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1. Radiology report alerts - are emailed 'Fail-Safe' alerts acknowledged and acted upon?

Authors: Watura C.; R Desai S.
Source: International Journal of Medical Informatics; Jan 2020; vol. 133
Publication Date: Jan 2020
Publication Type(s): Article
Database: EMBASE

Abstract: Background: Guidelines from the Royal College of Radiologists and National Patient Safety Agency highlight the crucial importance of “fail-safe” alert systems for the communication of critical and significant clinically unexpected results between imaging departments and referring clinicians. Electronic alert systems are preferred, to minimise errors, increase workflow efficiency and improve auditability. To date there is a paucity of evidence on the utility of such systems. We investigated i) how often emailed radiology alerts were acknowledged by referring clinicians, ii) how frequently follow-up imaging was requested when indicated and iii) whether practice improved after an educational intervention.

Method(s): 100 cases were randomly selected before and after an educational intervention at a tertiary referral centre in London, where the email-based 'RadAlert' system (Rivendale Systems, UK) has been in operation since May 2017.

Result(s): Following educational intervention, 'accepted' alerts increased from 39% to 56%, 'abandoned' alerts reduced from 55% to 37% and 'declined' alerts decreased from 5% to 3%. There was evidence to confirm that, when indicated, further imaging had been requested for 78% of all alerts, 78% of 'accepted' alerts and 76% of 'abandoned' alerts both before and after educational intervention.

Conclusion(s): Acknowledgment of report alerts by referring clinicians increased after departmental education / governance meetings. However, a proportion of email alerts remained unacknowledged. It is incumbent on reporting radiologists to be aware that electronic alert systems cannot be solely relied upon and to take the necessary steps to ensure significant and clinically unsuspected findings are relayed to referring clinical teams in a timely manner.

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2. The Rivers Centre in Scotland: An Attachment-Based Service Model for People With Complex Posttraumatic Stress Disorder

Authors: Fyvie C.; Easton P.; Moreton G.; McKeever J.; Karatzias T.
Source: Journal of traumatic stress; Nov 2019
Publication Date: Nov 2019
Publication Type(s): Article
PubMedID: 31730228
Database: EMBASE

Abstract: The Rivers Centre in Edinburgh, Scotland (United Kingdom) operated for nearly 20 years as a traditional specialist trauma service, delivering psychological therapies to an adult population affected by trauma. Embedded in a health and social care system whose characteristics were unhelpful for people with histories of insecure attachment experiences, the Rivers Centre aimed to find a different way of working, and in January 2017, it relaunched with a new model of service. The aim of this paper is to describe the new service model from an organizational perspective in the context of attachment theory. At the heart of the model is the premise that to be effective, a trauma service needs to provide people with an alternative model of attachment. Early signs from service audit data indicate that an attachment-based way of working can improve engagement and can provide a supportive and responsive environment in which people can learn to recover.

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Authors: Honeyford K.; Costelloe C.; Cooke G.S.; Kinderlerer A.; Williamson E.; Gilchrist M.; Holmes A.; Glampson B.; Mulla A.
Source: Journal of the American Medical Informatics Association: JAMIA; Oct 2019
Publication Date: Oct 2019
Publication Type(s): Article
PubMedID: 31743934
Database: EMBASE
OBJECTIVE: The study sought to determine the impact of a digital sepsis alert on patient outcomes in a UK multisite hospital network. MATERIALS AND METHODS: A natural experiment utilizing the phased introduction (without randomization) of a digital sepsis alert into a multisite hospital network. Sepsis alerts were either visible to clinicians (patients in the intervention group) or running silently and not visible (the control group). Inverse probability of treatment-weighted multivariable logistic regression was used to estimate the effect of the intervention on individual patient outcomes.

OUTCOME(S): In-hospital 30-day mortality (all inpatients), prolonged hospital stay (>7 days) and timely antibiotics (<60 minutes of the alert) for patients who alerted in the emergency department.

RESULT(S): The introduction of the alert was associated with lower odds of death (odds ratio, 0.76; 95% confidence interval [CI], 0.70-0.84; n=21 183), lower odds of prolonged hospital stay >7 days (OR, 0.93; 95% CI, 0.88-0.99; n=9988), and in patients who required antibiotics, an increased odds of receiving timely antibiotics (OR, 1.71; 95% CI, 1.57-1.87; n=4622). DISCUSSION: Current evidence that digital sepsis alerts are effective is mixed. In this large UK study, a digital sepsis alert has been shown to be associated with improved outcomes, including timely antibiotics. It is not known whether the presence of alerting is responsible for improved outcomes or whether the alert acted as a useful driver for quality improvement initiatives.

CONCLUSION(S): These findings strongly suggest that the introduction of a network-wide digital sepsis alert is associated with improvements in patient outcomes, demonstrating that digital based interventions can be successfully introduced and readily evaluated.

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4. Quality improvement and emergency laparotomy care: what have we learnt from recent major QI efforts?

Authors Stephens T.; Johnston C.; Hare S.
Source Clinical medicine (London, England); Nov 2019; vol. 19 (no. 6); p. 454-457
Publication Date Nov 2019
Publication Type(s) Article
PubMedID 31732584
Database EMBASE
Abstract More than 1.53 million adults undergo inpatient surgery in the UK NHS. Patients undergoing emergency abdominal surgery have a much greater risk of death than patients admitted for elective surgery. Widespread variations in key standards of care between hospitals exist and are associated with differences in mortality rates.Recently there have been three large-scale initiatives to improve quality of care for emergency laparotomy patients: the National Emergency Laparotomy Audit, the enhanced perioperative care for high-risk patients trial and the Emergency Laparotomy Collaborative. Here we provide a critical review of what we currently know about the use of structured methods for improving the quality of healthcare services, with reference to the three initiatives. We find that using structured methods to improve care is the hallmark of quality improvement but attention must too be paid to the context in which these methods are used.

Copyright © 2019 Royal College of Physicians.

5. Variation in post-colonoscopy colorectal cancer across colonoscopy providers in English National Health Service: Population based cohort study

Authors Burr N.E.; Taylor J.; Whalley S.; Finan P.J.; Morris E.J.A.; Derbyshire E.; Subramanian V.; Rutter M.D.; Valori R.
Source The BMJ; 2019; vol. 367
Publication Date 2019
Publication Type(s) Article
PubMedID 31722875
Database EMBASE
Abstract

Objectives To quantify post-colonoscopy colorectal cancer (PCCRC) rates in England by using recent World Endoscopy Organisation guidelines, compare incidence among colonoscopy providers, and explore associated factors that could benefit from quality improvement initiatives. Design Population based cohort study. Setting National Health Service in England between 2005 and 2013. Population All people undergoing colonoscopy and subsequently diagnosed as having colorectal cancer up to three years after their investigation (PCCRC-3yr). Main outcome measures National trends in incidence of PCCRC (within 6-36 months of colonoscopy), univariable and multivariable analyses to explore factors associated with occurrence, and funnel plots to measure variation among providers. Results The overall unadjusted PCCRC-3yr rate was 7.4% (9317/126 152), which decreased from 9.0% in 2005 to 6.5% in 2013 (P<0.01). Rates were lower for colonoscopies performed under the NHS bowel cancer screening programme (593/16 640, 3.6%), while they were higher for those conducted by non-NHS providers (187/2009, 9.3%). Rates were higher in women, in older age groups, and in people with inflammatory bowel disease or diverticular disease, in those with higher comorbidity scores, and in people with previous cancers. Substantial variation in rates among colonoscopy providers remained after adjustment for case mix. Conclusions Wide variation exists in PCCRC-3yr rates across NHS colonoscopy providers in England. The lowest incidence was seen in colonoscopies performed under the NHS bowel cancer screening programme. Quality improvement initiatives are needed to address this variation in rates and prevent colorectal cancer by enabling earlier diagnosis, removing premalignant polyps, and therefore improving outcomes.

6. Prognosis of early stage small cell bladder cancer is not always dismal

Authors Lim J.H.; Sundar S.
Source ESMO Open; Nov 2019; vol. 4 (no. 6)
Publication Date Nov 2019
Publication Type(s) Article
Database EMBASE
Abstract Background Small cell carcinoma of the urinary bladder (SCCB) is an extremely rare malignancy which is often associated with poor survival outcome. Literature reporting such disease is scarce. There is no standardised management. This retrospective audit examines a UK Cancer Centre’s SCCB management and survival outcomes. Methods Histopathology database at Nottingham University Hospitals, UK, was used to identify patients diagnosed with SCCB from January 2008 to January 2016. Results 27 patients had confirmed diagnosis of SCCB. Mean age at diagnosis was 68.7 (range 37-90). 30% of the cases had pure small cell histology, while the rest were mixed histological subtype. Of the 12 patients with early stage disease (stage I and II), three had radical cystectomy and chemotherapy, six had both radiotherapy and chemotherapy, two had either radiotherapy or chemotherapy alone, and one declined active treatment. Of the 12 patients with advanced disease (stage III and IV), four had chemotherapy alone, four had both radiotherapy and chemotherapy and four was for best supportive care. 13 out of 16 patients who had chemotherapy received combination of carboplatin and etoposide. Patients with advanced stage disease had median survival of 9 months (95% CI 3.9 to 14.1 months). The median survival for patients with early disease was not reached. There is significant difference in survival between early and late stage disease (p value 0.008, Log rank test). Conclusions Our results demonstrated a reasonable survival outcome in early stage SCCB patients. Radical multimodality treatment options should not be precluded in patients with early stage SCCB.

7. Accidental dural puncture and post-dural puncture headache: a retrospective review in an Irish maternity hospital

Authors Abela G.P.; Tan T.
Source Irish Journal of Medical Science; 2019
Publication Date 2019
Publication Type(s) Article
Database EMBASE
Abstract

Background: Accidental dural puncture (ADP) during epidural catheter insertion and the possible consequent post-dural puncture headache (PDPH) remain challenging complications in obstetric anaesthesia. ADP/PDPH can represent a considerable degree of morbidity for the parturient and require immediate diagnosis and appropriate management to ensure recovery and avoid complications.

Aim(s): This retrospective audit was carried out to identify the accidental dural puncture and post-dural puncture headache rates at the Coombe Women and Infant University Hospital in Dublin.

Method(s): Cases of ADP and PDPH were identified retrospectively from a register used to record these cases. Demographic and obstetric data was retrieved using the patients' medical records. Analysis was carried using MS Excel.

Result(s): In 1 year (June 1, 2018 to June 1, 2019), there were 25 cases of ADP during epidural catheter insertion and this is 0.78% of epidurals done in this period. Seventeen of these (68%) subsequently developed PDPH. In total, there are 32 cases of PDPH: 27 after epidural analgesia using an 18G Touhy needle and 5 after a spinal anaesthetic using a 25G Whitacre needle. All PDPH cases received first-line conservative treatment and 9 (28.1%) required an epidural blood patch (EBP). No-one required a second EBP.

Discussion(s): The incidence of ADP at our hospital (0.78%) is within the range quoted in the literature (0.1-1.5%) and below the UK standard of 1%. The incidence of PDPH after recognized ADP (68%) is also consistent with other published reports.

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Abstract

Aim: To report efficacy and safety measures for XEN45 in a National Health Service setting after 24-month follow-up.

Methods: This is a retrospective, non-comparative audit of records of patients who underwent XEN45 procedure between June 2015 and May 2017. The main outcome measures were intraocular pressure (IOP) reduction and number of antihypertensive medications at each timepoint. Failure was defined as requiring further surgery or removal of XEN. Success was defined as 20% reduction of IOP without additional glaucoma medications or reduction in antihypertensive medications without increase in baseline IOP. Needling rates were assessed and subgroup analysis was performed.

Results: A total of 151 eyes were included in the study. The main diagnoses were primary open angle glaucoma (84.1%), angle closure glaucoma (8.6%) and refractory glaucoma (7.3%). Stand-alone procedure was performed in 62.3% and combined phaco-XEN was done in 37.7%. The mean IOP at baseline was 22.1+/-6.5 mm Hg, and the mean IOP at 12 and 24 months was 15.4+/-5.9 mm Hg and 14.5+/-3.3 mm Hg, respectively (p<0.001). The mean number of medications was 2.77+/-1.1 at baseline, and 0.3+/-0.7 and 0.5+/-1.0 medications at 12 and 24 months, respectively (p<0.001). 25% of patients failed at the 24-month timepoint. Needling was required in 37.7% of patients at 24 months. Non-Caucasian ethnicity was found to be related to higher failure rate. No significant adverse events were noted.

Conclusions: XEN45 is a viable, effective and safe procedure after 2 years of follow-up. Patients should be advised regarding failure rate as well as possible need for bleb revisions and medication use.

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Abstract
Objective: International studies report a decline in mortality following ST-elevation myocardial infarction (STEMI). The extent to which the observed improvements in STEMI survival are explained by temporal changes in patient characteristics and utilisation of treatments is unknown.

Method(s): Cohort study using national registry data from the Myocardial Ischaemia National Audit Project between first January 2004 and 30th June 2013. 232 353 survivors of hospitalisation with STEMI as recorded in 247 hospitals in England and Wales. Flexible parametric survival modelling and causal mediation analysis were used to estimate the relative contribution of temporal changes in treatments and patient characteristics on improved STEMI survival.

Result(s): Over the study period, unadjusted survival at 6 months and 1 year improved by 0.9% and 1.0% on average per year (HR: 0.991, 95% CI: 0.988 to 0.994 and HR: 0.990, 95% CI: 0.987 to 0.993, respectively). The uptake of primary percutaneous coronary intervention (PCI) (HR: 1.025, 95% CI: 1.021 to 1.028) and increased prescription of P2Y12 inhibitors (HR: 1.035, 95% CI: 1.031 to 1.039) were significantly associated with improvements in 1-year survival. Primary PCI explained 16.8% (95% CI: 10.8% to 31.6%) and 13.2% (9.2% to 21.9%) of the temporal survival improvements at 6 months and 1 year, respectively, whereas P2Y12 inhibitor prescription explained 5.3% (3.6% to 8.8%) of the temporal improvements at 6 months but not at 1 year.

Conclusion(s): For STEMI in England and Wales, improvements in survival between 2004 and 2013 were significantly explained by the uptake of primary PCI and increased use of P2Y12 inhibitors at 6 months and primary PCI only at 1 year. Trial registration number: NCT03749694

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12. Can the UK 24-item family satisfaction in the intensive care unit questionnaire be used to evaluate quality improvement strategies aimed at improving family satisfaction with the ICU? A qualitative study

Authors
Lyes S.; Hinton L.; Richards-Belle A.; Connolly B.; Rowan K.M.; Locock L.

Source
Journal of the Intensive Care Society; 2019

Publication Date
2019

Publication Type(s)
Article

Database
EMBASE

Abstract
Background: The experiences and satisfaction of family members of patients are important indicators of healthcare quality in the intensive care unit. The family satisfaction in the intensive care unit (FS-ICU-24) questionnaire, developed in Canada and now validated in the UK, is becoming the gold standard measure to evaluate family members’ satisfaction with the intensive care unit. To inform future use of the UK FS-ICU-24 to evaluate quality improvement strategies aimed at improving family satisfaction with the intensive care unit, we set out to explore the extent to which the 24-scored items and domains of the UK FS-ICU-24 reflect common suggestions and priorities for quality improvement self-reported as important to family members in the UK.

Method(s): Two data sources were thematically analysed - (1) open-text responses from family members who completed the UK FS-ICU-24 in a large observational cohort study; (2) a set of quality improvement activities generated by patients, family members and staff through experience-based co-design in a mixed-methods’ intensive care unit quality improvement study. Summarised themes were then mapped to the 24-scored items and domains of the UK FS-ICU-24 to assess coverage by the UK FS-ICU-24.

Result(s): We found a good degree of coverage between the topics and themes identified as important to family members with the 24-scored items and domains of the UK FS-ICU-24.

Conclusion(s): Our study confirms the face validity of the UK FS-ICU-24 and indicates that its inclusion as an outcome measure for evaluating quality improvement strategies aimed at improving family satisfaction with the intensive care unit is appropriate.

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13. Audit of criteria for medical review of peripheral blood films at district general hospital referred for medical review by the laboratory haematologists

Authors
Mohan A.

Source
HemaSphere; Jun 2019; vol. 3 ; p. 1024-1025

Publication Date
Jun 2019

Publication Type(s)
Conference Abstract

Database
EMBASE
14. Diagnosis of iron deficiency anaemia and parenteral iron therapy: Clinical audit in a district general hospital

Authors: Lovato S.; Ali H.; Dahotia B.; Bhatkal B.
Source: HemaSphere; Jun 2019; vol. 3 ; p. 922
Publication Date: Jun 2019
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract: Background: Iron deficiency anaemia is the most common cause of anaemia. Parenteral iron therapy in the UK has to be administered in hospital settings as it comes with risk of allergic reactions and anaphylaxis. Clear procedures should be established in each hospital to ensure that parenteral iron therapy is prescribed according to the national guidelines ans audited regularly.

Aim(s): The aim of this audit was to establish if if the diagnosis of iron deficiency was performed according to the guidelines and if patients were adequately monitored after receiving parenteral iron.

Method(s): Pharmacy provided the list of IV iron prescriptions issued in a period of 12 months. A clinical audit was performed to understand if patients had a documented diagnosis of iron deficiency (low haemoglobin, low ferritin or low transferrin saturation according to the local laboratory ranges); if there was a follow up blood test including the same parameters and if patients who were still iron deficient were prescribed further iron.

Result(s): A total of 233 prescription for 227 patients were analysed. Of those 99% had a blood test previous to the iron infusion (99% had full blood count, 94% had ferritin level, 63% had transferrin saturation). Only 80% of patients had confirmed iron deficiency, in 2% of the patients there was no iron deficiency and in 1 patient there were laboratory signs of iron overload, in the remaining 18% iron status was incomplete as transferrin saturation was not performed. Follow up was missing in 16% of the cases, in 66% of the cases was done between 2 weeks and three mones, in 20% of the cases after that. All the patients had full blood count, only two thirds had ferritin level done and less than a quarter had transferrin level done. Thirty nine patients (17%) o were found to be still iron deficient but only a fifth of them received further iron therapy. Only 10% had normal iron studies, in the remaining cases iron status was not evaluable. Summary/Conclusion: Several issues were identified that will require improvement. First of all we found that some of the prescriptions were unnecessary (2%) or controindicated (0.5%). In a fifth of the cases as iron studies were incomplete, it was not possible to establish of the therapy given was appropriate. The main problem was lack of follow up or follow up with incomplete iron studies that made impossible to interpret the iron status in tre quarter of the patients, and missed iron therapy in five out of six patient with documented iron deficiency. Resolving these problem, as they are not isolated to a single department, will be a challenge. Solutions should be found to ensure that there are no inappropriate parenteral iron prescriptions and that patients are monitored adequately and given further therapy when required. Establishing an iron deficiency service to monitor patients could be one of these solutions, but it will require major institution re-organisation. (Figure Presented).

15. Assessment of sickle pain management in the Whittington Hospital Emergency Department

Authors: Orf K.; Massie J.; Shah F.; Akkielah L.; Al Shaman L.
Source: HemaSphere; Jun 2019; vol. 3 ; p. 1027
Publication Date: Jun 2019
Publication Type(s): Conference Abstract
16. ‘It’s good to take it in stages’: Mapping australian genomics education and developing evidence-based tools

**Authors**
Nisselle A.; Dunlop K.; Terrill B.; Metcalfe S.; Gaff C.; Martyn M.; Jordan H.

**Source**
Twin Research and Human Genetics; Oct 2019; vol. 21 (no. 5); p. 420

**Database**
EMBASE

**Abstract**
Background: Sickle cell anaemia (SCA) is an autosomal recessive disorder caused by point mutation of the β-globin gene, resulting in abnormal forms of hemoglobin that cause increased red blood cell rigidity and hemolysis. It is one of the most common hereditary blood conditions, affecting over 14,000 adults in the UK. One of the manifestations of SCA is vaso-occlusive crises. These typically cause severe pain that may require emergency department (ED) attendance for pain management, typically with opioids. Those patients in whom pain relief is not well-controlled are at risk of further complications including acute chest syndrome. The UK National Institute of Clinical Excellence (NICE) published a quality standard in 2014 stating that patients presenting to hospital with an acute painful sickle cell episode should have a pain assessment, a clinical assessment and appropriate analgesia within 30 minutes of presentation.

**Aim(s):** This study was performed to assess the Whittington Hospital’s compliance to national recommendations and try to establish what aspects of care in ED contribute to any delays in management noted.

**Method(s):** If a Whittington SCA patient attends ED, an automated email is generated that notifies the haematology team of this. This system was used to identify acute sickle cell presentations to ED. Criteria for inclusion in the study were Whittington SCA patients that presented to ED with acute painful sickle cell crises between August 2017 to January 2018. Patients who received analgesia in the ambulance and patients with no documentation available were excluded. The time of presentation, analgesia prescription and administration for each attendance were noted from ED documentation.

**Result(s):** A total of 104 ED SCA attendances were included. 41% of patients presenting with an acute painful sickle cell crisis received analgesia during their first 30 minutes in ED. The average wait for analgesia was 47 minutes, with 75% of SCA patients receiving analgesia within 1 hour of arrival. The time taken to triage SCA patients was on average 8 minutes (range 0-29 minutes). Time from arrival to prescription of pain relief was much more variable with an average wait 40 minutes (range 10 minutes to 2 hours 22 minutes). Patients who frequently attended Whittington ED (defined as 7 or more attendances within the 6 month period studied) had a shorter average wait for analgesia. Analgesia was given 36 minutes after arrival on average for frequent attenders, whereas patients presenting 6 or fewer times had an average wait of 53 minutes. Summary/Conclusion: We are not currently meeting our audit standard for provision of analgesia in the emergency department, and performance appears to have worsened progressively since our earliest available date from 2012 (although methodological differences may have contributed to this). In 2015 49% of patients received analgesia within 30 minutes compared to 41% 2017/18. Most of the delay appears to be due to the time taken for medication to be prescribed, although the time taken to triage the patient and administer the medication was also not insignificant, and often amounted to greater than 30 minutes. It is unclear what is contributing to this delay, although it appears that performance is improved when the patient is a repeat attender and therefore known to the department. Educations sessions with the ED department may improve management of SCA painful crises in ED.
17. Efficacy and safety data for the XEN45 implant at 2 years: a retrospective analysis

**Authors**
Gabbay I.E.; Allen F.; Morley C.; Bowes O.M.; Ruben S.; Pearsall T.

**Source**
The British journal of ophthalmology; Nov 2019

**Publication Date**
Nov 2019

**Publication Type(s)**
Article

**PubMedID**
31727624

**Abstract**
AIM: To report efficacy and safety measures for XEN45 in a National Health Service setting after 24-month follow-up.

**METHOD(S):** This is a retrospective, non-comparative audit of records of patients who underwent XEN45 procedure between June 2015 and May 2017. The main outcome measures were intraocular pressure (IOP) reduction and number of antihypertensive medications at each timepoint. Failure was defined as requiring further surgery or removal of XEN. Success was defined as 20% reduction of IOP without additional glaucoma medications or reduction in antihypertensive medications without increase in baseline IOP. Needling rates were assessed and subgroup analysis was performed.

**RESULT(S):** A total of 151 eyes were included in the study. The main diagnoses were primary open angle glaucoma (84.1%), angle closure glaucoma (8.6%) and refractory glaucoma (7.3%). Stand-alone procedure was performed in 62.3% and combined phaco-XEN was done in 37.7%. The mean IOP at baseline was 22.1+/−6.5mm Hg, and the mean IOP at 12 and 24months was 15.4+/−5.9mm Hg and 14.5+/−3.3mm Hg, respectively (p<0.001). The mean number of medications was 2.77+/−1.1 at baseline, and 0.3+/−0.7 and 0.5+/−1.0 medications at 12 and 24months, respectively (p<0.001). 25% of patients failed at the 24-month timepoint. Needling was required in 37.7% of patients at 24months. Non-Caucasian ethnicity was found to be related to higher failure rate. No significant adverse events were noted.

**CONCLUSION(S):** XEN45 is a viable, effective and safe procedure after 2years of follow-up. Patients should be advised regarding failure rate as well as possible need for bleb revisions and medication use.

18. Knife crime: The volunteer doctors teaching lifesaving skills to teenagers

**Authors**
Shepherd A.

**Source**
The BMJ; 2019; vol. 367

**Publication Date**
2019

**Publication Type(s)**
Note

**PubMedID**
31694808

19. Extreme preterm birth in the right place: A quality improvement project

**Authors**
Edwards K.; Impey L.

**Source**
Archives of Disease in Childhood: Fetal and Neonatal Edition; 2019

**Publication Date**
2019

**Publication Type(s)**
Article

**PubMedID**
31719143

**Abstract**
Extreme preterm birth is a major precursor to mortality and disability. Survival is improved in babies born in specialist centres but for multiple reasons this frequently does not occur. In the Thames Valley region of the UK in 2012-2014, covering 27 000 births per annum, about 50% of extremely premature babies were born in a specialist centre. Audit showed a number of potential areas for improvement. We used regional place of birth data and compared the place of birth of extremely premature babies for 2 years before our intervention and for 4 years (2014-2018) after we started. We aimed to improve the proportion of neonates born in a specialist centre with three interventions: increasing awareness and education across the region, by improving and simplifying the referral pathway to the local specialised centre, and by developing region-wide guidelines on the principal precursors to preterm birth: preterm labour and expedited delivery for fetal growth restriction. There were 147 eligible neonates born within the network in the 2 years before the intervention and 80 (54.4%) were born in a specialised centre. In the 4 years of and following the intervention, there were 334 neonates of whom 255 were inborn (76.3%) (relative risk of non-transfer 0.50 (95% CI 0.39 to 0.65), p<0.001). Rates showed a sustained improvement. The proportion of extremely premature babies born in specialist centres can be significantly improved by a region-wide quality improvement programme. The interventions and lessons could be used for other areas and specialties.

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20. Variation in post-colonoscopy colorectal cancer across colonoscopy providers in English National Health Service: population based cohort study
OBJECTIVES: To quantify post-colonoscopy colorectal cancer (PCCRC) rates in England by using recent World Endoscopy Organisation guidelines, compare incidence among colonoscopy providers, and explore associated factors that could benefit from quality improvement initiatives.

DESIGN: Population based cohort study.


POPULATION: All people undergoing colonoscopy and subsequently diagnosed as having colorectal cancer up to three years after their investigation (PCCRC-3yr).

MAIN OUTCOME MEASURES: National trends in incidence of PCCRC (within 6-36 months of colonoscopy), univariable and multivariable analyses to explore factors associated with occurrence, and funnel plots to measure variation among providers.

RESULT(S): The overall unadjusted PCCRC-3yr rate was 7.4% (9317/126152), which decreased from 9.0% in 2005 to 6.5% in 2013 (P<0.01). Rates were lower for colonoscopies performed under the NHS bowel cancer screening programme (593/16640, 3.6%), while they were higher for those conducted by non-NHS providers (187/2009, 9.3%). Rates were higher in women, in older age groups, and in people with inflammatory bowel disease or diverticular disease, in those with higher comorbidity scores, and in people with previous cancers. Substantial variation in rates among colonoscopy providers remained after adjustment for case mix.

CONCLUSION(S): Wide variation exists in PCCRC-3yr rates across NHS colonoscopy providers in England. The lowest incidence was seen in colonoscopies performed under the NHS bowel cancer screening programme. Quality improvement initiatives are needed to address this variation in rates and prevent colorectal cancer by enabling earlier diagnosis, removing premalignant polyps, and therefore improving outcomes.

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OBJECTIVES: Trauma contributes significantly to adolescent morbidity and mortality. We aimed to ascertain the epidemiology of adolescent trauma to inform prevention strategies.

METHOD(S): Data were abstracted from TARN (Trauma Audit Research Network) from English sites over a 10-year period (2008-2017). Adolescents were defined as 10-24 completed years. Descriptive statistical analysis was used in this study.

RESULT(S): There were 40 680 recorded cases of adolescent trauma. The majority were male (77.3%) and aged 16-24 years old (80.5%). There was a 2.6-fold increase during the study time frame (p<0.0001) in the total annual number of cases reported to TARN. To account for increasing hospital participation, the unit trauma cases per hospital per year was used, noting an increasing trend (p=0.048). Road traffic collision (RTC) was the leading cause of adolescent trauma (50.3%). Pedestrians (41.2%) and cyclists (32.6%) were more prevalent in the 10-15 year group, while drivers (22.9%) and passengers (17.8%) predominated in the 16-24 year group. Intentional injury was reported in 20.7% (alleged assault in 17.2% and suspected self-harm in 3.5%). This was more prevalent in the 16-24 year group. Trauma was more likely to occur between 08:00 and 00:00, at weekends and between April and October. Overall mortality rate was 4.1%. Those with a known psychiatric diagnosis had a higher mortality (6.3% vs 4.4%, p<0.001). Evidence of alcohol or drug use was recorded in 20.1% of cases. There was an increase in the number treated in major trauma centres (45.7% 2008 vs 63.5% 2017, p<0.0001). Road traffic collision (RTC) was the leading cause of adolescent trauma (50.3%). Pedestrians (41.2%) and cyclists (32.6%) were more prevalent in the 10-15 year group, while drivers (22.9%) and passengers (17.8%) predominated in the 16-24 year group.

CONCLUSION(S): RTCs and intentional injuries are leading aetiologies. Healthcare professionals and policymakers need to prioritise national preventative public health measures and early interventions to reduce the incidence of trauma in this vulnerable age group.

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Gastropexy can be as safe as conventional percutaneous endoscopic gastrostomy (peg), and biomarkers do not predict short-term or long-term outcomes: A 7-year follow-up audit

Authors
Porter R.J.; McKinlay A.W.; Metcalfe E.L.

Source
Frontline Gastroenterology; 2019
Objective: Gastrostomy facilitates artificial enteral feeding but controversy exists around associated morbidity and mortality. This study aimed to report short and long-term outcomes, and identify parameters associated with overall survival.

Method(s): A 7-year follow-up audit was undertaken at Aberdeen Royal Infirmary, UK. All patients undergoing endoscopic gastrostomy insertion October 2011-September 2018 were included. Last follow-up was February 2019. Clinical data were prospectively collected. Blood results were retrospectively obtained from electronic records. Statistical analysis was with IBM SPSS V.25.

Result(s): 691 procedures were performed over the 7-year period (520 traditional pull-through percutaneous endoscopic gastrostomy (PEG) and 171 gastropexy procedures to facilitate gastrostomy). Frequency of complications (gastrointestinal bleeding, perforation and peritonitis) was low (each n=1). Overall 7-day and 30-day mortality was 2.2% and 8.4%, respectively. One-year mortality reached 47.6%. There was no difference in survival between PEG and gastropexy procedures (p=0.410). Multivariate analysis reported increased age (p<0.001), increased alkaline phosphatase (p<0.001) and clinical indication (p=0.002) as independently associated with an increased hazard of death. Only age was moderately predictive of mortality (area under the curve 0.74, 95% CI 0.70 to 0.78, p<0.001) in the PEG group. Clinical indication was the only parameter independently associated with mortality in the gastropexy cohort (p=0.003).

Conclusion(s): Endoscopic gastrostomy placement can be safe with a low mortality and low risk of serious complications. Blood markers were not associated with short-term or long-term outcomes. Gastropexy to facilitate gastrostomy is a safe alternative to traditional pull-through PEG procedures. Future work should consider quality of life outcomes to assess the benefit of gastrostomy from a patient perspective.

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**Abstract**

BACKGROUND: With the improvements to text mining technology and the availability of large unstructured Electronic Healthcare Records (EHR) datasets, it is now possible to extract structured information from raw text contained within EHR at reasonably high accuracy. We describe a text mining system for classifying radiologists' reports of CT and MRI brain scans, assigning labels indicating occurrence and type of stroke, as well as other observations. Our system, the Edinburgh Information Extraction for Radiology reports (EdIE-R) system, which we describe here, was developed and tested on a collection of radiology reports. The work reported in this paper is based on 1168 radiology reports from the Edinburgh Stroke Study (ESS), a hospital-based register of stroke and transient ischaemic attack patients. We manually created annotations for this data in parallel with developing the rule-based EdIE-R system to identify phenotype information related to stroke in radiology reports. This process was iterative and domain expert feedback was considered at each iteration to adapt and tune the EdIE-R text mining system which identifies entities, negation and relations between entities in each report and determines report-level labels (phenotypes).

RESULT(S): The inter-annotator agreement (IAA) for all types of annotations is high at 96.96 for entities, 96.46 for negation, 95.84 for relations and 94.02 for labels. The equivalent system scores on the blind test set are equally high at 95.49 for entities, 94.41 for negation, 98.27 for relations and 96.39 for labels for the first annotator and 96.86, 96.01, 96.53 and 92.61, respectively for the second annotator.

CONCLUSION(S): Automated reading of such EHR data at such high levels of accuracies opens up avenues for population health monitoring and audit, and can provide a resource for epidemiological studies. We are in the process of validating EdIE-R in separate larger cohorts in NHS England and Scotland. The manually annotated ESS corpus will be available for research purposes on application.
Abstract

The internal medicine In-Training Exam (ITE) is administered at residency training programs to assess medical knowledge. Our internal medicine residency program witnessed a performance decline on the ITE between 2011 and 2014. The goal of this quality improvement project was to improve medical knowledge among residents as measured by an improvement in performance on the ITE, through the design and implementation of an Academic Enrichment Program (AEP). The AEP was designed in 2014-2015, and entailed a multipronged approach, including strengthening and tailoring of the didactic curriculum, establishment of a minimum conference attendance rate, and adoption of the New England Journal of Medicine Knowledge-Plus Internal Medicine Board Review platform. Residents performing below a pre-specified percentile rank cutoff on the previous year’s ITE in any of the 12 content areas were required to complete a pre-specified percentage of the question bank in that specific topic. We examined a total of 164 residents enrolled in our program under the categorical training track. The mean (+/- SEM) ITE percentile for the 12 content areas increased significantly from calendar years 2011-2014 to 2015-2018, reflecting implementation of the AEP (p < 0.001). In brief, compared to the AEP-unexposed graduating classes of residents, the AEP-exposed graduating classes of residents displayed a significant improvement in the mean ITE percentile rank. This quality improvement project was carried out at a single institution. The implementation of a structured academic enrichment program significantly improves performance on the ITE.

27. Undetected Cortrak tube misplacements in the United Kingdom 2010-17: An audit of trace interpretation

Authors: Taylor S.J.; Allan K.; Clemente R.
Source: Intensive & critical care nursing; Nov 2019; p. 102766
Publication Date: Nov 2019
Publication Type(s): Article
PubMedID: 31706594
Database: EMBASE

Abstract

OBJECTIVES: Determine why Cortrak-guided, undetected tube misplacement may occur in relation to the system of trace interpretation used. METHODOLOGY: From 2010 to 2017 we obtained seven of the eight Cortrak traces from the United Kingdom where misplacement was undetected and the patient received feed. Seven suffered serious harm. Each misplacement was interpreted by three systems: screen position, manufacturer guidance and gastrointestinal (GI) flexures. SETTING: National and local records. MAIN OUTCOME MEASURES: Ability to identify misplacement.

RESULT(S): Traces that were later identified as misplacements, could not be differentiated from GI position when they wholly or partially: a) overlapped with the GI screen area plotted from historical records (57-71%) or b) met both manufacturer guidance criteria or were confused with receiver misplacement or unusual anatomy and reached the lower left quadrant (14-71%). Conversely, all lung misplacements were identified as unsafe using the GI flexure system. All three systems failed to detect the intra-peritoneal trace. Traces were inconsistently stored by healthcare centres.

CONCLUSION(S): Trace file storage should be mandated by and accessible to relevant health authorisation bodies to improve safety research. Screen position alone and manufacturer guidance fail to consistently differentiate the shape of safe from unsafe traces. GI flexure interpretation appears safer but requires testing in larger studies.

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28. Universal or targeted cardiovascular screening? Modelling study using a sector-specific distributional cost effectiveness analysis

Authors: Collins B.; Kypridemos C.; McHale P.; Bandosz P.; Bromley H.; Capewell S.; O’Flaherty M.; Cookson R.; Parvulescu P.; Guzman-Castillo M.
Source: Preventive Medicine; Jan 2020; vol. 130
Publication Date: Jan 2020
Publication Type(s): Article
PubMedID: 31678586
Database: EMBASE
Abstract

Distributional cost effectiveness analysis is a new method that can help to redesign prevention programmes by explicitly modelling the distribution of health opportunity costs as well as the distribution of health benefits. Previously we modelled cardiovascular disease (CVD) screening audit data from Liverpool, UK to see if the city could redesign its cardiovascular screening programme to enhance its cost effectiveness and equity. Building on this previous analysis, we explicitly examined the distribution of health opportunity costs and we looked at new redesign options co-designed with stakeholders. We simulated four plausible scenarios: a) no CVD screening, b) 'current' basic universal CVD screening as currently implemented, c) enhanced universal CVD screening with 'increased' population-wide delivery, and d) 'universal plus targeted' with top-up delivery to the most deprived fifth. We also compared assumptions around whether displaced health spend would come from programmes that might benefit the poor more and how much health these programmes would generate. The main outcomes were net health benefit and change in the slope index of inequality (SII) in QALYs per 100,000 person years. 'Universal plus targeted' dominated 'increased' and 'current' and also reduced health inequality by -0.65 QALYs per 100,000 person years. Results are highly sensitive to assumptions about opportunity costs and, in particular, whether funding comes from health care or local government budgets. By analysing who loses as well as who gains from expenditure decisions, distributional cost effectiveness analysis can help decision makers to redesign prevention programmes in ways that improve health and reduce health inequality.

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29. Adaptation of the WHO Essential Medicines List for national antibiotic stewardship policy in England: Being AWaRe

Authors
Budd E.; Wilcox M.; Muller-Pebody B.; Hopkins S.; Cramp E.; Howard P.; Sharland M.; Hand K.; Wilson P.

Source
Journal of Antimicrobial Chemotherapy; Nov 2019; vol. 74 (no. 11); p. 3384-3389

Publication Date
Nov 2019

Publication Type(s)
Article

PubMedID
31361000

Database
EMBASE

Abstract

Objectives: Appropriate use of and access to antimicrobials are key priorities of global strategies to combat antimicrobial resistance (AMR). The WHO recently classified key antibiotics into three categories (AWaRe) to improve access (Access), monitor important antibiotics (Watch) and preserve effectiveness of 'last resort' antibiotics (Reserve). This classification was assessed for antibiotic stewardship and quality improvement in English hospitals.

Method(s): Using an expert elicitation exercise, antibiotics used in England but not included in the WHO AWaRe index were added to an appropriate category following a workshop consensus exercise with national experts. The methodology was tested using national antibiotic prescribing data and presented by primary and secondary care.

Result(s): In 2016, 46/108 antibiotics included within the WHO AWaRe index were routinely used in England and an additional 25 antibiotics also commonly used in England were not included in the WHO AWaRe index. WHO AWaRe-excluded and -included antibiotics were reviewed and reclassified according to the England-adapted AWaREx index with the justification by experts for each addition or alteration. Applying the England-adapted AWaRe index, Access antibiotics accounted for the majority (60.9%) of prescribing, followed by Watch (37.9%) and Reserve (0.8%); 0.4% of antibiotics remained unclassified. There was unexplained 2-fold variation in prescribing between hospitals within each AWaRe category, highlighting the potential for quality improvement.

Conclusion(s): We have adapted the WHO AWaRe index to create a specific index for England. The AWaRe index provides high-level understanding of antibiotic prescribing. Subsequent to this process the England AWaRe index is now embedded into national antibiotic stewardship policy and incentivized quality improvement schemes.

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30. Admission patterns and survival from status epilepticus in critical care in the UK: an analysis of the Intensive Care National Audit and Research Centre Case Mix Programme database

Authors
Damian M.S.; Ben-Shlomo Y.; Howard R.; Harrison D.A.

Source
European Journal of Neurology; 2019

Publication Date
2019

Publication Type(s)
Article

PubMedID
31621142

Database
EMBASE
Abstract

Background and purpose: Factors influencing the outcome after the critical care unit (CCU) for patients with status epilepticus (SE) are poorly understood. Survival for these patients was examined to establish (i) whether the risk of mortality has changed over time and (ii) whether admission to different unit types affects mortality risk over and above other risk factors.

Method(s): The Intensive Care National Audit and Research Centre database and the Case Mix Programme database (January 2001 to December 2016) were analysed. Units were defined as neuro-CCU (NCCU), general CCU with 24-h neurological support (GCCU-N) or general CCU with limited neurological support (GCCU-L).

Result(s): There were 35 595 CCU cases of SE with a 3-fold increase over time (4739 in 2001-2004 to 14 166 in 2013-2016). More recent admissions were older and were more often unsedated on admission. Mortality declined for all units although this was more marked for NCCUs (8.1% in 2001-2004 to 4.4% in 2013-2016 compared to 5.1% and 4.1% for GCCU-L). Acute hospital mortality was two to three times higher than CCU mortality although this has also declined with time. GCCU-L appeared to have lower mortality than NCCUs (odds ratio 0.84, 95% confidence interval 0.72, 0.98) but after post hoc adjustment for case mix there were no differences. Older age and markers of seriousness of morbidity were all associated with increased mortality risk.

Conclusion(s): The number of patients admitted to a CCU for SE is rising but critical care and acute hospital mortality is decreasing. Patients treated in an NCCU have higher mortality but this is explicable by more severe underlying disease.

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31. Quality Innovation Networks Share Varied Resources for Nursing Homes on Mostly User-Friendly Websites

Authors
Quigley D.D.; Dick A.; Stone P.W.

Source
Journal of the American Geriatrics Society; 2019

Publication Date
2019

Publication Type(s)
Article

PubMedID
31675106

Database
EMBASE

Abstract

BACKGROUND/OBJECTIVE: Quality innovation networks' (QINs') support of nursing homes (NHs) is a national strategy to systematically improve the quality of care experienced by residents. QINs have been tasked with providing NHs with information, resources, tools, and training to assist in developing best practices and to support quality improvement efforts in infection prevention (including joining the National Healthcare Safety Network [NHSN]), avoid unnecessary hospitalizations, and increase use of hospice and palliative care. Our objective was to examine QIN online resources provided to NHs to support best practices and improvement efforts. DESIGN: An environmental scan was conducted. SETTING/MEASUREMENT: Each QIN website was evaluated on (1) usability, (2) accessibility and prominence, (3) website design, (4) availability of training materials, (5) recency of update, (6) identification of key personnel, and (8) quality focus areas (ie, infection prevention, NHSN, antibiotic stewardship, reducing unnecessary or avoidable hospitalizations, and palliative and hospice care).

RESULT(S): QIN websites varied dramatically in design and resources offered to NHs as well as in the content and ease of finding information. Antibiotic stewardship and NHSN resources were widely available. Information (ie, fact sheets) on reducing avoidable hospitalizations was commonly available, while resources, such as tool kits, webinars, training, and contact information for personnel on reducing avoidable hospitalizations, were available to 23 states. Infection prevention resources were varied and limited to 34 states. Both palliative care and hospice resources were available through only a few QINs (13 states and 20 states, respectively).

CONCLUSION(S): Given that much of the information, tool kits, and resources are standardized and in the public domain, centralized resources with tailored or specialized links to unique local resources, like in-person trainings and state-specific contact information, could be more beneficial for NHs.

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32. Death by hanging: examination of autopsy findings and best approach to the post-mortem examination

Authors
Lockyer B.E.

Source
Diagnostic Histopathology; Nov 2019; vol. 25 (no. 11); p. 423-430

Publication Date
Nov 2019

Publication Type(s)
Review

Database
EMBASE
Hanging is a form of death caused by constriction of the neck by a ligature, where the constricting force is derived from the gravitational drag of the victim's body weight. Death by hanging is common amongst those victims of suicide and the overall rates of death by this means have increased in the United Kingdom. Hanging deaths are becoming increasingly important to pathologists who may be required to conduct a post-mortem examination on such victims. A crucial aspect of the post-mortem examination in deaths caused by hanging is the detection and documentation of both external and internal injuries. Injuries play a decisive role in determining the manner of death, particularly if doubt exists as to whether the cause is suicidal, accidental or by homicide. Although there are no standards specifically directed at post-mortem examination in cases of fatal hanging to assist pathologists in identifying, describing and appreciating the gravity of their findings, general autopsy guidelines are published by the Royal College of Pathologists and are applicable to deaths by this means. Whilst the incidence of external injuries in hanging is consistent across the literature, significant variation exists regarding the presence of internal injuries, particularly fractures to bony and cartilaginous structures in the neck. A recent publication observed especially low fracture rates at autopsy, contradicting many previous studies including a pilot study conducted in Liverpool. Although various explanations exist, differences in dissection techniques could be important. In cases where the quality of the autopsy methods used is less certain, important internal injuries may remain undetected. Providing a good quality service includes auditing of that service. Auditing of the practices by pathologists regarding their description and detection of injuries in hanging cases may help evaluate and improve the standards of the post-mortem examination and subsequent reporting and also clarify the current uncertainty regarding internal injuries. A greater understanding of the pattern of injuries sustained in hanging may inform pathologists about what findings to anticipate and potentially improve identification of these injuries.

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34. How can national antimicrobial stewardship interventions in primary care be improved? A stakeholder consultation

Authors
Borek A.J.; Wanat M.; Butler C.; Tonkin-Crine S.; Sallis A.; Chadborn T.; Ashiru-Oredope D.; Hopkins S.; Jones L.; McNulty C.; Shaw K.; Atkins L.; Beech E.; Taborn E.

Source
Antibiotics; Dec 2019; vol. 8 (no. 4)

Abstract
Many antimicrobial stewardship (AMS) interventions have been implemented in England, facilitating decreases in antibiotic prescribing. Nevertheless, there is substantial variation in antibiotic prescribing across England and some healthcare organizations remain high prescribers of antibiotics. This study aimed to identify ways to improve AMS interventions to further optimize antibiotic prescribing in primary care in England. Stakeholders representing different primary care settings were invited to, and 15 participated in, a focus group or telephone interview to identify ways to improve existing AMS interventions. Forty-five intervention suggestions were generated and 31 were prioritized for inclusion in an online survey. Fifteen stakeholders completed the survey appraising each proposed intervention using the pre-defined APEASE (i.e., Affordability, Practicability, Effectiveness, Acceptability, Safety, and Equity) criteria. The highest-rated nine interventions were prioritized as most promising and feasible, including: quality improvement, multidisciplinary peer learning, appointing AMS leads, auditing individual-level prescribing, developing tools for prescribing audits, improving inductions for new prescribers, ensuring consistent local approaches to antibiotic prescribing, providing online AMS training to all patient-facing staff, and increasing staff time available for AMS work with standardizing AMS-related roles. These prioritized interventions could be incorporated into existing national interventions or developed as stand-alone interventions to help further optimize antibiotic prescribing in primary care in England.

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35. Contrast induced acute kidney injury - A five year review

Authors
Burns L.; Kinnin M.; McEneaney D.; Menown I.; Connolly M.; Kurth M.; Morgan N.; Harbinson M.
Introduction Contrast induced acute kidney injury (CI-AKI), currently defined as a delta rise in serum creatinine of \( \geq 26.5 \text{ mmol/litre} \) or a relative rise of \( \geq 50\% \) from baseline measured at 48 hours following administration of iodinated contrast media, is reported to complicate almost 20\% of studies in high-risk individuals. As previously presented, we implemented a formalised protocol for the management of chronic kidney disease (CKD) patients in our cardiac catheterisation laboratory. This included clear pre and post-hydration guidance, use of the Mehran score to identify high-risk patients, ensuring nephrotoxic medications were withheld and use of advice sheets for patients and GPs. With this we achieved an 8.9\% reduction in the rates of CI-AKI for patients with CKD. This study highlights a five-year re-audit of CI-AKI rates.

Methods During the period between August 2018 and February 2019, a total of 2025 patients underwent contrast angiography +/- percutaneous coronary intervention (PCI) at our institution. Of these, 266 (11.1\%) had CKD. All patients with an estimated glomerular filtration rate (eGFR) > 60 mls/min/m\(^2\) presenting for coronary angiography at our laboratory were included. Data were obtained from lab reporting systems and from the Northern Ireland electronic care record. Demographics, risk factors and renal function before and at 48 hours post angiogram were recorded. Mehran scores were calculated for each patient and pre/post procedure intravenous fluids prescribed if appropriate. CI-AKI was defined as a delta rise in serum creatinine of \( \geq 26.5 \text{ mmol/litre} \) or relative rise of \( \geq 50\% \). Case report forms were used to record blood results. Patients were telephoned at 48 hours and advised to restart withheld nephrotoxic medications if appropriate or, if necessary, given AKI advice with repeat blood sampling a further 48 hours later. Data were non-parametric on Shapiro-Wilk testing therefore Mann-Whitney U test (p<0.05 as significant) was applied for continuous variables. Chi squared test was applied for categorical variables (p<0.05 as significant). Results Of the 266 patients identified, 22 (8.3\%) developed CI-AKI 48 hours post-contrast. Using the previous definition of CI-AKI at the time of our initial study in 2014 (creatinine rise > 25\%), 11 patients (4.1\%) developed CI-AKI which remains well below the published literature rate of 10-15\%. Average Mehran scores were significantly higher in those patients that went on to develop CI-AKI compared with those that did not (14 vs. 10, p<0.001, table 1). Conclusion/Implications Our comprehensive protocol for the peri-angiography management of CKD patients has achieved a significant reduction in the rates of CI-AKI at our institution, which has been sustained over a five-year period. There is a statistically significant correlation between higher Mehran score and development of CI-AKI, indicating the value of this tool as a surrogate marker for high-risk patients.

36. Audit of stress cardiac magnetic resonance referrals in Northern Ireland

**Authors** Bonanos E.; Connolly M.; Harbinson M.; Dixon L.; Horan P.; Lyons K.; Johnston N.

**Source** Heart; Oct 2019; vol. 105

**Publication Date** Oct 2019

**Publication Type(s)** Conference Abstract

**Database** EMBASE
37. Healthcare worker personal protective equipment (PPE) training programs in Australia and New Zealand hospitals - a survey

**Authors**
Barratt R.; Gilbert L.; Shaban R.

**Source**
Infection, Disease and Health; Nov 2019; vol. 24

**Publication Date**
Nov 2019

**Publication Type(s)**
Conference Abstract

**Database**
EMBASE

**Abstract**
Introduction: The use of personal protective equipment (PPE) is a key component of standard and transmission-based infection prevention and control (IPC) precautions. The current Ebolavirus disease outbreak in West Africa, should remind us of the 2014-16 outbreaks, which identified major concern, and deficiencies in knowledge, understanding and use of routine and high-level PPE, amongst healthcare workers. Sub-optimal use of PPE has contributed to hospital outbreaks of other emerging infectious diseases, including MERS. Education, training and monitoring of practice are essential enablers of optimal PPE use. However, little is known about PPE training programmes in Australasia. This research will assess and document the nature of PPE training in hospitals across Australia and New Zealand.

Method(s): Using survey research methods, members of professional organisations for IPC practitioners will be invited to complete an on-line questionnaire about their facility's PPE training and auditing programme. Invitations to participate in the research will be distributed electronically to members through these organisations. Respondents who indicate that their facility has a training programme for high-level PPE will be invited to participate in a follow up survey and/or interview.

Result(s): The results of the survey, to be conducted in August 2019, will be presented together with an analysis of the current international literature, including national high-level PPE programmes in the UK.

Conclusion(s): The study findings will help to inform further stakeholder consultation about any proposed national standards for PPE training and auditing within Australasian healthcare facilities and augment national recommendations that can benefit all IPC programmes.

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### Abstract

**BACKGROUND:** Measuring patient experiences of healthcare is increasingly emphasized as a mechanism to measure, benchmark and drive quality improvement, clinical effectiveness and patient safety at both national and local NHS level. Person-centred coordinated care (P3C) is the conjunction of two constructs; person-centred care and care coordination. It is a complex intervention requiring support for changes to organizational structure and the behaviour of professionals and patients. P3C can be defined as: 'care and support that is guided by and organized effectively around the needs and preferences of individuals'. Despite the vast array of PRMS available, remarkably few tools have been designed that efficiently probe the core domains of P3C. This paper presents the psychometric properties of a newly developed PREM to evaluate P3C from a patient perspective.

**METHOD(S):** A customized EMIS search was conducted at 72 GP practices across the South West (Somerset, Devon and Cornwall) to identify 100 patients with 1 or more LTCs, and are frequent users of primary healthcare services. Partial Credit Rasch Modelling was conducted to identify dimensionality and internal consistency. Ecological validity and sensitivity to change were assessed as part of intervention designed to improve P3C in adults with multiple long-term conditions; comparisons were drawn between the PRMCEQ and qualitative data. **RESULT(S):** Response rate for the P3CEQ was 32.82%. A two-factor model was identified. Rasch analysis confirmed unidimensionality of each factor (using infit MSQ values between 0.5 and 1.5). High internal consistency was established for both factors; For the Person-centred scale Cronbach's Alpha = 0.829, Person separation = 0.756 and for the coordination scale Cronbach's alpha = 0.783, person separation = 0.672.

**CONCLUSION(S):** The P3CEQ is a valid and reliable measure of P3C. The P3C is considered to have strong face, construct and ecological validity, with demonstrable sensitivity to change in a primary healthcare intervention.

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### 39. Presenting symptoms of cancer and stage at diagnosis: evidence from a cross-sectional, population-based study

**Authors**

Koo M.M.; McPhail S.; Lyrratzopoulos G.; Swann R.; Abel G.A.; Elliss-Brookes L.; Rubin G.P.

**Source**

The Lancet. Oncology; Nov 2019

**Publication Date**

Nov 2019

**Publication Type(s)**

Article

**PubMedID**

31704137

**Database**

EMBASE

**Abstract**

BACKGROUND: Early diagnosis interventions such as symptom awareness campaigns increasingly form part of global cancer control strategies. However, these strategies will have little impact in improving cancer outcomes if the targeted symptoms represent advanced stage of disease. Therefore, we aimed to examine associations between common presenting symptoms of cancer and stage at diagnosis.

**METHOD(S):** In this cross-sectional study, we analysed population-level data from the English National Cancer Diagnosis Audit 2014 for patients aged 25 years and older with one of 12 types of solid tumours (bladder, breast, colon, endometrial, laryngeal, lung, melanoma, oral or oropharyngeal, ovarian, prostate, rectal, and renal cancer). We considered 20 common presenting symptoms and examined their associations with stage at diagnosis (TNM stage IV vs stage I-III) using logistic regression. For each symptom, we estimated these associations when reported as a single presenting symptom and when reported together with other symptoms. **FINDINGS:** We analysed data for 7997 patients. The proportion of patients diagnosed with stage IV cancer varied substantially by presenting symptom, from 1% (95% CI 1-3; eight of 584 patients) for abnormal mole to 80% (71-87; 84 of 105 patients) for neck lump. Three of the examined symptoms (neck lump, chest pain, and back pain) were consistently associated with increased odds of stage IV cancer, whether reported alone or with other symptoms, whereas the opposite was true for abnormal mole, breast lump, postmenopausal bleeding, and rectal bleeding. For 13 of the 20 symptoms (abnormal mole, breast lump, post-menopausal bleeding, rectal bleeding, lower urinary tract symptoms, haematuria, change in bowel habit, hoarseness, fatigue, abdominal pain, lower abdominal pain, weight loss, and the "any other symptom" category), more than 50% of patients were diagnosed at stages other than stage IV; for 19 of the 20 studied symptoms (all except for neck lump), more than a third of patients were diagnosed at stages other than stage IV. **INTERPRETATION:** Despite specific presenting symptoms being more strongly associated with advanced stage at diagnosis than others, for most symptoms, large proportions of patients are diagnosed at stages other than stage IV. **FUNDING:** UK Department of Health's Policy Research Unit in Cancer Awareness, Screening and Early Diagnosis; and Cancer Research UK.

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### 40. Early-onset sepsis: Can we screen fewer babies safely?

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**Publication Date**

Aug 2019

**Publication Type(s)**

Article

**PubMedID**

30508089

**Database**

EMBASE

**Abstract**

BACKGROUND: Can we screen fewer babies safely?
41. The nature and frequency of abdominal symptoms in cancer patients and their associations with time to help-seeking: evidence from a national audit of cancer diagnosis

Authors: Koo M.M.; von Wagner C.; Lyratzopoulos G.; Abel G.A.; Hamilton W.; McPhail S.; Rubin G.P.
Source: Journal of public health (Oxford, England); Sep 2018; vol. 40 (no. 3)
Publication Date: Sep 2018
Publication Type(s): Article
PubMedID: 29385513
Database: EMBASE

Abstract: Background: Raising awareness of possible cancer symptoms is important for timely help-seeking; recent campaigns have focused on symptom groups (such as abdominal symptoms) rather than individual alarm symptoms associated with particular cancer sites. The evidence base supporting such initiatives is still emerging however; understanding the frequency and nature of presenting abdominal symptoms among cancer patients could inform the design and evaluation of public health awareness campaigns.

Method(s): We examined eight presenting abdominal symptoms (abdominal pain, change in bowel habit, bloating/distension, dyspepsia, rectal bleeding, dysphagia, reflux and nausea/vomiting) among 15 956 patients subsequently diagnosed with cancer in England. We investigated the cancer site case-mix and variation in the patient interval (symptom-onset-to-presentation) by abdominal symptom.

Result(s): Almost a quarter (23%) of cancer patients presented with abdominal symptoms before being diagnosed with one of 27 common and rarer cancers. The patient interval varied substantially by abdominal symptom: median (IQR) intervals ranged from 7 (0-28) days for abdominal pain to 30 (4-73) days for dysphagia. This variation persisted after adjusting for age, sex and ethnicity (P < 0.001).

Conclusion(s): Abdominal symptoms are common at presentation among cancer patients, while time to presentation varies by symptom. The need for awareness campaigns may be greater for symptoms associated with longer intervals to help-seeking.

42. The role of gesture delay in coda /r/ weakening: An articulatory, auditory and acoustic study

Authors: Lawson E.; Scobbie J.M.; Stuart-Smith J.
Source: The Journal of the Acoustical Society of America; Mar 2018; vol. 143 (no. 3); p. 1646
Publication Date: Mar 2018
Publication Type(s): Article
PubMedID: 29604687
Database: EMBASE
Abstract
The cross-linguistic tendency of coda consonants to weaken, vocalize, or be deleted is shown to have a phonetic basis, resulting from gesture reduction, or variation in gesture timing. This study investigates the effects of the timing of the anterior tongue gesture for coda /r/ on acoustics and perceived strength of rhoticity, making use of two sociolects of Central Scotland (working- and middle-class) where coda /r/ is weakening and strengthening, respectively. Previous articulatory analysis revealed a strong tendency for these sociolects to use different coda /r/ tongue configurations-working- and middle-class speakers tend to use tip/front raised and bunched variants, respectively; however, this finding does not explain working-class /r/ weakening. A correlational analysis in the current study showed a robust relationship between anterior lingual gesture timing, F3, and percept of rhoticity. A linear mixed effects regression analysis showed that both speaker social class and linguistic factors (word structure and the checked/unchecked status of the prerhotic vowel) had significant effects on tongue gesture timing and formant values. This study provides further evidence that gesture delay can be a phonetic mechanism for coda rhotic weakening and apparent loss, but social class emerges as the dominant factor driving lingual gesture timing variation.

43. Reduction of positive rates of Helicobacter Pylori (HP) through quality improvement (QI)
Authors Tai C.K.; Greenan J.; Marelli L.; Welding I.; Tan J.Y.
Source Turkish Journal of Gastroenterology; Sep 2019; vol. 30
Publication Date Sep 2019
Publication Type(s) Conference Abstract
Database EMBASE
Abstract Background/Aims: 5% of functional dyspepsia may be attributed to HP. The prevalence of HP in the United Kingdom is approximately 40%. Current guidelines recommend eradication for dyspeptic patients with HP. Eradication may be difficult due to inadequate concordance with therapy and rising antibiotic resistance. However, we found a disproportionately high percentage of patients had positive rapid urease test (RUT) on gastroscopy in our unit.
Material(s) and Method(s): Our endoscopy unit used a RUT kit which required up to an hour for interpretation. Therefore, all kits were read in the evening. The delay in reading results was postulated to be the cause of high positive rates. From the 13th of April 2018, an alternative kit which requires up to 5 minutes for interpretation has been used.
Result(s): From 13/10/18 to 12/4/18, 780 gastroscopies with RUT were performed. 546 (70%) tested positive. A review of 50 patients who had histology showed despite 31 positive RUT, only 10 had HP organisms. None which tested negative had HP organisms on histology. From 13/4/19 to 12/10/19, 589 gastroscopies with the new RUT were performed. 160 (27.16%) tested positive. A review of 50 patients who had histology showed 11 positive RUT with 8 having HP organisms. 2 has negative RUT but had HP organisms on histology. A further review of practice revealed potential underreporting of positive results and an education session was delivered in February 2019. From 1/3/19 to 31/5/19, 631 gastroscopies with RUT were performed with 226 (35.8%) positive RUT.
Conclusion(s): Our QI project show that changing the way RUT is reviewed can lead to more accurate rates of positive RUT in patients with dyspepsia and reduce inappropriate antibiotic prescribing.

44. Acute upper gastrointestinal bleeding at a 'hot' site-what factors influence endoscopy?
Authors Moledina S.; Patel R.; Rigers C.; Ali M.A.; Pathak S.; Hall R.; Besherdas K.
Source Turkish Journal of Gastroenterology; Sep 2019; vol. 30
Publication Date Sep 2019
Publication Type(s) Conference Abstract
Database EMBASE
45. A multicentre audit to assess the effectiveness of the British Orthodontic Society 'Hold that Smile' retainer videos

**Authors**
Valijii Bharmal R.; Parker K.; Cunningham S.; Chia M.; Stephens S.; Caldwell S.; Gillgrass T.; Jones G.; Mattick R.; Hodge T.; Murray A.; Seehra J.

**Source**
Journal of orthodontics; Nov 2019

**Publication Date**
Nov 2019

**Publication Type(s)**
Article

**PubMedID**
31697179

**Database**
EMBASE

**Abstract**
INTRODUCTION: Retention is a crucial part of orthodontic treatment; however, patients often do not wear their retainers as advised. The British Orthodontic Society developed the 'Hold that Smile' campaign in 2017, to improve patient knowledge about retention. Information is provided in two formats: a cartoon and a conventional film.

OBJECTIVE(S): To assess whether patients find the 'Hold that Smile' videos useful and whether they improved patients’ intended retainer wear. The gold standard was that 90% of patients should intend to wear their retainers in the long term after watching the videos. DESIGN: National multicentre audit. SETTING: Nine units in the UK.

METHOD(S): Patients aged 10 years, in fixed appliances or retention, watched the retainer videos and then completed a questionnaire that was designed specifically for this audit. Each unit collected data for approximately 30 patients.

RESULT(S): Data were collected for 278 patients in total. The average age was 17.9 years; 64.4% of patients were female and 35.6% were male. Most patients (86.3%) watched both videos and, of these, 44.1% preferred the film, 31.3% preferred the cartoon and 24.6% had no preference. The majority of patients (81.3%) felt that the film provided them with new information, compared with a lower percentage (48.5%) for the cartoon. More patients said they would recommend the film (76.3%) compared with the cartoon (63.3%). Before watching the videos, 77.0% of patients felt they knew about long-term retainer wear and 74.3% of those intended to wear their retainers in the long term. After watching the videos, 96.4% of all patients thought they would now wear their retainers as advised. The British Orthodontic Society developed the 'Hold that Smile' campaign in 2017, to

CONCLUSION(S): After watching the videos, there was a notable increase in the number of patients planning to wear their retainers long term and the gold standard was met. Therefore, these videos may be beneficial in improving understanding and compliance with retention.


**Authors**
Eslami M.H.; Saadeddin Z.; Fish L.; Avgerinos E.D.; Makaroun M.S.; Farber A.

**Source**
Journal of Vascular Surgery; 2019

**Publication Date**
2019

**Publication Type(s)**
Conference Paper
Objective: Previously, we described a Vascular Study Group of New England (VSGNE) risk predictive model to predict composite adverse outcomes (postoperative death, stroke, myocardial infarction, or discharge to extended care facilities) after carotid endarterectomy (CEA). The goal of this study was to externally validate this model using an independent database.

Method(s): The American College of Surgeons National Surgical Quality Improvement Program (NSQIP) CEA-targeted database (2010-2014) was used to externally validate the risk predictor model of adverse outcomes after CEA previously created using the VSGNE carotid database. Emergent cases and those in which CEA was combined with another operation were excluded. Cases in which a discharge destination cannot be determined were also excluded. To assess the predictive power of our VSGNE prediction score within this sample, a receiver operating characteristic curve was constructed. Risk scores for each NSQIP patient were also computed using beta weights from the VSGNE CEA model. To further assess the construct validity of our VSGNE prediction score, the observed proportion of adverse outcomes was examined at each level of our prediction scale and within five roughly equally sized risk groups formed on the basis of our VSGNE prediction scores.

Result(s): In this database, 10,889 cases met our inclusion criteria and were used in this analysis. The overall rate of adverse outcomes in this cohort was 8.5%. External validation of the VSGNE model on this sample showed moderately good predictive ability (area under the curve = 0.745). Patients in progressively higher risk groups, based on their VSGNE model scores, exhibited progressively higher rates of observed adverse outcomes, as predicted.

Conclusion(s): The VSGNE CEA risk predictive model was externally validated on an NSQIP CEA-targeted sample and showed a fairly accurate global predictive ability for adverse outcomes after CEA. Although this model has a good population concordance, the lack of cut point indicates that individual risk prediction requires more evaluation. Further studies should be geared toward identification of variables that make this risk predictive model more robust.

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47. Accelerating diagnosis for childhood brain tumours: An analysis of the HeadSmart UK population data

Authors
Shanmugavadivel D.; Liu J.-F.; Murphy L.; Walker D.; Wilne S.

Source
Archives of Disease in Childhood; 2019

Publication Date
2019

Publication Type(s)
Article

PubMedID
31653616

Database
EMBASE

Abstract
Background: HeadSmart, a public and professional awareness campaign, was launched to enhance awareness of brain tumour symptomatology identified in the Royal College of Paediatrics and Child Health, National Institute for Health and Care Excellence-accredited guideline. Quality improvement data showed a reduction in diagnostic interval nationally. To reach the government target of 4 weeks, we need to identify subgroups with ongoing delays.

Method(s): Incident cases of brain tumours (0-18) diagnosed between January 2011 and May 2013 across 18 UK centres were included. Anonymised data including demographics, diagnosis and date of symptom onset/presentation were collected. Key outcome measures, total diagnostic interval (TDI), patient interval (PI) and system interval (SI) were calculated. Subanalysis by age, tumour grade and location was also performed.

Result(s): Young children (0-5 years) accounted for 38% of cases, with a peak age at diagnosis of 2 years. Central tumours experienced longest intervals with a median TDI of 10.5 weeks, PI of 3.2 weeks and SI of 2.9 weeks. Craniopharyngioma, low-grade glioma and optic pathway gliomas had the longest TDIs with a median of 15.1, 11.9 and 10.4 weeks, respectively. The greatest proportion of delay was in the SI. The 12-18 age group had a median TDI of 12.1 weeks, compared with 8 weeks for the 5-11 age group and 6 weeks for the 0-5 age group (p<0.001).

Conclusion(s): Clear patterns of intervals for different age groups and anatomical locations have been demonstrated. Tailoring education and awareness strategies to ensure earlier diagnosis for central tumours and young people is crucial to minimise brain injury, subsequent disability and late effects of treatment for 70% of survivors.

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48. Epidemiology of adult rib fracture and factors associated with surgical fixation: Analysis of a chest wall injury dataset from England and Wales

Authors
Ingoe H.M.; Eardley W.; McDaid C.; Hewitt C.; Rangan A.; Lawrence T.

Source
Injury; Oct 2019

Publication Date
Oct 2019

Publication Type(s)
Article

PubMedID
31690496
INTRODUCTION: Chest wall trauma is commonly seen in patients admitted with both high and low-energy transfer injury. Whilst often associated with other injuries, it is also seen in isolation following simple falls in the older patient. Fixation of the chest wall grows in popularity as part of optimising patient care, particularly in terms of critical care stay. There is currently no description of the epidemiology of these injuries at a national level; nor has there been identification of factors that predict which of these patients undergoes surgery.

METHOD(S): The United Kingdom Trauma Audit & Research Network (TARN) database was analysed for the period April 2016 to 30th May 2017 for all adult patients presenting with a rib or sternal fracture. Characteristics of the population were described and a binary logistic regression model constructed to explore the influences of several explanatory variables on whether fixation was performed.

RESULT(S): Of 16,638 patients with chest wall trauma, 402 underwent fixation. Most chest wall injury patients were admitted under three specialties (orthopaedics (19.1%), emergency medicine (16.6%) and general surgery (17.7%)). The odds of fixation in unilateral flail chest was 107.51 (p <0.0001), in bilateral flail or combined complexternal fracture 47.63 (p=0.007) and in 3 or more non-flail ribs 15.62 (p<0.0001) when compared to less than three non-flail rib fractures. The odds of fixation was higher in an MTC (p<0.0001) compared to a non-specialist hospital. The odds of fixation was higher in older patients (1.02, p<0.0001) and the more severely injured (1.02, p=0.0001).

CONCLUSION(S): There is considerable variation nationally in the management of chest wall trauma. Injury type, patient age and care setting contribute to decision making in fracture fixation. This unique national dataset characterises for the first time the nature of contemporary chest wall trauma management and should help inform the design of future research on this topic.

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49. Typeface Reveals Spatial Economical Patterns
Authors Ma R.; Wang W.; Zhang F.; Shim K.; Ratti C.
Source Scientific reports; Nov 2019; vol. 9 (no. 1); p. 15946
Publication Date Nov 2019
Publication Type(s) Article
PubMedID 31685908
Database EMBASE
Abstract Understanding the socioeconomic and demographic characteristics of an urban region is vital for policy-making, urban management, and urban planning. Auditing socioeconomic and demographic patterns traditionally entails producing a large portion of data by human-participant surveys, which are usually costly and time consuming. Even with newly developed computational methods, amenity characteristics such as typeface, color, and graphic element choices are still missing at the city scale. However, they have a huge impact on personalized preferences. Currently, researchers tend to use large-scale street view imagery to uncover physical and socioeconomic patterns. In this research, we first propose a framework that uses deep convolutional neural network to recognize the typeface from street view imagery in London. Second, we analyze the relationship between 11 typefaces and the average household income in 77 wards of London. The result show that the typefaces used in the neighborhood are highly correlated with economic and demographic factors. Typeface could be an alternative metric to evaluate economic and demographic status in large-scale urban regions. More generally, typeface can also act as a key visual characteristic of a city.

50. Growing our own theatre staff: Practice development and education
Authors Cresswell B.; Richter D.; Davies C.; Langlois S.
Source Journal of perioperative practice; May 2018; vol. 28 (no. 5); p. 128-132
Publication Date May 2018
Publication Type(s) Article
PubMedID 29734929
Database EMBASE
Abstract Royal Bournemouth & Christchurch Hospitals NHS Foundation Trust engaged in a quality improvement project aimed at improving quality and safety in theatres. The improvements delivered were recruitment to full staffing template, reduction in agency staffing to zero, and creating a theatre coordinator role to ensure safe staffing. The Practice Education Team was increased fivefold with no extra investment as a result of these improvements. Student satisfaction results amongst ODPs and nurses have increased alongside staff morale and productivity.

51. The use of red wristbands for allergy documentation in day case surgery
Authors Clark C.; Sayani I.; Ricketts D.; Rogers B.; Sayani J.; Ge X.
Source Journal of perioperative practice; Jul 2018; vol. 28 (no. 7); p. 199-202
Publication Date Jul 2018
Publication Type(s) Article
PubMedID 29726806
52. Implementing and improving the ReSPECT process within medical and orthopaedic departments of a district general hospital

Authors: Misselbrook G.P.; Jackman D.; Vora C.; Briant-Evans T.; Wilkinson A.
Source: Progress in Palliative Care; 2019

The Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) is a process supported by the Resuscitation Council (UK) and UK Royal Colleges to create personalized anticipatory care plans for patients. Hampshire Hospitals NHS Foundation Trust has been an early adopter of this process with variability in engagement with this process across our trust. A quality improvement project was performed to improve engagement with ReSPECT as well as consistency and quality of documentation. Since patients admitted with fragility fractures are often frail, elderly and at risk of deterioration post-operatively, we focused on improving ReSPECT in the orthopaedic department with medical departments used for comparison post-intervention. Interventions included teaching sessions for consultants and junior doctors, increased senior orthogeriatrician input, and electronic documentation of ReSPECT forms. Post-intervention results revealed an improved engagement with the ReSPECT process with orthopaedic patients with frailty or life-limiting co-morbid conditions more likely to receive early anticipatory care planning as part of their admission process compared to medical inpatients. Senior consultant engagement was key to providing a cultural shift in early anticipatory care planning which helped to foster an environment of open communication among the team, allowing for more effective recognition of frail or co-morbid patients.

53. An epidemiological profile of dysarthria incidence and assistive technology use in the living population of people with MND in Scotland

Authors: Elliott E.; Newton J.; Rewaj P.; Gregory J.M.; Tomarelli L.; Colville S.; Chandran S.; Pal S.
Source: Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration; 2019

Objectives: People with motor neurone disease (pwMND) experience communication impairments due to speech and motor dysfunction. Communication support in the form of Augmentative and Alternative Communication (AAC) in conjunction with Assistive Technology (AT) access methods are available, however, variation in provision care pathways exists across Scotland. We conducted a baseline study of communication support for pwMND in Scotland to inform and improve future service provision.

Method(s): A cross-sectional population-based study was undertaken. Anonymised demographic and clinical phenotypic data for all pwMND in Scotland were extracted from the Care Audit Research Evaluation of MND (CARE-MND) platform, the National MND Register for Scotland. Additional information for AT loans was provided by the third sector charitable organization MND Scotland (MNDS).

Result(s): In total, 371 pwMND were included, 43% of all pwMND were recorded as having impaired speech (recent ALSFRS-R score assessment (Formula presented.) 3) and 69% had been referred to Speech and Language Therapist (SLT) services, although there was variation in referral time from diagnosis date. AAC equipment had been acquired by 17.3% of all pwMND; most commonly iPads and the Lightwriter™ speech generating device.

Conclusion(s): Our data highlight a high prevalence of speech impairment in pwMND irrespective of the subtype diagnosis. We therefore recommend standardized care pathways and earlier access to coordinated SLT and Occupational Therapist services to enable prospective and personalized decision making. Our findings further highlight the need for qualitative research to understand the preferences and impact of such interventions from the perspective of the user and their communication partners.

54. UK Cystic Fibrosis Registry data validation programme

Authors: Gunn E.; Caine N.; Cosgriff R.; Charman S.C.; Carr S.B.
Source: European Urology, Supplements; 2019; vol. 18 (no. 7)

We conducted a data validation programme for the UK Cystic Fibrosis Registry in 2019 to ensure the accuracy and reliability of the data. The programme involved reviewing the registry data to identify any inconsistencies or errors. We found that 10% of the data needed correction to ensure its accuracy. This programme was crucial in maintaining the quality of the registry data, which is essential for research and patient care.
55. Nurse led fluoroscopy guided extracorporeal shockwave lithotripsy - Establishment of a new urology service

Authors: Popanes C.; Mukherjee S.; Sahibzada I.; Havranek E.; Raza A.
Source: European Urology, Supplements; 2019; vol. 18 (no. 7)

Introduction & Objectives: Extracorporeal shockwave lithotripsy (ESWL) is a non-invasive urological procedure normally performed by urology doctors or radiographers. With many services using middle grade doctors to perform ESWL, stone free outcomes are often inferior to radiographers or other permanent staff. This is because junior doctors often rotate after a short period not allowing for optimisation of outcomes to be achieved due to limited number of cases being performed.

Material(s) and Method(s): Our trust appointed a urology nurse specialist with an interest in stone disease. Part of her remit was to perform ESWL. Approval was taken for a local nurse delivered ESWL service from the management team, the clinical stone lead and other endo-urologists within the service already providing ESWL. The nurse specialist’s pre ESWL training programme involved a period of shadowing. As there was no similar service in London our nurse specialist went to St. James’s University Hospital in Leeds to shadow the lithotripsy clinical nurse specialist, who performs ultrasound-guided lithotripsy. An IRMER (Ionising Radiation Medical Exposure Regulations) operator certificate was obtained prior to performing fluoroscopy guided ESWL. Local training pre sign off to perform fluoroscopy guided ESWL (Storz Medical Modulith SLX-F2 with XRMX/flex system) was provided by an experienced urology staff grade who has provided ESWL for over 10 years. The nurse specialist completed 50 supervised cases with the trainer including renal and ureteric stones. For final sign off she completed 3 supervised cases including renal and ureteric stones with the consultant endourologist.

Result(s): The whole process took 10 months. She now has her own list with 3 patients per week, with a urology doctor in clinic for advice and support should there be any queries. It is anticipated that she will have at least 2 sessions per week treating between 8-10 patients. There are plans to train another nurse specialist once this service is audited to assess for efficacy of outcomes, safety and patient satisfaction.

Conclusion(s): With changing patterns and availability of doctors and radiographers to perform ESWL other staff members will have to take on these roles. We have shown it is possible to train a nurse specialist to perform ESWL however a structured programme is required. The next phase of our service development is to audit safety and outcomes to ensure a nurse ESWL service is viable.

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56. Bladder filling in patients undergoing prostate radiotherapy on the MR-linac

Authors: Adair Smith G.; Herbert T.; Lawes R.; Creasey H.; Pathmanathan A.; Huddart R.; Tree A.; McNair H.; Dunlop A.; Mitchell A.; Hanson I.; McQuaid D.; Oelfke U.; Nill S.; Bower L.
Source: Radiotherapy and Oncology; Apr 2019; vol. 133

Purpose or Objective: The first patient in the UK was treated for prostate cancer on the Elekta Unity (Elekta AB, Stockholm, Sweden) in September 2018. Due to the longer treatment times, departmental guidance for bladder filling was altered. An audit is being undertaken to evaluate if the bladder filling guidance is appropriate and reproducible; and to determine the rate of bladder filling and the effect on dose constraints across three time points during a treatment session.

Material(s) and Method(s): The first cohort of patients, under PRISM (Prostate Radiotherapy Integrated with Simultaneous MRI) trial (NCT03658525), to be treated on the MR-linac will receive 60Gy in 20 fractions. These patients have been advised to drink 350ml of water 30 minutes before their MR-linac appointment time, to achieve a minimum bladder volume of 250ml during treatment (O’Doherty et al, 2006). The daily volume of water drunk, and time before treatment, was recorded. A T2 weighted MR image was acquired at three time points: the start of each session, prior to treatment delivery and post treatment delivery. The bladder was retrospectively outlined for all three images. The volume of the bladder and time of MRI acquisition documented. The average rate of intrafraction filling was determined. The dose delivered to the re-outlined bladder at each timepoint was re-calculated and documented to assess if mandatory dose constraints were met with the initial bladder size and increased bladder size pre and post treatment. The effect on dose constraints will be investigated.

Result(s): The bladder filling guidelines were altered 11 times during the course of treatment. The patient drank 1 to 2 cups of water 25 to 35 minutes before treatment and had to partially empty his bladder 12 times prior to treatment. We will continue to assess the revised guidelines on future patients. The median (range) percentage increase in bladder volume across 25 minutes from initial planning MRI to pretreatment MRI was 62% (34% to 126%) and across 36 minutes from initial planning MRI to post treatment MRI was 89% (46% to 174%). The mean (SD) rate of bladder filling was 4.3cc per minute (1.5cc per minute) from initial planning MRI to post treatment MRI. For the first fraction the mandatory bladder dose constraints were met for all three time points. Further fractions will be investigated.

Conclusion(s): Although the bladder filling guidelines were altered regularly, our initial analysis has indicated that the mandatory bladder dose constraints were achieved. The rate of bladder filling during treatment delivery indicated the bladder volume was at recommended minimum for departmental guidance. The advantage of bladder filling displacing small bowel superiority was noted across the course of treatment and will be investigated further.

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57. Investigating time between annual review encounters in the UK Cystic Fibrosis Registry

Authors: McClenaghan E.; Cosgriff R.; Yip M.; Charman S.C.; Lee A.; Gunn E.; Earlam K.
Source: Journal of Cystic Fibrosis; Jun 2019; vol. 18

Objectives: Currently, approximately 95% of people with CF in the UK have an Annual Review (AR) containing their health data recorded in the UK CF Registry. The optimal time between consecutive AR encounters is 12 months, to capture a full year of clinical care for research, quality improvement and commissioning purposes. Since 2015 the UK CF Registry Annual Meeting has included user training on this topic, and in 2016 validation rules within the Registry software have been implemented to encourage users to enter data at correct intervals. The objective of this study was to assess time intervals between ARs over time, and how many records lie within the optimal range of 9-15 months each year.

Method(s): Using data from the UK CF Registry between 2007-2017, summary statistics were calculated for intervals between AR dates in days, in addition to the proportion of patients that were recorded as having a time interval >9 months and <15 months each year.

Result(s): The mean time interval in days across all the years ranged from 361 days (SD 73) in 2014-2015 to 369 days (SD 99) in 2007-2008. Although the mean number of days remained stable across the years, the variation in the intervals decreased year-on-year. We also observed considerable variability for the intervals across centres. For example, in 2016-2017, the lowest centre-specific mean interval was 305 days and the highest was 451 days. The proportion of AR dates that were between 9 months and 15 months apart steady increased across the years. In 2007-2008, 73.7% of patients had a time interval within the 9-15-month range, increasing to 89.4% in 2016-2017 (p < 0.001).

Conclusion(s): These findings suggest that user education and software enhancement has improved time intervals between ARs, with increasing proportions of patients having intervals within the optimal time period. Further research will analyse site-specific clustering of time intervals outside the ideal 9-15-month range.

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58. Understanding objective adherence to preventative inhaled therapies at a centre level for quality improvement - a CFHealthHub (CFHH) improvement collaborative study
59. Audit of physiotherapy plans set at annual assessment

Authors: Ryan C.; Langman H.; Brennan A.; Webb K.; Barry P.; Jones A.

Source: Journal of Cystic Fibrosis; Jun 2019; vol. 18

Publication Date: Jun 2019

Publication Type(s): Conference Abstract

Database: EMBASE

Abstract

Objectives: CF guidelines and standards state that all patients should receive a comprehensive annual review which informs a treatment plan. This should be discussed and agreed with the patient by a Consultant. UK physiotherapy national standards of care recommend development of individualised goal orientated plans which are communicated between patient, physiotherapy team and MDT. At MACFC the annual assessment (AA) process comprises clinic assessment (V1), MDT discussion of results (V2) and Consultant feedback to patient (V3). We aimed to investigate if plans made at physiotherapy AA (V1) are reflected in the final MDT plans agreed at V3, identify common themes and evidence that plans have been achieved.

Method(s): Retrospective review of 30 patient records randomly selected from patients who had AA between January and June 2018. Notes examined for number of physiotherapy plans made at V1; evidence of physiotherapy plans set at V1 reflected in their V2 and V3 plans; identification of common themes and evidence that plans have been achieved.

Result(s): All patients set plans with physiotherapist at V1; 16/30 of these plans were agreed as MDT priority at V2 and 12/30 were agreed by the patient and consultant at V3. 5 patients had additional plans related to physiotherapy management made at V3. These 17 patients had a total of 27 plans made. Themes included inhaled therapies (21), exercise (4), airway clearance (1) and NIV (1). 81% of plans are achieved within 1 year.

Conclusion(s): Less than half of physiotherapy plans set at V1 are reflected in V3. Of plans agreed at V3 the majority are achieved, with 78% of plans relating to inhaled therapies.

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60. An audit of patients with cystic fibrosis and additional needs, and of reasonable adjustments to care provision at the Manchester Adult Cystic Fibrosis Centre (MACFC)

Authors: Shaw Nunez E.; Brennan A.; Brown L.

Source: Journal of Cystic Fibrosis; Jun 2019; vol. 18

Publication Date: Jun 2019

Publication Type(s): Conference Abstract

Database: EMBASE

Abstract

An audit of patients with cystic fibrosis and additional needs, and of reasonable adjustments to care provision at the Manchester Adult Cystic Fibrosis Centre (MACFC)
Abstract

Objectives: UK legislation requires organisations to take positive steps to ensure that people can fully access care. This audit identified: 1) the number of patients receiving care at MACFC who have diagnosed additional needs, including learning disabilities (LD), autism spectrum disorder (ASD), and attention deficit hyperactivity disorder (ADHD) among others; 2) reasonable adjustments (RA) implemented in the care for these patients to enable them to access the services offered at MACFC; 3) examples of good practice in the use of RA for patients.

Method(s): Data were collected using existing patient information. Patients’ most recent clinic letter was accessed to determine if any additional needs or diagnosis had been recorded. Where this was the case, the medical files of patients were systematically examined for evidence of RA to care being implemented when providing care at MACFC. Examples of person-centred effective practice were recorded.

Result(s): 57 of the 435 (13.1%) patients were identified as having at least one additional need at the time of this audit. Of these, 26 (5.98%) had hearing difficulties; 10 (2.3%) had diagnoses of epilepsy; 6 (1.38%) had visual difficulties; 6 (1.38%) had a diagnosis of ADHD; 5 had a diagnosis of ASD (1.15%), of which 4 had comorbid ADHD; and 2 had a diagnosis of a LD (0.46%). Evidence of the range of RA implemented included the use of person-centred resources, communication aids, enhanced transition pathways, capacity assessments, and best interest decision-making.

Conclusion(s): People with additional care needs are vulnerable to experiencing poor care quality. It is important to identify people who have additional needs and to deliver effective RA to enhance the quality of care provision, in line with national legislation. The results of this audit illustrate the number of patients with additional needs at MACFC, and encourage the service to continue developing and evidencing the use of RA in the delivery of person-centred care.

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61. Different data source, different regulatory and management demands? The use of routinely collected data in a trials unit setting

Authors: Cannings-John R.; Robling M.; Lugg-Widger F.; Sanders J.
Source: Trials; Oct 2019; vol. 20
Publication Date: Oct 2019
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract

Introduction: The use of routinely collected data (RCD) in a trials unit is increasing rapidly. These data can be used to identify potential participants, answer primary and secondary outcomes as well as provide longer-term follow-up of participants. The response from a regulatory perspective is however, advancing at a less rapid speed and the understanding of how RCD can satisfy regulatory requirements remains unclear. The aim of this presentation will be to compare traditional trials which are heavily curated, and audit trailed, to studies that use RCD which are not, in terms of workflows, skill set and balance and also how they may converge/diverge in terms of regulatory requirements.

Method(s): Using an example trial that used RCD for two of the four primary outcomes, this will be compared with another study using only RCD as part of a large observational study. Building Blocks trial accessed data from Primary Care (individual GP practices), Hospital (via NHS Digital), Immunisations (PCTs) and Abortion (Department of Health and Social Care). The POOL study is accessing data directly from maternity records at hospital sites and from the National Neonatal Research Database.

Result(s): This presentation will compare and contrast how the use of RCD in these studies have diverged from the standard operating procedures of the trials unit, the additional processes required to ensure regulatory compliance remains unclear. The aim of this presentation will be to compare traditional trials which are heavily curated, and audit trailed, to studies that use RCD which are not, in terms of workflows, skill set and balance and also how they may converge/diverge in terms of regulatory requirements.

Discussion(s): While RCD reduces burdens such recruitment, retention and follow-up, the additional work required to ensure regulatory compliance does need to be considered and resourced appropriately.

62. Transparency in clinical research: An audit of feedback provision to participants in phase III pragmatic clinical trials

Authors: Raza M.Z.; Bruhn H.; Gillies K.
Source: Trials; Oct 2019; vol. 20
Publication Date: Oct 2019
Publication Type(s): Conference Abstract
Database: EMBASE
Abstract

Introduction: Clinical research is increasing in the UK. In 2018, over 700,000 patients were recruited across 99% of the NHS trusts in the UK. With this growing trend in clinical research, there is a need for better public engagement and trust. A key factor in achieving this is promoting transparency through the dissemination of trial results to participants. In 2015, The Health Research Authority (HRA) published guidelines, recommending that all researchers communicate results to their study participants. However, this is not legally binding and the act of communicating results to participants varies greatly. Therefore, we conducted an audit of what research teams said they would do versus what they actually did in practice with regard to feeding back trial results to participants.

Method(s): The Integrated Research Application System (IRAS) will be used to investigate how researchers report their intention and means of informing patients of Phase III trial results through questions in the submitted ethics application form. Post-study confirmation of dissemination of results is reported in the end of study ethics report which is accessed through the HRA Assessment Review Portal (HARP). The match between what researchers said they would do on IRAS will be compared to what was actually reported as recorded through HARP and presented as frequencies. We will also present data on the reported involvement of patients in trials as recorded in the IRAS form. Timing of Results: This audit is a part of the RECAP study. Undertaken as an MSc project, it is scheduled to be completed in July 2019. Potential Relevance and Impact: There is currently a lack of data regarding the compliance to the 2015 HRA guidelines in the UK. The results of this audit will hopefully give a baseline to measure the impact of any potential future measures designed to increase compliance.

63. Challenges in applying clinical trial standards to routine data. A case study from a randomised controlled trial embedded in a National Clinical Audit

Authors: Walwyn R.; Hartley S.; Foy R.; Farrin A.; Stanworth S.

Source: Trials; Oct 2019; vol. 20

Publication Date: Oct 2019

Publication Type(s): Conference Abstract

Database: EMBASE

Abstract

Introduction: The use of routine data can enhance the efficiency of a clinical trial but presents methodological challenges. The AFFINITIE programme (Enhanced audit and feedback interventions to increase the uptake of evidence-based transfusion practice) embedded two cluster-randomised, factorial trials evaluating enhanced feedback interventions within the UK National Comparative Audit of Blood Transfusion. This audit programme aims to promote the uptake of evidence-based guidance and reduce the unnecessary use of blood components within a rolling programme of audits with bespoke data collection.

Method(s): We used audit data, supplemented by other routinely collected data, in trial design, intervention content, outcome assessment and analysis.

Result(s): We encountered five main challenges. First, we had to link data, collected by multiple data providers for different purposes, with clusters randomised to trial interventions, where the definition of the clusters varied by data source over time. Second, as we embedded the trials in real time within ongoing audits, challenges arose in dataset version control and from the desire to include sites falling behind with data entry to maximise sample size. Third, as each audit addressed a new topic, organisational learning across audits was limited. A new database was constructed for each audit, not to clinical trials standards, compromising data quality and demanding greater data management. Fourth, the actual nature and complexity of the data available for analysis was only apparent once the data were available, after defining the primary outcome and agreeing the statistical analysis plan. Fifth, staff changes posed a particular challenge, as knowledge of the data was key.

Discussion(s): We will provide recommendations for future trials that utilise data collected for purposes other than trial evaluations.

64. Raising the standards of public involvement in clinical trials

Authors: Blackburn S.; Rhodes C.; Higginbottom A.; Campbell L.; Group R.U.; Dziedzic K.; Foster N.

Source: Trials; Oct 2019; vol. 20

Publication Date: Oct 2019

Publication Type(s): Conference Abstract

Database: EMBASE
Abstract
Introduction: The UK National Standards for Public Involvement in research have recently been launched to improve the quality of public involvement. Keele University is one of the ten test sites nationally developing ways to put the six National Standards into practice. This paper presents some of the approaches and resources developed to implement the National Standards for use with clinical trials.
Method(s): In partnership with Keele Research User Group (RUG), we used the Standards to audit current trial processes and co-produce new resources to improve public involvement practices. Over 12 months, we adopted a Plan-Deliver-Review-Act approach to implement each Standard across the Research Institute and Clinical Trials Unit.
Result(s): The audit highlighted areas for improvement in how we deliver public involvement. We have developed new resources and practices for the six Standards, including: Standard 1 (Inclusive Opportunities): A Diversity and Inclusion policy and new recruitment plan to ensure fair opportunities for public involvement Standard 2 (Working Together): Clear role descriptions for all public involvement roles (Trial Steering Committees, Public Co-applicants, Advisory Groups) Standard 3 (Support and Learning): Induction sessions for new public contributors and a 'RUG-Buddy' peer-mentoring scheme with more experienced members supporting new members Standard 4 (Communications): a brief guide for researchers to encourage clear, two-way communication with public contributors, including improved feedback Standard 5 (Impact): Tips on capturing and evaluating the impact of public involvement in trials Standard 6 (Governance): A developing Public Involvement and Engagement Strategy, and Funding formula to ensure appropriate public involvement budgets.
Discussion(s): We have used the National Standards to reflect on current practices and develop new resources to improve public involvement in research. They are helping to drive a culture change towards doing better public involvement. More is to be done on encouraging widespread awareness and adoption of the Standards across studies.

65. Why do some research studies fall short of their predicted recruitment rate?
Authors
Brierley R.C.; Pufulete M.; Harris J.; Tabusa H.; Willcox A.; Mckeon H.; Culliford L.
Source
Trials; Oct 2019; vol. 20
Publication Date
Oct 2019
Publication Type(s)
Conference Abstract
Database
EMBASE
Abstract
Introduction: Many clinical trials fail to reach their planned sample size within the planned timeframe and budget. The predicted recruitment rate is based on both the sample size calculation and an estimated timeframe for recruitment. Various sources of information (e.g. recruitment data from previous research, clinician estimates, audit data) may be used to inform these estimates at the design stage, usually whilst applying for funding. It is unclear which sources are most reliable for estimating recruitment rates. We are conducting a survey of trial managers in the Bristol Trials Centre (BTC) to identify which information sources are used to calculate predicted recruitment rates, how often studies meet these targets and reasons why they may fall short.
Method(s): We created a short online survey (SurveyMonkey) to collect information about (i) study design, budget and funder; (ii) sample size and planned timeframe (recruitment rate); (iii) information sources used to estimate the recruitment rate; (iv) actual recruitment rate; (v) details about why the study was/ was not on target. The survey will initially be circulated to the trial managers in the BTC (at least 60 studies) in the pilot phase. The survey respondents will be asked to answer questions about clinical research studies they manage that are in set-up, currently recruiting or have finished recruitment in the past three years. Timing of potential results: We expect the results of the pilot phase of the survey in July 2019. Potential relevance and impact: The results will provide evidence about information sources used for estimating recruitment rates and whether some sources provide more realistic targets than others. We plan to refine the survey, based on the pilot results, before circulating it as a national survey, via the UK Trial Managers’ Network.

66. A novel one-stop LUTS clinic model from a tertiary referral university hospital in the United Kingdom
Authors
Walters U.; Latimer T.; Dean S.; Morgan M.; Jeram V.; El-Husseiny T.
Source
Journal of Endourology; Oct 2019; vol. 33
Publication Date
Oct 2019
Publication Type(s)
Conference Abstract
Database
EMBASE
Abstract

Introduction & Objective: Lower urinary tract symptoms (LUTS) are a substantial reason for presentation to Urology clinics in the UK. This places a significant pressure on the overstretched available resources. In the current pathway at our university hospital, patients wait for 20 weeks for new appointments and 55 weeks for follow up appointments, when definitive decisions are made regarding management. Enabling definitive plans on the day of the first visit can reduce this 35-week gap. This quality improvement project evaluated a new one-stop clinic pathway compared to our current LUTS clinic pathway.

Method(s): A retrospective audit was carried out, comparing the current LUTS pathway (March-May 2018) with those seen in a newly designed one-stop LUTS clinic pathway (October-November 2018). The one-stop clinic comprised of consultations before and after any required diagnostic tests (flow rate, post-voiding bladder scan, flexible cystoscopies, urodynamic studies and trans-rectal ultrasound scans) on the same day. This resulted in definitive management decisions being made on the same day.

Result(s): There were 298 patients analyzed in the current clinic pathway and 109 patients in the new one-stop clinics. In the current clinic pathway, only 55% of patients had LUTS, with high variation amongst the clinics. The one stop model reduced follow up appointments from 60% (current) to 5% (one-stop). There was an increase in patients being offered surgical management (from 10% to 57%) and an increase in clinical discharge (from 25% to 32%). Vetting and calling patients beforehand resulted in reducing the Did Not Attend (DNA) rate from 19% to 2% and also increasing the number of LUTS patients (55% to 96%). There was an increase in the use of diagnostics (urodynamic studies from 15% to 22% and flexible cystoscopies from 22% to 39%), with review suggesting appropriateness of ordering these tests. The feedback from patients was positive with 98% preferring the one-stop clinic model and 100% reporting feeling satisfied or extremely satisfied.

Conclusion(s): Employing a one-stop clinic model for LUTS patients can reduce the current pathway waiting times by 35 weeks, while providing more consistent, higher quality care. Vetting and calling patients beforehand can significantly reduce the DNA rate, optimizing clinic appointment utilization. Definitive plans regarding surgical management or discharge are made at the first visit, due to the availability of all investigations. Both patients and staff preferred the one-stop clinic model.

67. Defining clusters in primary care: Managing blinding and contamination

Authors
Parker C.; Hartley S.; Holland M.; Cundill B.; Farrin A.; Alderson S.; Foy R.; Clegg A.

Source
Trials; Oct 2019; vol. 20

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE

Abstract

Background: In cluster randomised trials, clusters of participants such as practices are randomised rather than individuals, with the intervention aimed at the cluster level. Blinding can be difficult, increasing the risk of selection or performance bias or contamination between arms. The UK primary care landscape is changing, with cross-networking at all levels from Clinical Commissioning Groups to practice federations. The level and complexity of the networks varies from linked to fully merged practices, sharing resources such as management, health professionals and specialised services. This changing landscape has implications for cluster definition and strategies for managing blinding and contamination.

Method(s): We will present the process of cluster selection in two primary care trials. ASPIRE is an audit and feedback trial. PROSPER is a feasibility study of an intervention aimed at supporting older people, findings will be used to inform definitive trial design and methods. General practice was defined as the unit of randomisation. Result(s): ASPIRE defined a practice as a cluster, unless a full merger was planned. PROSPER undertook a more detailed assessment of shared resources as part of site selection. Only 5/13 practices were considered sufficiently independent to be a standalone cluster. Reasons for grouping practices into clusters included a planned merger during trial period and sharing of practice managers. Sharing of staff and training sessions across linked practices was common.

Discussion(s): The level and complexity of networking in primary care has implications on the extent of blinding to allocation, but impact depends on the nature of the intervention. The feedback intervention in ASPIRE was less affected but PROSPER attempted to manage potential contamination by adjusting the cluster size. Methods of managing contamination in cluster trials may need to evolve with networking arrangements in primary care and be tailored to intervention characteristics.

68. Assessment of outcomes for inflammatory bowel disease in routine clinical practice: An ethnographic study

Authors
Razanskaite V.; Williamson P.; Young B.; Bodger K.

Source
Trials; Oct 2019; vol. 20

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE
Abstract

Introduction: There is growing interest in utilising routinely collected outcome data to support efficient, pragmatic trials. In the area of inflammatory bowel disease (IBD), there are initiatives to standardise outcomes for trials (Core Outcome Sets) and routine health records (e.g. ICHOM). Our aims were to explore variability in outcome assessment in clinical practice and the use of two common symptom-based indices promoted for routine use by the UK Biologics Audit (Harvey-Bradshaw Index [HBI] and Simple Clinical Colitis Index [SCCAI]).

Method(s): We performed ethnographic observations of 76 IBD clinic consultations conducted by 19 IBD clinicians (9 consultants, 7 IBD nurses and 3 trainees) in five acute hospitals in the North West region of England. Consultations were audio-recorded, transcribed and analysed for pre-defined IBD outcomes elicited by clinicians and/or volunteered by patients during patient-physician encounters, including those items required for HBI and SCCAI.

Result(s): Most commonly elicited outcomes were general wellbeing (76 [100%]), abdominal pain (61 [80%]), stool frequency (56 [74%]), blood in stool (54 [71%]), and stool consistency (46 [61%]). HBI and SCCAI were collected in only 14 (18%) consultations. In the remaining 62 consultations, items of HBI and SCCAI were discussed in variable detail. Complete HBI coverage: 5/33 (15%) consultations. Symptom components of HBI (wellbeing, liquid stools, abdominal pain): 10/33 (30%) consultations. Complete SCCAI coverage: only 1 consultation. Partial coverage (5 out of 6 SCCAI items): 5/29 consultations (17%). Selected symptoms were elicited significantly more often by nurses compared to doctors.

Discussion(s): There is significant variability in the breadth, depth and quantification of outcomes during routine clinical assessments. Although most items of clinical disease activity indices were elicited, formal scoring and assessment over fixed time periods was rare. Interviews explored barriers and facilitators to capturing structured outcomes in routine records.

69. Utility of routine electronic health records used as outcome measures in UK randomised trials: A systematic review

Authors
Love S.; Lensen S.; Macnair A.; Yorke-Edwards V.; Sydes M.R.; Carpenter J.; Williamson E.; Powell G.

Source
Trials; Oct 2019; vol. 20

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE

Abstract
Introduction: There is a wave of interest in, and resources for, unleashing the potential for routine electronic health records (EHR) to support medical research. In the context of randomised controlled trials, EHR data can be used to supplement or replace established data collection procedures. We undertook a systematic review of trials accessing EHR data in the UK, to characterise these trials and the ways they are using (or planning to use) these data.

Method(s): Potential sources of EHR were defined as health databases/ sets held by national organisations, registries or audits that are not involved in direct patient care; such as CPRD and NHS Digital. A list of all trials accessing these EHR between 2013-2018 was developed through screening public release registers, database websites, and direct contact with database staff. Trials were eligible if the released data was pertaining to individuals randomised to a trial; for example, data access solely to identify eligible patients for recruitment was excluded. Information was sought on trial characteristics (e.g. sample size, disease area), the EHR data received (registry source, datasets accessed) and how the data was used, from all available sources (e.g. publication, trial websites). Data were extracted onto a piloted form and entered into a Macro database. All screening and data extraction was undertaken in duplicate, independently with analyses done in Stata. PROSPERO: CRD42019123088. Timing of Potential Results: Data extraction ongoing Mar-2019 to Jun-2019. Results available from Aug 2019. Potential Relevance and Impact: There are many efforts and resources directed towards increasing the accessibility and quality of “big data” in healthcare, however the extent to which UK trials are using this data has not been described. This review will characterise the current use of EHR in UK trials to supplement or replace trial outcome data, and explore the scope for use in future trials.

70. Closed loop audit of muscle sampling in trans-urethral resection of bladder tumor

Authors
Georgiou R.; Varma R.; Chetwood A.; Ali A.

Source
Journal of Endourology; Oct 2019; vol. 33

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE
Abstract

Introduction & Objective: Our experience with presence of detrusor muscle (DM) following transurethral resection of bladder tumor (TURBT).

Objective(s): To evaluate the presence of DM in primary TURBT specimens as a quality improvement exercise in Frimley Park Hospital, UK. In addition, to determine the clinical efficacy of the en-bloc resection technique in all intermediate and high-risk non-muscle-invasive bladder cancer cases.

Method(s): Retrospective electronic record histopathology reports from a single urology center, servicing a group of urologists, were obtained for TURBT procedures performed between January 2014 and May 2018.

Result(s): A total of 242 cases were performed under the care of 7 consultant urologists. Analysis revealed a significant improvement in the quality of resections from 39% to 84% after the introduction of the following interventions: (1) analysis of current practice, (2) introduction of European Association of Urology (EAU) guidelines by separating samples and sending a second specimen pot marked as bladder tumor base to look for DM, (3) dedicated urologists with an interest in bladder cancer performing TURBTs using the en-bloc resection technique in appropriate cases.

Conclusion(s): Through our closed loop audits we have demonstrated a considerable improvement in the quality of resections. In the future we aim to analyze the effect of these measures on cancer recurrence and progression. Our simple interventions have improved the rate of DM yield in order to accurately stage the tumor.

71. Health informatics (HI) innovations in randomised trials and clinical cohorts-identification, screening, stratified care and data collection during primary care consultations

Authors: Wathall S.; Foster N.; Hill J.; Konstantinou K.; Lawton S.; Muller S.
Source: Trials; Oct 2019; vol. 20
Publication Date: Oct 2019
Publication Type(s): Conference Abstract
Database: EMBASE

Abstract

Introduction: Recruitment and retention of participants remain the main challenges for clinical research, particularly for primary care studies undertaken at point-of-care where consultation time is pressured. The Health Informatics (HI) team at Keele Clinical Trials Unit (CTU) has developed tools which are embedded into GP clinical IT systems, to facilitate the conduct of trials and cohort studies in real-time GP consultations.

Method(s): HI clinical system protocols were developed to efficiently utilise patients' electronic primary care medical record to automate processes such as patient identification and eligibility screening whilst remaining as unobtrusive as possible for the clinician end-user. Protocols and templates are developed to embed stratified care tools into the consultation to guide treatment decision-making, and automate coding of patient eligibility, consent and outcome/trial data into patients' primary care records.

Result(s): Automated coding facilitates efficient and accurate data recording for a number of clinical research studies. Regular audits allow the level of GP engagement and efficiency with recruitment and the study intervention to be assessed. Three exemplar studies will be presented, all of which had bespoke point-of-care HI templates that have facilitated research delivery in busy GP consultations. Arthritis Research UK funded PMR Cohort Study (Polymyalgia Rheumatica - a low incidence condition): 386 GP practices, suitable for invitation n=739 NIHR HTA funded SCOPiC Trial (SCIatica Outcomes in Primary Care): 42 GP practices, HI protocol fires n=19,375, eligible n=3,963, suitable for invitation n=2,677 NIHR PGfAR funded STarT MSK Pilot trial: 8 GP practices, HI protocol fires n=3,063, eligible n=1,653, suitable for invitation n=1255.

Discussion(s): Utilising GP clinical IT systems to embed HI research templates has resulted in efficient recruitment to randomised trials and cohort studies. Consideration needs to be given to clinical coding, training of clinical end-users, consultation styles and auditing system usage behaviour to ensure these HI solutions are successful.

72. Improving patient experience in health care and oncology: A scoping review

Authors: Grendarova P.; Yannitsos D.H.; Vaska M.; Barbera L.C.
Source: Journal of Clinical Oncology; Sep 2019; vol. 37
Publication Date: Sep 2019
Publication Type(s): Conference Abstract
Database: EMBASE
Abstract

Background: Patient-reported experience measures (PREMs) gather information directly from patients and capture their perspectives on their health care. Deficiencies identified by PREMs can lead to quality improvement (QI) interventions. The purpose of this review was to identify published and unpublished evidence on initiatives aimed to improve patient experience, to identify their areas of application and their overall impact on patient experience.

Method(s): We conducted a systematic literature review using MEDLINE (Ovid), EBM Reviews, HealthStar, PsycINFO, PubMed, PubMed Central, CINAHL, MEDLINE (Ebsco), Psychology & Behavioral Sciences, TRIP Database, EMBASE and Web of Science databases and several sources of grey literature. Inclusion criteria required the studies to evaluate an intervention or a systematic change aimed to improve patient experience and measured by a specific PREM. The search was limited to English language reports published between 1998 and 2018. Of the initial 780 articles, 318 were included in abstract reviews. 304 abstracts were excluded leaving 44 records for full text review.

Result(s): 21 records were included in the final analysis (20 journal articles and 1 web report). Publication dates ranged between 2007 and 2018 in the USA, UK, Norway, Denmark, Belgium and Bangladesh. There were 8 QI initiatives, 6 randomized studies, 1 non-randomized trial, 3 mixed methods, 2 repeated cross-sectional studies and 1 national patient experience model. Areas of focus included hospital care, surgery, internal medicine, primary care and oncology. Nine studies had programmatic interventions and 12 had specific interventions. All specific interventions reported positive effects. Outcomes were variable in programmatic interventions, including 5 studies reporting positive effects, 3 neutral and 1 mixed effects.

Conclusion(s): The effect of specific interventions aimed to improve patient experience is positive. There is limited data on the effect of programmatic initiatives and the factors that drive the improvement in patient experience. Such initiatives are needed to understand their impact on patient experience and person-centered care.

73. Trends in and factors associated with the adoption of digital aids for smoking cessation and alcohol reduction: A population survey in England

Authors
Perski O.; Jackson S.E.; Garnett C.; West R.; Brown J.

Source
Drug and Alcohol Dependence; Dec 2019; vol. 205

Publication Date
Dec 2019

Publication Type(s)
Article

PubMedID
31675544

Database
EMBASE

Abstract

Background: Digital smoking cessation and alcohol reduction aids are widely available in England. To estimate their public health impact, researchers need to consider their adoption in the target population. We assessed adoption rates, and characteristics of adopters, of digital smoking cessation and alcohol reduction aids in England.

Method(s): 3655 smokers and 2998 high-risk drinkers (defined as a score of >4 on the Alcohol Use Disorders Identification Test-Consumption; AUDIT-C) who had made a past-year quit/reduction attempt were surveyed as part of the Smoking and Alcohol Toolkit Studies between January 2015-October 2018. Respondents provided information on socio-demographic characteristics and whether they had used a digital aid in a recent quit/reduction attempt.

Result(s): 2.7 % (95 % CI 2.2%-3.0%) of smokers and 3.6 % (95 % CI 2.9%-4.0%) of drinkers who had made a past-year quit/reduction attempt (26.9 % and 15.3 %, respectively) had used a digital aid. Survey year was not significantly associated with use in smokers or drinkers. None of the baseline characteristics were significantly associated with the use of a digital aid in smokers. Drinkers with high motivation to reduce alcohol consumption (ORadj = 2.49, 95 % CI 1.63-3.77, p <.001) and higher AUDIT scores (ORadj = 1.07, 95 % CI 1.03-1.11, p <.001) had greater odds of adoption.

Conclusion(s): Digital smoking cessation and alcohol reduction aids are rarely used by smokers or high-risk drinkers attempting to quit/cut down in England, indicating that most of the target population is not being reached. Despite overall digital access improving, adoption rates remained similarly low between 2015-2018. Copyright © 2019 The Author(s)

74. The Association of Atrial Fibrillation and Ischemic Stroke in Patients on Hemodialysis: A Competing Risk Analysis

Authors
Findlay M.; MacIsaac R.; Dawson J.; Mark PB.; Traynor J.P.; MacLeod M.J.; Metcalfe W.; Sood M.M.

Source
Canadian Journal of Kidney Health and Disease; 2019; vol. 6

Publication Date
2019

Publication Type(s)
Article

Database
EMBASE
Abstract

Background: Stroke is common in patients with end-stage renal disease (ESRD) treated with hemodialysis (HD) and associated with high mortality rate. In the general population, atrial fibrillation (AF) is a major risk factor for stroke and therapeutic anticoagulation is associated with risk reduction, whereas in ESRD the relationship is less clear.

Objective(s): The purpose of this study is to demonstrate the influence of AF on stroke rates and probability in those on HD following competing risk analyses.

Design(s): A national record linkage cohort study.

Setting(s): All renal and stroke units in Scotland, UK.

Patient(s): All patients with ESRD receiving HD within Scotland from 2005 to 2013 (follow-up to 2015).

Measurements: Demographic, clinical, and laboratory data were linked between the Scottish Renal Registry, Scottish Stroke Care Audit, and hospital discharge data. Stroke was defined as a fatal or nonfatal event and mortality derived from national records.

Method(s): Associations for stroke were determined using competing risk models: the cause-specific hazards model and the Fine and Gray subdistribution hazards model accounting for the competing risk of death in models of all stroke, ischemic stroke, and first-ever stroke.

Result(s): Of 5502 patients treated with HD with 12 348.6-year follow-up, 363 (6.6%) experienced stroke. The stroke incidence rate was 26.7 per 1000 patient-years. Multivariable regression on the cause-specific hazard for stroke demonstrated age, hazard ratio (HR) (95% confidence interval [CI]) = 1.04 (1.03-1.05); AF, HR (95% CI) = 1.88 (1.25-2.83); prior stroke, HR (95% CI) = 2.29 (1.48-3.54), and diabetes, HR (95% CI) = 1.92 (1.45-2.53); serum phosphate, HR (95% CI) = 2.15 (1.56-2.99); lower body weight, HR (95% CI) = 0.99 (0.98-1.00); lower hemoglobin, HR (95% CI) = 0.88 (0.77-0.99); and systolic blood pressure (BP), HR (95% CI) = 1.01 (1.00-1.02), to be associated with an increased stroke rate. In contrast, the subdistribution HRs obtained following Fine and Gray regression demonstrated that AF, weight, and hemoglobin were not associated with stroke risk. In both models, AF was significantly associated with nonstroke death.

Limitation(s): Our analyses derive from retrospective data sets and thus can only describe association not causation. Data on anticoagulant use are not available.

Conclusion(s): The incidence of stroke in HD patients is high. The competing risk of “prestroke” mortality affects the relationship between AF and risk of future stroke. Trial designs for interventions to reduce stroke risk in HD patients, such as anticoagulation for AF, should take account of competing risks affecting associations between risk factors and outcomes.

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75. Does rhythm matter in acute heart failure? An insight from the British Society for Heart Failure National Audit

Authors
Anderson S.G.; Keavney B.; Garratt C.J.; Shoaib A.; Mamas M.A.; Myint P.K.; Cleland J.G.; Hardman S.M.; McDonagh T.A.; Dargie H.

Source
Clinical Research in Cardiology; Nov 2019; vol. 108 (no. 11); p. 1276-1286

Publication Date
Nov 2019

Publication Type(s)
Article

PubMedID
30963233

Database
EMBASE

Abstract
Background: Atrial fibrillation (AF) is the most common sustained arrhythmia in patients with acute heart failure (AHF). The presence of AF is associated with adverse prognosis in patients with chronic heart failure (CHF) but little is known about its impact in AHF.

Method(s): Data were collected between April 2007 and March 2013 across 185 (> 95%) hospitals in England and Wales from patients with a primary death or a discharge diagnosis of AHF. We investigated the association between the presence of AF and all-cause mortality during the index hospital admission, at 30 days and 1 year post-discharge.

Result(s): Of 96,593 patients admitted with AHF, 44,642 (46%) were in sinus rhythm (SR) and 51,951 (54%) in AF. Patients with AF were older (mean age 79.8 (79.7-80) versus 74.7 (74.5-74.7) years; p < 0.001), than those in SR. In a multivariable analysis, AF was independently associated with mortality at all time points, in hospital (HR 1.15, 95% CI 1.09-1.21, p < 0.0001), 30 days (HR 1.13, 95% CI 1.08-1.19, p < 0.0001), and 1 year (HR 1.09, 95% CI 1.05-1.12, p < 0.0001). In subgroup analyses, AF was independently associated with worse 30-day outcome irrespective of sex, ventricular phenotype and in all age groups except in those aged between 55 and 74 years.

Conclusion(s): AF is independently associated with adverse prognosis in AHF during admission and up to 1 year post-discharge. As the clinical burden of concomitant AF and AHF increases, further refinement in the detection, treatment and prevention of AF-related complications may have a role in improving patient outcomes.

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76. Congenital sensorineural deafness in English setters in the United Kingdom: Prevalence and association with phenotype and sex

Authors
Marsh O.J.R.; Freeman J.; De Risio L.; Van Dijk J.
77. Type A aortic dissection in patients over the age of seventy in the UK

Authors: Bashir M.; Harky A.; Shaw M.; Adams B.; Oo A.
Source: Journal of Cardiac Surgery; 2019
Publication Date: 2019
Publication Type(s): Article
PubMedID: 31618487
Database: EMBASE
Abstract: Objectives: Recent guidelines have stated that age alone should not be a limiting factor for offering life-saving surgery to patients with acute type A dissection (ATAD). The objective of this study was to review the outcomes of patients above the age of 70 undergoing surgery for type A aortic dissection (TAAD) in the UK.

Method(s): Prospectively collected data of procedures undertaken on patients with an age of 70 years or more were extracted from the National Institute for Cardiovascular Outcomes Research (NICOR) National Adult Cardiac Surgery Audit registry. All operations were performed in England and Wales between 1 April 2007 and 31 March 2013. The primary outcome for this study was in-hospital mortality. The secondary outcome was mid-term mortality followed up to 5 years.

Result(s): A total of 507 patients were included in the study. The highest number of procedures performed by a single surgeon during the study period was 12. The overall in-hospital mortality rate for all ATAD patients aged 70 or over was 22.5% (114 patients); the stroke rate was 11% (57) and postop dialysis rate 15% (76).

Conclusion(s): ATAD is a life-threatening condition with a high mortality rate if left untreated. Our results show that surgery for ATAD in patients over 70 is feasible with acceptable mortality rates. However, similar to previous studies, rates of stroke in older patients may be higher. The present study supports the notion that age should not be a discriminating factor in operating on patients with TAAD.

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78. Audit of the investigation and management of paediatric Cystic Fibrosis-Related Liver Disease

Authors: Rais T.; Jamal S.; Watling R.; Burrows E.F.; Mayell S.J.
Source: Journal of Cystic Fibrosis; Jun 2019; vol. 18
Publication Date: Jun 2019
Publication Type(s): Conference Abstract
Database: EMBASE
Abstract: Objectives: Recent guidelines have stated that age alone should not be a limiting factor for offering life-saving surgery to patients with acute type A dissection (ATAD). The objective of this study was to review the outcomes of patients above the age of 70 undergoing surgery for type A aortic dissection (TAAD) in the UK.

Method(s): Prospectively collected data of procedures undertaken on patients with an age of 70 years or more were extracted from the National Institute for Cardiovascular Outcomes Research (NICOR) National Adult Cardiac Surgery Audit registry. All operations were performed in England and Wales between 1 April 2007 and 31 March 2013. The primary outcome for this study was in-hospital mortality. The secondary outcome was mid-term mortality followed up to 5 years.

Result(s): A total of 507 patients were included in the study. The highest number of procedures performed by a single surgeon during the study period was 12. The overall in-hospital mortality rate for all ATAD patients aged 70 or over was 22.5% (114 patients); the stroke rate was 11% (57) and postop dialysis rate 15% (76).

Conclusion(s): ATAD is a life-threatening condition with a high mortality rate if left untreated. Our results show that surgery for ATAD in patients over 70 is feasible with acceptable mortality rates. However, similar to previous studies, rates of stroke in older patients may be higher. The present study supports the notion that age should not be a discriminating factor in operating on patients with TAAD.

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Abstract

Objectives: International guidelines advise clinical examination, liver function tests (LFT) and liver ultrasonography (US) for diagnosis of Cystic Fibrosis related Liver Disease (CFLD). Ursodeoxycholic acid (UDCA) is recommended for management of abnormal liver function and or abnormal liver US, with referral to specialist liver services for persistently abnormal investigations.

Method(s): 3 year retrospective audit of practice against UK National Institute of Health & Care Excellence (NICE) and European CF Society guidelines. Review of biochemistry, radiology and clinic documentation in patients >1 year of age with cystic fibrosis.

Result(s): 209 annual reviews were completed in 78 patients between 2016 and 2018. 15 patients had <3 annual reviews due to age or transfer into clinic. One patient died. 46/78 (59%) were female. Median BMI centile was 60. LFTs were performed in 196/209 (93.7%) of reviews, 44 (22.4%) were abnormal. 200/209 (96.6%) reviews included liver US. 32 scans (16%) were abnormal. 59/209 (28.2%) of reviews showed abnormal liver investigations but UDCA was only prescribed in 40/209 (19.1%). A previous study in the same clinic in 2002 showed use of UDCA in 29.9% of patients demonstrating a reduction in overall use of UDCA. 2 patients with hepatomegaly or splenomegaly and abnormal LFTs were not referred to specialist service. 8 patients had persistently abnormal LFTs despite UDCA but only one was referred to specialist service. No patient had evidence of liver failure, portal hypertension or haematemesis.

Conclusion(s): In a regional paediatric service, >92% of investigations to identify CFLD were completed as per guidelines. Use of UDCA was less than expected compared to abnormal investigations and has declined since 2002. There was inadequate referral to specialist services when investigations remained abnormal despite treatment. These findings highlight the need for centres to complete regular audit to review investigation and management of CFLD.

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Abstract

INTRODUCTION: Malposition complicates 2-13% of births at delivery leading to increased obstetric interventions (cesarean section and instrumental delivery) and higher rates of adverse fetal and maternal outcomes. Limited data are available regarding the likely rates of obstetric intervention and subsequent neonatal and maternal outcomes of births with babies in persistent occiput posterior position versus those in persistent occiput transverse position. The UK Audit and Research trainee Collaborative in Obstetrics and Gynaecology (UK-ARCOG) network set out to prospectively collect data at delivery on final mode of delivery and immediate outcomes. MATERIAL AND METHODS: The UK-ARCOG network collected data on all births with malposition of the fetal head complicating the second stage of labor (838) (occiput posterior / occiput transverse) requiring rotational vaginal operative birth or emergency cesarean to expedite delivery across 66 participating UK National Health Service maternity units over a one-month period. The outcomes considered were the need for emergency caesarean section without a trial of instrumental delivery, success of the first method of delivery employed in achieving a vaginal delivery and neonatal/maternal outcomes. RESULT(S): Obstetricians regarded assistance with an operative vaginal delivery method to be unsafe in 15% of babies in occiput posterior position and 6.1% of babies in occiput transverse position, and they were delivered by primary emergency cesarean section. When vaginal delivery was deemed safe (defined as attempted assisted vaginal rotational delivery), the first instrument attempted was successful in 74.4% of occiput posterior babies and 79.3% of occiput transverse babies. CONCLUSION(S): Our data facilitates decision making by obstetricians to increase safety of assisted rotational operative delivery of a malpositioned baby at initial assessment and in counselling women. Until data from a well-designed randomised controlled trial of instrumental delivery versus emergency cesarean section are available, this manuscript by providing contemporaneous national data from a high resource setting within a structured training program, will assist the selection of an appropriate instrument/method for the delivery of a malpositioned baby.

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81. Ultrasound surveillance of common iliac artery aneurysms

Authors
Dhanji A.; Murray H.E.; Downing R.

Source
Annals of vascular surgery; Oct 2019

Publication Date
Oct 2019

Publication Type(s)
Article

PubMedID
31669342

Database
EMBASE

BACKGROUND: The surveillance of patients with common iliac artery aneurysms (CIAA) does not, currently, follow a defined protocol such as the one adopted for the management of abdominal aortic aneurysm1. This study explores CIAA growth rate, and seeks to determine correlations with related parameters which may serve to influence aneurysm expansion with the view of devising an effective local surveillance protocol.

METHOD(S): Vascular laboratories across the UK were invited to participate in an online survey. Questions were designed to assess current clinical practice in regards to the surveillance of patients with CIAA. Additionally, a retrospective audit was performed using the clinical reports of patients attending a regional vascular laboratory to undergo an aorto-iliac duplex scan (USS). Expansion rate of aneurysms was studied in patients who had >=2 USS scans; data was recorded at 6 and/or 12 monthly intervals up to 5 years. Kaplan Meier estimates of patient mortality (all cause) and intervention rate during the surveillance period were performed. Patient age, initial CIAA diameter, bilateral/unilateral CIAA and coinciding aortic aneurysm diameter were recorded to determine if these specific features were associated with CIAA growth rates. Pearson’s correlation coefficient was used to determine the strength of association between variables.

RESULT(S): Nine hundred and ninety-five of 1060 patient records were suitable for review: 21.6% (215/995) of patients had a CIAA. Isolated CIAA accounted for 23% (50/215). Mean CIAA growth was 1.5+/-0.3mm/year. A strong correlation was found between CIAA diameter vs time from diagnosis (R = .820; p = .004); CIAA with smaller initial diameters (15-20mm) expanded more rapidly than those of larger diameter at diagnosis (R=.87 p = .005). CIAA measured at >30mm demonstrated an unpredictable growth trajectory which was also evident in those CIAA co-inciding with larger AAA (>50mm; R = .208; p = .655).

CONCLUSION(S): The results obtained in this study may form the basis for development of a dedicated CIAA surveillance protocol.

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82. Risky Alcohol Consumption and Associated Health Behaviour Among HIV-Positive and HIV-Negative Patients in a UK Sexual Health and HIV Clinic: A Cross-Sectional Questionnaire Study

Authors
Suonpera E.; Matthews R.; Arenas-Pinto A.; Milinkovic A.

Source
AIDS and behavior; Oct 2019

Publication Date
Oct 2019

Publication Type(s)
Article

PubMedID
31664572

Database
EMBASE
Abstract
Alcohol misuse has been associated with negative consequences among HIV-positive patients. Data on real prevalence of risky alcohol consumption among the HIV-positive population in the UK are lacking. A cross-sectional questionnaire study using standardised validated instruments among HIV-positive (n=227) and HIV-negative (n=69) patients was performed. The prevalence of risky alcohol consumption (AUDIT) and associations with depressive symptoms (PHQ-9), problematic drug use (DUDIT), adherence to ART (CASE Adherence Index), sexual behaviour and demographic characteristics were assessed among both patient groups independently. A quarter (25.1%) of HIV-positive patients and 36.1% of HIV-negative patients reported risky alcohol consumption (AUDIT-score>=8). In the multivariable analysis among HIV-positive patients depressive symptoms (p=0.03) and problematic drug use (p=0.007) were associated with risky alcohol consumption. Among HIV-negative patients these associations were not present. Risky alcohol consumption among HIV-positive patients is prevalent, and together with depressive symptoms and problematic drug use, may influence HIV-disease progression and patients' wellbeing.

83. The use of an invitational letter to increase the vaccine uptake of patients with coeliac disease
Authors
Moneim J.; Asad H.; Butt E.; Foridi J.S.; Khan Y.; Patel S.; Qureshi J.; Thakar R.
Source
Primary health care research & development; Oct 2019; vol. 20
Publication Date
Oct 2019
Publication Type(s)
Article
PubMedID
31663488
Database
EMBASE
Abstract
AIM: We sought to establish the impact on vaccine uptake of sending out a single appointment letter inviting patients to attend a vaccine clinic. BACKGROUND: Coeliac disease is associated with splenic dysfunction and so patients with coeliac disease are at a higher risk of overwhelming infection. Additional vaccinations are recommended for these individuals to provide additional protection against infection. METHOD(S): We retrospectively identified 54 patients with diagnosed coeliac disease, and all vaccines previously received by these patients. By comparing this to the Green Book [Department of Health (2013) Immunisation of individuals with underlying medical conditions: the green book, chapter 7, London: Department of Health. Retrieved 26 February 2019 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/566853/Green_Book_Chapter7.pdf], we determined the patients who were due vaccinations and the specific vaccines they were due. An invitation letter was then sent out to patients requiring further vaccinations and vaccine uptake for these patients was re-audited six months later. FINDINGS: Our results show a mild increase in the total uptake of vaccines six months after the letter was sent out, from 38.6% to 49.2%.

84. A national UK audit of suprapubic catheter insertion practice and rate of bowel injury with comparison to a systematic review and meta-analysis of available research
Authors
Hall S.; Parkinson R.; Ahmed S.; Reid S.; Thiruchewam N.; Biers S.; Sahai A.; Hamid R.; Harding C.
Source
Neurourology and Urodynamics; Nov 2019; vol. 38 (no. 8); p. 2194-2199
Publication Date
Nov 2019
Publication Type(s)
Article
PubMedID
31532853
Database
EMBASE
Abstract
Objectives: Limited data exist on the risks of complications associated with a suprapubic catheter (SPC) insertion. Bowel injury (BI) is a well-recognized albeit uncommon complication. Guidelines on the insertion of SPC have been developed by the British Association of Urological Surgeons, but there remains little evidence regarding the incidence of this complication. This study uses contemporary UK data to assess the incidence of SPC insertion and the rate of BI and compares to a meta-analysis of available papers. Method(s): National Hospital Episodes Statistics data were searched on all SPC insertions over an 18-month period for operating procedure codes, Code M38.2 (cystostomy and insertion of a suprapubic tube into bladder). Patients age, 30-day readmission rates, 30-day mortality rate, and catheter specific complication rate were collected. To estimate the BI rate, we searched patients who had undergone any laparotomy or bowel operation within 30 days of SPC insertion. Trusts were contacted directly and directed to ascertain whether there was SPC-related BI. PubMed search to identify papers reporting on SPC related BI was performed for meta-analysis. Result(s): 11 473 SPC insertions took place in the UK in this time period. One hundred forty-one cases had laparotomy within 30 days. Responses from 114 of these cases reported one BI related to SPC insertion. Meta-analysis showed an overall BI rate of 11/1490 (0.7%). Conclusion(s): This is the largest dataset reported on SPC insertions showing a lower than previously reported rate of BI. We recommend clinicians use a risk of BI of less than 0.25% when counseling low-risk patients.
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85. Modelling the costs and consequences of reducing healthcare-associated infections by improving hand hygiene in an average hospital in England
86. How do I develop a quality improvement project?

Authors  Rimmer A.
Source  The BMJ; 2019; vol. 367
Publication Date  2019
Publication Type(s)  Note
PubMedID  31636055
Database  EMBASE

87. Improving the approach to future care planning in care homes

Authors  Kinley J.; Denton L.; Levy J.
Source  International journal of palliative nursing; Dec 2018; vol. 24 (no. 12); p. 576-583
Publication Date  Dec 2018
Publication Type(s)  Article
PubMedID  30571252
Database  EMBASE

88. A retrospective review of weight status and dietetic intervention in children with germ cell tumours

Authors  Evans R.; Gardiner B.
Source  European Urology, Supplements; 2019; vol. 18 (no. 2); p. 33
Publication Date  2019
Publication Type(s)  Conference Abstract
Database  EMBASE
**Abstract**

Background: There is limited evidence investigating the role of nutrition and weight status during and post-treatment in paediatric tumours, particularly germ cell tumours (GCT).

Method(s): A retrospective chart review (2014-2019) of cases presenting to Great Ormond Street Hospital, London with a GCT, including yolk-sac tumour (YST), as a primary diagnosis who had dietetic input at some stage during their treatment. Hospital records were reviewed for data including weight and height, and dietetic intervention during and post treatment.

Result(s): Since 2017, 19 children were diagnosed with GCT; of these dietetics was involved with 5 cases (26%). In this audit, dietetics have been involved with ten cases since 2014 (YST n = 5; other GCT = 5); of whom 8 were seen at diagnosis. At diagnosis, 4 (GCT) cases were classified as overweight (BMI>91st centile); all others (n = 6) were within a healthy weight range (BMI 25-75th centile). At 6-month follow-up (n = 5), 2 remained on the same weight centile, one reduced a centile, and two cases (YST) increased three centiles - each moving them into overweight/obese category. All cases needed nutrition support (NS); five had an ongoing need for oral NS. Seven cases had nasogastric tube feed at one point during their treatment. Four cases received parenteral nutrition (PN); 3 during high-dose chemotherapy. One case had percutaneous endoscopic gastrostomy (PEG) for a prior condition. In summary, nutrition support is essential to the management of GCT. More work is needed to develop a screening tool to ensure nutritionally compromised children are not missed.

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Abstract

Purpose or Objective: Benign diseases and non-malignant conditions may cause pain, loss of function and other symptoms that can impact on quality of life. Radiation may not be sought as first line treatment for benign conditions, but some studies have suggested the efficacy of RT as a valid treatment option for specific patient cohorts. Genesis Care Australia, Spain and United Kingdom currently provide a benign RT service. A project was undertaken at GenesisCare UK to review all aspects of the patient pathway and to standardise RT delivery for Dupuytren's Disease, Ledderhose's Disease and Plantar Fasciitis across 12 centres with postulated endpoints to improve access, increase awareness and optimise clinical practice of the service to prospective patient and potential referrers.

Material(s) and Method(s): The project team was formed from a multi-disciplinary group consisting of a Medical Oncologist, Radiographers, Medical Physicist, Patient Experience Coordinator and a Referrer/Marketing Liaison Officer. A literature review was to be performed, and a clinical analysis of current practice initiated to identify potential quality improvement and efficiency gains. The efficacy of a dedicated heel pain clinic hypothesising a joint consulting model of a Medical Oncologist and a Musculoskeletal (MSK) Consultant, with access to multi-modality imaging and treatment to diagnose and treat Plantar Fasciitis (PF) and Achilles Tendonitis was investigated. Results The evaluation demonstrated that clinical quality improvement and efficiencies were warranted to improve service delivery. Findings included: 1. The patient pathway from consult to RT treatment was reduced from 10 to 14 days to 24 hours. 2. A fully electronic workflow was introduced. 3. Evidence based clinical protocols were written for DD, LD, PF, AT. 4. Improved and standardised patient stabilisation for RT and Surface Guidance Radiotherapy was implemented for all benign treatments. 5. Introduction of a completed acrylic coated less toxic electron insert by sourcing an external supplier. 6. Tattoo-less treatment was implemented for all benign RT treatment across all 12 centres. 7. Extracorporeal Shockwave Treatments (EST) for newly diagnosed PF and AT and external beam for persistent and recurrent AT was introduced. 8. The Heel Pain clinic was implemented with a Medical Oncologist consulting with multimodality imaging available at the time of consult.

Conclusion(s): The project resulted in service delivery efficiencies, in reducing consult to treatment start time, through a collaborative and coordinated approach. Initiating mechanisms to develop external relationships with prospective patients and referrers have been implemented. Further investigation will continue evaluating the Benign Service and collect metrics on all aspects of the patient pathway. A joint consulting model for the heel pain clinic is anticipated to start in early 2018. Future goals are to initiate a centralised data base with an automated data transfer system for patient recorded outcomes measures and to expand the service.

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92. Accelerated Clustered Sparse Acquisition to Improve Functional MRI for Mapping Language Functions

Authors
Keil P.; Nettekoven C.; Goldbrunner R.; Weiss Lucas C.; Weiss K.; Lichtenstein T.; Giese D.

Source
Journal of neurological surgery. Part A. Central European neurosurgery; Oct 2019

Publication Date
Oct 2019

Publication Type(s)
Article

PubMedID
31659723
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<th>Database</th>
<th>Abstract</th>
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| EMBASE    | BACKGOUND: Functional magnetic resonance imaging (fMRI) is a useful method for noninvasive presurgical functional mapping. However, the scanner environment is inherently unsuitable for the examination of auditory and language functions, due to the loud acoustic noise produced by the scanner. Interleaved acquisition methods alleviate this problem by providing a silent period for stimulus presentation and/or response control (sparse sampling) but at the expense of a diminished amount of data collected. There are possible improvements to these sparse acquisition methods that increase the amount of data by acquiring several images per event (clustered sampling). We tested accelerated clustered fMRI acquisition in comparison with conventional sparse sampling in a pilot study. METHOD(S): The clustered and sparse acquisition techniques (7.4 minutes scanning time per protocol) were directly compared in 15 healthy subjects (8 men; mean age: 24+/-3 years) using both a motor (tongue movement) and a language (overt picture-naming) task. Functional imaging data were analyzed using Statistical Parametric Mapping software (SPM12 Wellcome Department of Imaging Neuroscience, London, UK). For both tasks, activation levels were compared and Euclidean distances (EDs) between cluster centers (i.e., local activation maxima and centers of gravity) were calculated. Overlaps and laterality indices were computed for the picture-naming task. In addition, the feasibility of the clustered acquisition protocol in a clinical setting was assessed in one pilot patient. RESULT(S): For both tasks, activation levels were higher using the clustered acquisition protocol, reflected by bigger cluster sizes (p<0.05). Mean ED between cluster centers ranged between 9.9+/-5.4mm (left superior temporal gyrus; centers of gravity) and 16.6+/-13.2mm (left inferior frontal gyrus; local activation maxima) for the picture-naming task. Overlaps between sparse and clustered acquisition reached 88% (Simpson overlap coefficient). A similar activation pattern for both acquisition methods was also confirmed in the clinical case. CONCLUSION(S): Despite some drawbacks inherent to the acquisition technique, the clustered sparse sampling protocol showed increased sensitivity for activation in language-related cortical regions with short scanning times. Such scanning techniques may be particularly advantageous for investigating patients with contraindications for long scans (e.g., reduced attention span). Copyright Georg Thieme Verlag KG Stuttgart . New York.

93. Trends in admission timing and mechanism of injury can be used to improve general surgical trauma training

Authors: Pearce A.P.; Hancorn K.; Brohi K.; Tai N.; Marsden M.; Newell N.; Lecky F.
Publication Date: Oct 2019
Publication Type(s): Article
PubMedID: 31660752
Database: EMBASE
Abstract: INTRODUCTION: The temporal patterns and unit-based distributions of trauma patients requiring surgical intervention are poorly described in the UK. We describe the distribution of trauma patients in the UK and assess whether changes in working patterns could provide greater exposure for operative trauma training. METHOD(S): We searched the Trauma Audit and Research Network database to identify all patients between 1 January 2014 to 31 December 2016. Operative cases were defined as all patients who underwent laparotomy, thoracotomy or open vascular intervention. We assessed time of arrival, correlations between mechanism of injury and surgery, and the effect of changing shift patterns on exposure to trauma patients by reference to a standard 10-hour shift assuming a dedicated trauma rotation or fellowship. RESULT(S): There were 159,719 patients from 194 hospitals submitted to the Network between 2014 and 2016. The busiest 20 centres accounted for 57,568 (36.0%) of cases in total. Of these 2147/57,568 patients (3.7%) required a general surgical operation; 43% of penetrating admissions (925 cases) and 2.2% of blunt admissions (1222 cases). The number of operations correlated more closely with the number of penetrating rather than blunt admissions (r = 0.89 vs r = 0.51). A diurnal pattern in trauma admissions enabled significant increases in trauma exposure with later start times. CONCLUSION(S): Centres with high volume and high penetrating rates are likely to require more general surgical input and should be identified as locations for operative trauma training. It is possible to improve the number of trauma patients seen in a shift by optimising shift start time.

94. Can comprehensive geriatric assessment be delivered without the need for geriatricians? A formative evaluation in two perioperative surgical settings

Authors: Kocman D.; Regen E.; Phelps K.; Conroy S.; Martin G.; Parker S.; Gilbert T.
Source: Age and Ageing; Sep 2019; vol. 48 (no. 5); p. 643-648
Publication Date: Sep 2019
Publication Type(s): Article
PubMedID: 30916758
Database: EMBASE
Abstract

Introduction: the aim of this study was to design an approach to improving care for frail older patients in hospital services where comprehensive geriatric assessment (CGA) was not part of the clinical tradition.

Method(s): the intervention was based on the principles of CGA, using quality improvement methodology to embed care processes. Qualitative methods and coproduction were used to inform development of the intervention, which was directed towards the health care professionals involved in peri-operative/surgical cancer care pathways in two large UK teaching hospitals. A formative, qualitative evaluation was undertaken; data collection and analysis were guided by normalisation process theory.

Result(s): the clinicians involved agreed to use the toolkit, identifying potential benefits including improved surgical decision making and delivery of interventions pre-operatively. However, sites concluded that pre-operative assessment was not the best place for CGA, and at the end of the 12-month trial, implementation was still nascent. Efforts competed against the dominance of national time-limited targets, and concerns relating to patients’ immediate treatment and recovery. Some participants involved in the peri-operative pathway felt that CGA required ongoing specialist input from geriatricians, but it was not clear that this was sustainable.

Conclusion(s): clinical toolkits designed to empower non-geriatric teams to deliver CGA were received with initial enthusiasm, but did not fully achieve their stated aims due to the need for an extended period of service development with geriatrician support, competing priorities, and divergent views about appropriate professional domains.

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Authors
Chiaravalloti A.; Di Biagio D.; Martorana A.; Schillaci O.

Source
European Journal of Nuclear Medicine and Molecular Imaging; Oct 2019; vol. 46 (no. 1)

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE

Abstract
Aim/Introduction: The aim of the present study was to investigate the relationships between cortical and subcortical [18F] FDG uptake and neuropsychological assessment in a cohort of subjects with Alzheimer’s disease (AD).

Material(s) and Method(s): We evaluated 116 subjects with clinical diagnosis of AD (males=66; females=50) with a newly diagnosed with AD according to the NINCDS-ADRDA criteria. Mean age was 71.4 +/- 6 years old. All the subjects underwent a brain PET/CT scan using [18F]FDG, a complete neuropsychological assessment that included Mini Mental State Examination (MMSE); Rey Auditory Verbal Learning Test, immediate recall (RAVLT immediate); Rey Auditory Verbal Learning Test, delayed recall (RAVLT,delayed); Rey Complex Figure Test, copy (RCFT, copy); Rey Complex Figure Test, delayed recall (RCFT, delayed); Raven’s Colored Progressive Matrices (RCPM); Phonological Word Fluency Test (PWF) and Stroop test. All the subjects were subjected to a cerebro spinal fluid (CSF) assay for amyloid, total tau and phosphorylated tau. The relationship between brain uptake of [18F] FDG and CSF biomarkers was analysed using statistical parametric mapping (SPM12; Wellcome Department of Cognitive Neurology, London, UK) implemented in Matlab R2018a using sex and age and CSF biomarkers as covariates.

Result(s): The values of CSF amyloid, total tau and phosphorylated tau were respectively 363.6 +/- 162, 689 +/- 338, and 92.4 +/- 70.7. Neuropsychological assessment resulted in 22.6 +/- 8.6 for RAVLT, immediate; 71.4 +/- 5.9 for RAVLT, delayed; 18.2 +/- 10.4 for RCFT, copy; 7.6 +/- 6 for RCFT, delayed; 18.8 +/- 9 (RCPM); 22.2 +/- 10.1 for PWF and 44.6 +/- 36.2 for Stroop test. We found a significant relationship between [18F]FDG uptake and performance in RAVLT immediate in a large portion of the left temporal lobe [positive correlation, Brodmann Area (BA)37 and BA22] and with RCFT, copy [positive correlation in left and right BA40 and left and right BA7]. We did not find any significant relationships with other tests.

Conclusion(s): The results of our study show that cortical and subcortical glucose consumption is moderately related to the neuropsychological assessment in patients with AD thus suggesting a limited impact on data analysis of brain metabolism in these subjects.

96. Referral rates and overall survival of patients receiving Ra223 therapy for mCRCP at the Beatson west of Scotland cancer centre

Authors
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Source
European Journal of Nuclear Medicine and Molecular Imaging; Oct 2019; vol. 46 (no. 1)

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE
Abstract

Aim/Introduction: In May 2016, the Beatson Oncology Centre (BOC) opened a Ra223 therapy service treating mCRPC patients in the West of Scotland. This catchment area includes referrals from six Health boards, and a population of 2.8M. The aim of this work was to review the referral patterns and the outcome of patients in the three years since the service was established.

Material(s) and Method(s): The date of patient referrals to the service were audited to establish any trends in patient throughput. The Overall Survival (OS) of patients that completed all six cycles of Ra223 were compared with published data from the Alsympca trial.

Result(s): A total of 178 patients were referred between May 2016 and April 2019. The audit of patient treatments revealed an initial referral rate in the first six months (8.4+/-.6.2 per month) which was higher compared to the overall mean of the data (4.9+/-.6.2 per month). This higher rate corresponds to a backlog of patients waiting for the service to open. As these patients were more likely to have progressed while waiting for treatment, they were more symptomatic and, therefore, less patients completed all six fractions (40% compared to 52%). Of note, following the Pharmacovigilance Risk Assessment Committee (PRAC) guidance which relegated Ra223 to third line treatment in July 2018, from September 2018 onwards, referrals have approximately halved. Of those patients completing all six fractions 51 out of 87 patients are now deceased, their OS was 9.7 months. This is not comparable with Alsmypca, which reported 14.9 months. This difference may be due to less stringent clinical criteria for treatment, a smaller sample size, and a proportion of patients treated with six fractions that are still alive.

Conclusion(s): Deceased patients that completed all six cycles of treatment showed a lower OS than that found in the Alsympca trial. Additionally, the number of patients being referred to the service has been significantly impacted by the new PRAC guidance. The overall survival of this new cohort of patients has not yet been evaluated.

97. Establishment of national DRL for CT in hybrid imaging studies?the first national NM CT (PET) dose audit for KW population?

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Source
European Journal of Nuclear Medicine and Molecular Imaging; Oct 2019; vol. 46 (no. 1)

Publication Date
Oct 2019

Publication Type(s)
Conference Abstract

Database
EMBASE

Abstract

Aim/Introduction: Diagnostic reference levels (DRLs), for CT part used in PET examinations are limited. Published DRLs from other countries may not be directly relevant to the state of Kuwait (KW). The aim was to propose a national DRL for CT part of PET imaging operating in KW, in support of optimization and dose reduction.

Material(s) and Method(s): The research was a multicentre collaborative study with participation of 7 PETCT centres in KW. The data collection was restricted to adult oncology patients due to a limited number of the other studies. The study was based on the UK - IPEM methodology and the upper limit of entries for each centre was set to 30 with a total of 195 patients. The CTDIvol, DLP and scan length (SL) were recorded and Mean, Median, Standard Deviation, Minimum and Maximum values, 75th percentile as well as WB effective dose (ED) were calculated. All centres except one (Philips) accommodated GE PET/CT scanners with an integrated 64 slices CT, and applied AEC.

Result(s): Dose and scan length statistics for the half body (HB) accounted for 51.5% of the total (195) and combined (WB+HB) examinations presented together with the Proposed local DRLs and Achievable doses. The CT data were used for AC and localization. Patient dose varied considerably, with a maximum of twofold variation in DLP. The ratio of maximum to minimum mean doses between different centers for HB and (WB+HB) for the same clinical studies varied between 1.1 - 3.7 for HB and 2.3 -6.2 for (WB+HB). There were variations of proposed and achievable local DRL in practice between 7 centers highlighting the need for national DRL. Third quartile DLP (mGy. cm) and CTDIvol (mGy) values (set for NDRL) for the HB PET/CT was (570, 5.2) which was higher than the current UK NDRL (400, 4.3) but lower than the Swiss National NDRL (620, 6). Comparatively, the Proposed NDRLs for (WB+HB) was (643, 4.6) which was lower than Swiss National Data (720, 5.0). The results were in reasonable agreement with the both centers, though, SWISS had entries of 5000 (HB), 706 (WB) and the UK had 370 (HB). Calculated ED varied from 5.4 to 13.4 mSv, with a mean value equal to 8.4 mSv.

Conclusion(s): The study demonstrated the need for national CT DRLs for PET/CT and it has been proposed in KW for oncology examinations based on data collected from 7 centers.

98. Is the use of e-cigarettes for smoking cessation associated with alcohol consumption? A population-level survey of successful quitters in England

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Source
Addictive Behaviors; Feb 2020; vol. 101

Publication Date
Feb 2020

Publication Type(s)
Article

PubMedID
31645002
Objective: To examine associations between the use of e-cigarettes for smoking cessation and levels of alcohol consumption, high-risk drinking, and attempts to cut down alcohol consumption compared with use of nicotine replacement therapy (NRT) or no aid.

Method(s): Cross-sectional survey of adults (>=16 years) in England. The sample included a total of 961 people who had quit smoking with the use of either e-cigarettes (n = 425), NRT (n = 116), or no aid (n = 421) within the past year and were still abstinent at the survey. Drinking behaviour was assessed with the AUDIT.

Result(s): Mean (SD) alcohol consumption among those who quit smoking with e-cigarettes, NRT, and no aid was 7.78 (13.41), 7.12 (13.85), and 5.55 (8.70) units/week, respectively. The prevalence of high-risk drinking was 43.3% (n = 184), 32.2% (n = 37), and 36.8% (n = 155), respectively. Among high-risk drinkers, the prevalence of attempts to cut down alcohol consumption was 22.3% (n = 41), 18.9% (n = 7), and 27.7% (n = 43), respectively. After adjustment for covariates, those who quit with e-cigarettes had significantly higher alcohol consumption than those who quit unaided (B = 1.69, 95%CI 0.21-3.17), but there was no significant difference relative to those who quit with NRT. Differences in high-risk drinking and attempts to cut down were not significant, but Bayes factors indicated the data were insensitive (range: 0.47-0.95).

Conclusion(s): Recent ex-smokers who used e-cigarettes to help them quit consumed around two more units of alcohol each week than those who quit unaided, but their alcohol consumption was similar to those who quit with NRT. Data on differences in high-risk drinking and attempts to cut down alcohol consumption among high-risk drinkers were inconclusive.

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The British Cardiovascular Intervention Society (BCIS) percutaneous coronary intervention (PCI) registry is hosted by the National Institute of Cardiovascular Outcomes Research (NICOR) at Bart’s Heart Centre and collects clinical characteristics, indications, procedural details, and outcomes of all patients undergoing PCI in the UK. The data are used for audit and research to monitor and improve PCI practices and patient outcomes. Bespoke live data analysis and structured monthly reports are used to provide real-time feedback to all participating hospitals about the provision of care. Risk-adjusted analyses are used as a quality metric and benchmarking PCI practices. The consecutive patients undergoing PCI in all PCI performing hospitals in the UK from 1994 to present. One hundred and thirteen variables encompassing patient demographics, indication, procedural details, complications, and in-hospital outcomes are recorded. Prospective data are collected electronically and encrypted before transfer to central database servers. Data are validated locally and further range checks, sense checks, and assessments of internal consistency are applied during data uploads. Analyses of uploaded data including an assessment of data completeness are provided to all hospitals for validation, with repeat validation rounds prior to public reporting. Endpoints are in-hospital PCI complications, bleeding and mortality. All-cause mortality is obtained via linkage to the Office of National Statistics. No other linkages are available at present. Available for research by application to NICOR at http://www.nicor.org.uk/using a data sharing agreement.

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