The Royal Wolverhampton NHS Trust
Staff Publications List
January to June 2019
- by Specialty -

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Edited by Pam Collins

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Introduction

This report provides a summary of research publications which were authored by staff from the Royal Wolverhampton NHS Trust, or staff with honorary contract or other partners with the trust between January and June 2019.

The Bell Library collates the list of staff publications to celebrate the good work done by staff in the Trust and to demonstrate the volume of knowledge in the organisation.

Note that RWT authors (or those with honorary RWT contracts) are highlighted in **bold red**. Further, articles may appear in more than one section, when they contain authors from multiple disciplines.

If your publications are missing from this report, or you have presented something at a conference and you would like to include them in the RWT publications output report, you can e-mail details to the Bell Library team at rwh-tr-Belllibrary@nhs.net

For help getting the full-text to any of these articles not accessible via your Athens account, please use our BaseDoc document supply service. This service is accessible via your Base Library membership card and password. If you are not a member of the library, you can register on line here.
Summary

Between January and June 2019 there were a total of 69 RWT authored publications identified via database alerts set up by the library team and ad hoc word of mouth from individual staff. This may therefore not be a true account of the published works by staff.

The top ten most published specialities are as follows:

Please note: the totals by department/division differ to the overall total as some articles are co-authored by RWT researchers from multiple departments.

The most published authors for the period are as follows:

- Vidya, R
- Padmanabham, H
- Brookes, MJ
- Cotton, JM
- Menon, S
- Gama, R

- 3 -
Further, the main types of publications are:

![Number of Publications by Type](image)

Finally, the most frequent places of publications were BMJ Case Reports 6 items, Anaesthesia 4 items and Frontline Gastroenterology 3 items.
Anaesthetics


**Abstract:** BACKGROUND AND OBJECTIVES: Ipsilateral phrenic nerve palsy (PNP) is an undesirable side of conventional approaches to interscalene brachial plexus blocks. The purpose of this study was to demonstrate whether or not the phrenic nerve can be spared by dye when injected at the division of the upper trunk of the brachial plexus. METHODS: Under ultrasound guidance, 5 mL of radiolabeled dye was injected between the anterior and posterior division of the upper trunk in two fresh, cryopreserved cadavers. CT scan analysis, cadaveric dissection, and cryosectioning were performed to examine the spread of the injectate. RESULTS: We found staining of the injectate over the entire upper trunk with its anterior and posterior divisions, the suprascapular nerve under the omohyoid muscle and the lateral pectoralis nerve, and the C5 and C6 roots. The middle trunk was partially stained. There was no evidence of dye staining of the lower trunk, anterior aspect of the anterior scalene muscle, or the phrenic nerve. CONCLUSIONS: Our study offers an anatomical basis for the possibility of providing shoulder analgesia and avoiding a PNP. *Article.*

DOI: 10.1136/rapm-2019-100404  PMID: 31118281
URL: [https://rapm.bmj.com/content/early/2019/05/21/rapm-2019-100404](https://rapm.bmj.com/content/early/2019/05/21/rapm-2019-100404) (Athens Account)

Breast Care Services


**Abstract:** The 2013 Breast Cancer Campaign gap analysis established breast cancer research priorities without a specific focus on surgical research or the role of surgeons on breast cancer research. This Review aims to identify opportunities and priorities for research in breast surgery to complement the 2013 gap analysis. To identify these goals, research-active breast surgeons met and identified areas for breast surgery research that mapped to the patient pathway. Areas included diagnosis, neoadjuvant treatment, surgery, adjuvant therapy, and attention to special groups (eg, those receiving risk-reducing surgery). Section leads were identified based on research interests, with invited input from experts in specific areas, supported by consultation with members of the Association of Breast Surgery and Independent Cancer Patients’ Voice groups. The document was iteratively modified until participants were satisfied that key priorities for surgical research were clear. Key research gaps included issues surrounding overdiagnosis and treatment; optimising treatment options and their selection for neoadjuvant therapies and subsequent surgery; reducing rates of re-operations for breast-conserving surgery; generating evidence for clinical effectiveness and cost-effectiveness of breast reconstruction, and mechanisms for assessing novel interventions; establishing optimal axillary management, especially post-neoadjuvant treatment; and defining and standardising indications for risk-reducing surgery. We propose strategies for resolving these knowledge gaps. Surgeons are ideally placed for a central role in breast cancer research and should foster a culture of engagement and participation in research to benefit patients and health-care systems. Development of infrastructure and surgical research capacity, together with appropriate allocation of research funding, is needed to successfully address the key clinical and translational research gaps that are highlighted in this Review within the next two decades. *Review Article.*

DOI: 10.1016/s1470-2045(18)30511-4  PMCID: 30303126

**Abstract:** Over the last decade, there has been an increase in implant-based immediate breast reconstruction, and single-stage breast reconstruction using fixed volume implants are carried out due to advances in biomaterials. However, 2-stage implant reconstruction still forms a significant proportion of breast reconstructions. Traditionally, tissue expanders (TEs) used in 2-stage reconstructions are inflated with saline: initially in theater and subsequently in clinic. The authors propose a novel method of inflation of TE with air and discuss its advantages over traditional methods. Research Article.

DOI: 10.1097/GOX.0000000000002036 eCollection 2018 Dec. PMCID: PMC6326628


**Abstract:** Use of biological or synthetic mesh might improve outcomes of immediate implant-based breast reconstruction-breast reconstruction with implants or expanders at the time of mastectomy—but there is a lack of high-quality evidence to support the safety or effectiveness of the technique. We aimed to establish the short-term safety of immediate implant-based breast reconstruction performed with and without mesh, to inform the feasibility of undertaking a future randomised clinical trial comparing different breast reconstruction techniques. METHODS: In this prospective, multicentre cohort study, we consecutively recruited women aged 16 years or older who had any type of immediate implant-based breast reconstruction for malignancy or risk reduction, with any technique, at 81 participating breast and plastic surgical units in the UK. Data about patient demographics and operative, oncological, and complication details were collected before and after surgery. Outcomes of interest were implant loss (defined as unplanned removal of the expander or implant), infection requiring treatment with antibiotics or surgery, unplanned return to theatre, and unplanned re-admission to hospital for complications of reconstructive surgery, up to 3 months after reconstruction and assessed by clinical review or patient self-report. Follow-up is complete. The study is registered with the ISRCTN Registry, number ISRCTN37664281. FINDINGS: Between Feb 1, 2014, and June 30, 2016, 2108 patients had 2655 mastectomies with immediate implant-based breast reconstruction at 81 units across the UK. 1650 (78%) patients had planned single-stage reconstructions (including 12 patients who had a different technique per breast). 1376 (65%) patients had reconstruction with biological (1133 [54%]) or synthetic (243 [12%]) mesh, 181 (9%) had non-mesh submuscular or subfascial implants, 440 (21%) had dermal sling implants, 42 (2%) had prepectoral implants, and 79 (4%) had other or a combination of implants. 3-month outcome data were available for 2081 (99%) patients. Of these patients, 182 (9%, 95% CI 8-10) experienced implant loss, 372 (18%, 16-20) required re-admission to hospital, and 370 (18%, 16-20) required return to theatre for complications within 3 months of their initial surgery. 522 (25%, 95% CI 23-27) patients required treatment for an infection. The rates of all of these complications are higher than those in the National Quality Standards (<5% for re-operation, re-admission, and implant loss, and <10% for infection). INTERPRETATION: Complications after immediate implant-based breast reconstruction are higher than recommended by national standards. A randomised clinical trial is needed to


Abstract: Axillary metastasis from an undetectable carcinoma of the breast is known as occult breast cancer (OBC) and accounts for less than 1% of all breast cancer (1-3). Management of OBC initially favoured axillary lymph node dissection (ALND) with mastectomy (4). However there have also been series reporting the use of ALND with breast conserving surgery (BCS), whole breast radiotherapy (WBRT) and observation of the breast (5,6). Due to its rarity, data on OBC is often from small series collected over long periods of time. National registry provides the opportunity to accrue larger numbers, determining more accurate incidence, and where possible generating epidemiological and clinicopathological data. The Surveillance, Epidemiological and End Results (SEER) database is a project of the American National Cancer Institute, the function of which is to routinely collect various cancer data on patients from various American states, covering 28% of the population.

Editorial.


Abstract: Attending and receiving a result from screening can be an anxious process. Using an appropriate method to deliver screening results could improve communication and reduce negative outcomes for screening attendees. Screening programmes are increasingly communicating results by letter or telephone rather than in-person. We investigated the impact of communication methods on attendees. We systematically reviewed the literature on the communication methods used to deliver results in cancer screening programmes for women, focusing on screening attendee anxiety, understanding of results and preferences for results communication. We included qualitative and quantitative research. We searched MEDLINE, PsycINFO, CINAHL, Cochrane Library and Embase.
Results were analysed using framework synthesis. 10,558 papers were identified with seven studies meeting the inclusion criteria. Several key ideas emerged from the synthesis including speed, accuracy of results, visual support, ability to ask questions, privacy of results location and managing expectations. Verbal communication methods (telephone and in-person) were preferred and facilitated greater understanding than written methods, although there was considerable variability in attendee preferences. Findings for anxiety were mixed, with no clear consensus on which method of communication might minimise attendee anxiety. The low number of identified studies and generally low quality evidence suggest we do not know the most appropriate communication methods in the delivery of cancer screening results. More research is needed to directly compare methods of results communication, focusing on what impact each method may have on screening attendees. Systematic Review.

DOI: 10.1016/j.pmedr.2018.12.016  PMID: 30666286 PMCID: PMC6330510
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6330510/ (Freely available)

Cancer


Abstract: Background: Patients with metastatic renal cell carcinoma (mRCC) are commonly treated with tyrosine kinase inhibitors (TKIs). An adverse effect frequently suffered by patients is lethargy, which often leads to dose reduction or drug cessation. We aimed to assess whether hypogonadism is related to treatment with TKIs. Methods: We prospectively assessed gonadal function in 41 consecutive males with mRCC treated with TKIs. Demographic, clinical, and biochemical variables were collected, and statistical analyses performed to assess correlation and survival. Data capture for each patient was performed at the time of entry in the study. Results: There was a 77% incidence of hypogonadism in this cohort. Assessment of testosterone levels and time on TKI treatment revealed a correlation with linear regression R(2) of 0.24 and regression coefficient of -0.003 (p = 0.019). Odds ratio for hypogonadism at >30 months on TKIs was 12.1 (p = 0.011). Odds ratios above and below this value showed a confirmatory trend, suggesting that this may be a chronic adverse effect. Conclusions: Our findings provide an important and robust hypothesis for a prospective clinical trial to be performed. Expert Opinion: Given the present data, patients who have symptoms suggestive of hypogonadism must have an assessment of gonadal function and be treated. Population Study.

DOI: 10.1080/14737140.2019.1609355  PMID: 30995130


Abstract: A 37-yr-old patient previously diagnosed with human immunodeficiency virus initially presented with a genital lesion which upon histologic assessment was diagnosed as a pseudotumor associated with herpes simplex virus infection. The pseudotumor responded to initial treatment with Acyclovir, however, the lesion recurred 2 yr later and was diagnosed as plasma cell vulvitis. We discuss the clinical presentation, diagnostic work up and treatment options of such a rare lesion.
Case Study.
DOI: 10.1097/pgp.0000000000000599  PMCID: 30870250


Abstract: BACKGROUND: Lenalidomide plus dexamethasone is a standard treatment for patients with newly diagnosed multiple myeloma who are ineligible for autologous stem-cell transplantation. We sought to determine whether the addition of daratumumab would significantly reduce the risk of disease progression or death in this population. METHODS: We randomly assigned 737 patients with newly diagnosed multiple myeloma who were ineligible for autologous stem-cell transplantation to receive daratumumab plus lenalidomide and dexamethasone (daratumumab group) or lenalidomide and dexamethasone alone (control group). Treatment was to continue until the occurrence of disease progression or unacceptable side effects. The primary end point was progression-free survival. RESULTS: At a median follow-up of 28.0 months, disease progression or death had occurred in 240 patients (97 of 368 patients [26.4%] in the daratumumab group and 143 of 369 patients [38.8%] in the control group). The estimated percentage of patients who were alive without disease progression at 30 months was 70.6% (95% confidence interval [CI], 65.0 to 75.4) in the daratumumab group and 55.6% (95% CI, 49.5 to 61.3) in the control group (hazard ratio for disease progression or death, 0.56; 95% CI, 0.43 to 0.73; P<0.001). The percentage of patients with a complete response or better was 47.6% in the daratumumab group and 24.9% in the control group (P<0.001). A total of 24.2% of the patients in the daratumumab group, as compared with 7.3% of the patients in the control group, had results below the threshold for minimal residual disease (1 tumor cell per 10(5) white cells) (P<0.001). The most common adverse events of grade 3 or 4 were neutropenia (50.0% in the daratumumab group vs. 35.3% in the control group), anemia (11.8% vs. 19.7%), lymphopenia (15.1% vs. 10.7%), and pneumonia (13.7% vs. 7.9%). CONCLUSIONS: Among patients with newly diagnosed multiple myeloma who were ineligible for autologous stem-cell transplantation, the risk of disease progression or death was significantly lower among those who received daratumumab plus lenalidomide and dexamethasone than among those who received lenalidomide and dexamethasone alone. A higher incidence of neutropenia and pneumonia was observed in the daratumumab group. (Funded by Janssen Research and Development; MAIA ClinicalTrials.gov number, NCT02252172.). Article.
DOI: 10.1056/NEJMoa1817249  PMID: 31141632
URL: https://insights.ovid.com/crossref?an=00004347-900000000-99111 (Print available in Bell Library)


Abstract: We previously reported the safety and efficacy of low dose BaP [Bezafibrate (Bez) and Medroxyprogesterone acetate (MPA)] in 20 acute myeloid leukaemia (AML) patients for whom chemotherapy was not an option. This study provided evidence that BaP had anti-AML activity and improved haemopoiesis; absence of haematological toxicity allowed continuous daily administration. Similarly a previous trial in endemic Burkitt lymphoma demonstrated anti-B cell
lymphoma activity of low and high dose BaP again in the absence of toxicity. We conducted a study to further evaluate the safety and activity of high dose BaP therapy in adults with AML (and high risk Myelodysplastic Syndromes (MDS)), chronic lymphocytic leukaemia (CLL) or B-cell Non-Hodgkin Lymphoma (BNHL). Eighteen patients were recruited to the study over 20 months, 16 AML/MDS, 1 CLL, and 1 BNHL. Although MPA was well tolerated throughout the study, only 2 patients were able to tolerate Bez treatment for their whole trial duration, indicating that Bez escalation is not feasible in the setting of adult AML/MDS. Thus there has been no obvious benefit in improved haemopoiesis or overt anti-leukaemia activity from the attempts to escalate BaP dose over previous published studies. Since current therapeutic options in MDS are restricted it may be now of value to continue to evaluate low dose BaP based approaches in low risk MDS rather than AML/high risk MDS. Furthermore, screening of low dose BaP against libraries of other already available drugs may identify an addition to BaP that augments the anti-neoplastic efficacy without significant toxicity. Clinical Trial.

DOI: 10.1016/j.conctc.2019.100361 PMCID: PMC6463739 PMID: 31011660
URL: https://www.sciencedirect.com/science/article/pii/S2451865418301844?via%3Dihub (Freely Available)
PubMed: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6463739/


Abstract: Vulval extraskeletal myxoid chondrosarcoma (EMC) is a rare cause of vulval swelling, reported <10 times in the literature to date. EMC in this location is frequently misdiagnosed due to its rarity, and patients may incur delays in diagnosis and treatment. We herein present the diagnosis and management of the case of vulval EMC in a 42-year-old Caucasian female patient who presented in 2011 with a swelling on the right labium majus. The tumour was initially misdiagnosed as a Bartholin’s cyst and managed conservatively. The tumour was ultimately diagnosed as EMC and treated by radical surgical excision and adjuvant radiotherapy. The aim of the present study was to report the results after a long-term follow-up period and review the available relevant literature.

Case Report.

DOI: 10.3892/mco.2019.1822 PMCID: PMC6449903 PMID: 30967942
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6449903/?report=reader (Freely available)


Abstract: Attending and receiving a result from screening can be an anxious process. Using an appropriate method to deliver screening results could improve communication and reduce negative outcomes for screening attendees. Screening programmes are increasingly communicating results by letter or telephone rather than in-person. We investigated the impact of communication methods on attendees. We systematically reviewed the literature on the communication methods used to deliver results in cancer screening programmes for women, focusing on screening attendee anxiety, understanding of results and preferences for results communication. We included qualitative and quantitative research. We searched MEDLINE, PsycINFO, CINAHL, Cochrane Library and Embase. Results were analysed using framework synthesis. 10,558 papers were identified with seven studies meeting the inclusion criteria. Several key ideas emerged from the synthesis including speed, accuracy of results, visual support, ability to ask questions, privacy of results location and managing expectations. Verbal communication methods (telephone and in-person) were preferred and
facilitated greater understanding than written methods, although there was considerable variability in attendee preferences. Findings for anxiety were mixed, with no clear consensus on which method of communication might minimise attendee anxiety. The low number of identified studies and generally low quality evidence suggest we do not know the most appropriate communication methods in the delivery of cancer screening results. More research is needed to directly compare methods of results communication, focusing on what impact each method may have on screening attendees. **Systematic Review.**

**DOI:** 10.1016/j.pmedr.2018.12.016  **PMID:** 30666286  **PMCID:** PMC6330510


**Cardiology/Cardiothoracic**


**Abstract:** Not available for this article.

**DOI:** 10.1016/j.jelectrocard.2019.05.009  **PMID:** 31152997


**Abstract:** AIMSPatients with bicuspid valves represent a challenging anatomical subgroup for transcatheter aortic valve implantation (TAVI). This analysis evaluated the clinical outcomes of the fully repositionable and retrievable Lotus Valve System in patients with bicuspid aortic valves enrolled in the RESPOND post-market registry. METHODS AND RESULTSThe prospective, open-label RESPOND study enrolled 1,014 patients at 41 centers in Europe, New Zealand, and Latin America, 31 (3.1%) of whom had bicuspid aortic valves. The mean age in the bicuspid patient cohort was 76.4 years, 64.5% were male, and the baseline STS score was 6.0 ± 10.2. Procedural success was 100%, with no cases of malpositioning, valve migration, embolization, or valve-in-valve. Repositioning was attempted in 10 cases (32.3%). There was one death (3.2%) and one stroke (3.2%) at 30-day follow-up. Mean AV gradient was reduced from 48.7 ± 17.0 mmHg at baseline to 11.8 ± 5.1 mmHg at hospital discharge (P < 0.001); mean effective orifice area (EOA) was increased from 0.6 ± 0.2 cm² to 1.7 ± 0.4 cm² (P < 0.001). There were no cases of moderate or severe paravalvular leak (PVL) adjudicated by the core laboratory; four subjects (13.8%) had mild PVL, 5 (17.2%) had trace PVL. The rate of pacemaker (PM) implantation for PM-naïve patients was 22.2% (6/27). CONCLUSIONSData from the RESPOND registry demonstrate good clinical and echocardiographic outcomes up to 1 year postimplantation in patients with bicuspid aortic valves using the repositionable Lotus Valve.

**Clinical Trial.**

**DOI:** 10.1002/ccd.28120  **PMID:** 30773838  **PMCID:** PMC6593645

**URL:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6593645/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6593645)  (Freely available)


**Abstract:** Microvascular obstruction commonly affects patients with acute ST-segment elevation myocardial infarction (STEMI) and is associated with adverse outcomes. Objective: To determine whether a therapeutic strategy involving low-dose intracoronary fibrinolytic therapy with alteplase infused early after coronary reperfusion will reduce microvascular obstruction. Design, Setting, and Participants: Between March 17, 2016, and December 21, 2017, 440 patients presenting at 11 hospitals in the United Kingdom within 6 hours of STEMI due to a proximal-mid-vessel occlusion of a major coronary artery were randomized in a 1:1:1 dose-ranging trial design. Patient follow-up to 3 months was completed on April 12, 2018. Interventions: Participants were randomly assigned to treatment with placebo (n = 151), alteplase 10 mg (n = 144), or alteplase 20 mg (n = 145) by manual infusion over 5 to 10 minutes. The intervention was scheduled to occur early during the primary PCI procedure, after reperfusion of the infarct-related coronary artery and before stent implant. Main Outcomes and Measures: The primary outcome was the amount of microvascular obstruction (% left ventricular mass) demonstrated by contrast-enhanced cardiac magnetic resonance imaging (MRI) conducted from days 2 through 7 after enrollment. The primary comparison was the alteplase 20-mg group vs the placebo group; if not significant, the alteplase 10-mg group vs the placebo group was considered a secondary analysis. Results: Recruitment stopped on December 21, 2017, because conditional power for the primary outcome based on a prespecified analysis of the first 267 randomized participants was less than 30% in both treatment groups (futility criterion). Among the 440 patients randomized (mean age, 60.5 years; 15% women), the primary end point was achieved in 396 patients (90%), 17 (3.9%) withdrew, and all others were followed up to 3 months. In the primary analysis, the mean microvascular obstruction did not differ between the 20-mg alteplase and placebo groups (3.5% vs 2.3%; estimated difference, 1.16%; 95% CI, -0.08% to 2.41%; P = .32) nor in the analysis of 10-mg alteplase vs placebo groups (2.6% vs 2.3%; estimated difference, 0.29%; 95% CI, -0.76% to 1.35%; P = .74). Major adverse cardiac events (cardiac death, nonfatal MI, unplanned hospitalization for heart failure) occurred in 15 patients (10.1%) in the placebo group, 18 (12.9%) in the 10-mg alteplase group, and 12 (8.2%) in the 20-mg alteplase group. Conclusions and Relevance: Among patients with acute STEMI presenting within 6 hours of symptoms, adjunctive low-dose intracoronary alteplase given during the primary percutaneous intervention did not reduce microvascular obstruction. The study findings do not support this treatment. Trial Registration: ClinicalTrials.gov Identifier: NCT02257294. Randomised Clinical Trial. DOI: 10.1001/jama.2018.19802 PMID: 30620371 PMCID: PMC6583564 URL: [https://jamanetwork.com/journals/jama/article-abstract/2720025](https://jamanetwork.com/journals/jama/article-abstract/2720025) (Available via Athens Account) URL: [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6583564/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6583564/) (Freely Available) PubMed: [https://www.ncbi.nlm.nih.gov/pubmed/?term=30620371](https://www.ncbi.nlm.nih.gov/pubmed/?term=30620371)

Abstract: BACKGROUND: Preoperative anaemia and red blood cell (RBC) transfusion are both associated with in-hospital mortality after cardiac surgery. The aim of this study was to investigate the interactions between preoperative anaemia and RBC transfusion, and their effect on the long-term survival of patients undergoing cardiac surgery. METHODS: Between 2005 and 2012, 1,170 patients with anaemia who underwent elective or urgent cardiac surgery were included. A matched group of 1,170 non-anaemic patients was used as a control group. A binary logistic regression model was used. RESULTS: The median follow-up period was 64 (range 0-127) months. Anaemic patients had higher mortality (45%, n=526) than non-anaemic patients (32%, n=374; p<0.001). Preoperative anaemia was independently associated with long-term mortality (odds ratio [OR]: 1.70; 95% confidence interval [CI]: 1.46-2.1; p<0.001), with both moderate (OR: 2.27; 95% CI: 1.72-2.99; p<0.001) and mild anaemia (OR: 1.39; 95% CI: 1.13-1.71; p=0.002) contributing significantly. RBC transfusion was not associated with long-term mortality (OR: 1.07; 95% CI: 0.88-1.31; p=0.49). There was no interaction between preoperative anaemia and RBC transfusion (p=0.947). CONCLUSIONS: Long-term mortality is significantly high in patients who are anaemic, regardless of their transfusion status. Preoperative anaemia is a strong, independent predictor of mortality and therefore should be managed prior to cardiac surgery. Clinical Trial. DOI: 10.1016/j.athoracsur.2019.04.044. PMID: 31173755 URL: https://linkinghub.elsevier.com/retrieve/pii/S00034975(19)30722-2 PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=31173755


Abstract: BACKGROUND: Pre-operative anemia is common in patients scheduled for cardiac surgery. However, its effect on postoperative outcomes remains controversial. This meta-analysis aimed to clarify the impact of anemia on outcomes following cardiac surgery. METHODS: A literature search was conducted on MEDLINE, Embase, Cochrane, and Web of Science databases. The primary outcome was 30-day postoperative or in-hospital mortality. Secondary outcomes included acute kidney injury (AKI), stroke, blood transfusion, and infection. A meta-analytic model was used to determine the differences in the above postoperative outcomes between anemic and non-anemic patients. RESULTS: Out of 1103 studies screened, 22 met the inclusion criteria. A total of 23624 (20.6%) out of 114277 patients were anemic. Anemia was associated with increased mortality (odds ratio [OR] 2.74, 95% confidence interval [CI] 2.32-3.24; I(2)=69.6%; p<0.001), AKI (OR 3.13, 95% CI 2.37-4.12; I(2)=71.1%; p<0.001), stroke (OR 1.46, 95% CI 1.24-1.72; I(2)=21.6%; p=0.001), and infection (OR 2.65, 95% CI 1.98-3.55; I(2)=46.7%; p<0.001). More anemic patients were transfused than non-anemic (33.3 versus 11.9%). No statistically significant association was found between mortality and blood transfusion (OR 1.35, 95% CI 0.92-1.98; I(2)=83.7%; p=0.12) but we were not able to compare mortality with or without transfusion in those who were or were not anemic. CONCLUSIONS: Preoperative anemia is associated with adverse outcomes following cardiac surgery. These findings support the addition of preoperative anemia to future risk prediction models, and as a target for risk modification. Systematic Review. DOI: 10.1016/j.athoracsur.2019.04.108 PMID: 31233718 URL: https://www.annalsthoracicsurgery.org/article/S0003-4975(19)30874-4/pdf (Available via Bell Library) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/31233718

**Abstract:** OBJECTIVES: Preoperative anaemia is a strong predictor of blood transfusion requirements and must be assessed for appropriate optimization before elective surgery. Iron therapy is a transfusion-sparing approach effective for increasing haemoglobin concentrations. However, its role in elective cardiac surgery and the optimal route of administration remain unknown. This single-centre, non-blinded, randomized, controlled trial compared the effectiveness of intravenous ferric carboxymaltose therapy with oral iron for anaemic patients undergoing elective cardiac surgery. METHODS: Fifty anaemic patients scheduled for elective cardiac surgery were randomized to receive either oral or intravenous iron therapy 3-8 weeks preoperatively. Changes in haemoglobin concentration were measured. Blood transfusion and postoperative outcome data were collected. RESULTS: Preoperative median increases in haemoglobin were 1.0 g/l (interquartile range -3.25 to 7.25 g/l) and 3.0 g/l (interquartile range -1.25 to 6.25 g/l) for patients receiving intravenous and oral iron, respectively (P = 0.42). The median first 12-h blood loss was significantly higher in the intravenous group (655 ml; interquartile range 162-1540 ml) compared to the oral group (313 ml; interquartile range 150-1750 ml; P < 0.007). Median increments in serum ferritin were superior for the intravenous group (median difference 313 microg/l; interquartile range 228-496) compared to the oral group (median difference 5.5 microg/l; interquartile range -1.4 to 19.4; P < 0.001). CONCLUSIONS: Increases in ferritin after intravenous iron administration were significantly greater than those after oral iron administration. There was no significant difference in haemoglobin increments between groups. Despite significantly higher intraoperative blood loss in the group receiving intravenous iron, blood transfusion requirements for both groups were not statistically different. CLINICAL TRIAL REGISTRATION: ISRCTN22158788. Pilot Randomised Control Trial.


**Abstract:** OBJECTIVES: The aim of this study was to compare transcatheter aortic valve replacement (TAVR) with the Acrurate neo (NEO) and Evolut PRO (PRO) devices. BACKGROUND: The NEO and PRO bioprostheses are 2 next-generation self-expanding devices developed for TAVR. METHODS: The NEOPRO (A Multicenter Comparison of Acurate NEO Versus Evolut PRO Transcatheter Heart Valves) registry retrospectively included patients who underwent transfemoral TAVR with either NEO or PRO valves at 24 centers between January 2012 and March 2018. One-to-one propensity score matching resulted in 251 pairs. Pre-discharge and 30-day Valve Academic Research Consortium (VARC)-2 defined outcomes were evaluated. Binary logistic regression was performed to adjust the treatment effect for propensity score quintiles. RESULTS: A total of 1,551 patients (n = 1,263 NEO; n = 288 PRO) were included. The mean age was 82 years, and the mean Society of Thoracic Surgeons score was 5.1%. After propensity score matching (n = 502), VARC-2 device success (90.6% vs. 91.6%; p = 0.751) and pre-discharge moderate to severe (II+) paravalvular aortic regurgitation (7.3% vs. 5.7%; p = 0.584) were comparable between the NEO and PRO groups. Furthermore, there were no significant differences in any 30-day clinical outcome between matched NEO and PRO pairs, including all-cause mortality (3.2% vs. 1.2%; p = 0.221), stroke (2.4% vs. 2.8%; p = 1.000), new permanent pacemaker implantation (11.0% vs. 12.8%; p = 0.565), and VARC-2 early safety endpoint (10.6% vs. 10.4%; p = 1.000). Logistic regression on the unmatched cohort confirmed a similar risk of VARC-2 device success, paravalvular aortic regurgitation II+, and 30-day clinical outcomes after NEO and PRO implantation. CONCLUSIONS: In this multicenter registry, transfemoral TAVR with the NEO and PRO bioprostheses was associated with high device success, acceptable rates of paravalvular aortic
regurgitation II+, and good 30-day clinical outcomes. After adjusting for potential confounders, short-term outcomes were similar between the devices. **Retrospective Study.**

DOI: 10.1016/j.jcin.2018.11.036  PMID: 30846081


**Abstract:** BACKGROUND: Oral P2Y12 inhibitors take more than 2 hours to achieve full effect in healthy subjects and this action is further delayed in patients with acute myocardial infarction. Intravenous P2Y12 inhibition might lead to more timely and potent anti-platelet effect in the context of emergency primary angioplasty, improving myocardial recovery. OBJECTIVES: This article compares the efficacy of intravenous cangrelor versus ticagrelor in a ST-elevation myocardial infarction (STEMI) population treated with primary percutaneous coronary intervention (PPCI). MATERIALS AND METHODS: In an open-label, prospective, randomized controlled trial, 100 subjects with STEMI were assigned 1:1 to intravenous cangrelor or oral ticagrelor. The co-primary endpoints were platelet P2Y12 inhibition at infarct vessel balloon inflation time, 4 and 24 hours. Secondary endpoints included indices of coronary microcirculatory function: index of microvascular resistance (IMR), initial infarct size (troponin at 24 hours) and final infarct size at 12 weeks (cardiac magnetic resonance). Secondary endpoints included indices of coronary microcirculatory function (index of microvascular resistance [IMR]), initial infarct size (troponin at 24 hours), final infarct size at 12 weeks (cardiac magnetic resonance), corrected thrombolysis in myocardial infarction (TIMI) frame count, TIMI flow grade, myocardial perfusion grade, and ST-segment resolution (ClinicalTrials.gov NCT02733341). RESULTS: P2Y12 inhibition at first balloon inflation time was significantly greater in cangrelor-treated patients (cangrelor P2Y12 reaction unit [PRU] 145.2 +/- 50.6 vs. ticagrelor 248.3 +/- 55.1). There was no difference in mean PRU at 4 and 24 to 36 hours post-dosing. IMR, final infarct size, angiographic and electrocardiographic measures of reperfusion were all similar between groups. CONCLUSION: Cangrelor produces more potent P2Y12 inhibition at the time of first coronary balloon inflation time compared with ticagrelor. Despite this enhanced P2Y12 inhibition, coronary microvascular function and final infarct size did not differ between groups. **Randomized Control Trial.**

DOI: 10.1055/s-0039-1688789  PMID: 31129911


**Chemotherapy**


**Abstract:** AIM Recent data have suggested near-equivalent oncological results when treating early rectal cancer by local excision followed by radio- ± chemotherapy rather than salvage radical surgery. The aim of this retrospective study was to assess the use of contact X-ray brachytherapy within this paradigm. METHOD All patients had undergone local excision and were referred to our
radiotherapy centre for treatment with contact X-ray brachytherapy. Postoperative (chemo)radiotherapy was also given in their local hospital in most cases. Variables assessed were local excision method, postoperative therapy received, follow-up duration, disease-free survival, salvage surgery and stoma-free survival.

RESULTS 
In total, 180 patients with a median age of 70 (range 36-99) years were assessed. Following local excision, pT stages were pT1 = 131 (72%), pT2 = 44 (26%), pT3 = 5 (2%). All patients received contact X-ray brachytherapy boosting at our centre and, in addition, 110 received chemoradiotherapy and 60 received radiotherapy alone. After a median follow-up of 36 months (range 6-48), 169 patients (94%) remained free of local recurrence. Of the 11 patients with local recurrence (three isolated nodal), five underwent salvage abdominoperineal excision. Eight patients developed distant disease, of whom five underwent metastasis surgery. At last included follow-up 173 (96%) patients were free of all disease and 170 (94%) were stoma free.

CONCLUSIONS 
Contact therapy can be offered in addition to external beam radio (±chemo)therapy instead of radical surgery as follow-on treatment after local excision of early rectal cancer. This combination can provide equivalent outcomes to radical surgery. The added value of contact therapy should be formally assessed in a clinical trial. 

Retrospective Study.
DOI: 10.1111/codi.14584
PMID: 30742736

Clinical Sciences


Abstract: Delayed discharge reduces hospital efficiency and inconveniences patients. Most hospitals discharge in the afternoon, whereas the most common admission time is mid-morning. Consequently, new patients wait for the beds of patients who are fit to be discharged. Earlier discharge may, therefore, improve patient flow. We investigated the impact of early phlebotomy with early availability of laboratory results on patient discharge rates and discharge time. Discharge rates, discharge time and sample turnaround time were assessed before (1 October 2014 to 31 December 2014) and after (1 October 2015 to 31 December 2015) introduction of earlier phlebotomy with availability of laboratory results prior to the ward rounds on two surgical wards. Following the intervention, over 95% of results were available before 8:30 am in 2015 as compared to less than 1% in 2014. Specimen turnaround times were similar in both study periods. Even after adjustment for age, gender, admission type and length of admission, the same day discharge rate was higher in 2015 compared to 2014 (60% vs. 52%; p<0.002), but time of discharge was unchanged. Early availability of blood results prior to ward rounds increased ward discharges but did not affect discharge time. 

Case Report.
DOI: 10.1515/cclm-2018-0261
PMID: 29924733


Abstract: A 37-yr-old patient previously diagnosed with human immunodeficiency virus initially presented with a genital lesion which upon histologic assessment was diagnosed as a pseudotumor associated with herpes simplex virus infection. The pseudotumor responded to initial treatment with Acyclovir, however, the lesion recurred 2 yr later and was diagnosed as plasma cell vulvitis. We discuss the clinical presentation, diagnostic work up and treatment options of such a rare lesion.
Case Study.
DOI: 10.1097/pgp.0000000000000599  PMCID: 30870250


Abstract: We report a 49-year-old woman with an acute swollen left knee due to acute pseudogout with chondrocalcinosis as a presenting feature of Gitelman syndrome due a novel homozygous mutation of the SLC12A3 gene. This report highlights the under-recognized importance of excluding metabolic disease, including Gitelman syndrome, in younger patients whose sole presenting feature may be chondrocalcinosis with or without pseudogout, as this may impact on management and risk of further episodes. We also suggest that chondrocalcinosis and hypomagnesaemia with or without hypokalaemia are diagnostic of Gitelman syndrome. Case Report.
DOI: 10.1177/0004563219826169  PMID: 30813745
URL: https://tinyurl.com/yxtw8uf7 (Available from Bell Library)


Abstract: BackgroundEarly access for routine testing with the Alinity c clinical chemistry system (Abbot Laboratories) presented the opportunity to characterize the analytical performance of multiple analytes across clinical laboratories in Europe.MethodsA total of 8 laboratories from 7 European countries evaluated 10 high-volume chemistry assays on the Alinity c system for imprecision, linearity, and accuracy by method comparison to the routine ARCHITECT (Abbott Laboratories) method.ResultsWithin-run precision was less than 4% coefficient of variation (CV), with total imprecision less than 5.6% CV for 5- and 20-day evaluations. Linearity met expectations, and method comparison showed strong correlation between the Alinity and ARCHITECT methods, with overall linear correlation coefficient between 0.980 to 1.000 and slopes of the regression line between 0.963 and 1.034. Mean percentage difference between the results of assays run on the ARCHITECT and the Alinity ranged between -1.7% and 2.15%.ConclusionsOur results demonstrated acceptable key analytical performance across all assays tested at each participating laboratory.

Evaluation Study.
DOI: 10.1093/labmed/lmy053  PMID: 30247580
URL: https://academic.oup.com/labmed/article-abstract/50/1/e1/5106140?redirectedFrom=fulltext


Abstract: Background: Overdiagnosis and overtreatment of urinary tract infection (UTI) with antibiotics is a concern. In older adults, diagnosis of UTI using near-patient urine tests (reagent strip tests, dipsticks) is advised against because the age-related increase in asymptomatic bacteriuria can cause false-positive results. Instead, UTI diagnosis should be based on a full clinical assessment. Previous research lacks systematic information on urine dipstick use in hospitals. The aim of this study was to examine the use of urine dipstick tests and microbiology among older adult hospital admissions in relation to recommended UTI diagnostic criteria. A further aim was to assess factors associated with the use of dipsticks. Methods: A case series review of patients aged >/=70 years
admitted to two NHS Trust hospitals in England. Records from 312 patients admitted in 2015 meeting inclusion criteria were selected at random. Results: Of 298 complete patient records, 54% had at least one urine dipstick test recorded. 13% (21/161) of patients who received a urine dipstick test were diagnosed as having a UTI, only 2 out of these 21 cases had two or more clinical signs and symptoms. 60 patients received a second dipstick test, leading to 13 additional cases of UTI diagnosis. Dipstick tests were more likely to be performed on patients with a history of falls (OR 1.93, 95% CI:1.21, 3.07, p < 0.01), and less likely on those with dementia (OR 0.44, 95% CI: 0.22, 0.87, p < 0.05). The most common reason for testing was routine admissions policy (49.1% of cases), but these cases were predominantly in one hospital. Conclusions: Use of urine dipstick tests was high among older adults admitted to hospitals. Most cases were asymptomatic and therefore received inappropriate antibiotic therapy. This paper highlights the need to implement new Public Health England diagnostic guidelines to hospital admission and emergency departments. **Review Article.**


**Abstract:** Herbal remedies adulterated with glucocorticoids can cause Cushing’s syndrome. We report a severe presentation of a ‘herbal remedy’ adulterated with glucocorticoids; causing a potentially fatal adrenal crisis precipitated by acute illness. Investigations were consistent with adrenal suppression and confirmed, after tablet analysis, to be due to a ‘herbal remedy’ containing synthetic betamethasone/dexamethasone. This case highlights the need for clinical vigilance and patient education about the potential risks associated with the use of unlicensed treatments and the role of tablet analysis in routine biochemistry. **Case Report.**

**Colorectal Cancer/Surgery**


**Abstract:** BACKGROUND: A national colorectal cancer screening programme started in England in 2013, offering one-off flexible sigmoidoscopy to all men and women aged 55 years in addition to the biennial faecal occult blood testing programme offered to all individuals aged 60-74 years. We analysed data from six pilot flexible sigmoidoscopy screening centres to examine factors affecting the adenoma detection rate (ADR). METHODS: We did a retrospective analysis of flexible sigmoidoscopy screening procedures performed in individuals aged 55 years at six pilot sites in England as part of the National Health Service Bowel Scope Screening programme. ADR (number of procedures in which at least one adenoma was removed or biopsied, divided by total number of procedures) was calculated for each site and each endoscopist. Multiple regression models were used to examine the variation in ADR with withdrawal time and extent of examination, and the effect of other factors including comfort and bowel preparation on extent of examination. FINDINGS: The analysis included 8256 procedures done between May 7, 2013, and May 6, 2014. The overall ADR was 9.1% (95% CI 8.5-9.8; 755 of 8256 procedures), varying from 7.4% (6.2-8.9) to 11.0% (9.1-13.4) by screening centre. The ADR was 11.5% (95% CI 10.6-12.5; 493 of 4299 procedures) in men
and 6.6% (5.9-7.4; 262 of 3957 procedures) in women (p<0.0001). On multivariate analysis, factors associated with adenoma detection were male sex (relative risk 1.69, 95% CI 1.46-1.95; p<0.0001) and a withdrawal time from the splenic flexure of at least 3.25 min in negative procedures (1.22, 1.00-1.48; p=0.045). However, increasing the withdrawal time to 4.0 min or more did not increase the likelihood of adenoma detection (1.22, 0.99-1.51; p=0.057). Procedures not reaching the splenic flexure were associated with lower chance of adenoma detection (eg, 0.77, 0.66-0.91; p=0.0015 for procedures reaching the descending colon), but there was no additional benefit associated with reaching the transverse colon (0.83, 0.67-1.02; p=0.069). Women (0.83, 0.80-0.87; p<0.0001), individuals with adequate (0.79, 0.76-0.83; p=0.0001) or poor (0.58, 0.51-0.67; p=0.0001) bowel preparation (compared with good bowel preparation), and those with mild (0.82, 0.76-0.88; p<0.0001) or moderate or severe (0.58, 0.51-0.66; p=0.0001) discomfort (compared with no discomfort) were less likely to have a procedure reaching the splenic flexure. INTERPRETATION: Key performance indicators for flexible sigmoidoscopy screening should be defined, including standards for insertion and withdrawal times, optimal depth, and bowel preparation. ADR could be improved by recommending a withdrawal time from the splenic flexure of at least 3.25 min (ideally 3.5-4.0 min). FUNDING: None. Retrospective Study. DOI: 10.1016/s2468-1253(18)30387-x PMID: 30655218 URL: https://tinyurl.com/y27hwhvf (Available via Bell Library) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=30655218


Abstract: The article discusses the challenges faced by people living with dementia and a stoma formation resulting from bowel resection surgery. According to the author, it is important to educate the person with dementia and a stoma to promote and maintain a level of independence, enabling them to stay in control. Additional topics discussed include choice of stoma appliance and professional support for people with dementia and a stoma. Article. DOI: 10.12968/bjon.2019.28.5.S13 PMID: 30907653 URL: https://tinyurl.com/y58oojw9 (Available via Bell Library) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=30907653


Abstract: Anaemia is associated with a reduction in quality of life, and is common in patients with colorectal cancer. We recently reported the findings of the intravenous iron in colorectal cancer-associated anaemia (IVICA) trial comparing haemoglobin levels and transfusion requirements following intravenous or oral iron replacement in anaemic colorectal cancer patients undergoing elective surgery. In this follow-up study, we compared the efficacy of intravenous and oral iron at improving quality of life in this patient group. We conducted a multicentre, open-label randomised controlled trial. Anaemic colorectal cancer patients were randomly allocated at least two weeks preoperatively, to receive either oral (ferrous sulphate) or intravenous (ferric carboxymaltose) iron. We assessed haemoglobin and quality of life scores at recruitment, immediately before surgery and at outpatient review approximately three months postoperatively, using the Short Form 36, EuroQol 5-dimension 5-level and Functional Assessment of Cancer Therapy - Anaemia questionnaires. We recruited 116 anaemic patients across seven UK centres (oral iron n = 61 (53%), and intravenous iron n = 55 (47%)). Eleven quality of life components increased by a clinically significant margin in the intravenous iron group between recruitment and surgery compared with one component for oral iron. Median (IQR [range]) visual analogue scores were significantly higher with intravenous iron at a
three month outpatient review (oral iron 70, (60-85 [20-95]); intravenous iron 90 (80-90 [50-100]), p = 0.001). The Functional Assessment of Cancer Therapy - Anaemia score comprises of subscales related to cancer, fatigue and non-fatigue items relevant to anaemia. Median outpatient scores were higher, and hence favourable, for intravenous iron on the Functional Assessment of Cancer Therapy - Anaemia subscale (oral iron 66 (55-72 [23-80]); intravenous iron 71 (66-77 [46-80])); p = 0.002, Functional Assessment of Cancer Therapy - Anaemia trial outcome index (oral iron 108 (90-123 [35-135]); intravenous iron 121 (113-124 [81-135]); p = 0.003) and Functional Assessment of Cancer Therapy - Anaemia total score (oral iron 151 (132-170 [69-183]); intravenous iron 168 (160-174 [125-186]); p = 0.005). These findings indicate that intravenous iron is more efficacious at improving quality of life scores than oral iron in anaemic colorectal cancer patients. Randomised Control Trial.

DOI: 10.1111/anae.14659  PMID: 30963552


Abstract: SPECC stands for significant polyp and early colorectal cancer and is a clinical term used to describe colorectal lesions which harbour an increased risk of being malignant, where careful assessment and correct management is of paramount importance to optimize patient outcomes. Whilst there is no strict definition for this term, partly because it depends on the thoroughness of the lesion assessment, it can be considered to include any lesion of at least 20 mm in size, along with other lesions, irrespective of size, that display features indicative of a higher risk of malignancy.

Article.

DOI: 10.1111/codi.14491  PMID: 30809904

URL: https://onlinelibrary.wiley.com/doi/pdf/10.1111/codi.14491 (Freely available)

Day Surgery


Abstract: Guidelines are presented for the organisational and clinical management of anaesthesia for day-case surgery in adults and children. The advice presented is based on previously published recommendations, clinical studies and expert opinion. Guidelines.

DOI: 10.1111/anae.14639  PMID: 30963557

URL: https://onlinelibrary.wiley.com/doi/pdf/10.1111/anae.14639 (Freely available)

Dementia


Abstract: The article discusses the challenges faced by people living with dementia and a stoma formation resulting from bowel resection surgery. According to the author, it is important to educate
the person with dementia and a stoma to promote and maintain a level of independence, enabling them to stay in control. Additional topics discussed include choice of stoma appliance and professional support for people with dementia and a stoma. Article.

DOI: 10.12968/bjon.2019.28.5.S13 PMID: 30907653
URL: https://tinyurl.com/y58oojw9 (Available via Athens account)

Dermatology


Abstract: BACKGROUND: Lenalidomide plus dexamethasone is a standard treatment for patients with newly diagnosed multiple myeloma who are ineligible for autologous stem-cell transplantation. We sought to determine whether the addition of daratumumab would significantly reduce the risk of disease progression or death in this population. METHODS: We randomly assigned 737 patients with newly diagnosed multiple myeloma who were ineligible for autologous stem-cell transplantation to receive daratumumab plus lenalidomide and dexamethasone (daratumumab group) or lenalidomide and dexamethasone alone (control group). Treatment was to continue until the occurrence of disease progression or unacceptable side effects. The primary end point was progression-free survival. RESULTS: At a median follow-up of 28.0 months, disease progression or death had occurred in 240 patients (97 of 368 patients [26.4%] in the daratumumab group and 143 of 369 patients [38.8%] in the control group). The estimated percentage of patients who were alive without disease progression at 30 months was 70.6% (95% confidence interval [CI], 65.0 to 75.4) in the daratumumab group and 55.6% (95% CI, 49.5 to 61.3) in the control group (hazard ratio for disease progression or death, 0.56; 95% CI, 0.43 to 0.73; P<0.001). The percentage of patients with a complete response or better was 47.6% in the daratumumab group and 24.9% in the control group (P<0.001). A total of 24.2% of the patients in the daratumumab group, as compared with 7.3% of the patients in the control group, had results below the threshold for minimal residual disease (1 tumor cell per 10^5 white cells) (P<0.001). The most common adverse events of grade 3 or 4 were neutropenia (50.0% in the daratumumab group vs. 35.3% in the control group), anemia (11.8% vs. 19.7%), lymphopenia (15.1% vs. 10.7%), and pneumonia (13.7% vs. 7.9%). CONCLUSIONS: Among patients with newly diagnosed multiple myeloma who were ineligible for autologous stem-cell transplantation, the risk of disease progression or death was significantly lower among those who received daratumumab plus lenalidomide and dexamethasone than among those who received lenalidomide and dexamethasone alone. A higher incidence of neutropenia and pneumonia was observed in the daratumumab group. (Funded by Janssen Research and Development; MAIA ClinicalTrials.gov number, NCT02252172.). Article.

DOI: 10.1056/NEJMoaa1817249 PMID: 31141632
URL: https://insights.ovid.com/crossref?an=00004347-900000000-99111 (Print available in Bell Library)


Abstract: A clinical pathway was created to feed information into a clinical audit checklist, and was adopted as the patient-management model for biological therapies. From this, the data was
reviewed concerning 41 patients who were receiving SEC between January 2014 and December 2018. The results for the Psoriasis Area Severity Index (PASI) and Dermatology Life Quality Index (DLQI) score which are typically reviewed at baseline and at 16 weeks to assess response to treatment. Audit.

DOI: 10.24327/23956429.ijcmpr201904635,
PubMed: not indexed in PubMed

Discharge Planning


Abstract: Delayed discharge reduces hospital efficiency and inconveniences patients. Most hospitals discharge in the afternoon, whereas the most common admission time is mid-morning. Consequently, new patients wait for the beds of patients who are fit to be discharged. Earlier discharge may, therefore, improve patient flow. We investigated the impact of early phlebotomy with early availability of laboratory results on patient discharge rates and discharge time. Discharge rates, discharge time and sample turnaround time were assessed before (1 October 2014 to 31 December 2014) and after (1 October 2015 to 31 December 2015) introduction of earlier phlebotomy with availability of laboratory results prior to the ward rounds on two surgical wards. Following the intervention, over 95% of results were available before 8:30 am in 2015 as compared to less than 1% in 2014. Specimen turnaround times were similar in both study periods. Even after adjustment for age, gender, admission type and length of admission, the same day discharge rate was higher in 2015 compared to 2014 (60% vs. 52%; p<0.002), but time of discharge was unchanged. Early availability of blood results prior to ward rounds increased ward discharges but did not affect discharge time. Case Report.

DOI: 10.1515/cclm-2018-0261
PMID: 29924733

Ear, Nose and Throat


Abstract: Tortuous vertebral arteries are a rare anatomical variant. Mild tortuosity is usually asymptomatic whereas severe tortuosity may present with ischaemic symptoms or compressive symptoms (focal neurological deficit). While a resulting hemifacial spasm has been previously described, sparse literature exists for its association with facial palsy. We present a rare case of facial spasm along with facial palsy in a 67-year-old woman who was found to have an anatomical variant in the posterior basilar circulation with an ectatic basilar artery and significantly displaced posterior vertebral artery impinging on the facial nerve. Case Report.

DOI: 10.1308/rcsann.2019.0069
PMCID: PMC6554565
PMID: 31155905

Abstract: PURPOSE: Fair and equal access to health care for all is a fundamental principle of the National Health Service (NHS) in England. However, findings from a previous national survey examining the experiences of hearing-impaired patients when accessing services within the primary care setting have revealed that significant barriers continue to exist. The aim of this study was to examine the availability of assistive communication devices for patients with hearing loss at reception desks and in patient waiting areas in hospital outpatient settings. METHODS: We conducted a cross-sectional telephone survey involving Audiology and Ear, Nose and Throat (ENT) clinics in NHS hospitals in England. Questionnaires were administered to members of staff at clinic reception desks. RESULTS: All NHS hospital trusts in England providing Audiology and ENT services were included in the survey. Information was obtained from a total of 208 individual clinic reception desks. Assistive communication devices were reported to be available at 64 per cent of Audiology (49/76), 42 per cent of ENT (32/76) and 71 per cent of shared Audiology and ENT reception areas (40/56). The most common type of device was an induction loop system. A substantial proportion of survey respondents were not aware of existing facilities. CONCLUSIONS: There is a shortage of assistive communication devices in Audiology and ENT clinic reception areas in England. The range of technology currently in place is insufficient. We have identified a significant lack of "deaf awareness" among frontline staff. Implications for rehabilitation Providers of health care services must recognize their legal obligation to ensure that their services are made more accessible to patients with hearing loss. The use of multimodal assistive technology ensures that more patients can benefit. Staff awareness and training is essential in improving the quality of service provision. Cross-Sectional Survey. DOI: 10.1080/17483107.2019.1604823 PMID: 31012757 URL: https://www.tandfonline.com/doi/full/10.1080/17483107.2019.1604823 (Available via Bell Library) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=31012757

Education


Abstract: Objective: Academic medical training was overhauled in 2005 after the Walport report and Modernising Medical Careers to create a more attractive and transparent training pathway. In 2007 and 2016, national web-based surveys of gastroenterology trainees were undertaken to determine experiences, perceptions of and perceived barriers to out-of-programme research experience (OOP-R). Design setting and patients: Prospective, national web-based surveys of UK gastroenterology trainees in 2007 and 2016. Main outcome measure: Attitudes to OOP-R of two cohorts of gastroenterology trainees. Results: Response rates were lower in 2016 (25.8% vs 56.7%) (p<0.0001),
although female trainees' response rates increased (from 28.8% to 37.6%) (p=0.17), along with higher numbers of academic trainees. Over 80% of trainees planned to undertake OOP-R in both surveys, with >50% having already undertaken it. Doctor of Philosophy/medical doctorate remained the most popular OOP-R in both cohorts. Successful fellowship applications increased in 2016, and evidence of gender inequality in 2007 was no longer evident in 2016. In the 2016 cohort, 91.1% (n=144) felt the development of trainee-led research networks was important, with 74.7% (n=118) keen to get involved. Conclusions: The majority of gastroenterology trainees who responded expressed a desire to undertake OOP-R, and participation rates in OOP-R remain high. Despite smaller absolute numbers responding than in 2007, 2016 trainees achieved higher successful fellowship application rates. Reassuringly more trainees in 2016 felt that OOP-R would be important in the future. Efforts are needed to tackle potential barriers to OOP-R and support trainees to pursue research-active careers. Survey.

DOI: 10.1136/fgastro-2018-100993  PMCID: PMC6319145  PMID: 30651959

URL: https://fg.bmj.com/content/10/1/57 (Available via Athens account)


Abstract: Not available for this item. Letter.

DOI: 10.1016/j.acra.2019.01.023
PMID: 30765190
URL: https://www.academicradiology.org/article/S1076-6332(19)30053-4/fulltext (Freely available)
PubMed: PMID: 30765190


Abstract: Not available for this item. Letter.

DOI: 10.1016/j.crad.2019.01.030  PMID: 30857744
URL: https://www.clinicalradiologyonline.net/article/S0009-9260(19)30109-6/fulltext (Freely available)

Elderly Care


Abstract: Not available for this article.

DOI: 10.1016/j.jelectrocard.2019.05.009  PMID: 31152997

Emergency and Urgent Care


Abstract: Cardiac gunshot injuries are rare in the United Kingdom, but they are associated with significant morbidity and mortality. We present the case of a young male who was shot at close range with a low-caliber air rifle. The projectile entered the thorax through the right axilla, but it was
identified at the cardiac apex on initial imaging. Subsequent investigations demonstrated the pellet at the apex of the left ventricle. The potential for embolization was considered, and the pellet was retrieved after surgical exploration. No significant valvular injury was sustained despite the pellet’s trajectory, and the patient made an uncomplicated recovery. **Case Study.**

DOI: 10.1016/j.athoracsur.2018.11.034  PMID: 30571952

URL: https://www.annalsthoracicsurgery.org/article/S0003-4975(18)31834-4/fulltext (Available via Bell Library)


**Abstract:** Invasive Group A Streptococcus infections can be underestimated and develop rapidly into serious necrotising soft tissue infections associated with significant morbidity and mortality. We report two children who presented following minor trauma with Group A Streptococcus infections and tissue necrosis. We retrospectively reviewed two relevant cases illustrating their clinical features, treatment and outcomes. A 5-year-old and a 3-year-old both sustained innocuous injuries yet presented with significant facial cellulitis, pyrexia, elevated CRP, white cell and neutrophil count. Both had concurrent upper respiratory infective symptoms. Timely surgical debridement and aggressive antimicrobial therapy was provided. Both patients’ cultures grew Group A streptococcus pyogenes. Children presenting with significant systemic reactions following minor trauma must be monitored closely with a high index of suspicion for necrosis of tissues and treated accordingly. **Case Report.**

DOI: http://dx.doi.org/10.1111/ors.12413

URL: https://onlinelibrary.wiley.com/doi/epdf/10.1111/ors.12413 (Freely available)


**Endocrine and Diabetes**


**Abstract:** The Glycation Gap (GGap) and the similar Hemoglobin Glycation Index (HGI) define consistent differences between glycated hemoglobin and actual glycemia derived from fructosamine or mean blood glucose respectively. Such a disparity may be found in a substantial proportion of people with diabetes, being > than 1 unit of glycated HbA1c% or 7.2 mmol/mol in almost 40% of estimations. In this review we define these indices, explain how they can be calculated and that they are not spurious, being consistent in individuals over time. We evaluate the evidence that GGap and HGI are associated with variation in risk of complications and mortality and demonstrate the potential for clinical error in the unquestioning use of HbA1c. We explore the underlying etiology of the variation of HbA1c from mean glucose in blood plasma including the potential role of enzymatic deglycation of hemoglobin by fructosamine-3-kinase. We conclude that measurement of GGap and HGI are important to diabetes clinicians and their patients in individualization of therapy and the avoidance of harm arising from consequent inappropriate assessment of glycemia and use of therapies. **Review Article.**

DOI: 10.1210/er.2018-00284  PMID: 31074800


Abstract: Herbal remedies adulterated with glucocorticoids can cause Cushing’s syndrome. We report a severe presentation of a ‘herbal remedy’ adulterated with glucocorticoids; causing a potentially fatal adrenal crisis precipitated by acute illness. Investigations were consistent with adrenal suppression and confirmed, after tablet analysis, to be due to a ‘herbal remedy’ containing synthetic betamethasone/dexamethasone. This case highlights the need for clinical vigilance and patient education about the potential risks associated with the use of unlicensed treatments and the role of tablet analysis in routine biochemistry. Case Report.

DOI: 10.1136/bcr-2018-228443 PMID: 30787026
URL: https://casereports.bmj.com/content/12/2/bcr-2018-228443 (Access via Athens account)

Gastroenterology


Abstract: There is no abstract for this item. Letter.

DOI: 10.1111/apt.15104 PMID: 30689253
URL: https://onlinelibrary.wiley.com/doi/pdf/10.1111/apt.15104 (Freely available)


Abstract: Objective: Academic medical training was overhauled in 2005 after the Walport report and Modernising Medical Careers to create a more attractive and transparent training pathway. In 2007 and 2016, national web-based surveys of gastroenterology trainees were undertaken to determine experiences, perceptions of and perceived barriers to out-of-programme research experience (OOP-R). Design setting and patients: Prospective, national web-based surveys of UK gastroenterology trainees in 2007 and 2016. Main outcome measure: Attitudes to OOP-R of two cohorts of gastroenterology trainees. Results: Response rates were lower in 2016 (25.8% vs 56.7%) (p<0.0001), although female trainees’ response rates increased (from 28.8% to 37.6%) (p=0.17), along with higher numbers of academic trainees. Over 80% of trainees planned to undertake OOP-R in both surveys, with >50% having already undertaken it. Doctor of Philosophy/medical doctorate remained the most popular OOP-R in both cohorts. Successful fellowship applications increased in 2016, and evidence of gender inequality in 2007 was no longer evident in 2016. In the 2016 cohort, 91.1% (n=144) felt the development of trainee-led research networks was important, with 74.7% (n=118) keen to get involved. Conclusions: The majority of gastroenterology trainees who responded expressed a desire to undertake OOP-R, and participation rates in OOP-R remain high. Despite smaller absolute numbers responding than in 2007, 2016 trainees achieved higher successful fellowship application rates. Reassuringly more trainees in 2016 felt that OOP-R would be important in the future. Efforts are needed to tackle potential barriers to OOP-R and support trainees to pursue research-active careers. Survey.

DOI: 10.1136/flgastro-2018-100993 PMCID: PMC6319145 PMID: 30651959
URL: https://fg.bmj.com/content/10/1/57 (Available via Athens account)

Abstract: Cholangiopathies describe a group of conditions affecting the intrahepatic and extrahepatic biliary tree. Impairment to bile flow and chronic cholestasis cause biliary inflammation, which leads to more permanent damage such as destruction of the small bile ducts (ductopaenia) and biliary cirrhosis. Most cholangiopathies are progressive and cause end-stage liver disease unless the physical obstruction to biliary flow can be reversed. This review considers large-duct cholangiopathies, such as primary sclerosing cholangitis, ischaemic cholangiopathy, portal biliopathy, recurrent pyogenic cholangitis and Caroli disease. Review Article.
DOI: 10.1055/a-0839-4476 PMID: 31288256 PMCID: PMC6583582
URL: https://fg.bmj.com/content/10/3/284.full (Freely available)


Abstract: Not available for this reference. Letter.
DOI: 10.1111/apt.15260 PMID: 31184394
URL: https://onlinelibrary.wiley.com/doi/full/10.1111/apt.15260 (Freely available)


Abstract: BACKGROUND: The increasing complexity involved in procedures requiring fluoroscopy such as endoscopic retrograde cholangiopancreatography (ERCP) results in heightened screening times with attendant radiation exposure during these procedures. There is increasing awareness of tissue-reactions to the lens of the eye due to radiation exposure, with evidence suggesting that threshold doses may be lower than previously considered. MATERIALS AND METHODS: A literature search was performed to identify studies involving ERCP in which radiation exposure was reported. Demographic data and data on fluoroscopy time and ocular exposure were extracted. Fixed and random-effects meta-analyses were conducted. RESULTS: Twenty-six studies (8016 procedures) were identified, of which 10 studies (818 procedures) contained data on ocular exposure. The mean screening time per procedure was 3.9 min with a mean of three images captured per procedure. On fixed effects meta-analysis, the point estimate for the effective ocular exposure dose per procedure was 0.018 (95% confidence interval: 0.017-0.019) mSv. On random-effects meta-analysis, the effective ocular exposure dose was 0.139 (0.118-0.160) mSv (Q=2590.78, I=99.5, P<0.001). On comparing these point estimates to the ocular dose limit of 20 mSv/year, 1111 ERCPs (using fixed effects data) and 144 ERCPs (using random-effects data), with a mean of 627 ERCPs/individual/year, could deliver an ocular radiation dose equivalent to this dose limit. CONCLUSION: Ocular radiation exposures in high-volume ERCP operators (>200 procedures/year) and operators performing complex ERCPs involving prolonged fluoroscopy, need to exercise caution in relation to ocular exposure. Shielding using lead-lined glasses may be reasonable in this group. Meta-Analysis.
DOI: 10.1097/meg.0000000000001341 PMID: 30830881
URL: https://insights.ovid.com/pubmed?pmid=30830881

**Abstract:** BACKGROUND: Chronic gastroesophageal reflux predisposes to the development of esophageal adenocarcinoma (EAC). Asthma and medication to treat it are associated with gastroesophageal reflux and EAC. We studied subjects with chronic obstructive pulmonary disease (COPD) to examine the relationship between COPD and medication used to treat it, and the risk of reflux esophagitis, Barrett esophagus, and EAC. METHODS: A case-control study from the UK General Practice Research Database was conducted. Cases were aged 50 or above with a diagnosis of COPD and were matched with controls without a diagnosis of COPD by age, general practitioners practice, and time on the database. EAC was confirmed by cross-referencing cancer registry data. Cox-regression analysis was performed to assess the relationship between COPD, reflux esophagitis, Barrett esophagus, and EAC. RESULTS: A total of 45,141 cases were studied [24,464 male, age 75 (50 to 100) years]. Among COPD cases there were 55 esophageal cancers (30 EAC) and 506 Barrett esophagus, compared with 62 (34 EAC) and 329 Barrett esophagus among controls. COPD was not associated with EAC on univariable [0.92 (0.56 to 1.50), P=0.73] and multivariable analysis [0.85 (0.52 to 1.40), P=0.53]. COPD was however, associated with Barrett esophagus on univariable [0.92 (0.56 to 1.50), P=0.73] and multivariable [1.53 (1.31 to 1.78), P<0.001] analysis and reflux esophagitis on univariable [1.41 (1.36 to 1.48), P<0.001] and multivariable [1.33 (1.27 to 1.40), P<0.001] analysis. CONCLUSION: COPD is associated with an increased risk of reflux esophagitis and Barrett esophagus but not EAC. *Case-Control Study.* DOI: 10.1097/mcg.0000000000001215


**Abstract:** This is the first UK national guideline to concentrate on acute lower gastrointestinal bleeding (LGIB) and has been commissioned by the Clinical Services and Standards Committee of the British Society of Gastroenterology (BSG). The Guidelines Development Group consisted of representatives from the BSG Endoscopy Committee, the Association of Coloproctology of Great Britain and Ireland, the British Society of Interventional Radiology, the Royal College of Radiologists, NHS Blood and Transplant and a patient representative. A systematic search of the literature was undertaken and the quality of evidence and grading of recommendations appraised according to the GRADE(Grading of Recommendations Assessment, Development and Evaluation) methodology. These guidelines focus on the diagnosis and management of acute LGIB in adults, including methods of risk assessment and interventions to diagnose and treat bleeding (colonoscopy, computed tomography, mesenteric angiography, endoscopic therapy, embolisation and surgery). Recommendations are included on the management of patients who develop LGIB while receiving anticoagulants (including direct oral anticoagulants) or antiplatelet drugs. The appropriate use of blood transfusion is also discussed, including haemoglobin triggers and targets. *Guidelines.* DOI: 10.1136/gutjnl-2018-317807 PMID: 30792244


Abstract: High quality gastrointestinal (GI) endoscopy improves patient care. Raising standards in endoscopy improves diagnostic accuracy, management of pathology and ultimately improves outcomes. Historical identification of significant variation in colonoscopy quality led to the development of the Joint Advisory Group (JAG) on GI Endoscopy, the Global Rating Scale (GRS), JAG Endoscopy Training System (JETS) training and certification. These measures led to major improvements in UK endoscopy but significant variation in practice still exists. To improve quality further the British Society of Gastroenterology Endoscopy Quality Improvement (EQIP) has been established with the aim of raising quality and reducing variation in the quality of UK endoscopy. A multifaceted approach to quality improvement (QI) will be undertaken and is described in this manuscript. Upper GI EQIP will support adoption of standards alongside regional upskilling courses. Lower GI EQIP will focus on supporting endoscopists to achieve current standards alongside approaches to reducing postcolonoscopy colorectal cancer rates. Endoscopic retrograde cholangiopancreatography EQIP will adopt a regional approach of using local data to support network-based QI. Newer areas of endoscopy practice such as small bowel endoscopy and endoscopic ultrasound will focus on identifying key performance indicators as well as standardising training and accreditation pathways. EQIP will also support QI in management of GI bleeding as well as standardising the approach to new techniques and technologies. Where evidence is lacking, approaches to gather new evidence and support the translation into clinical practice will be supported. Review Article.

DOI: 10.1136/flgastro-2018-101073 PMID: 31205655 PMCID: PMC6540284
URL: https://fg.bmj.com/content/10/2/148 (Available via Athens account)


Abstract: SPECC stands for significant polyp and early colorectal cancer and is a clinical term used to describe colorectal lesions which harbour an increased risk of being malignant, where careful assessment and correct management is of paramount importance to optimize patient outcomes. Whilst there is no strict definition for this term, partly because it depends on the thoroughness of the lesion assessment, it can be considered to include any lesion of at least 20 mm in size, along with other lesions, irrespective of size, that display features indicative of a higher risk of malignancy.

Article.

DOI: 10.1111/codi.14491 PMID: 30809904
URL: https://onlinelibrary.wiley.com/doi/pdf/10.1111/codi.14491 (Freely available)


Abstract: Introduction In the UK, endoscopy certification is administered by the Joint Advisory Group on Gastrointestinal Endoscopy (JAG). Since 2011, certification for upper and lower gastrointestinal endoscopy has been awarded via a national (JETS) e-portfolio to the main training specialties of: gastroenterology, gastrointestinal surgeons (GS) and non-medical endoscopists (NME). Trends in
endoscopy certification and differences between trainee specialties were analyzed. Methods This prospective UK-wide observational study identified trainees awarded gastroscopy, sigmoidoscopy, colonoscopy (provisional and full) certification between June 2011 - 2017. Trends in certification, procedures and time-to-certification, and key performance indicators (KPIs) in the 3-month pre- and post-certification period were compared between the three main training specialties. Results Three thousand one hundred fifty-seven endoscopy-related certifications were awarded to 1928 trainees from gastroenterology (52.3 %), GS (28.4 %) and NME (16.5 %) specialties. During the study period, certification numbers increased for all modalities and specialties, particularly NME trainees. For gastroscopy and colonoscopy, procedures-to-certification were lowest for GS (P < 0.001), whereas time-to-certification was consistently shortest in NMEs (P < 0.001). A post-certification reduction in mean cecal intubation rate (95.2 % to 93.8 %, P < 0.001) was observed in colonoscopy, and D2 intubation (97.6 % to 96.2 %, P < 0.001) and J-maneuver (97.3 % to 95.8 %, P < 0.001) in gastroscopy. Overall, average pre- and post-certification KPIs still exceeded national minimum standards. There was an increase in PDR for NMEs after provisional colonoscopy certification but a decrease in PDR for GS trainees after sigmoidoscopy and full colonoscopy certification. Conclusion Despite variations among trainee specialties, average pre- and post-certification KPIs for certified trainees met national standards, suggesting that JAG certification is a transparent benchmark which adequately safeguards competency in endoscopy training. 

General Surgery


Abstract: INTRODUCTION: Daycase trauma surgery is an evolving and a novel approach. The aim of our study was to report our experience of daycase trauma surgery with a focus on safety, patient experience, complications and limitations. MATERIAL AND METHODS: Patients scheduled and operated on a daycase trauma list from January 2013 to December 2016 were included in the study. Age, sex, case mix, readmissions within 48 hours, complications, patient satisfaction, reasons for overnight stay and cost effectiveness were evaluated. RESULTS: A total of 229 procedures were carried out. The mean age of the patients was 44.3 years (range 16-85 years). There were 128 men and 101 women, 178 upper-limb and 51 lower-limb cases. Only 2.6% of the patients had stayed overnight for pain control, physiotherapy and neurological observations; 94.5% of the patients were satisfied. The mean visual analogue scale score for satisfaction was 8.7. There were no admissions within 48 hours of discharge and one complication with failure of ankle fixation. The estimated cost saving was pound65,562. CONCLUSION: We conclude that a daycase trauma service is safe, cost effective, and yields high patient satisfaction. It reduces the burden on hospital beds and a wide range of upper- and lower-limb cases can be performed as daycase trauma surgery with adequate planning and teamwork. 

Association of Anaesthetists and the British Association of Day Surgery. Anaesthesia, 74 (6), 778-792.

Abstract: Guidelines are presented for the organisational and clinical management of anaesthesia for day-case surgery in adults and children. The advice presented is based on previously published recommendations, clinical studies and expert opinion. Guideline. DOI: 10.1111/anae.14639  PMID: 30963557
URL: https://onlinelibrary.wiley.com/doi/full/10.1111/anae.14639 (Freely available)


Abstract: With increasing experience, more complex patients are undergoing robotic surgery but the patient safety during these procedures remains paramount. Being a relatively recent technique of minimal access surgery, the safety and feasibility of robotic surgery is still under scrutiny. We recently performed two robotic procedures in patients who have permanent cardiac pacemaker. We believe this is the first published report through which it is shared and discussed, the preoperative and intraoperative management for these patients along with the importance of WHO checklist for safely performing robotic procedures. The importance of pre-procedure planning and briefing cannot be emphasised enough as these along with intraoperative management remain the key step in dealing with an adverse cardiac event due to permanent pacemaker malfunction. Clinical Practice. DOI: 10.1177/1750458918790693  PMID: 30062930
URL: https://journals.sagepub.com/doi/10.1177/1750458918790693 (Available via Bell Library)


Abstract: Key content: Abdominal pain in pregnancy is common, with a differential diagnosis that can encompass obstetric, surgical and medical conditions. Presentation of common surgical problems can be atypical in pregnancy, potentially delaying diagnosis. Surgical causes of abdominal pain to consider in pregnancy include appendicitis, cholecystitis, bowel obstruction, ureteric obstruction, pancreatitis and aneurysm rupture, most commonly involving the splenic artery. The management of surgical conditions in pregnancy requires continuing evaluation and potential modification to balance the medical, surgical and obstetric challenges. Management of the pregnant woman with a surgical cause of abdominal pain requires collaborative, multispecialty practice to optimise care of the mother and baby. Learning objectives: To highlight the differential diagnoses of abdominal pain in pregnancy. To develop a structured assessment process for pregnant women with abdominal pain. To update the obstetrician on the priorities of surgical management for abdominal pain in pregnancy. Ethical issues: Evaluating the risks of surgical interventions on the mother and baby with the high potential for premature delivery. Evaluation Study. DOI: doi.org/10.1111/tog.12536
URL: https://obgyn.onlinelibrary.wiley.com/doi/pdf/10.1111/tog.12536 (Freely available)
PubMed: Not indexed in PubMed
Haematology


**Abstract:** BACKGROUND: Delayed discharge reduces hospital efficiency and inconveniences patients. Most hospitals discharge in the afternoon, whereas the most common admission time is mid-morning. Consequently, new patients wait for the beds of patients who are fit to be discharged. Earlier discharge may, therefore, improve patient flow. We investigated the impact of early phlebotomy with early availability of laboratory results on patient discharge rates and discharge time. METHODS: Discharge rates, discharge time and sample turnaround time were assessed before (1 October 2014 to 31 December 2014) and after (1 October 2015 to 31 December 2015) introduction of earlier phlebotomy with availability of laboratory results prior to the ward rounds on two surgical wards. RESULTS: Following the intervention, over 95% of results were available before 8:30 am in 2015 as compared to less than 1% in 2014. Specimen turnaround times were similar in both study periods. Even after adjustment for age, gender, admission type and length of admission, the same day discharge rate was higher in 2015 compared to 2014 (60% vs. 52%; p<0.002), but time of discharge was unchanged. CONCLUSIONS: Early availability of blood results prior to ward rounds increased ward discharges but did not affect discharge time. **Clinical Practice.**

DOI: 10.1515/cclm-2018-0261 PMID: 29924733


**Abstract:** Anaemia is associated with a reduction in quality of life, and is common in patients with colorectal cancer. We recently reported the findings of the intravenous iron in colorectal cancer-associated anaemia (IVICA) trial comparing haemoglobin levels and transfusion requirements following intravenous or oral iron replacement in anaemic colorectal cancer patients undergoing elective surgery. In this follow-up study, we compared the efficacy of intravenous and oral iron at improving quality of life in this patient group. We conducted a multicentre, open-label randomised controlled trial. Anaemic colorectal cancer patients were randomly allocated at least two weeks pre-operatively, to receive either oral (ferrous sulphate) or intravenous (ferric carboxymaltose) iron. We assessed haemoglobin and quality of life scores at recruitment, immediately before surgery and at outpatient review approximately three months postoperatively, using the Short Form 36, EuroQol 5-dimension 5-level and Functional Assessment of Cancer Therapy - Anaemia questionnaires. We recruited 116 anaemic patients across seven UK centres (oral iron n = 61 (53%), and intravenous iron n = 55 (47%)). Eleven quality of life components increased by a clinically significant margin in the intravenous iron group between recruitment and surgery compared with one component for oral iron. Median (IQR [range]) visual analogue scores were significantly higher with intravenous iron at a three month outpatient review (oral iron 70, [60-85 [20-95]]; intravenous iron 90 [80-90 [50-100]), p = 0.001. The Functional Assessment of Cancer Therapy - Anaemia score comprises of subscales related to cancer, fatigue and non-fatigue items relevant to anaemia. Median outpatient scores were higher, and hence favourable, for intravenous iron on the Functional Assessment of Cancer Therapy - Anaemia subscale (oral iron 66 [55-72 [23-80]]; intravenous iron 71 [66-77 [46-80]); p = 0.002), Functional Assessment of Cancer Therapy - Anaemia trial outcome index (oral iron 108 [90-123 [35-135]); intravenous iron 121 (113-124 [81-135]); p = 0.003) and Functional Assessment of
Cancer Therapy - Anaemia total score (oral iron 151 (132-170 [69-183]); intravenous iron 168 (160-174 [125-186]); p = 0.005). These findings indicate that intravenous iron is more efficacious at improving quality of life scores than oral iron in anaemic colorectal cancer patients. Randomised Control Trial.

DOI: http://dx.doi.org/10.1111/anae.14659  PMID: 30963552
URL: https://onlinelibrary.wiley.com/doi/pdf/10.1111/anae.14659 (Freely available)


Abstract: We previously reported the safety and efficacy of low dose BaP [Bezafibrate (Bez) and Medroxyprogesterone acetate (MPA)] in 20 acute myeloid leukaemia (AML) patients for whom chemotherapy was not an option. This study provided evidence that BaP had anti-AML activity and improved haemopoiesis; absence of haematological toxicity allowed continuous daily administration. Similarly a previous trial in endemic Burkitt lymphoma demonstrated anti-B cell lymphoma activity of low and high dose BaP again in the absence of toxicity. We conducted a study to further evaluate the safety and activity of high dose BaP therapy in adults with AML (and high risk Myelodysplastic Syndromes (MDS)), chronic lymphocytic leukaemia (CLL) or B-cell Non-Hodgkin Lymphoma (BHNHL). Eighteen patients were recruited to the study over 20 months, 16 AML/MDS, 1 CLL, and 1 BHNHL. Although MPA was well tolerated throughout the study, only 2 patients were able to tolerate Bez treatment for their whole trial duration, indicating that Bez escalation is not feasible in the setting of adult AML/MDS. Thus there has been no obvious benefit in improved haemopoiesis or overt anti-leukaemia activity from the attempts to escalate BaP dose over previous published studies. Since current therapeutic options in MDS are restricted it may be now of value to continue to evaluate low dose BaP based approaches in low risk MDS rather than AML/high risk MDS. Furthermore, screening of low dose BaP against libraries of other already available drugs may identify an addition to BaP that augments the anti-neoplastic efficacy without significant toxicity. Clinical Trial.

DOI: 10.1016/j.conctc.2019.100361  PMCID: PMC6463739  PMID: 31011660
URL: https://www.sciencedirect.com/science/article/pii/S2451865418301844?via%3Dihub (Freely Available)
PubMed: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6463739/


Abstract: OBJECTIVES: Preoperative anaemia is a strong predictor of blood transfusion requirements and must be assessed for appropriate optimization before elective surgery. Iron therapy is a transfusion-sparing approach effective for increasing haemoglobin concentrations. However, its role in elective cardiac surgery and the optimal route of administration remain unknown. This single-centre, non-blinded, randomized, controlled trial compared the effectiveness of intravenous ferric carboxymaltose therapy with oral iron for anaemic patients undergoing elective cardiac surgery. METHODS: Fifty anaemic patients scheduled for elective cardiac surgery were randomized to receive either oral or intravenous iron therapy 3-8 weeks preoperatively. Changes in haemoglobin concentration were measured. Blood transfusion and postoperative outcome data were collected. RESULTS: Preoperative median increases in haemoglobin were 1.0 g/l (interquartile range -3.25 to 7.25 g/l) and 3.0 g/l (interquartile range -1.25 to 6.25 g/l) for patients receiving intravenous and oral
iron, respectively (P = 0.42). The median first 12-h blood loss was significantly higher in the intravenous group (655 ml; interquartile range 162-1540 ml) compared to the oral group (313 ml; interquartile range 150-1750 ml; P < 0.007). Median increments in serum ferritin were superior for the intravenous group (median difference 313 microg/l; interquartile range 228-496) compared to the oral group (median difference 5.5 microg/l; interquartile range -1.4 to 19.4; P < 0.001).

CONCLUSIONS: Increases in ferritin after intravenous iron administration were significantly greater than those after oral iron administration. There was no significant difference in haemoglobin increments between groups. Despite significantly higher intraoperative blood loss in the group receiving intravenous iron, blood transfusion requirements for both groups were not statistically different. CLINICAL TRIAL REGISTRATION: ISRCTN22158788. Pilot Randomised Control Trial.

DOI: 10.1093/icvts/ivy226 PMID: 30107449
URL: https://academic.oup.com/icvts/article/28/3/447/5068638 (Freely Available)

Infection Control and Prevention


Abstract: BACKGROUND: The National Health Service in England advises hospitals collect data on hospital-onset diarrhoea (HOD). Contemporaneous data on HOD are lacking. AIM: To investigate prevalence, aetiology and management of HOD on medical, surgical and elderly-care wards. METHODS: A cross-sectional study in a volunteer sample of UK hospitals, which collected data on one winter and one summer day in 2016. Patients admitted >/=72 hours were screened for HOD (definition: >/=2 episodes of Bristol Stool Type 5-7 the day before the study, with diarrhoea-onset >48 hours after admission). Data on HOD aetiology and management were collected prospectively. FINDINGS: Data were collected on 141 wards in 32 hospitals (16 acute, 16 teaching). Point-prevalence of HOD was 4.5% (230/5142 patients; 95% CI 3.9-5.0%). Teaching hospital HOD prevalence (5.9%, 95% CI 5.1-6.9%) was twice that of acute hospitals (2.8%, 95% CI 2.1-3.5%; odds ratio 2.2, 95% CI 1.7-3.0). At least one potential cause was identified in 222/230 patients (97%): 107 (47%) had a relevant underlying condition, 125 (54%) were taking antimicrobials, and 195 (85%) other medication known to cause diarrhoea. 9/75 tested patients were Clostridium difficile toxin positive (4%). 80 (35%) patients had a documented medical assessment of the diarrhoea. Documentation of HOD in medical notes correlated with testing for C. difficile (78% of those tested versus 38% not tested, p<0.001). 144 (63%) patients were not isolated following diarrhoea onset. CONCLUSION: HOD is a prevalent symptom affecting thousands of patients across the UK health system each day. Most patients have multiple potential causes of HOD, mainly iatrogenic, but only a third had medical assessment. Most were not tested for C. difficile and were not isolated. Cross Sectional Study.

DOI: 10.1016/j.jhin.2019.05.001 PMID: 31077777
URL: https://www.journalofhospitalinfection.com/article/S0195-6701(19)30192-6/addons (Available via Bell Library)

Abstract: In Nepal, burn is the third most common injury after falls and road traffic accidents. Infection is the leading cause of mortality in burn injury. A profile exploring predominant flora and antimicrobial sensitivity is important to facilitate treatment ahead of microbiology results and to aid prevention of multidrug resistant organisms. The aim of this study is to document epidemiological and bacteriological data of burn wound infections at a tertiary level burns centre in Nepal. Original article.
DOI: 10.1093/jbcr/irz096 PMID: 31197366
URL: https://academic.oup.com/jbcr/advance-article/doi/10.1093/jbcr/irz096/5518388


Abstract: Background: Overdiagnosis and overtreatment of urinary tract infection (UTI) with antibiotics is a concern. In older adults, diagnosis of UTI using near-patient urine tests (reagent strip tests, dipsticks) is advised against because the age-related increase in asymptomatic bacteriuria can cause false-positive results. Instead, UTI diagnosis should be based on a full clinical assessment. Previous research lacks systematic information on urine dipstick use in hospitals. The aim of this study was to examine the use of urine dipstick tests and microbiology among older adult hospital admissions in relation to recommended UTI diagnostic criteria. A further aim was to assess factors associated with the use of dipsticks. Methods: A case series review of patients aged >/=70 years admitted to two NHS Trust hospitals in England. Records from 312 patients admitted in 2015 meeting inclusion criteria were selected at random. Results: Of 298 complete patient records, 54% had at least one urine dipstick test recorded. 13% (21/161) of patients who received a urine dipstick test were diagnosed as having a UTI, only 2 out of these 21 cases had two or more clinical signs and symptoms. 60 patients received a second dipstick test, leading to 13 additional cases of UTI diagnosis. Dipstick tests were more likely to be performed on patients with a history of falls (OR 1.93, 95% CI:1.21, 3.07, p < 0.01), and less likely on those with dementia (OR 0.44, 95% CI: 0.22, 0.87, p < 0.05). The most common reason for testing was routine admissions policy (49.1% of cases), but these cases were predominantly in one hospital. Conclusions: Use of urine dipstick tests was high among older adults admitted to hospitals. Most cases were asymptomatic and therefore received inappropriate antibiotic therapy. This paper highlights the need to implement new Public Health England diagnostic guidelines to hospital admission and emergency departments. Review Article.
DOI: 10.1186/s13756-019-0519-1 PMID: 31073402 PMCID: PMC6498584
URL: https://aricjournal.biomedcentral.com/articles/10.1186/s13756-019-0519-1 (Freely available)
PubMed: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6498584/

Intensive/Critical Care


Abstract: An 84-year-old woman presented to hospital with severe clinical and metabolic sequelae of a massive paracetamol overdose (concentration=822 mg/L). In spite of N-acetylcysteine therapy, she deteriorated with evidence of mitochondrial dysfunction. Although the EXtracorporeal TREatments In Poisoning group recommend adjunct haemodialysis (HD) in such a
context, this was difficult to start due to haemodynamic instability. Instead, a trial of continuous venovenous haemodiafiltration (CVVHDF) was initiated in an attempt to restore normal mitochondrial function, normal pH and to actively remove the offending drug. Fortunately, plasma paracetamol levels fell exponentially over the subsequent 24-48 hours without the need to commence HD. The patient made a full recovery and was later discharged from the hospital. This case highlights that CVVHDF can be a reasonable alternative to HD for managing massive paracetamol overdoses in the context of mitochondrial dysfunction. **Case Report.**

DOI: http://dx.doi.org/10.1136/bcr-2018-228920  PMID: 30954964  


**Abstract:** NHS England recently mandated that the National Early Warning Score of vital signs be used in all acute hospital trusts in the UK despite limited validation in the postoperative setting. We undertook a multicentre UK study of 13,631 patients discharged from intensive care after risk-stratified cardiac surgery in four centres, all of which used VitalPACTM to electronically collect postoperative National Early Warning Score vital signs. We analysed 540,127 sets of vital signs to generate a logistic score, the discrimination of which we compared with the national additive score for the composite outcome of: in-hospital death; cardiac arrest; or unplanned intensive care admission. There were 578 patients (4.2%) with an outcome that followed 4300 sets of observations (0.8%) in the preceding 24 h: 499 out of 578 (86%) patients had unplanned re-admissions to intensive care. Discrimination by the logistic score was significantly better than the additive score. Respective areas (95%CI) under the receiver-operating characteristic curve with 24-h and 6-h vital signs were: 0.779 (0.771-0.786) vs. 0.754 (0.746-0.761), p < 0.001; and 0.841 (0.829-0.853) vs. 0.813 (0.800-0.825), p < 0.001, respectively. Our proposed logistic Early Warning Score was better than the current National Early Warning Score at discriminating patients who had an event after cardiac surgery from those who did not. **Retrospective Study.**

DOI: 10.1111/anae.14755  PMID: 31270799  


**Abstract:** Medical students encounter many challenges on their path to success, from managing their time, applying theory to practice, and passing exams. The Medical Student Survival Skills series helps medical students navigate core subjects of the curriculum, providing accessible short reference guides for OSCE preparation and hospital placements. These guides are the perfect tool for achieving clinical success. **Book.**

URL: https://tinyurl.com/y2x2efz6

**Neurology**


**Abstract:** Tortuous vertebral arteries are a rare anatomical variant. Mild tortuosity is usually asymptomatic whereas severe tortuosity may present with ischaemic symptoms or compressive symptoms (focal neurological deficit). While a resulting hemifacial spasm has been previously
described, sparse literature exists for its association with facial palsy. We present a rare case of facial spasm along with facial palsy in a 67-year-old woman who was found to have an anatomical variant in the posterior basilar circulation with an ectatic basilar artery and significantly displaced posterior vertebral artery impinging on the facial nerve. **Case Report.**

**DOI:** 10.1308/rcsann.2019.0069  **PMID:** 31155905  **PMCID:** PMC6554565  31155905

**URL:** [https://tinyurl.com/y55xpjw3](https://tinyurl.com/y55xpjw3) (Available via Bell Library)


**Obstetrics and Gynaecology**


**Abstract:** A 37-yr-old patient previously diagnosed with human immunodeficiency virus initially presented with a genital lesion which upon histologic assessment was diagnosed as a pseudotumor associated with herpes simplex virus infection. The pseudotumor responded to initial treatment with Acyclovir, however, the lesion recurred 2 yr later and was diagnosed as plasma cell vulvitis. We discuss the clinical presentation, diagnostic work up and treatment options of such a rare lesion.

**Case Study.**

**DOI:** 10.1097/pgp.0000000000000599  **PMCID:** 30870250


Grant, L., Chipwete, S., Soo Hoo, S. and Bhatnagar, A. (2019) *Extrapulmonary uterine lymphangioleiomyomatosis (LAM) and dysfunctional uterine bleeding: the first presentation of LAM in a tuberous sclerosis complex patient.* BMJ Case Reports, **12** (2),

**Abstract:** Lymphangioleiomyomatosis (LAM) is a rare disease that typically affects women of childbearing age. It most commonly affects the lungs (P-LAM) but can occasionally occur in extrapulmonary sites (E-LAM). There is a strong association between LAM and the tuberous sclerosis complex (TSC). We report a case of a 42-year-old female TSC sufferer who presented with dysfunctional uterine bleeding. She was not known to have LAM. An endometrial biopsy revealed a spindled-cell lesion suspicious of leiomyosarcoma, which correlated with cross-sectional imaging. She underwent a hysterectomy that showed a bizarre (symplastic) leiomyomatous endometrial polyp with background uterine LAM. We discuss the clinical and pathological implications of this unusual case of E-LAM and the importance of clinicalpathological correlation in TSC sufferers. The association of uterine LAM with TSC is important and LAM should be considered as a differential of dysfunctional uterine bleeding and a benign mimic to uterine leiomyosarcoma in patients with TSC.

**Case Report.**

**DOI:** 10.1136/bcr-2018-226358  **PMID:** 30804158

**URL:** [https://tinyurl.com/y5slbkw4](https://tinyurl.com/y5slbkw4) (Available via Athens account)


**Abstract:** Vulval extraskeletal myxoid chondrosarcoma (EMC) is a rare cause of vulval swelling, reported <10 times in the literature to date. EMC in this location is frequently misdiagnosed due to its rarity, and patients may incur delays in diagnosis and treatment. We herein present the diagnosis
and management of the case of vulval EMC in a 42-year-old Caucasian female patient who presented in 2011 with a swelling on the right labium majus. The tumour was initially misdiagnosed as a Bartholin’s cyst and managed conservatively. The tumour was ultimately diagnosed as EMC and treated by radical surgical excision and adjuvant radiotherapy. The aim of the present study was to report the results after a long-term follow-up period and review the available relevant literature.

Case Report.
DOI: 10.3892/mco.2019.1822  PMCID: PMC6449903  PMID: 30967942
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6449903/?report=reader (Freely available)


Abstract: Key content: Abdominal pain in pregnancy is common, with a differential diagnosis that can encompass obstetric, surgical and medical conditions. Presentation of common surgical problems can be atypical in pregnancy, potentially delaying diagnosis. Surgical causes of abdominal pain to consider in pregnancy include appendicitis, cholecystitis, bowel obstruction, ureteric obstruction, pancreatitis and aneurysm rupture, most commonly involving the splenic artery. The management of surgical conditions in pregnancy requires continuing evaluation and potential modification to balance the medical, surgical and obstetric challenges. Management of the pregnant woman with a surgical cause of abdominal pain requires collaborative, multispecialty practice to optimise care of the mother and baby. Learning objectives: To highlight the differential diagnoses of abdominal pain in pregnancy. To develop a structured assessment process for pregnant women with abdominal pain. To update the obstetrician on the priorities of surgical management for abdominal pain in pregnancy. Ethical issues: Evaluating the risks of surgical interventions on the mother and baby with the high potential for premature delivery. Evaluation Study.
DOI: doi.org/10.1111/tog.12536
URL: https://obgyn.onlinelibrary.wiley.com/doi/pdf/10.1111/tog.12536 (Freely available)
PubMed: Not indexed in PubMed

Ophthalmology


Abstract: Purpose To report on the composition and performance of the portfolio of Ophthalmology research studies in the United Kingdom’s National Institute for Health Research (NIHR) Clinical Research Network (UK CRN). Methods Ophthalmology studies open to recruitment between 1 April 2010 and 31 March 2018 were classified by: sub-specialty, participant age, gender of Chief Investigator, involvement of genetic investigations, commercial/ non-commercial, interventional/observational design. Frequency distributions for each covariate and temporal variation in recruitment to time and target were analysed. Results Over 8 years, 137,377 participants were recruited (average of 15,457 participants/year; range: 5485–32,573) with growth by year in proportion of commercial studies and hospital participation in England (76% in 2017/18). Fourteen percent of studies had a genetic component and most studies (82%) included only adults. The majority of studies (41%) enrolled patients with retinal diseases, followed by glaucoma (17%), anterior segment and cataract (13%), and ocular inflammation (6%). Overall, 68% of non-commercial studies and 55% of commercial studies recruited within the anticipated time set by the study and also recruited to or exceeded the target number of participants. Conclusions High levels of clinical research activity, growth and improved performance have been observed in Ophthalmology in UK
over the past 8 years. Some sub-specialties that carry substantial morbidity and a very high burden on NHS services are underrepresented and deserve more patient-centred research. Yet the NIHR and its CRN Ophthalmology National Specialty Group has enabled key steps in achieving the goal of embedding research into everyday clinical care. **Survey.**

**DOI:** 10.1038/s41433-018-0251-8  
**PMID:** 30459469  
**PMCID:** PMC6461943  
**URL:** https://www.nature.com/articles/s41433-018-0251-8 (Available via Bell Library)  
**PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/?term=30459469


**Abstract:** **BACKGROUND:** The increasing complexity involved in procedures requiring fluoroscopy such as endoscopic retrograde cholangiopancreatography (ERCP) results in heightened screening times with attendant radiation exposure during these procedures. There is increasing awareness of tissue-reactions to the lens of the eye due to radiation exposure, with evidence suggesting that threshold doses may be lower than previously considered. **MATERIALS AND METHODS:** A literature search was performed to identify studies involving ERCP in which radiation exposure was reported. Demographic data and data on fluoroscopy time and ocular exposure were extracted. Fixed and random-effects meta-analyses were conducted. **RESULTS:** Twenty-six studies (8016 procedures) were identified, of which 10 studies (818 procedures) contained data on ocular exposure. The mean screening time per procedure was 3.9 min with a mean of three images captured per procedure. On fixed effects meta-analysis, the point estimate for the effective ocular exposure dose per procedure was 0.018 (95% confidence interval: 0.017-0.019) mSv. On random-effects meta-analysis, the effective ocular exposure dose was 0.139 (0.118-0.160) mSv (Q=2590.78, I=99.5, P<0.001). On comparing these point estimates to the ocular dose limit of 20 mSv/year, 1111 ERCPs (using fixed effects data) and 144 ERCPs (using random-effects data), with a mean of 627 ERCPs/individual/year, could deliver an ocular radiation dose equivalent to this dose limit. **CONCLUSION:** Ocular radiation exposures in high-volume ERCP operators (>200 procedures/year) and operators performing complex ERCPs involving prolonged fluoroscopy, need to exercise caution in relation to ocular exposure. Shielding using lead-lined glasses may be reasonable in this group. **Meta-Analysis.**

**DOI:** 10.1097/meg.0000000000001341  
**PMID:** 30830881  
**URL:** https://insights.ovid.com/pubmed?pmid=30830881  
**PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/?term=30830881


**Abstract:** **OBJECTIVES:** To illustrate the varying clinical presentations of cutaneous sarcoidosis affecting the periocular region, which may masquerade as other clinical entities such as basal cell carcinoma or seborrheic dermatitis. Furthermore, the authors present an unusual observation of lupus pernio involving the adnexal region with the rare presence of perineural granulomas on histology following incisional biopsy. **METHODS:** We report a consecutive series of four cases with lesions involving the eyelids with varying clinical appearances. All four patients presented to our adnexal service undergoing incisional diagnostic biopsy. Histology following biopsy subsequently resulted in further investigation and management of both local cutaneous lesions and systemic sarcoidosis. **RESULTS:** Three of our four cases had evidence of pulmonary involvement on chest X-ray. Over an 18-month period, one of two patients responded to intralesional triamcinolone and subsequently to oral methotrexate (15 mg/week). Two patients were observed with their periocular lesions remaining stable without therapy. **CONCLUSIONS:** All four patients presented to the adnexal service with lesions of varying morphology and were diagnosed with sarcoidosis following incisional
biopsy highlighting the vital role of oculoplastic surgeons in diagnosing this multisystem inflammatory disease. We describe our experience of intralesional triamcinolone, oral methotrexate and watchful observation in the management of such lesions.  

**Case Reports and Literature Review.**

10.1038/s41433-019-0448-5  
**PMID:** 31048763  
**URL:** https://www.nature.com/articles/s41433-019-0448-5 (Available via Bell Library)  
**PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/?term=31048763


**Abstract:** Objective. Corneal neovascularization is a sight-threatening condition affecting more than 1.4 million people per year. Left untreated, it can lead to tissue scarring, oedema, lipid deposition, and persistent inflammation that may significantly affect visual prognosis and quality of life. The aim was to review the recent evidence relating to the pathophysiology, investigations and management of corneal neovascularization. Methods. Literature review of prospective and retrospective studies, clinical trials and animal models relating to the pathophysiology, investigation and management of corneal neovascularization. Results. Corneal neovascularization is characterized by the invasion of new blood vessels into the cornea caused by an imbalance between angiogenic and antiangiogenic factors that preserve corneal transparency as a result of various ocular insults and hypoxic injuries. Risk factors that have been implicated in the pathogenesis of the disease include contact lens wear, ocular surface disease, trauma, previous surgery and herpes. The results highlighted the current and future management modalities of corneal neovascularization, which includes corneal transplantation, laser - phototherapy, injections and topical treatment. Conclusion. The future of corneal neovascularization is promising and this paper discusses the upcoming revolution in local gene therapy. Abbreviations. HSK = herpes stromal keratitis, VEGF = vascular endothelial growth factor, VEGFR-1 = VEGF Receptor-1, FGF = Fibroblast growth factor, PDGF = Platelet-derived growth factor, IL-6 = interleukin-6, IL-7 = interleukin-7, IL-8 = interleukin-8, IRS-1 = insulin receptor substrate-1.  

**Review Article.**  
**PMID:** 31198893  
**PMCID:** PMC6531773  
**URL:** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6531773/ (Freely available)  
**PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/?term=31198893

**Oral and Maxillofacial Surgery**


**Abstract:** Tortuous vertebral arteries are a rare anatomical variant. Mild tortuosity is usually asymptomatic whereas severe tortuosity may present with ischaemic symptoms or compressive symptoms (focal neurological deficit). While a resulting hemifacial spasm has been previously described, sparse literature exists for its association with facial palsy. We present a rare case of facial spasm along with facial palsy in a 67-year-old woman who was found to have an anatomical variant in the posterior basilar circulation with an ectatic basilar artery and significantly displaced posterior vertebral artery impinging on the facial nerve.  

**Case Report.**  
**DOI:** 10.1308/rcsann.2019.0069  
**PMID:** 31155905  
**PMCID:** PMC6554565  
**URL:** https://tinyurl.com/y55xpjw3 (Available via Bell Library)  
**PubMed:** https://www.ncbi.nlm.nih.gov/pubmed/?term=31155905

Abstract: Invasive Group A Streptococcus infections can be underestimated and develop rapidly into serious necrotising soft tissue infections associated with significant morbidity and mortality. We report two children who presented following minor trauma with Group A Streptococcus infections and tissue necrosis. We retrospectively reviewed two relevant cases illustrating their clinical features, treatment and outcomes. A 5-year-old and a 3-year-old both sustained innocuous injuries yet presented with significant facial cellulitis, pyrexia, elevated CRP, white cell and neutrophil count. Both had concurrent upper respiratory infective symptoms. Timely surgical debridement and aggressive antimicrobial therapy was provided. Both patients’ cultures grew Group A streptococcus pyogenes. Children presenting with significant systemic reactions following minor trauma must be monitored closely with a high index of suspicion for necrosis of tissues and treated accordingly. Case Report.

DOI: http://dx.doi.org/10.1111/or.s.12413,
URL: https://onlinelibrary.wiley.com/doi/epdf/10.1111/or.s.12413 (Freely available)

**Paediatric and Neonatology**


Abstract: Pollen food syndrome (PFS) is a description of oral allergy symptoms on exposure to particular foods that are closely related to the primary sensitising pollen allergen. PFS is a common phenomenon relating to certain protein component groups (profilin, PR10 and LTP). It is often overlooked, particularly in children. Symptoms usually occur after the onset of allergic rhinitis or sensitisation to aeroallergens. Clinical history is vital with allergy tests (Skin prick tests, IgE and IgE component resolved diagnostics) being a supplementary tool to assist diagnosis. There are currently no consensus guidelines for the investigation and management of PFS, however optimising allergic rhinitis treatment can be beneficial to severity of symptoms. This short article gives an overview of this common problem and offers advice about diagnosis and management. **Review Article.**

DOI: 10.1016/j.paed.2019.01.003,
URL: https://tinyurl.com/y3m3xa9a (Available via Bell Library)
PubMed: Not indexed in PubMed


Abstract: Invasive Group A Streptococcus infections can be underestimated and develop rapidly into serious necrotising soft tissue infections associated with significant morbidity and mortality. We report two children who presented following minor trauma with Group A Streptococcus infections and tissue necrosis. We retrospectively reviewed two relevant cases illustrating their clinical features, treatment and outcomes. A 5-year-old and a 3-year-old both sustained innocuous injuries yet presented with significant facial cellulitis, pyrexia, elevated CRP, white cell and neutrophil count. Both had concurrent upper respiratory infective symptoms. Timely surgical debridement and aggressive antimicrobial therapy was provided. Both patients’ cultures grew Group A streptococcus pyogenes. Children presenting with significant systemic reactions following minor trauma must be monitored closely with a high index of suspicion for necrosis of tissues and treated accordingly. **Case Report.**

DOI: 10.1111/or.s.12413,
URL: https://onlinelibrary.wiley.com/doi/epdf/10.1111/or.s.12413 (Freely available)
Abstract: BACKGROUND: Adolescents with DMD treated with chronic high dose GC therapy typically have profound pubertal delay. Testosterone, the main circulating androgen in men, promotes virilisation and growth with associated accrual of fat-free muscle mass and bone mineral content. Testosterone therapy is routinely used to mimic the normal stages of pubertal development in patients with hypogonadotropic hypogonadism, androgen deficiency secondary to testicular disease and in constitutional delay of growth and puberty (CDGP). Improved life expectancy in DMD has meant that more adolescents are eligible for testosterone supplementation but there is little objective data regarding the impact of this treatment on muscle structure and function, bone integrity and overall well-being. METHODS: This is a single centre observational clinical trial (NCT02571205) that aims to follow the progress of 15 adolescents with Duchenne muscular dystrophy and delayed puberty as they are managed with incremental testosterone therapy to induce puberty. Subjects will all be treated with a steadily increasing dose of testosterone administered by injection every 4 weeks and data will be collected to help us determine the effectiveness and tolerability of the described treatment regimen. We will use the data to explore the effects of testosterone on pubertal development, growth, muscle strength and function, bone mineral density, body composition with a detailed record of any adverse events. We will also carry out interviews to explore the boys' views on the tolerability of the regimen. The study will last for 27 months in total for each participant. DISCUSSION: Our experience has indicated that testosterone treatment in adolescents with DMD is liked and well tolerated but we have not collected objective data on a specific treatment regimen and there is no current consensus. Testosterone supplementation is not part of the standard of care of pubertal delay in DMD but inclusion in future protocols may be appropriate depending on the results of this trial. TRIAL REGISTRATION: EudraCT Number: 2015-003195-68. Research Registry & References: Clinical trials.gov- NCT02571205 (registered 8/10/15). Clinical Trial.

DOI: 10.1186/s12887-019-1503-x PMID: 31023296 PMCID: PMC6482579
URL: https://bmcpediatr.biomedcentral.com/articles/10.1186/s12887-019-1503-x (Freely available)
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6482579/ (Freely available)

Pain


Abstract: OBJECTIVE: This research sought to explore the pain management beliefs of members of the South Asian community living in the UK. In particular, their understanding of the key components of cognitive behavioural therapy (CBT) informed pain management programmes (PMPs) was explored. METHODS: Snowball sampling was used to recruit 10 participants from a South Asian background for interview. Interviews were guided by a semi-structured interview schedule and explored pain history, specific pain experiences, community member expressions of, and reactions to, pain, treatment expectations and perceptions of self-management. Interviews were transcribed verbatim and subjected to descriptive thematic analysis. RESULTS: Four themes were developed: impacts of chronic pain, within-group variations in responses to chronic pain, personal responsibility vs. paternalistic care, and the acceptability of pain management concepts (relaxation and meditation, exercise and physical activity, and thoughts and beliefs: the dangers of pain healers). CONCLUSIONS: This work highlights how discourses around the impacts of chronic pain; beliefs about, and preferences for, approaches to care; and the acceptability of pain management concepts
fit with existing PMP content. Recommendations are made regarding opportunities for social prescribing; consideration of the incorporation of acceptable forms of physical activity, including yoga and walking, within PMPs; and the potential benefit of highlighting role models and creating social opportunities for these activities. Some beliefs and practices in this area are under-researched, and further work that explores gender and generational differences in pain perceptions, and the potential dangers of the use of pain healers is needed.

DOI: 10.1002/msc.1400  PMID: 30993865

Pharmacy


Anticoagulation can be prescribed for numerous indications. Some examples include stroke prevention in the context of non-valvular atrial fibrillation; thromboprophylaxis following mechanical heart valve replacement and orthopaedic surgery; prevention and treatment of deep vein thrombosis/pulmonary embolism; and the prevention of arterial thrombosis in patients who present following an acute coronary syndrome. The armamentarium of anticoagulant therapy has evolved considerably over the last decade with the introduction of several new agents. This article will provide an overview of the mechanism of action for each agent, in addition to its place in therapy, contra-indications, cautions for use and the monitoring requirements that should be considered to ensure safe, effective and appropriate prescribing of anticoagulant therapies. Review.

DOI: 10.12968/bjca.2018.0012,  


Abstract: An 84-year-old woman presented to hospital with severe clinical and metabolic sequelae of a massive paracetamol overdose (concentration=822 mg/L). In spite of N-acetylcysteine therapy, she deteriorated with evidence of mitochondrial dysfunction. Although the EXtracorporeal TReatments In Poisoning group recommend adjunct haemodialysis (HD) in such a context, this was difficult to start due to haemodynamic instability. Instead, a trial of continuous venovenous haemodiafiltration (CVVHDF) was initiated in an attempt to restore normal mitochondrial function, normal pH and to actively remove the offending drug. Fortunately, plasma paracetamol levels fell exponentially over the subsequent 24–48 hours without the need to commence HD. The patient made a full recovery and was later discharged from the hospital. This case highlights that CVVHDF can be a reasonable alternative to HD for managing massive paracetamol overdoses in the context of mitochondrial dysfunction. Case Report.

DOI: 10.1136/bcr-2018-228920  PMID: 30954964
URL: https://tinyurl.com/yyj74wqw  (Available via Athens account)

Abstract: Background: Overdiagnosis and overtreatment of urinary tract infection (UTI) with antibiotics is a concern. In older adults, diagnosis of UTI using near-patient urine tests (reagent strip tests, dipsticks) is advised against because the age-related increase in asymptomatic bacteriuria can cause false-positive results. Instead, UTI diagnosis should be based on a full clinical assessment. Previous research lacks systematic information on urine dipstick use in hospitals. The aim of this study was to examine the use of urine dipstick tests and microbiology among older adult hospital admissions in relation to recommended UTI diagnostic criteria. A further aim was to assess factors associated with the use of dipsticks. Methods: A case series review of patients aged >/=70 years admitted to two NHS Trust hospitals in England. Records from 312 patients admitted in 2015 meeting inclusion criteria were selected at random. Results: Of 298 complete patient records, 54% had at least one urine dipstick test recorded. 13% (21/161) of patients who received a urine dipstick test were diagnosed as having a UTI, only 2 out of these 21 cases had two or more clinical signs and symptoms. 60 patients received a second dipstick test, leading to 13 additional cases of UTI diagnosis. Dipstick tests were more likely to be performed on patients with a history of falls (OR 1.93, 95% CI:1.21, 3.07, p < 0.01), and less likely on those with dementia (OR 0.44, 95% CI: 0.22, 0.87, p < 0.05). The most common reason for testing was routine admissions policy (49.1% of cases), but these cases were predominantly in one hospital. Conclusions: Use of urine dipstick tests was high among older adults admitted to hospitals. Most cases were asymptomatic and therefore received inappropriate antibiotic therapy. This paper highlights the need to implement new Public Health England diagnostic guidelines to hospital admission and emergency departments. Review Article. DOI: 10.1186/s13756-019-0519-1 PMID: 31073402 PMCID: PMC6498584 URL: https://aricjournal.biomedcentral.com/articles/10.1186/s13756-019-0519-1 (Freely available) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=31073402

Radiology


Radiotherapy

Menon, S., Mathew, R. and Kumar, M. (2019) Ocular radiation exposure during endoscopic retrograde cholangiopancreatography: a meta-analysis of studies. European Journal of Gastroenterology and Hepatology, 31 (4), 463-470. Abstract: BACKGROUND: The increasing complexity involved in procedures requiring fluoroscopy such as endoscopic retrograde cholangiopancreatography (ERCP) results in heightened screening times with attendant radiation exposure during these procedures. There is increasing awareness of
tissue-reactions to the lens of the eye due to radiation exposure, with evidence suggesting that threshold doses may be lower than previously considered. MATERIALS AND METHODS: A literature search was performed to identify studies involving ERCP in which radiation exposure was reported. Demographic data and data on fluoroscopy time and ocular exposure were extracted. Fixed and random-effects meta-analyses were conducted. RESULTS: Twenty-six studies (8016 procedures) were identified, of which 10 studies (818 procedures) contained data on ocular exposure. The mean screening time per procedure was 3.9 min with a mean of three images captured per procedure. On fixed effects meta-analysis, the point estimate for the effective ocular exposure dose per procedure was 0.018 (95% confidence interval: 0.017-0.019) mSv. On random-effects meta-analysis, the effective ocular exposure dose was 0.139 (0.118-0.160) mSv (Q=2590.78, I=99.5, P<0.001). On comparing these point estimates to the ocular dose limit of 20 mSv/year, 1111 ERCPs (using fixed effects data) and 144 ERCPs (using random-effects data), with a mean of 627 ERCPs/individual/year, could deliver an ocular radiation dose equivalent to this dose limit. CONCLUSION: Ocular radiation exposures in high-volume ERCP operators (>200 procedures/year) and operators performing complex ERCPs involving prolonged fluoroscopy, need to exercise caution in relation to ocular exposure. Shielding using lead-lined glasses may be reasonable in this group. Meta-Analysis. DOI: 10.1097/meg.0000000000001341 PMID: 30830881 URL: https://insights.ovid.com/pubmed?pmid=30830881 PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=30830881


Abstract: AIM: Recent data have suggested near-equivalent oncological results when treating early rectal cancer by local excision followed by radio-± chemotherapy rather than salvage radical surgery. The aim of this retrospective study was to assess the use of contact X-ray brachytherapy within this paradigm. METHOD: All patients had undergone local excision and were referred to our radiotherapy centre for treatment with contact X-ray brachytherapy. Postoperative (chemo)radiotherapy was also given in their local hospital in most cases. Variables assessed were local excision method, postoperative therapy received, follow-up duration, disease-free survival, salvage surgery and stoma-free survival. RESULT: In total, 180 patients with a median age of 70 (range 36-99) years were assessed. Following local excision, pT stages were pT1 = 131 (72%), pT2 = 44 (26%), pT3 = 5 (2%). All patients received contact X-ray brachytherapy boosting at our centre and, in addition, 110 received chemoradiotherapy and 60 received radiotherapy alone. After a median follow-up of 36 months (range 6-48), 169 patients (94%) remained free of local recurrence. Of the 11 patients with local recurrence (three isolated nodal), five underwent salvage abdominoperineal excision. Eight patients developed distant disease, of whom five underwent metastasis surgery. At last included follow-up 173 (96%) patients were free of all disease and 170 (94%) were stoma free. CONCLUSION: Contact therapy can be offered in addition to external beam radio (±chemo) therapy instead of radical surgery as follow-on treatment after local excision of early rectal cancer. This combination can provide equivalent outcomes to radical surgery. The added value of contact therapy should be formally assessed in a clinical trial. DOI: 10.1111/codi.14584 PMID: 30742736 URL: https://onlinelibrary.wiley.com/doi/full/10.1111/codi.14584 (Available via Bell Library) PubMed: https://www.ncbi.nlm.nih.gov/pubmed/?term=30742736
Renal/Urology


**Abstract:** 22 year old male presented with self insertion of a foreign body in his urethra 4 years ago. The metal forceps was successfully extracted endoscopically with the aid of the external pressure technique. This is the second time in literature where an open thumb metal forceps is diagnosed. The metal forceps poses additional difficulties during its extraction owing to its sharp open distal ends, which necessitates the use of external pressure technique and expert endoscopic skills. In the case of open metal forceps, we recommend the use of external pressure technique to aid extraction without injuring the urethra any further. **Case Report.**

DOI: 10.1016/j.eucr.2019.100852  PMID: 31211063  PMCID: PMC6562298


**Abstract:** **BACKGROUND:** Patients with metastatic renal cell carcinoma (mRCC) are commonly treated with tyrosine kinase inhibitors (TKIs). An adverse effect frequently suffered by patients is lethargy, which often leads to dose reduction or drug cessation. We aimed to assess whether hypogonadism is related to treatment with TKIs.

**METHODS:** We prospectively assessed gonadal function in 41 consecutive males with mRCC treated with TKIs. Demographic, clinical, and biochemical variables were collected, and statistical analyses performed to assess correlation and survival. Data Capture for each patient was performed at the time of entry in the study.

**RESULTS:** There was a 77% incidence of hypogonadism in this cohort. Assessment of testosterone level and time on TKI treatment revealed a correlation with linear regression R(2) of 0.24 and regression coefficient of -0.003 (p = 0.019). Odds ratio for hypogonadism at >30 months on TKIs was 12.1 (p = 0.011). Odds ratios above and below this value showed a confirmatory trend, suggesting that this may be a chronic adverse effect.

**CONCLUSIONS:** Our findings provide an important and robust hypothesis for a prospective clinical trial to be performed. Expert Opinion: Given the present data, patients who have symptoms suggestive of hypogonadism must have an assessment of gonadal function and be treated.

**Cohort Study.**

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**Abstract:** An 84-year-old woman presented to hospital with severe clinical and metabolic sequelae of a massive paracetamol overdose (concentration=822 mg/L). In spite of N-acetylcysteine therapy, she deteriorated with evidence of mitochondrial dysfunction. Although the EXtracorporeal TReatsments In Poisoning group recommend adjunct haemodialysis (HD) in such a context, this was difficult to start due to haemodynamic instability. Instead, a trial of continuous venovenous haemodiafiltration (CVVHDF) was initiated in an attempt to restore normal
mitochondrial function, normal pH and to actively remove the offending drug. Fortunately, plasma paracetamol levels fell exponentially over the subsequent 24–48 hours without the need to commence HD. The patient made a full recovery and was later discharged from the hospital. This case highlights that CVVHDF can be a reasonable alternative to HD for managing massive paracetamol overdoses in the context of mitochondrial dysfunction. Case Report.

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URL: https://tinyurl.com/yji74wqw (Available via Athens account)

Respiratory Medicine


Abstract: Management of primary spontaneous pneumothorax (PSP) depends on the symptoms and size of lung collapse. The British Thoracic Society recommends needle aspiration (NA) for all PSP requiring intervention, followed by intercostal drain (ICD) if NA fails. We compared the role of NA versus ICD as the first step in PSP with 'complete lung collapse'. This was a retrospective observational study of 877 consecutive pneumothorax episodes at University Hospitals of North Midlands, Stoke on Trent, UK. Chest X-ray (CXR) at presentation was reviewed to identify PSP with complete lung collapse. The primary outcome measure was successful lung re-inflation after initial intervention. Two-hundred and sixty-six PSP patients were identified; 69 had complete lung collapse on CXR of which 35 had NA and 34 had ICD. The ICD group had a significantly better immediate success compared with the NA group (62% versus 11%, odds ratio (OR) = 12.5, p<0.0001; after adjustment for potential confounders, OR increased to 26.4, p=0.0001) although long-term outcomes were comparable. There should be clear consensus on definition and management of complete lung collapse. PSP with complete lung collapse could be managed as a separate subgroup where ICD placement is considered to be the first intervention. Retrospective Observational Study.

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URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6454361/ (Freely available)

Rheumatology


Abstract: We report a 49-year-old woman with an acute swollen left knee due to acute pseudogout with chondrocalcinosisis as a presenting feature of Gitelman syndrome due a novel homozygous mutation of the SLC12A3 gene. This report highlights the under-recognized importance of excluding metabolic disease, including Gitelman syndrome, in younger patients whose sole presenting feature may be chondrocalcinosisis with or without pseudogout, as this may impact on management and risk of further episodes. We also suggest that chondrocalcinosisis and hypomagnesaemia with or without hypokalaemia are diagnostic of Gitelman syndrome. Case Report.

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