
INTRODUCTION: Although Fenestrated TEVAR (F-TEVAR) has been considered to be a more physiologic approach to treat proximal descending aortic pathology, its application is still limited due to availability, cost and technical difficulties. We introduce a new design of fenestrated stent graft with a new delivery system and successfully performed first in human implantation in two patients, one with an aortic aneurysm and one with an acute aortic dissection. MATERIALS AND METHODS: The design of these two wires fenestrated stent graft include creation of an additional lumen at the side of the olive tip during manufacture, from which an additional wire can be introduced for a side branch passing into the fenestration, running inside the stent graft and exit the delivery sheath through additional hub. The two wires will facilitate delivery and deployment of the stent graft. One patient with descending aortic aneurysm and another with Stanford B aortic dissection is included in this first in human study. RESULTS: The aneurysm and dissection were completely excluded immediately after the TEVAR. Six month follow up CT showed good position of the stent graft and patent LSA in both patients. In the patient with aortic dissection, expansion of the true lumen and partial thrombosis of the false lumen was seen. CONCLUSIONS: This is a report of a two wire system in 2 patients with distal aortic arch pathology demonstrating a good technical and clinical success using pre-cannulated fenestrations through a modified nose cone olive. LEVEL OF EVIDENCE: Level 4, report of two cases.


BACKGROUND: Perinatal depression and/or anxiety disorders are undertreated pregnancy complications. This is partly due to low rates of engagement by women. This study aimed to identify barriers and facilitators to women accessing perinatal mental health services in an outer metropolitan hospital in Queensland, Australia. METHODS: Data was collected from pregnant women through a cross-sectional survey. Women rated the extent certain factors influenced their engagement. Respondents were separated into three groups: women who were not offered a referral to perinatal mental health services, women who were offered a referral but did not engage, and women who engaged. RESULTS: A total of 218 women participated. A response rate of 71% was achieved. 38.1% of participants did not believe themselves knowledgeable about mental illnes in the perinatal period, and 14.7% did not recall being asked about their mental health during their pregnancy. Of those participants who recalled being asked about their mental health,
37.1% were offered a referral. Of these, just over a third (36.2%) accepted, and out of this group, 40% attended an appointment. Regardless of referral and engagement status, the factors identified as influencing participant engagement were time restraints, lack of childcare support, and encouragement by family and health care professionals. Stigma was not identified as a barrier. CONCLUSIONS: Perinatal mental health service engagement could be improved by health services: ensuring universal screening and actively engaging women in the process: assisting with childcare; improving appointment immediacy and accessibility; and educating health care professionals about their influence on women's engagement.


BACKGROUND: Meckel's diverticulum (MD) is the most common congenital abnormality of the gastrointestinal (GI) tract. Most of the people remain asymptomatic during their lifetime, but some can develop complications such as inflammation, haemorrhage or obstruction. Perforation of Meckel's diverticulum is very rare, and we present a case of perforation by a chicken bone. CASE PRESENTATION: A 19-year-old man presented to the emergency department with abdominal pain, and based on examination and laboratory findings, he was diagnosed with appendicitis initially. Meanwhile, a CT scan was requested and a foreign object inside the Meckel's diverticulum was noted, and on further questioning, he mentioned that he had chicken with bones 2 days ago. He was taken to the operating theatre, and during laparotomy, the perforated Meckel's diverticulum was found, and it was resected with primary anastomosis. CONCLUSION: Meckel's diverticulum follows the 'rule of twos', and perforation of it with foreign object is rare. Patients usually present with signs and symptoms of acute abdomen, and appendicitis is the first diagnosis, and the final diagnosis is usually made intraoperatively. Perforation of Meckel's diverticulum should be considered for the patients who present with acute abdomen, and with precise history taking and investigations, preoperative diagnosis can be achieved.


Objective: Given the role of gut microbiota in regulating metabolism, probiotics administered during pregnancy might prevent gestational diabetes mellitus (GDM). This question has not previously been studied in high-risk overweight and obese pregnant women. We aimed to determine whether probiotics (Lactobacillus rhamnosus and Bifidobacterium animalis subspecies lactis [BB-12]) administered from the second trimester in overweight and obese women prevent GDM as assessed by an oral glucose tolerance test (OGTT) at 28 weeks’ gestation. Secondary outcomes included maternal and neonatal complications, maternal blood pressure and BMI, and infant body composition.

Research Design and Methods: This was a double-blind randomized controlled trial of probiotic versus placebo in overweight and obese pregnant women in Brisbane, Australia.; Results: The study was completed in 411 women. GDM occurred in 12.3% (25 of 204) in the placebo arm and 18.4% (38 of 207) in the probiotics arm (P = 0.10). At OGTT, mean fasting glucose was higher in women randomized to probiotics (79.3 mg/dL) compared with placebo (77.5 mg/dL) (P = 0.049). One- and two-hour glucose measures were similar. Preeclampsia occurred in 9.2% of women randomized to probiotics compared with 4.9% in the placebo arm (P = 0.09).
Excessive weight gain occurred in 32.5% of women in the probiotics arm (55 of 169) compared with 46% in the placebo arm (81 of 176) \( (P = 0.01) \). Rates of small for gestational age (<10th percentile) were 2.4% in the probiotics arm (5 of 205) and 6.5% in the placebo arm (13 of 199) \( (P = 0.042) \). There were no differences in other secondary outcomes.

Conclusions: The probiotics used in this study did not prevent GDM in overweight and obese pregnant women.

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BACKGROUND: Syncope is a common problem but can have any of a broad range of underlying causes. Initial evaluation of the patient in the emergency department often does not identify a specific cause, and the cornerstone of management is reliable risk stratification with clinical decision rules. OBJECTIVES: The primary objective is to validate the utility and safety of the Canadian Syncope Risk Score (CSRS) as a clinical decision rule when assessing patients who present with syncope to Australian emergency departments. Our secondary objective is to evaluate the economic benefits of diverting patients with syncope at low risk of serious adverse events from admission to hospital. METHODS AND ANALYSIS: Prospective, observational study. Patients aged 18 years or more who present to the emergency department (ED) after syncope in the preceding 24 hours and have returned to their baseline state will be enrolled. Patients will be contacted by telephone to determine whether they have experienced any adverse events within 30 days of their initial presentation to the ED. The CSRS will be applied retrospectively to determine the relationship between whether patients were admitted to hospital or discharged home and the reporting of serious adverse events for each CSRS risk level. We will also undertake a cost-effectiveness analysis from the health care perspective. ETHICS APPROVAL: Prince Charles Hospital Human Research Ethics Committee (reference, HREC/17/QPCH/48). DISSEMINATION OF RESULTS: Outcomes will be disseminated by Queensland Health and the funding body via social media, presented at local and national emergency medicine conferences, and published in international emergency medicine and health economics journals. CLINICAL TRIALS REGISTRATION: Not applicable.


Hereditary haemorrhagic telangiectasia (HHT) is a rare autosomal dominant disorder resulting in uncontrolled multisystem angiogenesis. The pathogenesis of this disease is thought to relate to elevated levels of transforming growth factor beta and vascular endothelial growth factor (VEGF). The frail arteriovenous malformations (AVMs) give rise to complications including haemorrhage and shunting. These have classically included recurrent epistaxis and gastrointestinal bleeding and associated iron-deficiency anaemia. More recently, high-output heart failure has been recognized in patients with significant hepatic involvement. This is thought to occur as a result of low systemic resistance due to shunting of blood through liver AVMs with an associated compensatory increase in cardiac output. Bevacizumab is a humanized monoclonal that acts to cause VEGF inhibition. Previously, this drug has been shown to benefit patients with HHT by reducing transfusion requirements and frequency of epistaxis. In addition, there is a growing body of evidence that
bevacizumab may be associated with amelioration of high-output cardiac failure associated with HHT-induced hepatic shunting. We believe this case supports the use of bevacizumab in this context.


Objective: Psychiatrists may become involved in circumstances where a child is seeking termination of pregnancy. Potential roles include capacity advice and advocacy, but ethical and legal uncertainties abound. This paper uses illustrative cases, in an Australian jurisdiction, to exemplify the issues. Conclusion: Termination of pregnancy at the youthful extreme raises unique challenges for all involved.


The authors regret that the online version of this article contains an error. The MBD4 mutation in sample MM138 was given an incorrect dbSNP ID. The correct ID is rs769076971.


There is currently no effective treatment for metastasised uveal melanoma (UM). Recently, it was reported that a UM patient was responsive to checkpoint inhibitor (CI) treatment, due to a high tumour mutation burden correlated with a germline loss-of-function MBD4 mutation. Here, we report on another UM patient who carried an MBD4 germline nonsense variant (p.Leu563Ter) and her tumour showed a fivefold higher than average mutation burden. We confirmed the association between germline loss-of-function variant in MBD4 and CI response. The patient experienced stable disease (10 months) and survived 2 years with metastatic disease, which is twice as long as median survival. Additionally, the frequency of MBD4 loss-of-function variants in reported UM cohorts was > 20 times higher than in an aggregated population genome database (P < 5 × 10), implying a potential role as UM predisposition gene. These findings provide a strong basis for the inclusion of MBD4 in the screening of potential UM-prone families as well as stratification of immunotherapy.


In Australia, it is estimated that around 17% to 87% of cancer patients have used one form of complementary therapy during their cancer treatment. There are numerous reasons and contributing factors for cancer patients to consider using complementary and alternative medicine (CAM). CAM information and products are readily available. However, the level of evidence to support the benefits of use in the cancer setting is limited, and the associated adverse effects and interactions with conventional medicine may not be fully studied. Besides, not all health professionals favor the concept of integrative health approaches, or have the confidence in dealing with CAM due to a lack of knowledge and standardization of practices. A thematic review of the literature was performed on the main contributing factors to cancer
patients’ use of CAM, as well as the current issues that may be encountered by the patients and health professionals.


OBJECTIVE: The objective of this study was to explore attitudes and decision-making by pregnant women regarding antidepressant and anxiolytic use during pregnancy. METHOD: An observational study at an outer metropolitan hospital in Brisbane, Queensland. Pregnant women presenting for their first antenatal clinic visit were invited to complete a questionnaire. Participants were asked about current or previous antidepressant/anxiolytic use, influences on drug decision-making and the adequacy of information received. Perceptions were measured on a 7-point Likert scale. RESULTS: A total of 503 pregnant women were surveyed. The background prevalence of anxiety and depression was 30.0% (151), with 9.3% (47) respondents using antidepressant or anxiolytic medications during the current pregnancy. Of these 47 women, 68% ceased these medications during or while trying to become pregnant, most commonly due to potential side effects to the baby (16), health professional advice (8) and symptomatology that was under control (7). While the effect was modest, decision-making was most strongly influenced by general practitioners, family and the internet. CONCLUSIONS: Most women cease antidepressant/anxiolytic medication before and during pregnancy for reasons other than stability of condition. This study reveals an unmet need for accessible reliable information to guide pregnant women and their care providers.


The role of fathers prior to conception, during pregnancy, and in the post-partum period has generally not been a key consideration for Obstetric Physicians. However, this view may need challenging. This paper outlines the key importance of fathers in all phases of obstetric medical care. We review the contribution of paternal factors such as genetics, health, and lifestyle to fetal development, pregnancy complications, and maternal and neonatal wellbeing. The role of fathers in complex care decisions during pregnancy is also reviewed. Postpartum, fathers have a substantial role in shaping the future of the family unit through encouraging breastfeeding and creating a supportive environment for motherhood. This review proposes areas for future research and recommends an evidence-based change in practice in obstetric medicine that focuses on recognizing the role of fathers in the pregnancy journey.


BACKGROUND: CADENCE-BZ is a multi-centre, parallel-group, double-blind randomized controlled trial designed to examine the clinical efficacy and safety of an accessible food preservative, sodium benzoate, as an add-on treatment for patients with early psychosis. The original study protocol was published in 2017. Here, we describe the updated protocol along with the Statistical Analysis Plan (SAP) for the CADENCE-BZ trial prior to study completion. METHODS AND MATERIALS: Two
important changes were made to the original protocol: (1) improvements to our statistical analysis plan permitted a reduction in sample size; and (2) a revision in the secondary outcomes with the intent of reducing redundancy and excluding those measures that were not appropriate as outcomes. CONCLUSIONS: We provide the updated SAP prior to the completion of the study with the intent of increasing the transparency of the data analyses for CADENCE-BZ. The final participants are currently completing the study and the results will be published in the near future.

TRIAL REGISTRATION: Australian New Zealand Clinical Trials Registry (ACTRN12615000187549). Registered on 26th February 2015.


Jane Orbell-Smith shares information on the process of gaining Certified Health Informatician Australasia (CHIA) certification. According to Jane, CHIA status will help other health professionals understand that Health Librarians are an integral part of the health informatics environment, as their work is focused on expertise in a wide range of health information (evidence based practice) and the integration of computing. Jane is in the Queensland Health cohort undertaking certification in 2019 and has recently achieved CHIA.


OBJECTIVES: To describe prescription of sodium valproate (SV) for bipolar mood disorder to potentially child-bearing women within one public mental health service and describe risks of fetal exposure, and safe prescribing practices among psychiatrists. METHODS: A 24-month retrospective chart review with descriptive analysis; narrative review of literature and guidelines. RESULTS: Review of 383 charts demonstrated prescription of valproate to 20% of 98 women aged 15-45, with little evidence of advice regarding risk and contraception. Robust evidence of teratogenic and neurodevelopmental risk underpins increased regulation, and recommendations that valproate not be prescribed to this cohort. CONCLUSIONS: The significant risks associated with SV oblige all prescribers to proactively access authoritative guidelines such as those published by the Centre of Perinatal Excellence.


Objective: Patients in the intensive care unit (ICU) have increased risk of pressure injury (PI) development due to critical illness. This study compared two silicone dressings used in the Australian ICU setting for sacral PI prevention. Design: A cluster-controlled clinical trial of two sacral dressings with four alternating periods of three months' duration. Setting: A 10-bed general adult ICU in outer-metropolitan Brisbane, Queensland, Australia. Participants: Adult participants who did not have a sacral PI present on ICU admission and were able to have a dressing applied for more than 24 hours without repeated dislodgement or soiling in a 24-hour period (>3 times). Interventions: Dressing 1 (Allevyn Gentle Border Sacrum, Smith and Nephew) and Dressing 2 (Mepilex Border Sacrum, Molnlycke). Main outcomes measures: The primary outcome was the incidence of a new sacral PI (stage 1 or greater) per 100 dressing days in the ICU. Secondary outcomes were the mean
number of dressings per patient, the cost difference of dressings to prevent a sacral PI and product integrity. Results: There was no difference in the incidence of a new sacral PI (0.44 per 100 dressing days for both products, p = 1.00), the mean number of dressings per patient per day (0.50 for both products, p = 0.51) and product integrity (85% for Dressing 1 and 84% for Dressing 2, p = 0.69). There was a dressing cost difference per patient (A$10.29 for Dressing 1 and A$28.84 for Dressing 2, p < 0.001). Conclusions: Similar efficacy, product use and product integrity, but differential cost, were observed for two prophylactic silicone dressings in the prevention of PIs in the intensive care patient. We recommend the use of sacral prophylactic dressings for at-risk patients, with the choice of product based on ease of application, clinician preference and overall cost-effectiveness of the dressing.


A quality improvement activity was undertaken in an outer-metropolitan public hospital. In reviewing representations of newly formed ileostomies, 91% of patients were readmitted with acute kidney injury (AKI) and electrolyte disturbances in the first six months of 2016. From this, an ileostomy working party was formed and a clinical management pathway was developed to assist in the consistent management of patients at risk of high-output stoma.


INTRODUCTION: Many infectious diseases display seasonal variation corresponding with particular conditions. In orthopaedics a growing body of evidence has identified surges in post-operative infection rates during higher temperature periods. The aim of this research was to collate and synthesize the current literature on this topic. METHODS: A systematic review and meta-analysis was performed using five databases (PubMed, Embase, CINAHL, Web of Science and Central (Cochrane)). Study quality was assessed using the Grading of Recommendations Assessment, Development and Evaluation method. Odds ratios (ORs) were calculated from monthly infection rates and a pooled OR was generated using the DerSimonian and Lairds method. A protocol for this review was registered with the National Institute for Health Research International Prospective Register of Systematic Reviews (CRD42017081871). RESULTS: Eighteen studies analysing over 19 000 cases of orthopaedic related infection met inclusion criteria. Data on 6620 cases and 9035 controls from 12 studies were included for meta-analysis. The pooled OR indicated an overall increased odds of post-operative infection for patients undergoing orthopaedic procedures during warmer periods of the year (pooled OR 1.16, 95% confidence interval 1.04-1.30). CONCLUSION: A small but significantly increased odds of post-operative infection may exist for orthopaedic patients who undergo procedures during higher temperature periods. It is hypothesized that this effect is geographically dependent and confounded by meteorological factors, local cultural variables and hospital staffing cycles.

BACKGROUND: Monitoring gastric residual volume (GRV) and titrating enteral nutrition (EN) towards goal rate are common practices in the intensive care unit (ICU) despite limited supportive evidence. We investigated the effect of removal of GRV monitoring and commencing EN at goal rate had on EN provision in mechanically ventilated ICU patients.

METHODS: We conducted a single-centre, pre-post implementation study, in a 10-bed ICU comprising 181 patients with ventilation >/=48 h and given EN within 24 h of intubation. EN adequacy, expressed as the proportion of patients receiving >/=90% of the prescribed volume during the first 24 h of feeding, was compared before and after implementation. Secondary outcomes included EN adequacy over entire ICU stay; incidence of gastrointestinal intolerance in terms of vomiting, abdominal distension, and GRV >200 ml; prokinetic use; onset of a ventilator-associated condition; ventilation duration; length of stay; and mortality.

RESULTS: After intervention, the proportion of patients meeting >/=90% of their prescribed EN volume within the first 24 h of feeding increased by 38.1% (pre: 46.4%, 95% confidence interval [CI]: 36.7-56.3; post: 84.5%, 95% CI: 75.8-91.2; p < 0.001). Over their entire ICU stay, the proportion of patients meeting >/=90% of their prescribed EN volume increased by 21.4% (pre: 61.9%, 95% CI: 52.0-71.1; post: 83.3%, 95% CI: 74.4-90.2; p = 0.001). Gastrointestinal intolerance reduced by 34.0% (pre: 80.4%, 95% CI: 71.8-87.5; post: 46.4%, 95% CI: 36.0-57.1; p < 0.001) and fewer prescribed prokinetic agents (pre: 57.7%, 95% CI: 47.8-67.3; post: 23.8%, 95% CI: 15.6-33.6; p < 0.001).

CONCLUSIONS: Removal of GRV monitoring and commencing EN at goal resulted in significantly increased EN provision during the first 24 h of feeding and entire ICU stay with reduced prokinetic use and gastrointestinal complications.


With the rise of obesity in adult populations in the western world there has been a concurrent rise in bariatric procedures to address this problem. Although the safety of bariatric procedures has improved significantly over the past 20 years, there are still a number of serious surgical complications that can occur in the postoperative period that emergency physicians need to be familiar with. These complications can have subtle presentations that if unrecognised can go on to cause morbidity and mortality. This review will cover the more common bariatric procedures that are being performed today. It will discuss the complications, clinical presentations and management of these patients that emergency physicians should be familiar with.