 studies including 3,401 patients who received piperacillin-tazobactam, 56.7% via prolonged infusion. Across all studies, the majority of patients had an identified primary infectious source. Receipt of prolonged infusion was associated with a 1.46-fold lower odds of mortality (95% CI, 1.20-1.77) in the pooled analysis. Patients receiving prolonged infusion had a 1.77-fold higher odds of clinical cure (95% CI, 1.24-2.54) and a 1.22-fold higher odds of microbiological cure (95% CI, 0.84-1.77). Subanalyses were conducted according to high (≥ 20%) and low (< 20%) average study-level mortality probabilities. In studies reporting higher mortality probabilities, effect sizes were variable but similar to the pooled results. Conclusions: Receipt of prolonged infusion of piperacillin-tazobactam was associated with reduced mortality and improved clinical cure rates across diverse cohorts of severely ill patients.
to standardize the reporting of clinical studies and systematic reviews, there is no agreed framework for examining social media–based research. This article presents a publication and appraisal checklist for such work and invites further collaboration in the form of a Delphi technique to clarify, expand, improve, and validate the proposal.


Background: An ectopic pregnancy after hysterectomy is a rare but potentially life-threatening event. Women with this condition might not be appropriately investigated, resulting in delays in diagnosis and treatment.; Objectives: To characterize cases of ectopic pregnancy occurring after hysterectomy.; Search Strategy: PubMed, Embase, Scopus, and Web of Science were searched using the terms "pregnancy, abdominal" or "pregnancy, tubal" or "pregnancy, ectopic" and "hysterectomy" or "post-hysterectomy" or "post hysterectomy."; Selection Criteria: Case reports or case series published in English up to October 10, 2016, were included. Patients were included if the diagnosis was confirmed by definitive tests such as serum or urine β-human chorionic gonadotropin (β-hCG) testing, ultrasonography evidence of pregnancy, or histology.; Data Collection and Analysis: Patient characteristics were extracted via a standard spreadsheet.; Main Results: A total of 57 patients were included in the analysis. Abdominal pain was the predominant symptom. Implantation in a remaining fallopian tube was common. Most patients were managed surgically.; Conclusions: A high index of suspicion and a low threshold for performing a β-hCG pregnancy test is recommended in all women presenting with clinical symptoms of ectopic pregnancy, regardless of the hysterectomy status. This could lead to earlier diagnosis and fewer complications.; © 2017 International Federation of Gynecology and Obstetrics.


INTRODUCTION: Central nervous system oxygen toxicity (CNS-OT) is an uncommon complication of hyperbaric oxygen treatment (HBOT). Different facilities have developed local protocols in an attempt to reduce the risk of CNS-OT. This audit was performed to elucidate which protocols might be of benefit in mitigating CNS-OT and to open discussion on adopting a common protocol for Treatment Table 14 (TT14) to enable future multicentre clinical trials. METHODS: Audit of CNS-OT events between units using different compression profiles for TT14, performed at 243 kPa with variable durations of oxygen breathing and ‘air breaks’, to assess whether there is a statistical difference between protocols. Data were collected retrospectively from public and private hyperbaric facilities in Australia and New Zealand between 01 January 2010 and 31 December 2014. RESULTS: Eight of 15 units approached participated. During the five-year period 5,193 patients received 96,670 treatments. There were a total of 38 seizures in 33 patients when all treatment pressures were examined. In the group of patients treated at 243 kPa there were a total of 26 seizures in 23 patients. The incidence of seizure per treatment was 0.024% (2.4 per 10,000 treatments) at 243 kPa and the risk per patient was 0.45% (4.5 in 1,000 patients). There were no statistically significant differences between the incidences of CNS-OT using different TT14 protocols in this analysis. CONCLUSION: HBOT is safe and CNS-OT is uncommon. The risk of CNS-OT per patient at 243 kPa was 1 in 222 (0.45%; range 0-1%) and the overall risk irrespective of treatment table was 0.6% (range 0.31-1.8%). These figures are higher than previously reported as they represent individual patient risk as opposed to risk per treatment. The wide disparity of facility protocols for a 243 kPa table without discernible influence on the incidence of CNS-OT rates should facilitate a national approach to consensus.


INTRODUCTION: Hyperbaric oxygen therapy (HBOT) is widely used for the treatment of the late effects of radiation therapy. We report a prospective observational cohort study of 51 patients designed to examine the effectiveness of hyperbaric oxygen treatment (HBOT) for xerostomia following radiotherapy. METHODS: Objective (saliva volume) and subjective (quality of life scoring and visual analogue scale (VAS) of discomfort) measurements associated with xerostomia were compared prior to commencement of HBOT, after 30 sessions (over 6 weeks) of HBOT at 243 kPa for 90 minutes daily for five days per week and at 6-week review (12 weeks from commencement). RESULTS: One hundred and one courses of treatment in 99 patients were examined. For 53 (53%) courses in 51 patients, data were recorded before and after HBOT and so could be included in the analysis. Thirty-four (34%) of these patients had complete data for all three time points. The unit of study was per treatment course, not per person. There were no major complications to HBOT. There was a statistically significant difference in saliva volume following HBOT (P = 0.016). The mean saliva volume increase was 0.9 mL over a 5-min collection period (95% CI 0.2-1.5). There was also a statistically significant improvement in discomfort after HBOT.
(P < 0.001) and QOL (P < 0.001). The mean visual analogue scale for discomfort (VAS on a 0-10 scale) score decreased by 1.4 units (95% CI 0.7-2.1), whilst the mean QOL score was 10 points lower after treatment (95% CI 5.9-14.4). CONCLUSION: Hyperbaric oxygen therapy may be a safe and effective treatment for symptoms of xerostomia after radiation therapy and should be considered when available.


Traditionally heparin has been the anticoagulant of choice for venous dialysis catheter locking. There is systemic leakage of heparin catheter locking solutions at the time of injection. Alternative agents, such as citrate, are increasingly being used. We are not aware of any data in the critical care literature on the effect of citrate locking of venous dialysis catheters on systemic ionised calcium (iCa). To assess the effect of 4% citrate locking of venous dialysis catheters on systemic iCa in intensive care patients we performed a prospective observational study of 50 paired samples in 26 intensive care patients receiving 4% citrate dialysis catheter locking in an adult tertiary intensive care unit between May 2016 and December 2016. Arterial blood gas (ABG) analysis was performed prior to venous dialysis catheter locking and a baseline iCa result obtained. The catheter was locked with 4% citrate solution. A further ABG was sampled between 30 and 120 seconds later and the iCa results were compared. Patients were observed for clinical signs of hypocalcaemia. On average, there was little difference between the pre- and post-catheter locking iCa (median pre-locking iCa 1.19 mmol/l, mean change of +0.004 mmol/l, 95% confidence interval [CI] -0.004 to 0.013, =0.34). There was no evidence this difference differed by length of catheter =0.26) or site of catheter =0.85) insertion, but there was some evidence that this differed by receipt of citrate dialysis circuit anticoagulation =0.013). Patients who received citrate dialysis circuit anticoagulation had an increase in catheter locking iCa by 0.017 mmol/l (95% CI 0.00 to 0.028). Locking of venous dialysis catheters with 4% citrate solution has no clinically significant effect on systemic iCa in intensive care patients with indwelling venous dialysis catheters.


STATEMENT: Professional development opportunities are not readily accessible for most simulation educators, who may only connect with simulation experts at periodic and costly conferences. Virtual communities of practice consist of individuals with a shared passion who communicate via virtual media to advance their own learning and that of others. A nascent virtual community of practice is developing online for healthcare simulation on social media platforms. Simulation educators should consider engaging on these platforms for their own benefit and to help develop healthcare simulation educators around the world. Herein, we describe this developing virtual community of practice and offer guidance to assist educators to engage, learn, and contribute to the growth of the community.


PURPOSE OF REVIEW: Conventional synthetic disease modifying anti-rheumatic drugs (csDMARDs) have been used in the treatment of inflammatory arthritis (IA) for many years. More recently, biologic (bDMARDs) and targeted synthetic (tsDMARDs) DMARDs have further improved treatment. Due to increased patient longevity and effective oncology treatment, rheumatologists often encounter patients with IA and previous malignancy. The immunosuppressive effect of DMARDs causes concern regarding impaired tumour surveillance with a potential increased risk of malignancy. We reviewed the literature regarding the risk of malignancy in patients on cs-/b-/tsDMARDS and sought to provide practical advice regarding use of these drugs in patients with previous malignancy. RECENT FINDINGS: Data from randomised controlled trials is limited as patients with pre-existing malignancy are often excluded. Reassuringly, an increasing range of “real world” data from various national b/tsDMARD registries has not provided a convincing signal that these drugs increase tumour recurrence. Nevertheless, awareness of, and adherence to, national screening guidelines for malignancy is important. Given the improvement in quality of life achieved with these novel and well-tolerated therapeutic agents, the benefit/risk profile remains overwhelmingly favourable in most patients.