

Dorset County Hospital Publications
April 2020-March 2021

Please find below a list of the publications of staff employed by Dorset County Hospital NHS Foundation Trust between April 2020 and March 2021. If you would like to see full text versions of any of the articles please contact library.office@dchft.nhs.uk

R Agrawal, S Tso, E A Eltigani, K J Busam, S M Taibjee, R A Carr (2020) 'PRAME immunohistochemistry as an adjunct in the diagnosis of paucicellular lentigo maligna in a young man', *The British journal of dermatology*. doi: 10.1111/bjd.19599.

No abstract available.

K Aris, CM del Mar, M Tsatsos, E Mariam, C Myron, (2020) Morphological and cytokine profiles as key parameters to distinguish between Gram-negative and Gram-positive bacterial keratitis. *Scientific Reports*. 20, 1.

Bacterial keratitis (BK) is an ocular disorder associated with poor visual prognosis. Quantification of the associated inflammatory response may provide insight into the pathogenesis of BK and guide treatment options. In this exploratory study, we evaluated 45 BK patients and 20 healthy controls by optical coherence tomography and pro-inflammatory tear cytokine analysis. The aim was to quantify the differential morphological and cytokine inflammatory response between Gram-negative and Gram-positive BK and to determine the diagnostic value of corneal thickness (CT) and infiltrate thickness (IT) in distinguishing Gram-negative BK in a clinical cohort. Greater CT and IT, at clinical presentation, were indicative of Gram-negative infection with values detected of $\geq 950 \mu\text{m}$ and $\geq 450 \mu\text{m}$, respectively. Combination of these CT and IT values had a 100% sensitivity and 83.3% specificity as a diagnostic indicator of Gram-negative infection. Similarly, there were higher levels of IL-1 β , IL-6 and IL-8 cytokines were quantified in keratitis caused by Gram-negative bacteria. Among the different tear cytokines analysed, a significant reduction after three days of treatment was detected for proinflammatory cytokines IL-1 β , IL-2, IL-6, IL-8 and TNF- α , prior to starting with the administration of steroid drops. Overall, this study shows the potential value of serial OCT and tear cytokine measurements in the management of BK.

P. Avery, N. Cleaver (2021) Managing capability in specialist nursing practice. *Nursing Management*. 02 Mar 2021

Abstract

Raising concerns over another nurse's clinical practice and capability presents significant challenges, particularly in specialist clinical nursing roles. However, the support provided to nurses who raise such concerns is not always optimal. While compassionate leadership in healthcare has been stated as a priority to develop safer workplaces for staff, it must be balanced against the need to manage staff undergoing capability management processes. This article discusses how enhanced training and support for both line managers and staff can improve the capability management processes.

Pearl Avery, Lisa Younge, Anya St Clair-Jones, Rachel Campbell, Deirdre Braim, Becky George, Heather Johnson, Tracy Naughton, Fiona Rees, Frances Maw (2020) Limiting infusion and observation times for infliximab and vedolizumab in the COVID-19 pandemic: a UK multicentre audit of practice and safety, *Gastrointestinal Nursing*, 18, 8, <https://doi.org/10.12968/gasn.2020.18.8.30>

Abstract

Infusions units in the UK are under increasing pressure, and this has been increased by the SARS-COV-2 pandemic. People with inflammatory bowel disease (IBD) are considered vulnerable, requiring enhanced social distancing or shielding, as defined in the UK government's recommendations for COVID-19. Evidence that post-infusion observation time is unnecessary for infliximab (IFX) and vedolizumab (VDZ) exists in the literature, but the summary of product characteristics for both agents states that anywhere from 0.5 hours to 2 hours of observation post-infusion is required.

P. Avery, L. Younge, L. Dibley, J. Segal, Inflammatory bowel disease advice lines during the COVID-19 pandemic: a retrospective service evaluation, *Gastrointestinal Nursing*, 19, 3.

Abstract

Background: The COVID-19 pandemic significantly impacted on healthcare delivery worldwide, affecting many services, including those for inflammatory bowel disease (IBD). Aims: To evaluate the impact of COVID-19 on worldwide IBD telephone advice-line services. Methods: A mixed-methods 25-item online survey was distributed to IBD specialist nurses globally using IBD professional networks, email and social media. Data were analysed using descriptive statistics (quantitative data) and content and thematic analysis (qualitative data). Findings: Across 21 countries, 182 IBD specialists participated. With adjustments, all advice lines remained functional. Call content changed, and call volume increased exponentially. Strategies were recommended to maintain services. IBD specialist nurses faced considerable challenges, including overwhelming workload, disrupted referral pathways, fragmented IBD clinical team support, isolation and greatly lowered morale. Conclusions: To cope with similar future crises, advice-line training, resilience coaching and ringfencing of the IBD clinical team are essential. Development of global guidelines for maintaining advice-line functionality in any scenario is recommended.

Fabrizio Bandino, Bruno Kenway, Michail Chatzimichalis (2020) 'SerenoCem TM granules: a retrospective analysis of 43 patients and identification of a subset with progressive erosion', *Clinical otolaryngology: official journal of ENT-UK; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery*. doi: 10.1111/coa.13670.

No abstract available.

Fabrizio Bandino, Bruno Kenway, Richard Sim, Mohamed Satti (2020) Laryngeal ectopic tonsil as a cause of dysphonia: A case report. *Otolaryngology Case Reports*. 16. <https://doi.org/10.1016/j.xocr.2020.100180>

Abstract

Ectopic tonsils have been described in a number of anatomic locations in the head and neck; the pathophysiology remains unclear. Given the rarity of these lesions, there are no guidelines regarding treatment.

We present a case report of lymphoid nodule with reactive follicles and epithelial crypts lined by stratified squamous epithelium considered to be ectopic tonsillar lymphoid tissue in the laryngeal arytenoid. The lesion was completely excised at microlaryngoscopy. Follow up has shown no recurrence of the disease.

S Basu, H J Marcus, P Sayal, N Kitchen, R Ley, P J Hutchinson, L Thorne (2020) 'Implementation of duty of candour within neurosurgery: a national survey and framework for improved application in clinical practice', *Annals of the Royal College of Surgeons of England*, 102(2), pp. 144–148. doi: 10.1308/rcsann.2019.0124.

Abstract

Introduction: Statutory duty of candour was introduced in November 2014 for NHS bodies in England. Contained within the regulation were definitions regarding the threshold for what constitutes a notifiable patient safety incident. However, it can be difficult to determine when the process should be implemented. The aim of this survey was to evaluate the interpretation of these definitions by British neurosurgeons.

Materials and methods: All full (consultant) members of the Society of British Neurological Surgeons were electronically invited to participate in an online survey. Surgeons were presented with 15 cases and asked to decide in the case of each one whether they would trigger the process of duty of candour. Cases were stratified according to their likelihood and severity.

Results: In all, 106/357 (29.7%) members participated in the survey. Responses varied widely, with almost no members triggering the process of duty of candour in cases where adverse events were common (greater than 10% likelihood) and required only outpatient follow-up (7/106; 6.6%), and almost all members doing so in cases where adverse events were rare (less than 0.1% likelihood) and resulted in death (102/106; 96.2%). However, there was clear equipoise in triggering the process of duty of candour in cases where adverse events were uncommon (0.1-10% likelihood) and resulted in moderate harm (38/106; 35.8%), severe harm (57/106; 53.8%) or death (49/106; 46.2%).

Conclusion: There is considerable nationwide variation in the interpretation of definitions regarding the threshold for duty of candour. To this end, we propose a framework for the improved application of duty of candour in clinical practice.

Jonathan Bennett, Mohammed Munavvar, Paul Walker and Gerrard Phillips (2020) Respiratory advice for the non-respiratory physician in the time of COVID-19. *Clinical Medicine*. 20, 3

Abstract

COVID-19, the disease caused by the SARS-CoV-2 betacoronavirus, has changed clinical practice in a matter of weeks. Among the physician specialties, respiratory physicians have been at the forefront of the response to this new challenge. Here we provide advice for non-respiratory physicians on the ward-based care of patients with this disease. This includes recommendations on hydration, thromboprophylaxis, nutritional support and on the importance of the early detection of deterioration, setting ceilings of care and use of anticipatory drugs where appropriate. We also discuss oxygen support modalities, proning, safe working practices and a new approach to multi-professional working. We include references to a number of important research studies.

Christopher J Brereton, Timothy Wallis, Michelle Casey, Lynn Fox, Katarina Pontopiddan, Diane Laws, Jennifer Graves, Vanessa Titmuss, Sarah Kearney, Sian Evans, Alison Grove,

Samreen Hamid, Luca Richeldi, Katherine M A O'Reilly , Sophie V Fletcher, Mark G Jones (2020) 'Time taken from primary care referral to a specialist centre diagnosis of idiopathic pulmonary fibrosis: an opportunity to improve patient outcomes?', *ERJ open research*, 6(2). doi: 10.1183/23120541.00120-2020.

Abstract

For patients with IPF, length of time in healthcare systems prior to review in an ILD clinic reflects disease severity and may impact upon patient outcome

Madalina Chihaiia, James Richardson-Ma , Layth Al-Saffar , Hiron Kettleidas , Mohammed Rashid (2020) 'Abiotrophia defectiva endophthalmitis following routine cataract surgery: the first reported case in the United Kingdom', *Access microbiology*, 2(6), p. acmi000124. doi: 10.1099/acmi.0.000124.

Abstract

Introduction: Abiotrophia defectiva is a fastidious organism that has been implicated in severe infections such as endocarditis in immunocompetent patients. Modern tools are available to aid identification, but the main challenge remains clinical suspicion of A. defectiva .

Case presentation: An otherwise fit and well 65-year-old female presented with reduced vision, red eye and discomfort 2 days following routine left cataract surgery. She had visual acuity of light perception only, significant anterior chamber inflammation (including hypopyon) and limited fundal view. She was diagnosed with post-operative endophthalmitis and 0.1 ml of ceftazidime (2 mg/0.1 ml) and 0.1 ml vancomycin (2 mg/0.1 ml) were injected intravitreally after vitreous aspiration. Subconjunctival cefuroxime was also injected. A repeat injection was performed on day three of admission. Gram staining revealed Gram-positive long-chain cocci, which were identified as A. defectiva . The patient was discharged on oral ciprofloxacin 500 mg twice a day with oral prednisolone 60 mg once a day; this was tapered and stopped at 8 weeks post-discharge. The left eye received dexamethasone 0.1 % 6 times a day (again, tapered over 8 weeks), moxifloxacin 5 % 6 times a day and atropine 1 % twice a day. Vision improved to 6/12 unaided (6/9.5 with pinhole) at 9 weeks post-operatively, with a clear fundal view.

Conclusion: We present a case of A. defectiva endophthalmitis following routine cataract surgery. To our knowledge, this is the first reported case in the UK and the fourth globally, which with prompt treatment ended with a good visual outcome.

S E Clark, A Agrawal, S Laws, T Graja, L A Sheehan, C Laban, F Scutt (2020) 'The investigation and management of unilateral nipple discharge', *Annals of the Royal College of Surgeons of England*, 102(5), pp. 369–374. doi: 10.1308/rcsann.2020.0036.

Abstract

Introduction: Between 16,000 and 48,000 women are estimated to present to UK breast clinics with nipple discharge each year. The incidence of malignancy in these women is 2.7-24.2%. Currently, there is no consensus on the best way to investigate and manage these women. The aim of this study was to assess the rate of malignancy in women presenting with unilateral nipple discharge, and to evaluate the role of examination, imaging and cytology in reliably predicting outcome.

Methods: Breast units were asked to prospectively collect data on all new patients with unilateral nipple discharge. Data collected included discharge colour, whether it was uniductal or multiductal, examination and imaging findings, cytology results and outcome.

Results: Complete datasets were submitted by 5 units on 228 patients. The incidence of malignancy was 4.4%. Clinical examination was valuable in detecting malignancy and multiductal discharge was not related to malignancy. The positive predictive value for detecting malignancy for an abnormality found on mammography was 53.5% and for ultrasonography, it was 65.2%. The role of cytology in detecting malignancy was inconclusive with positive predictive values of the presence of red blood cells and epithelial cells at 6.1% and 10.7% respectively.

Conclusions: A large number of women are investigated for nipple discharge (with huge resource implications) but there is little reliable evidence on the best way to investigate and manage these patients. A larger study is needed to evaluate the role of investigations in nipple discharge to produce guidelines on optimal management.

O. Cole, and G. White (2020) 'Fluid balance chart audit in a rural district general hospital', *Future healthcare journal*, 7(Suppl 1), p. s82. doi: 10.7861/fhj.7.1.s82.

Abstract

Conclusions: This audit demonstrated very poor compliance with, and accuracy of, fluid balance charts. Dangerously low urine outputs were not being escalated and acted upon. This has far reaching implications, not just for patient care but also for wider policy reviews given the pressurised ward environment becoming commonplace. Part of the problem is likely to be an excess of charts being used when no longer clinically indicated. Further education and changes to policy, attitudes and fluid balance chart design are required and ongoing. This includes formal teaching sessions, e-learning being developed, increasing ward awareness and potential policy changes including mandatory medical staff review of charts every 24–48hrs.

Umesh Dashora, Dipesh C Patel, Robert Gregory, Peter Winocour, Ketan Dhatariya, Susannah Rowles, Andrew Macklin, Gerry Rayman, Dinesh Nagi, on behalf of the ABCD Executive Committee and supported by Diabetes UK (2020) 'Association of British Clinical Diabetologists (ABCD) and Diabetes UK joint position statement and recommendations on the use of sodium-glucose cotransporter inhibitors with insulin for treatment of type 1 diabetes (Updated October 2020)', *Diabetic medicine: a journal of the British Diabetic Association*, p. e14458. doi: 10.1111/dme.14458.

Abstract

Dapagliflozin (SGLT-2 inhibitor) and sotagliflozin (SGLT1/2 inhibitor) are two of the drugs of SGLT inhibitor class which have been recommended by the National Institute for Health and Care Excellence (NICE) in people with type 1 diabetes with BMI ≥ 27 kg/m². Dapagliflozin is licensed in the UK for use in the NHS while sotagliflozin may be available in future. These and possibly other SGLT inhibitors may be increasingly used in people with type 1 diabetes as new licences are obtained. These drugs have the potential to improve glycaemic control in people with type 1 diabetes with the added benefit of weight loss, better control of blood pressure and more time in optimal glucose range. However, SGLT inhibitors are associated with a higher incidence of diabetic ketoacidosis without significant hyperglycaemia. The present ABCD/Diabetes UK joint updated position statement is to guide people with type 1 diabetes and clinicians using these drugs help mitigate this risk and other potential complications. Particularly, caution needs to be exercised in people who are at risk of diabetic ketoacidosis due to low calorie diets, illnesses,

injuries, starvation, excessive exercise, excessive alcohol consumption and reduced insulin administration among other precipitating factors for diabetic ketoacidosis.

K. Elliott (2020) 'Over-confidence in cardiac devices can create a barrier in engaging patients in advance care planning and discussions around device deactivation', *Evidence-based nursing*, 23(1), p. 16. doi: 10.1136/ebnurs-2019-103102.

No abstract available.

K. Elliott (2021) Focus on tachyarrhythmia part 1: diagnosing common tachyarrhythmias', *British Journal of Cardiac Nursing*, 28 January 2021 <https://doi.org/10.12968/bjca.2020.0117a>

No abstract available.

K. Elliott (2021) Focus on tachyarrhythmia part 2: management and treatment, *British Journal of Cardiac Nursing*, 27 February 2021 <https://doi.org/10.12968/bjca.2020.0117b>

No abstract available.

Sameh Hany Emile, Hytham K. S. Hamid, Sualeh Muslim Khan & George N. Davis (2021) Rate of Application and Outcome of Non-operative Management of Acute Appendicitis in the Setting of COVID-19: Systematic Review and Meta-analysis, *Journal of Gastrointestinal Surgery* 26th March 2021

Abstract

Background

Non-operative management (NOM) of acute appendicitis has been assessed in several studies before COVID-19 pandemic. This systematic review aimed to assess the extent of adoption, efficacy, and safety of NOM of acute appendicitis in the setting of COVID-19.

Methods

This was a PRISMA-compliant systematic review of the literature. Electronic databases and Google Scholar were queried for studies that applied NOM of acute appendicitis during COVID-19. The main outcome measures were the rates of NOM application during the pandemic as compared to the pre-pandemic period, failure and complication rates of NOM. Failure was defined as the need for appendectomy during NOM and complications included development of appendicular mass or abscess.

Results

Fourteen studies (2140 patients) were included. The male to female ratio was 1.44:1 and median age was 34. Nine hundred fifty-nine (44.8%) patients had a trial of NOM. The weighted mean rate of NOM application was 50.1% (95%CI: 29.8–70.5%). The application of NOM during the pandemic was significantly more likely than its application before COVID-19 (OR = 6.7, $p < 0.001$). The weighted mean failure rate of NOM was 16.4% (95%CI: 9.4–23.4). NOM failure was more likely in children and patients with complicated appendicitis. The weighted mean complication rate after NOM was 4.5% (95%CI: 1.4–7.7). NOM had significantly lower odds for complications than appendectomy (OR = 0.36, $p = 0.03$). There was no mortality after application of NOM.

Conclusion

NOM of acute appendicitis in the setting of COVID-19 may be a safe, short-term alternative to surgery with acceptably low failure and complication rates.

Armin Fardanesh, Stavroula Stavropoulou-Tatla, Oliver Grassby, Sarah Elliott (2021) Improving Rehabilitation Information-Giving to Intensive Care Unit Survivors to Aid in Physical and Psychological Recovery, *Cureus* 13(2): e13247. doi:10.7759/cureus.13247

Abstract

Intensive care unit (ICU) survivors have an increased mortality rate and reduced quality of life associated with post-ICU syndrome: a triad of physical, psychiatric and cognitive decline. Following evidence on the benefits of early rehabilitation, the National Institute of Clinical Excellence (NICE) CG83 guidelines instruct the provision of rehabilitation information to ICU patients before discharge. Only 33% of UK trusts meet these guidelines.

The aim of this project was to reach 100% patient and ICU therapist satisfaction with the rehabilitation information given before ICU discharge at Medway Maritime Hospital, within four months.

Patient and therapist satisfaction was assessed using questionnaires at baseline and following each Plan-Do-Study-Act (PDSA) cycle. In PDSA1, a generalised rehabilitation information booklet was created and distributed to ICU survivors pre-discharge. For PDSA2, a personalised rehabilitation plan completed by therapists was added. During PDSA3, the booklet was enriched with mental health and speech and language therapy sections.

Results showed a shift in patient satisfaction scores, indicating a significant change in the median from 20% at baseline to 87% after PDSA3. This was also reflected in the therapist satisfaction scores, which increased significantly from 60% at baseline to 100%.

The introduction of a generalised information booklet, supplemented with a personalised recovery plan, is an effective way of increasing critical care patient and therapist satisfaction with post-discharge rehabilitation information provision. This should translate to greater patient engagement with rehabilitation and improved long-term outcomes. This is ever more pertinent, as the COVID-19 pandemic will exponentially increase the numbers of ICU survivors at risk of long-term morbidity and mortality.

G Guiton, F Finlay, G174(P) Electric scooters, their safety and the law around their use in the UK, *Arch Dis Child* 105:A61.

With the shift to become more environmentally aware a 'future of mobility review' is considering how new types of vehicles, E-scooters, will change transport. It will also explore whether current laws should be changed to facilitate innovation while prioritising safety. Children need to be aware of the current laws with regard to their use and should be encouraged to wear helmets.

Andrew Heard, Helen Gordon, Scott Douglas, Nicholas Grainger, Hans Avis, Philip Vlaskovsky, Andrew Toner, study collaborators (2020) 'Front-of-neck airway rescue with impalpable anatomy during a simulated cannot intubate, cannot oxygenate scenario: scalpel-finger-cannula versus scalpel-finger-bougie in a sheep model', *British journal of anaesthesia*, 125(2), pp. 184–191. doi: 10.1016/j.bja.2020.04.067.

Abstract

Background: Front-of-neck airway rescue in a cannot intubate, cannot oxygenate (CICO) scenario with impalpable anatomy is particularly challenging. Several techniques have been described based on a midline vertical neck incision with subsequent finger dissection, followed by either a cannula or scalpel puncture of the now palpated airway. We explored whether the speed of rescue oxygenation differs between these techniques.

Methods: In a high-fidelity simulation of a CICO scenario in anaesthetised Merino sheep with impalpable front-of-neck anatomy, 35 consecutive eligible participants undergoing airway training performed scalpel-finger-cannula and scalpel-finger-bougie in a random order. The primary outcome was time from airway palpation to first oxygen delivery. Data, were analysed with Cox proportional hazards.

Results: Scalpel-finger-cannula was associated with shorter time to first oxygen delivery on univariate (hazard ratio [HR]=11.37; 95% confidence interval [CI], 5.14-25.13; P<0.001) and multivariate (HR=8.87; 95% CI, 4.31-18.18; P<0.001) analyses. In the multivariable model, consultant grade was also associated with quicker first oxygen delivery compared with registrar grade (HR=3.28; 95% CI, 1.36-7.95; P=0.008). With scalpel-finger-cannula, successful oxygen delivery within 3 min of CICO declaration and ≤2 attempts was more frequent; 97% vs 63%, P<0.001. In analyses of successful cases only, scalpel-finger-cannula resulted in earlier improvement in arterial oxygen saturations (-25 s; 95% CI, -35 to -15; P<0.001), but a longer time to first capnography reading (+89 s; 95% CI, 69 to 110; P<0.001). No major complications occurred in either arm.

Conclusions: The scalpel-finger-cannula technique was associated with superior oxygen delivery performance during a simulated CICO scenario in sheep with impalpable front-of-neck anatomy.

David C Howlett, Karl J Drinkwater, Nadia Mahmood, Jozsef Illes, Jill Griffin, Kassim Javaid (2020) 'Radiology reporting of osteoporotic vertebral fragility fractures on computed tomography studies: results of a UK national audit', *European radiology*, 30(9), pp. 4713–4723. doi: 10.1007/s00330-020-06845-2.

Abstract

Objectives: To evaluate organisational reporting infrastructure and patient-related reporting data in the diagnosis of vertebral fragility fractures (VFFs) as demonstrated on computed tomography (CT).

Methods: Organisational and patient-specific questionnaires were developed by consensus between The Royal College of Radiologists, the Royal College of Physicians, and the Royal Osteoporosis Society. The patient-specific component of the audit involved analysis of CT reporting data acquired from 50 consecutive non-traumatic studies including the thoracolumbar spine. Ethical approval for this type of study is not required in the UK. All UK radiology departments with an audit lead (auditor) registered with The Royal College of Radiologists (RCR) were invited to participate in this retrospective audit.

Results: In total, 127 out of 202 departments (63%) supplied data to the study, with inclusion of 6357 patients. Overall, 1362/6357 patients (21.4%) had a fracture present on auditor review of the CT imaging. There was a lack of compliance with all audit standards: 79% of reports commented on the vertebrae (target 100%), fracture severity was mentioned in 26.2% (target 100%), the recommended terminology 'vertebral fracture' was used in 60.1% (target 100%), and appropriate onward referral was recommended in 2.6% (target 100%).

Conclusions: The findings from this study should be used to provide impetus to improve the diagnosis and care for patients with osteoporotic VFFs. Solutions are multifactorial, but radiologist and local osteoporosis/fracture liaison service engagement is fundamental, combined with necessary development of electronic report notification systems and expansion of supporting fracture services.

Philipp M. Huber, Naveed Afzal, Manit Arya, Silvan Boxler, Tim Dudderidge, Mark Emberton, Stephanie Guillaumier, Richard G. Hindley, Feargus Hosking-Jervis, Lucas Leemann, Henry Lewi, Neil McCartan, Caroline M. Moore, Raj Nigam, Chris Odgen, Raj Persad, Jaspal Viridi, Mathias Winkler & Hashim U. Ahmed (2020) 'Focal HIFU therapy for anterior compared to posterior prostate cancer lesions', *World journal of urology*. doi: 10.1007/s00345-020-03297-7.

Abstract

Objective To compare cancer control in anterior compared to posterior prostate cancer lesions treated with a focal HIFU therapy approach. **Materials and methods** In a prospectively maintained national database, 598 patients underwent focal HIFU (Sonablate®500) (March/2007–November/2016). Follow-up occurred with 3-monthly clinic visits and PSA testing in the first year with PSA, every 6–12 months with mpMRI with biopsy for MRI-suspicion of recurrence. Treatment failure was any secondary treatment (ADT/chemotherapy, cryotherapy, EBRT, RRP, or re-HIFU), tumour recurrence with Gleason $\geq 3 + 4$ on prostate biopsy without further treatment or metastases/prostate cancer-related mortality. Cases with anterior cancer were compared to those with posterior disease. **Results** 267 patients were analysed following eligibility criteria. 45 had an anterior focal-HIFU and 222 had a posterior focal-HIFU. Median age was 64 years and 66 years, respectively, with similar PSA level of 7.5 ng/ml and 6.92 ng/ml. 84% and 82%, respectively, had Gleason 3 + 4, 16% in both groups had Gleason 4 + 3, 0% and 2% had Gleason 4 + 4. Prostate volume was similar (33 ml vs. 36 ml, $p = 0.315$); median number of positive cores in biopsies was different in anterior and posterior tumours (7 vs. 5, $p = 0.009$), while medium cancer core length, and maximal cancer percentage of core were comparable. 17/45 (37.8%) anterior focal-HIFU patients compared to 45/222 (20.3%) posterior focal-HIFU patients required further treatment ($p = 0.019$). **Conclusion** Treating anterior prostate cancer lesions with focal HIFU may be less effective compared to posterior tumours.

Philipp M Huber, Naveed Afzal, Manit Arya, Silvan Boxler, Tim Dudderidge, Mark Emberton, Stephanie Guillaumier, Richard G Hindley, Feargus Hosking-Jervis, Lucas Leemann 11, Henry Lewi, Neil McCartan, Caroline M Moore, Raj Nigam, Chris Odgen, Raj Persad, George N Thalmann, Jaspal Viridi, Mathias Winkler, Hashim U Ahmed (2020) 'An Exploratory Study of Dose Escalation vs Standard Focal High-Intensity Focused Ultrasound for Treating Nonmetastatic Prostate Cancer', *Journal of endourology*, 34(6), pp. 641–646. doi: 10.1089/end.2019.0613.

Abstract

Objective: Analysis of treatment success regarding oncological recurrence rate between standard and dose escalation focal high-intensity focused ultrasound (HIFU) of prostate cancer. **Materials and Methods:** In this analysis of our prospectively maintained HIFU (Sonablate® 500) database, 598 patients were identified who underwent a focal HIFU (Sonablate 500) between March 2007 and November 2016. Follow-up occurred with 3-monthly clinic visits and prostate specific antigen (PSA) testing in the first year. Thereafter, PSA was measured 6-monthly or annually at least. Routine and for-cause multiparametric MRI (mpMRI) was conducted with biopsy for MRI suspicion of recurrence. Treatments were delivered in a quadrant or hemiablation fashion depending on the gland volume as well as tumor volume and location. Before mid-2015, standard focal HIFU was

used (two HIFU blocks); after this date, some urologists conducted dose escalation focal HIFU (three overlapping HIFU blocks). Propensity matching was used to ensure two matched groups, leading to 162 cases for this analysis. Treatment failure was defined by any secondary treatment (systemic therapy, cryotherapy, radiotherapy, prostatectomy, or further HIFU), metastasis from prostate cancer without further treatment, tumor recurrence with Gleason score ≥ 7 ($\geq 3 + 4$) on prostate biopsy without further treatment, or prostate cancer-related mortality. Complications and side-effects were also compared. Results: Median age was 64.5 years (interquartile range [IQR] 60-73.5) in the standard focal-HIFU group and 64.5 years (IQR 60-69) in the dose-escalation group. Median prostate volume was 37 mL (IQR 17-103) in the standard group and 47.5 mL (IQR 19-121) in the dose-escalation group. As tumor volume on mpMRI and Gleason score were major matching criteria, these were identical with 0.43 mL (IQR 0.05-2.5) and Gleason 3 + 3 = 6 in 1 out of 32 (3%), 3 + 4 = 7 in 27 out of 32 (84%), and 4 + 3 = 7 in 4 out of 32 (13%). Recurrence in treated areas was found in 10 out of 32 (31%) when standard treatment zones were applied, and in 6 out of 32 (19%) of dose-escalation focal HIFU ($p = 0.007$). Conclusion: This exploratory study shows that dose escalation focal HIFU may achieve higher rates of disease control compared with standard focal HIFU. Further prospective comparative studies are needed.

Philipp M Huber, Naveed Afzal, Manit Arya, Silvan Boxler, Tim Dudderidge, Mark Emberton, Stephanie Guillaumier, Richard G Hindley, Feargus Hosking-Jervis, Lucas Leemann, Henry Lewi, Neil McCartan, Caroline M Moore, Raj Nigam, Chris Odgen, Raj Persad, George N Thalmann, Jaspal Viridi, Mathias Winkler, Hashim U Ahmed (2020) 'Prostate Specific Antigen Criteria to Diagnose Failure of Cancer Control following Focal Therapy of Nonmetastatic Prostate Cancer Using High Intensity Focused Ultrasound', *The Journal of urology*, 203(4), pp. 734–742. doi: 10.1097/JU.0000000000000747.

Abstract

Purpose: We determined whether prostate specific antigen criteria after focal high intensity focused ultrasound to treat prostate cancer could diagnose treatment failure.

Materials and methods: A total of 598 patients in a prospectively maintained national database underwent focal high intensity focused ultrasound with a Sonablate® 500 device from March 2007 to November 2016. Followup consisted of 3-month clinic visits and prostate specific antigen testing in year 1 with prostate specific antigen measurement every 6 to 12 months and multiparametric magnetic resonance imaging with biopsy for magnetic resonance imaging suspicious for recurrence. Treatment failure was considered any secondary treatment, tumor recurrence with Gleason 3 + 4 or greater disease on prostate biopsy without further treatment or metastasis and/or prostate cancer related mortality. To diagnose failure we evaluated a series of nadir + x thresholds with x values of 0.1 to 2.0 ng/ml.

Results: Median patient age was 65 years (IQR 60-71) and the median Gleason score was 7 (range 6-9). Gleason 3 + 4 or greater disease was present in 80% of cases. Tumors were radiologically staged as T1c-T2c in 522 of the 596 patients (88%) and as T3a/b in 74 (12.4%). Baseline median prostate specific antigen was 7.80 ng/ml (IQR 5.96-10.45) in failed cases and 6.77 ng/ml (IQR 2.65-9.71) in cases without failure. Optimal performance according to the Youden index to indicate the most appropriate nadir + x at all analyzed time points at 3-month intervals showed that nadir + 1.0 ng/ml would have 27.3% to 100% sensitivity and 39.4% to 85.6% specificity depending on the time of evaluation in the first 3 years. Nadir + 1.5 ng/ml showed 18.2% to 100% sensitivity and 60.6% to 91.8% specificity with nadir + 2.0 ng/ml leading to similar sensitivity and specificity ranges. Nadir + 1.0 ng/ml at 12 months and nadir + 1.5 ng/ml at 24 and 36 months had 100% sensitivity and 96.1% to 100% negative predictive value.

Conclusions: Following focal high intensity focused ultrasound a prostate specific antigen nadir of 1.0 ng/ml at 12 months and 1.5 ng/ml at 24 to 36 months might be used to triage men requiring magnetic resonance imaging and biopsy. These data need prospective validation.

Hytham K. S. Hamid, Alan A. Saber, Sean M. Johnston, Jaime Ruiz-Tovar, Sameh H. Emile, George N. Davis, Thomas E. Cataldo (2020) 'Surgery in the era of COVID-19: implications for laparoscopy and natural-orifice endoscopic surgery: a narrative review,' *Ann Laparosc Endosc Surg*

Controversy exists regarding the use of minimally invasive surgery (MIS) during the corona virus disease 2019 (COVID-19) pandemic. Several surgical societies have issued recommendations regarding precaution measures during MIS, nonetheless these recommendations were conflicting with respect to the use of laparoscopy with little or no inference to natural-orifice endoscopic surgery. A comprehensive literature search was performed to explore the available evidence pertinent to the novel coronavirus 2 (SARSCoV-2) transmission dynamics in MIS, and benefits of MIS procedures in patients with transmissible viral diseases. According to the current evidence, SARS-CoV-2 has a multi-route transmission, including fecal-oral transmission. Evidence on airborne transmission in the operative setting are however limited. In addition to nasopharyngeal screening, it would seem prudent to perform routine fecal testing for SARS-CoV-2 in patients undergoing positive-pressure transanal minimally invasive procedures. This is particularly relevant to regions with high level of epidemics. In patients with confirmed SARS-CoV-2 infection, conventional laparoscopic and robotic approaches, and atmospheric transanal surgery with high volume smoke evacuation may be safer alternatives. Considering the high rates of postoperative pulmonary complications and mortality associated with SARS-CoV-2 infection, use of laparoscopy is advised in suspected or confirmed COVID-19 patients who require abdominal surgery, particularly older patients and those with comorbidities. Laparoscopy may decrease the probability of postoperative disease exacerbation, and provide earlier recovery, less morbidity and mortality, and shorter hospital stay with subsequent decreased risk of in-hospital secondary transmission. High index of suspicion in postoperative patients with fever or respiratory symptoms is necessary to timely diagnose COVID-19. Chest computed tomography scan has a higher sensitivity compared to real-time PCR and can potentially be used to assist in the diagnosis, particularly in elderly patients.

R King and C Hollingsworth, (2020) Managing acute paediatric pain: a joined up approach, *Arch Dis Child*, 25th October 2020

Managing pain in children presenting to hospital should be a high priority for staff in the emergency department (ED) and on the children's ward. Many factors influence the quality of this provision. Following an audit of pain management in children with fractures, the Royal College of Emergency Medicine (RCEM) identified potential improvements in the care of children presenting to District General Hospitals having sustained a fracture. As part of a department wide focus on pain management and closer links being forged between paediatrics and ED, this project aimed to assess staff confidence in paediatric pain management as well as patient experiences in ED and on the paediatric ward.

King, L. A. and Hothi, S. S. (2020) 'Remodelling elective hospital services in the COVID-19 era - designing the new normal', *Future healthcare journal*, 7(3), pp. e60–e63. doi: 10.7861/fhj.2020-0079

Abstract

The provision of elective clinical services has decreased during the initial phase of the coronavirus disease 2019 (COVID-19) pandemic to enable hospitals to focus on acute illness. Any end to the

pandemic through widespread vaccination, effective treatment or development of herd immunity may be years away. Until then, hospitals will need to resume treating other diseases while also attempting to eradicate transmission of COVID-19 within the healthcare setting. In this article we suggest six major themes which could affect the design and delivery of elective clinical services: hospital avoidance, separation of high- and low-risk groups, screening, maintenance of adequate infection control, and new ways of working.

Aris Konstantopoulos, Maria del Mar Cendra, Michael Tsatsos, Mariam Elabiary, Myron Christodoulides & Parwez Hossain (2020) Morphological and cytokine profiles as key parameters to distinguish between Gram-negative and Gram-positive bacterial keratitis, Scientific Reports, 10, 20092 <https://doi.org/10.1038/s41598-020-77088-w>

Bacterial keratitis (BK) is an ocular disorder associated with poor visual prognosis. Quantification of the associated inflammatory response may provide insight into the pathogenesis of BK and guide treatment options. In this exploratory study, we evaluated 45 BK patients and 20 healthy controls by optical coherence tomography and pro-inflammatory tear cytokine analysis. The aim was to quantify the differential morphological and cytokine inflammatory response between Gram-negative and Gram-positive BK and to determine the diagnostic value of corneal thickness (CT) and infiltrate thickness (IT) in distinguishing Gram-ve BK in a clinical cohort. Greater CT and IT, at clinical presentation, were indicative of Gram-ve infection with values detected of $\geq 950 \mu\text{m}$ and $\geq 450 \mu\text{m}$, respectively. Combination of these CT and IT values had a 100% sensitivity and 83.3% specificity as a diagnostic indicator of Gram-ve infection. Similarly, there were higher levels of IL-1 β , IL-6 and IL-8 cytokines were quantified in keratitis caused by Gram-negative bacteria. Among the different tear cytokines analysed, a significant reduction after three days of treatment was detected for pro-inflammatory cytokines IL-1 β , IL-2, IL-6, IL-8 and TNF- α , prior to starting with the administration of steroid drops. Overall, this study shows the potential value of serial OCT and tear cytokine measurements in the management of BK.

Tara V N Lee, Peter V Fowler, Julie C Williams, Pamela Ellis, Nikki E Atack, Anthony J Ireland (2020) Orthodontics at Times of National Emergency: Past and Current Crises Part 1: Past Crises and Lessons Learnt, *Orthodontic Update*, 13, 3.

Abstract

This paper explores past natural disasters such as Hurricane Katrina (USA), the Great East Japan and Christchurch (New Zealand) Earthquakes as well as the HIV and SARS pandemics and the impact they had on providing orthodontic services at the time of the crisis. It also addresses the lessons learnt during the process of recovery and the long-term changes made as a result to the provision of care.

CPD/Clinical Relevance: To provide a review of how orthodontics as a specialty survived past crises and to use the lessons learnt to navigate the current COVID-19 pandemic.

Tara V N Lee, Peter V Fowler, Julie C Williams, Pamela Ellis, Nikki E Atack, Anthony J Ireland (2020) Orthodontics at Times of National Emergency: Past and Current Crises Part 2. COVID-19: Implications for Clinical Practice. *Orthodontic Update*. 13.3.

This paper explores the disease COVID-19 caused by the SARS-CoV-2 virus. This disease has caused a global pandemic affecting the way society both works and lives. COVID-19 is spread through droplets from the mouth and nose, which has implications for how we practice orthodontics. Our clinical practice will therefore need to be adapted to keep both patients and staff safe. This paper addresses the adaptations that should be considered. We also address what the

future of orthodontics may look like in light of the issues with cross infection that COVID-19 has raised.

CPD/Clinical Relevance: How to adapt our clinical practice to keep both staff and patients safe.

Krithika Loganath, P. Adamson, A. Moss (2020) 'Ticagrelor in the management of coronary artery disease', *Future cardiology*. doi: 10.2217/fca-2020-0108.

No abstract available.

Catherine E Lovegrove, Max Peters , Stephanie Guillaumier, Mani Arya , **Naveed Afzal**, Tim Dudderidge, Feargus Hosking-Jervis , Richard G Hindley , Henry Lewi , Neil McCartan , Caroline M Moore , Raj Nigam , Chris Ogden , Raj Persad , Jaspal Viridi , Mathias Winkler , Mark Emberton , Hashim U Ahmed , Taimur T Shah , Suks Minhas (2020) 'Evaluation of functional outcomes after a second focal high-intensity focused ultrasonography (HIFU) procedure in men with primary localized, non-metastatic prostate cancer: results from the HIFU Evaluation and Assessment of Treatment (HEAT) registry', *BJU international*, 125(6), pp. 853–860. doi: 10.1111/bju.15004.

Abstract

Objectives: To assess change in functional outcomes after a second focal high-intensity focused ultrasonography (HIFU) treatment compared with outcomes after one focal HIFU treatment.

Patients and methods: In this multicentre study (2005-2016), 821 men underwent focal HIFU for localized non-metastatic prostate cancer. The patient-reported outcome measures of International Prostate Symptom Score (IPSS), pad usage and erectile function (EF) score were prospectively collected for up to 3 years. To be included in the study, completion of at least one follow-up questionnaire was required. The primary outcome was comparison of change in functional outcomes between baseline and follow-up after one focal HIFU procedure vs after a second focal HIFU procedure, using IPSS, Expanded Prostate Cancer Index Composite (EPIC) and International Index of Erectile Function (IIEF) questionnaires.

Results: Of 821 men, 654 underwent one focal HIFU procedure and 167 underwent a second focal HIFU procedure. A total of 355 (54.3%) men undergoing one focal HIFU procedure and 65 (38.9%) with a second focal HIFU procedure returned follow-up questionnaires, respectively. The mean age and prostate-specific antigen level were 66.4 and 65.6 years, and 7.9 and 8.4 ng/mL, respectively. After one focal HIFU treatment, the mean change in IPSS was -0.03 ($P = 0.02$) and in IIEF (EF score) it was -0.4 ($P = 0.02$) at 1-2 years, with no subsequent decline. Absolute rates of erectile dysfunction increased from 9.9% to 20.8% ($P = 0.08$), leak-free continence decreased from 77.9% to 72.8% ($P = 0.06$) and pad-free continence from 98.6% to 94.8% ($P = 0.07$) at 1-2 years, respectively. IPSS prior to second focal HIFU treatment compared to baseline IPSS prior to first focal HIFU treatment was lower by -1.3 ($P = 0.02$), but mean IPSS change was +1.4 at 1-2 years ($P = 0.03$) and +1.2 at 2-3 years ($P = 0.003$) after the second focal HIFU treatment. The mean change in EF score after the second focal HIFU treatment was -0.2 at 1-2 years ($P = 0.60$) and -0.5 at 2-3 years ($P = 0.10$), with 17.8% and 6.2% of men with new erectile dysfunction. The rate of new pad use was 1.8% at 1-2 years and 2.6% at 2-3 years.

Conclusion: A second focal HIFU procedure causes minor detrimental effects on urinary function and EF. These data can be used to counsel patients with non-metastatic prostate cancer prior to considering HIFU therapy.

Preeti K Mahato , Zoë A Sheppard, Edwin van Teijlingen, Nisa De Souza (2020) 'Factors associated with contraceptive use in rural Nepal: Gender and decision-making', *Sexual & reproductive healthcare: official journal of the Swedish Association of Midwives*, 24, p. 100507. doi: 10.1016/j.srhc.2020.100507.

Abstract

Introduction: Gender norms and roles influence many decisions related to reproductive health behaviours including contraceptive use. There are very few studies related to gender norms and decision-making in contraceptive use in Nepal, hence this paper addresses these issues in a quantitative study.

Methods: A secondary data analysis of a primary study conducted in 2012 as a quantitative cross-sectional study in four villages of a hilly district in Nepal. This study included data that were collected from either the woman or the man in 440 couples of childbearing age with at least one child. The secondary analysis included (adjusted) regression analysis to investigate factors associated with contraception use with the variables of interest being gender roles and decision-making, whilst considering demographic and socio-economic controls.

Results: The secondary data analysis found gender roles were associated with current/ever use of contraceptives as reported by the respondents. Socio-economic factors such as husband's and wife's education and gender roles such as indicators showing sharing of childcare responsibilities affected contraceptive use positively. However, decision making regarding contraceptive use was not found to be associated with current/ever use of contraceptives.

Conclusion: Gender has a role in the use of contraceptive, however decision-making may not be associated with contraceptive use. Educational, health promotional and family planning programmes are recommended to promote use of contraceptives. It is important that husbands get involved in these programmes to encourage discussions related to contraceptive use.

Kenny McCormick, Caroline King, Sara Clarke, Chris Jarvis, Mark Johnson, Helen M Parretti, Nora Greene, Joanna Males, (2021) 'The role of breast milk fortifier in the post-discharge nutrition of preterm infants,' *British Journal of Hospital Medicine*, 9 March 2021

Abstract

Infants born prematurely are often discharged from hospital before 37 weeks post-menstrual age. While breastfeeding will meet all the nutritional requirements of full-term infants, these preterm infants may need enhanced levels of protein, minerals and possibly energy to ensure optimum growth, bone mineralisation and neurological development. To meet these additional nutrient needs in the neonatal unit, it is currently recommended that multinutrient breast milk fortifier is added to maternal breast milk. There may also be benefits in continuing to provide fortified milk after discharge, potentially including improved growth and preserving breastfeeding, and this is increasingly becoming a recognised practice in some neonatal units. This article presents the discussion and consensus of a multidisciplinary panel of neonatologists, neonatal dietitians, a GP and a neonatal outreach sister. The aim is to develop guidance on providing safe and effective nutritional supplementation for preterm infants after discharge in order to maintain optimal growth. This guidance is aimed at community healthcare staff and is based on the limited evidence available, using shared best practice and expertise.

Jonathan S Palmer, Luke D Jones, A Paul Monk, Michael Nevitt, John Lynch, David J Beard, M K Javaid, Andrew J Price (2020) 'Varus alignment of the proximal tibia is associated with structural progression in early to moderate varus osteoarthritis of the knee', *Knee surgery, sports traumatology, arthroscopy: official journal of the ESSKA*, 28(10), pp. 3279–3286. doi: 10.1007/s00167-019-05840-5.

Abstract

Purpose: Lower limb malalignment is a strong predictor of progression in knee osteoarthritis. The purpose of this study is to identify the individual alignment variables that predict progression in early to moderate osteoarthritis of the knee.

Method: A longitudinal cohort study using data from the Osteoarthritis Initiative. In total, 955 individuals (1329 knees) with early to moderate osteoarthritis (Kellgren-Lawrence grade 1, 2 or 3) were identified. All subjects had full-limb radiographs analysed using the Osteotomy module within MedCad® Classic (Hectec GMBH) to give a series of individual alignment variables relevant to the coronal alignment of the lower limb. Logistic regression models, with generalised estimating equations were used to identify which of these individual alignment variables predict symptom worsening (WOMAC score > 9 points) and or structural progression (joint space narrowing progression in the medial compartment > 0.7mm) over 24 months.

Results: Individual alignment variable were associated with both valgus and varus alignment (mechanical Lateral Distal Femoral Angle, Medial Proximal Tibial Angle and mechanical Lateral Distal Tibial Angle). Only the Medial Proximal Tibial Angle was significantly associated with structural progression and none of the variables was associated with symptom progression. The odds of joint space narrowing progression in the medial compartment occurring at 24 months increased by 21% for every one degree decrease (more varus) in Medial Proximal Tibial Angle ($p < 0.001$) **CONCLUSIONS:** Our results suggest that the risk of structural progression in the medial compartment is associated with greater varus alignment of the proximal tibia.

J Palmer, C Wilson, D Wilson, S Garrett. (2020) **HEARING EVALUATION OF ARTHROPLASTY SURGEONS: RESULTS FROM THE HEARS STUDY**, *Orthopaedic Proceedings*, 102-B, Suppl.5

Orthopaedic surgeons are exposed to high levels of noise when performing common surgical procedures. Noise induced hearing loss (NIHL) has been demonstrated amongst senior orthopaedic staff. The objective of this study was to investigate the prevalence of hearing loss amongst arthroplasty surgeons compared to non-surgical clinicians and explore the factors associated with hearing loss.

Gerrard Phillips, Mike Jones and Ken Dagg (2020) **Restarting training and examinations in the era of COVID-19: a perspective from the Federation of Royal Colleges of Physicians UK**, *Clinical Medicine*, 20 (6) doi:10.7861/clinmed.2020-0481

Abstract

COVID-19 has proven to be a potent disruptor of postgraduate training, assessment and learning. In so doing, it has equally proved to be a potent catalyst and has driven innovation. Here we discuss the response of the Federation of the three UK Royal Colleges of Physicians to the challenges presented in these areas by the COVID-19 pandemic.

E C Rowland, S M Taibjee, D Koch , E Calonje *et al.* (2020) 'Itchy plaques with associated comedonal openings and cysts', *Clinical and experimental dermatology*, 45(5), pp. 638–641. doi: 10.1111/ced.14158.

No abstract available.

Susannah Rowles, Dipesh Patel, Andrew Macklin, Umesh Dashora (2020) ABCD Survey: Life as a diabetologist during the COVID-19 pandemic, *British Journal of Diabetes*, 20 (2)

No abstract available.

Anna Sayan, Oliver Mitchell, Saleem Taibjee, Velupillai Ilankovan (2020) 'Unusual case of primary cutaneous signet-ring cell (histocytoid) carcinoma', *The British journal of oral & maxillofacial surgery*, 58(4), pp. 475–477. doi: 10.1016/j.bjoms.2020.01.023.

Abstract

Signet-ring cell (histocytoid) carcinoma is a rare and aggressive skin neoplasm that most commonly affects elderly men. It typically originates from the upper or lower eyelid, with bilateral involvement only in rare cases, and results in a diffuse and infiltrative appearance clinically, radiologically, and histologically (the “monocle” sign). It is essential to carry out a full investigation to rule out metastasis from an internal origin.

Laura Starr (2021) Developing as a nurse by developing services and people, *British Journal of Cardiac Nursing*, 18 March 2021, Early View

In this instalment of our 2021 Spotlight on Nurses series, Laura Starr, nominee for Cardiovascular Nurse of the Year 2020, discusses how her career took shape and her passion for continuing development and learning.

Karl Peter Sylvester, Nigel Clayton, Ian Cliff, Michael Hepple, Adrian Kendrick Jane Kirkby, Martin Miller, Alan Moore, Gerrard Francis Rafferty, Liam O'Reilly, Joanna Shakespeare, Laurie Smith, Trefor Watts, Martyn Bucknall and Keith Butterfield (2020) 'ARTP statement on pulmonary function testing 2020', *BMJ open respiratory research*, 7(1). doi: 10.1136/bmjresp-2020-000575.

The Association for Respiratory Technology & Physiology (ARTP) last produced a statement on the performance of lung function testing in 1994. At that time the focus was on a practical statement for people working in lung function laboratories. Since that time there have been many technological advances and alterations to best practice in the measurement and interpretation of lung function assessments. In light of these advances an update was warranted. ARTP, therefore, have provided within this document, where available, the most up-to-date and evidence-based recommendations for the most common lung function assessments performed in laboratories across the UK. These recommendations set out the requirements and considerations that need to be made in terms of environmental and patient factors that may influence both the performance and interpretation of lung function tests. They also incorporate procedures to ensure quality assured diagnostic investigations that include those associated with equipment, the healthcare professional conducting the assessments and the results achieved by the subject. Each section aims to outline the common parameters provided for each investigation, a brief principle behind the measurements (where applicable), and suggested acceptability and reproducibility criteria.

Karen Velásquez-Monzón, Mariana C Navarro-Peña, Miguel Klunder-Klunder, Michael Tsatsos, Marco A Ramírez-Ortiz (2020) 'Pediatric penetrating keratoplasty and graft

rejection: experience at the Hospital Infantil de México Federico Gómez', *Boletín medico del Hospital Infantil de Mexico*, 77(1), pp. 23–27. doi: 10.24875/BMHIM.19000070.

Abstract

Background: Penetrating keratoplasty (PK) is a challenging surgical ocular procedure indicated for some pediatric patients with vision-threatening corneal disease damage. Pediatric PK is reserved for cases with advanced pathology or dysfunction as rejection and failure rates greatly supersede the rates of adult PK. The objective was to identify factors associated with graft rejection and failure amongst Mexican children undergoing primary PK for different indications.

Methods: A retrospective review of consecutive pediatric PK medical records was conducted between 2001 and 2015 at the Hospital Infantil de México Federico Gómez. Graft survival was calculated using the Kaplan-Meier survival method.

Results: During the 15 years of study, 67 eyes of 57 patients underwent PK. The mean age at the time of surgery was 11 years. The mean follow-up duration was 44 months. Keratoconus was the most common indication for PK (61%) followed by herpetic keratitis (15%) and other corneal dystrophies (10%). Mean graft survival time was 45.6 months (95% confidence interval 31.8-58.4 months, standard deviation = 0.069), with a survival rate of 70% at 1 year. Univariate Cox proportional hazard showed that being < 9 years of age at the time of the surgery ($p = 0.023$) and corneal dystrophies ($p = 0.04$) were prognostic factors for corneal rejection. Five eyes of five patients developed graft failure.

Conclusions: Pediatric PK patients commonly experience graft rejection, which need to be promptly diagnosed and treated to minimize permanent damage. The age at the time of surgery and congenital corneal opacities is factors associated with a higher risk of rejection and failure.

Charles Timothy West, P Robinson, J Winehouse (2020) 'Single hem to reduce evisceration following Bogotá bag for damage control surgery: "sail technique"', *BMJ military health*, 166(4), pp. 279–280. doi: 10.1136/jramc-2019-001292.

No abstract available.

Yap Z.J., Sharif M., Bashir M., (2021) Is there an immunogenomic difference between thoracic and abdominal aortic aneurysms? *Journal of Cardiac Surgery*, 2021 Feb. DOI: 10.1111/jocs.15440

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