Gloucestershire Hospitals Inaugural Festival of Quality Improvement, Research & Innovation

10th – 12th September 2019

Programme
# Gloucestershire Festival of Quality Improvement, Research & Innovation

**Tuesday 10th September 2019 - Gloucestershire Royal Hospital**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td><strong>09.00</strong></td>
<td>Festival Opens: posters on display in Gloucestershire Royal Hospital</td>
<td>Atrium Conservatory</td>
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## Planned Care Poster Presentations

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<tbody>
<tr>
<td>13.00</td>
<td>Zone 1</td>
<td>Increased memory strategy use following attendance at a single-session 'memory group' intervention</td>
<td>Andy Champion, Clinical Psychologist</td>
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<tr>
<td>13.05</td>
<td>Zone 1</td>
<td>Identification of IBD cohorts from linked endoscopy and histology reports using natural language processing</td>
<td>Professor Jonathan Brown, Consultant Gastroenterologist</td>
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<tr>
<td>13.10</td>
<td>Zone 2.6</td>
<td>Introducing Hypnobirthing Courses across Gloucestershire in order to reduce anxiety of and increase preparedness for birth</td>
<td>Annie Lester, Professional Midwifery Advocate</td>
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<tr>
<td>13.15</td>
<td>Zone 1</td>
<td>Palliative Care Indicator Tool for Patients with End Stage Liver Disease</td>
<td>Deborah Durrant, Senior Liver Specialist Nurse &amp; Gabby Prideaux, Liver Specialist Nurse</td>
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## Emergency Care Poster Presentations

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<td>13.20</td>
<td>Zone 1</td>
<td>Critical Care Paediatric Grab Bag - Improving the quality of care by improving design</td>
<td>Marcin Pachucki, Consultant in Intensive Care Medicine &amp; Anaesthesia</td>
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<tr>
<td>13.25</td>
<td>Zone 1</td>
<td>Patients' experiences of a medicines-related hospital admission and accessing medicines information: a qualitative study of hospital in-patients</td>
<td>Jennifer Veeran, Clinical Pharmacist</td>
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<tr>
<td>13.30</td>
<td>Zone 1</td>
<td>Level 1 Infuser Training Video</td>
<td>Dr Michael Connelly, Trust Doctor - Emergency Department</td>
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## Cancer Care Poster Presentations

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<td>13.35</td>
<td>Zone 2.5</td>
<td>Enhanced Supportive Care</td>
<td>Kate Tredgett, Consultant in Palliative Medicine</td>
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<tr>
<td>13.40</td>
<td>Zone 1</td>
<td>Can you PACE yourself? The power of language to flatten hierarchy and empower multi-disciplinary healthcare teams in simulated critical scenarios.</td>
<td>Louise Le Hegarat, Oncology Practice Development Nurse &amp; Emily Darvill, SAS Doctor</td>
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<tr>
<td>13.45</td>
<td>Zone 1</td>
<td>Reducing the length of stay for an end of life patient on the oncology/haematology wards</td>
<td>Lindsay Vickerstaff, Senior Occupational Therapist</td>
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<tr>
<td>13.50</td>
<td>Zone 1</td>
<td>Improving the availability of ER and HER2 results for breast cancer (BC) patients at breast Multi-Disciplinary Team (MDT) meetings.</td>
<td>Siobhan Taylor, Clinical Scientist</td>
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## Emergency Care Poster Presentations

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<tr>
<td>13.55</td>
<td>Zone 3.2</td>
<td>An open-label, randomised controlled feasibility study to evaluate whether nasal fentanyl alone and in combination with buccal midazolam give better symptom control to dying patients when compared with standard as needed medication MOVE FOR 1.55</td>
<td>Anne Parkinson, Research Nurse, Sue Ryder Hospice</td>
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**Posters on display in Gloucestershire Royal Hospital**

Atrium Conservatory | Outpatients Corridor | 1st Floor Balcony

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**BEST CARE FOR EVERYONE**
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<tr>
<th>All day</th>
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<tr>
<td>1</td>
<td>13.00 Zone 1</td>
<td>The use of clinical evidence in commissioning adult squint surgery</td>
<td>Catherine Billington, Senior Orthoptist</td>
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<td>2</td>
<td>13.05 Zone 2.1</td>
<td>Development of outpatient 'LocSSIPs' for the Oral &amp; Maxillofacial Department - the Gloucestershire Experience.</td>
<td>Andrea Beech, Consultant Oral Surgeon</td>
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<tr>
<td>3</td>
<td>13.10 Zone 2.1</td>
<td>Keeping the Home in Homeostasis; saving bed days through an outpatient blood monitoring service with day case intravenous fluid and electrolyte replacement.</td>
<td>Margaret Collins, Specialist Nurse, Nutrition Support Team</td>
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<tr>
<td>4</td>
<td>13.15 Zone 2.5</td>
<td>WHO Checklist - The Writing’s on the Wall</td>
<td>Dr Tom Knight, Consultant Anaesthetist</td>
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<td><strong>Cancer Care Poster Presentations</strong></td>
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<tr>
<td>5</td>
<td>13.20 Zone 1</td>
<td>Improving the Breast Cancer patient pathway with the appointment of a Consultant Breast Radiographer (CBR)</td>
<td>Ruth Bees, Consultant Breast Radiographer</td>
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<tr>
<td>6</td>
<td>13.25 Zone 2.4</td>
<td>Inter-fractional uterine and cervix motion during radiotherapy for cervix cancer</td>
<td>Gillian Bestwick, FOCUS Research Radiographer</td>
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<td><strong>Emergency Care Poster Presentations</strong></td>
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<tr>
<td>7</td>
<td>13.30 Zone 2.5</td>
<td>Management of Challenging Patients</td>
<td>Deborah Elliott &amp; Sarah Mather, Senior Sisters in Critical Care</td>
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<tr>
<td>8</td>
<td>13.35 Zone 2.9</td>
<td>Feasibility Trial of Trauma Assessment and Treatment Unit</td>
<td>Will Mason, Consultant Trauma &amp; Orthopaedic Surgeon</td>
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<td><strong>Planned Care Poster Presentations</strong></td>
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<td><strong>‘Other Category’ Poster Presentations</strong></td>
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<tr>
<td>10</td>
<td>13.45 Zone 3.2</td>
<td>Not another ice-breaker… Developing an innovative induction programme for medical students on clinical placements</td>
<td>Zoe Brown, Clinical Teaching Fellow</td>
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<tr>
<td>11</td>
<td>13.50 Zone 3.1</td>
<td>Acts of Kindness; An intervention to support undergraduate medical student’s wellbeing during clinical placement</td>
<td>Lowri Bowen, Clinical Teaching Fellow</td>
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<tr>
<td>13.00</td>
<td>Zone 2.6</td>
<td>Reduction in blindness rates since the introduction of digital photographic screening in an English diabetic eye screening programme</td>
<td>Angela Dale, Ophthalmic &amp; Vision Sciences Practitioner (AHCS)</td>
<td></td>
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<tr>
<td>13.05</td>
<td>Zone 2.2</td>
<td>Macmillan Specialist Psychology Survivorship Project</td>
<td>Rachael Edge, Clinical Psychologist</td>
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<tr>
<td>13.10</td>
<td>Zone 2.7</td>
<td>Improving specialist care for patients with Nephrostomies</td>
<td>Jonathan Cobley, Urology Registrar</td>
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<tr>
<td>13.15</td>
<td>Zone 2.9</td>
<td>GHFT Finance Team - Our Journey to Outstanding ‘Count Me In!’</td>
<td>Hayley Summers, Programme Facilitator</td>
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<tr>
<td>13.20</td>
<td>Zone 2.6</td>
<td>GloStars: Gloucestershire Hospitals Staff transition and support network for newly qualified professionals</td>
<td>Charlotte Jakab-Hall &amp; Sophie Finch-Turner, Chief Nurse Junior Fellows</td>
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<tr>
<td>13.25</td>
<td>Zone 2.3</td>
<td>Medicines Optimisation Pharmacy Assistants on Wards (MO ATO)</td>
<td>Phoebe Davis, Chief Pharmacy Technician</td>
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<tr>
<td>13.30</td>
<td>Zone 2.3</td>
<td>Patient Health Information Enquiry Service - the antidote to Dr Google</td>
<td>Lisa Riddington, Library &amp; Knowledge Services Manager</td>
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<td>13.35</td>
<td>Zone 2.7</td>
<td>Developing a research positive culture in Renal Medicine</td>
<td>Jim Moriarty, Consultant Nephrologist</td>
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<tr>
<td>13.40</td>
<td>Zone 2.8</td>
<td>The introduction of dietetic supplementary prescribing in the renal dialysis population in the management of Chronic Kidney Disease-Mineral Bone Disorder (CKD-MBD)</td>
<td>Liz Brice &amp; Sally Pugh, Renal Dieticians</td>
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<tr>
<td>13.45</td>
<td>Zone 3.1</td>
<td>Comparison of metrics used in The Royal College of Ophthalmologists’ National Ophthalmology Database Audit, between all contributing centres and Gloucestershire Hospitals NHS FT</td>
<td>Paul Donachie, Medical Statistician for The Royal College of Ophthalmologists National Ophthalmology Database</td>
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<tr>
<td>13.50</td>
<td>Zone 3.2</td>
<td>RCPCH QI Diabetes Collaborative: Improving the Clinic Experience</td>
<td>Vellore Abithakujambal, Consultant Paediatrician</td>
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<tr>
<td>15.30</td>
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<td>Festival Closes in Gloucestershire Royal. Posters are still on display in Sandford Education Centre café with poster presentations taking place in Sandford from 16.30-18.00 ahead of the Annual Members Meeting.</td>
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<td>Time</td>
<td>Event</td>
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<tr>
<td>09.00</td>
<td>Posters on display in Sandford Education Centre Café</td>
<td>Sandford Education Centre, Cheltenham</td>
<td>Posters on display in Sandford Education Centre Café</td>
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<tr>
<td>16.30</td>
<td>Poster presenters standing with their posters to discuss their work</td>
<td>Sandford Education Centre Café</td>
<td>Poster presenters standing with their posters to discuss their work</td>
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**Emergency Care Poster Presentations**

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<td>Improving specialist care for patients with Nephrostomies</td>
<td>Jonathan Cobley, Urology Registrar</td>
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<td>2</td>
<td>An appetite for improvement: reducing the incidence of bloodstream infections in patients receiving parenteral nutrition via a central venous catheter</td>
<td>Margaret Collins, Specialist Nurse, Nutrition Support Team</td>
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<tr>
<td>3</td>
<td>Management of Challenging Patients</td>
<td>Sarah Mather and Deborah Elliott, Senior Sisters in Department of Critical Care</td>
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<tr>
<td>4</td>
<td>From Older Person Assessment &amp; Liaison (OPAL) to Frailty Assessment Service (FAS) and beyond</td>
<td>Donna Little, Advanced Clinical Practitioner</td>
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<tr>
<td>5</td>
<td>Care of homeless inpatients: are we up to standard?</td>
<td>Victoria Gaunt, Medical Registrar</td>
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<td>Vellore Abithakujambal, Consultant Paediatrician</td>
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<td>7</td>
<td>Oral vs intravenous pulsed alfalcacidol for the treatment of secondary hyperparathyroidism in haemodialysis patients - an audit of efficacy and cost</td>
<td>Jim Moriarty, Consultant Nephrologist</td>
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**Cancer Services Presentations**

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<td>Gillian Bestwick, FOCUS Research Radiographer</td>
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<td>9</td>
<td>Comparison of M5 and M6 versions of the MARIA® imaging system in patients attending symptomatic breast clinic at Thirlestaine Breast Centre, including a sub-study to research the dielectric constant of aspirated cyst fluid.</td>
<td>Richard Sidebottom, Consultant Radiologist</td>
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<tr>
<td>10</td>
<td>Service evaluation project on the use of adaptive planning target volume (PTV) margins for prostate radiotherapy</td>
<td>Anne McKenna, Research Lead Radiographer</td>
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**‘Other Category’ Poster Presentations**

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<td>Transforming induction for medical students with the use of in situ simulation</td>
<td>Lowri Bowen, Clinical Teaching Fellow</td>
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<td>12</td>
<td>Developing a positive staff culture using Restorative Clinical Supervision</td>
<td>Jo Daubeney &amp; Annie Lester, Professional Midwifery Advocates</td>
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ZONE 1
1. Critical Care Paediatric Grab Bag - Improving the quality of care by improving design

Purpose/Problem
We ascertained that there could be an improvement in rapid accessibility of emergency equipment required for intubation and ventilation if there was a logical layout of the DCC Paediatric Grab Bag. Previous ‘transfer bag’ had bulky design, was excessive in weight with poor organisation and presence of non-emergency equipment (Photo 1).

Method
The transfer bag was reorganised and newly labelled (Photo 2). Compartments for paediatric intravenous (IV) access, defibrillation pads, intubation essentials, paediatric airway equipment organised in age/weight fashion were included. The airway equipment was ordered into 5 categories/pouches: neonate, infant, preschool, primary school, big child. Non-emergency stock was removed from the bag. A new checklist was devised (Figure 1) to aid with re-stocking after use and to ensure all equipment is checked after each use. A tag system on all the zips has been implemented to advise when the bag was last checked and subsequently sealed.

Results
DCC staff informally report a greater level of satisfaction with the new style of transfer bag and with this a greater confidence in managing airway emergencies in non-theatre environment. This increasing confidence seems to stem from the fact that staff will be able to access emergency equipment in a constant and familiar format.

Conclusion
Complications and delays in airway management due to unfamiliarity with emergency equipment should be avoidable. The re-organisation of the Critical Care paediatric ‘grab bag’ appears to be a relatively simple but effective intervention in improving safety of providing airway management for a paediatric patient.

Poster Authors:
- Dr Marcin Pachucki, Consultant in Intensive Care Medicine & Anaesthesia
- Dr Michelle Winter
2. Patients’ experiences of a medicines-related hospital admission and accessing medicines information: a qualitative study of hospital in-patients

Purpose
This research aimed to find out about patients’ experiences of a medicines-related hospital admission and who they seek medicines information from.

Problem
Research has shown that up to 7.7% of hospital in-patient admissions are due to medicines-related problems. Many studies have focussed on the medicines responsible, and consequences of these admissions, but little is known about patients’ experiences.

Method
Patients admitted to in-patient wards at Gloucestershire Royal Hospital with a medicines-related problem were identified by hospital staff. They were given information about the study and invited to be interviewed about their experiences. Semi-structured interviews were audio-recorded and transcribed verbatim. They were analysed using interpretative phenomenological analysis (IPA), an in-depth technique that aims to find out about a person’s lived experience and how they interpret it. This involves interviewing a relatively small number of participants in detail about their experiences.

Results
Seven patients were interviewed; the analysis of the interviews found that patients described their medicines-related hospital admission as ‘terrible’ and ‘being in hell’.
There were differences in opinion about who participants would ask about their medicines and this depended on two factors; accessibility and trust. Some patients lacked confidence in their ability to understand and retain medicines-related information. Even patients who thought that community pharmacists provided the best medicines information would not personally use them.

Conclusion
Patients are adversely affected by a medicines-related hospital admission and vary in who they seek medicines-related information from. Challenges exist in encouraging patients to engage better with community pharmacists.
3. An appetite for improvement: reducing the incidence of bloodstream infections in patients receiving parenteral nutrition via a central venous catheter

**Background**
A bloodstream infection (BSI) is a recognised risk associated with Parenteral Nutrition administered via a central venous catheter (CVC). It can be life-threatening, leads to an extended hospital stay and can mean 7-14 days without nutrition. NICE estimate that the cost of each catheter-related BSI is £9,000.

**Aim**
50% reduction in the incidence of BSI associated with a CVC in patients receiving PN in an adult ward by end of 2018.

**Method**
Monthly BSI rates are recorded with the number of days of PN administered used as a balancing measure. A Root Cause Analysis tool (RCA) was developed to investigate each BSI. Findings were reported to ward managers as part of the DATIX process. The most commonly occurring factors from the RCAs guided driver diagram planning for improvement. Pop-up ward based teaching for nursing staff were used to highlight the risk factors for patients developing a BSI and clarify best practice for management of CVC and PN.

In partnership with the Vascular Access team single lumen peripherally inserted CVCs were introduced to reduce the risk of BSI. In high risk patients, protective cleaning lids for CVC lumens were introduced.

**Results:**
49.6% reduction in BSI rates by August 2018. 55.4% reduction to end April 2019.

**Implications:**
RCA revealed a number of factors contribute to a patient developing BSI requiring different strategies to improve BSI rates.

**Next Steps:**
- an e-learning module for PN is being developed
- ward-based Care of CVC update training for nurses is on going.

**Poster Authors:**
- Margaret Collins, Specialist Nurse, Nutrition Support Team
4. Level 1 Infuser Training Video

Background
The Level 1 Infuser is a device used to infuse large volumes of warmed fluid or blood into a patient suffering from significant blood loss and haemodynamic compromise. This causes rapid improvement in haemodynamic status and avoids the complications of cold fluid administration such as hypothermia and coagulopathy.

Problem
The infuser is indicated in situations involving acutely unwell patients who require timely intervention, but its set up is more complex than simple fluid administration. The situations in which it would be beneficial are infrequent in the department. This means that nursing staff are not confident in its deployment and it is therefore underutilised leading to suboptimal patient care.

Method
In order to improve staff confidence in its set up a video resource was produced. This was filmed in the location where it would be used by staff and included specific instructions on where all necessary parts were located and how to set it up ready for use. This video would be used to initially train staff and subsequently made available online so that staff could access it whenever needed.

Results
The video is now utilised in training all new nursing staff members. Formal results of the staff survey to follow for poster presentation but anecdotally after watching the video staff report that they are confident preparing the infuser ready for use and significant “reassurance” that it can be re-watched at any time.

Conclusion
Teaching videos are an effective way of educating staff and increasing confidence in the usage of infrequently required equipment.

Poster Authors:
- Dr Michael Connelly Trust Doctor
- Faye Dagger
- Graham Rowe
- Sam Brown
5. Identification of IBD cohorts from linked endoscopy and histology reports using natural language processing

Purpose
This service evaluation project (8622) investigated the potential for natural language processing (NLP) algorithms to comprehend free text reports within electronic patient records (EPR) to characterise a countywide inflammatory bowel disease (IBD) cohort.

Problem
Patients with IBD are likely to undergo multiple lifetime endoscopic procedures which generate histopathological reports. Managing these patients requires clinicians to derive a phenotypic overview from numerous episodes and diverse sources which can be time consuming, incomplete and subjective.

Method
118,108 lower GI endoscopic procedure reports (2002-2017) and 62,051 lower GI histology reports (2008-2017) from GRH were pseudo-anonymised with hexadecimal GUIDs and imported into an SQL database. Text processing was undertaken in Python pandas dataframes and involved conversion to lower case, key word spelling correction, sentence tokenization and regular expression identification of diagnoses with supporting or negating text.

Results
A 64 bit desktop computer took 11 minutes to identify 2119 colitis, 1166 Crohn’s and 231 IBD unclassified patients. The algorithms were 100% sensitive and specific at distinguishing index cases from follow up procedures, 100% sensitive at identifying IBD in linked histology reports and 98% specific at rejecting diagnoses other than IBD.

Conclusion
NLP offers a powerful tool for the automated characterisation of IBD cohorts from text in semi-structured endoscopy and histology reports. The potential for the scheduling of surveillance and linkage to other systems, such as primary care prescribing, are obvious. The technology in the context of an EPR could be applicable many other chronic disease cohorts.

Poster Authors:
- Professor Jonathan Brown, Consultant Gastroenterologist
6. Increased memory strategy use following attendance at a single-session 'memory group' intervention

**Purpose**
To evaluate the efficacy of an outpatient memory group intervention that can practically be provided in an acute hospital setting.

**Problem**
Typical 'memory group' interventions often run over several sessions; the resources to facilitate this are not necessarily available in acute general hospital settings.

**Method**
Following an initial pilot study, a single-session memory group intervention is run regularly at GRH for outpatients. A questionnaire assessing use of the memory strategies covered is administered before the session and at one-month follow-up.

**Results**
Based on 106 completed before-and-after questionnaires, there is a statistically significant increase in the use of memory strategies following attendance at the group session, equating to an average per attendee of 2.4 more strategies used most days. In addition, a high proportion of attendees report feeling less distressed by their memory difficulties (74%) and more confident in managing their condition (78%). There is high patient satisfaction with attendance at the group (97%).

**Conclusion**
The results indicate that a single-session group intervention providing information about memory difficulties and describing/demonstrating the use of compensatory strategies is related to increased use of memory strategies at one-month follow-up. This suggests that it is a worthwhile use of resources in an acute general hospital setting in which limited time and resources are available.

**Poster Authors:**
- Andy Champion, Clinical Psychologist
- Mark Giles
- Aileen Thomson
7. Palliative Care Indicator Tool for Patients with End Stage Liver Disease

Background/Problem
Liver disease is the only major cause of death still increasing year-on-year, twice as many people now die from liver disease as in 1991.
From the Bereavement Voices Survey it was found where Liver disease was mentioned, carers were more likely to rate the coordination of care as not working well together compared to other illnesses.
People dying from Liver disease often have complex end of life care needs and >70% die in hospital, even though this is not necessarily their wish.
From our experience, patients are unaware of their poor prognosis and therefore not had any discussions regarding their wishes in end of life. This means that when a patient deteriorates suddenly, it can be too late to have these discussions, therefore their wishes not known and also patient and family are often unprepared.

Aim
To identify patients that require poor prognosis discussion and palliative care input with the implementation of a poor prognostic screening tool for the deteriorating patient with End Stage Liver Disease. Our aim was that 80% of patients that scored using the tool had a poor prognosis discussion and letter sent to GP and referrals were made to district nurses or palliative care.

Method
After researching poor prognosis tools used by other trusts and discussing ideas with the lead hepatology consultant, we created our own Palliative Care Indicator tool. Using the tool, we assessed appropriate patients that had decompensated liver disease who attended the Medical Day Unit for paracentesis.

Results
Looking at the baseline date the number of patients who had poor prognosis discussion, referral to district nurses or palliative care and poor prognosis letter to GP was 50%. After 6 months using the tool this had improved to 100%.

This meant that patients were more aware of their prognosis, which enabled an open discussion therefore allowing more choice in regards to end of life care, for example chosen place of death.

It also meant that patients were better supported in the community as district nurses or palliative care are aware of their needs and can carry out their own assessments. This in turn has encouraged working alongside the community teams which has allowed us to work collaboratively to achieve the best care for the patients.

Implications
It has highlighted the importance of patients being assessed as soon as it’s appropriate to allow these discussions to be had, as it had become apparent that previously patients were unaware of their poor prognosis, which meant sometimes their wishes were not discussed in time.
Now that the tool has been passed by the documentation group, we intend to roll this out to the gastroenterology ward in CGH, with the overall aim for it to be utilised by the trust as whole.

Poster Authors:
- Deborah Durrant - Senior Liver Specialist Nurse
- Gabby Prideaux - Liver Specialist Nurse
8. The use of clinical evidence in commissioning adult squint surgery

Introduction
Adult squint surgery for patients without binocular vision is considered low priority for funding. In January 2018 Gloucestershire Hospitals NHSF Trust reviewed the funding of adult cosmetic squint surgery. Using several sources of clinical evidence we were able to persuade the commissioning group to continue routine funding of this important treatment.

Methods
The Adult Strabismus Quality of Life Questionnaire (AS-20) is routinely used in the assessment of adults having squint surgery. Pre and post-operative scores for the 3 years prior to 2018 were presented to the commissioning group along with Royal College of Ophthalmology guidance and data obtained from Medisoft EPR detailing our own department’s throughput of patients. This provided a robust argument for the cost-effectiveness of this type of surgery in context with other procedures.

Results
The AS-20 scores showed an improvement following surgery with the average increasing from 43.45 out of 100 to 80.03. The psychosocial subscale showed the biggest improvement. 105 squint operations were performed on non-binocular patients over 5 years. Treating 21 patients per year equates to the cost of treating 2 anti-VEGF patients for the same period.

Conclusion
Due to financial pressures procedures seen to be “cosmetic” are at risk of being decommissioned. By documenting quality of life information as well as electronically recording clinical improvements following strabismus surgery the clinician has robust clinical evidence instantly available to present to commissioners, which can be used to inform policy making.

Poster Authors:
- Catherine Billington, Senior Orthoptist
- Andrew Robinson
- John Ferris
9. Can you PACE yourself? The power of language to flatten hierarchy and empower multi-disciplinary healthcare teams in simulated critical scenarios

Introduction
Potentially harmful mistakes in healthcare are often the consequence of poor communication among teams.1 Reasons for this communication breakdown are multi-factorial, but within healthcare a hierarchy, whether perceived or real can contribute to a reluctance to challenge decision making.2 In response to a serious untoward incident, a programme of in situ simulation training sessions was developed to replicate oncological emergencies. Sessions are delivered to multi-disciplinary groups, with a focus on non-technical skills and human factors. The hypothesis was that participants would have an increase in confidence to challenge decision making following the training.

Method
A multi-disciplinary group works together in a scripted high fidelity simulation, held in situ on an acute oncology ward. The simulation mimics a typical oncological emergency, for example neutropenic sepsis. The focus is on communication skills, clear handover and the challenging of decision making where necessary. Human factors challenges and interruptions are worked into the scenario to increase the realism. Participants are introduced to the PACE (Probe, Alert, Challenge, Emergency) acronym to aid them in communicating when faced with a steep hierarchical gradient. Participants take part in a structured debrief following the scenario.

Results
An attitudes questionnaire based on Kirkpatrick’s model was used to collect data.3 Participants completed a questionnaire pre and post the simulation. The results demonstrate that 55% of participants felt more confident to challenge decision making. Participants also reported an increased knowledge of relevant trust protocols/algorithms.

Conclusion
In situ multi professional simulation training allows an opportunity for oncology team members to practice non-technical skills in a safe, realistic environment. The increased confidence levels represent a positive start to this research. This work is action research and a PDSA (plan, do, study, act) cycle is completed after each session. Sessions are quarterly, and are adapted to cover a wide range of oncology topics.

References

Poster Authors:
- Louise Le Hegarat, Oncology Practice Development Nurse
- Emily Darvill, SAS Doctor
10. Improving the Breast Cancer patient pathway with the appointment of a Consultant Breast Radiographer (CBR)

Introduction
Adjuvant breast radiotherapy comprises a significant workload for radiotherapy centres. Improvement in cancer patients’ experience and reductions in waiting times are at the forefront of NHS England’s drive to achieving world-class cancer treatment (1). Allied Health Professionals are increasingly being developed into specialty consultant roles to improve cancer services (2) and address the national Consultant oncology workforce challenge (3, 4).

The CBR was appointed to attend breast MDTs, run new/follow-up patient clinics and supervise radiographer-led breast planning. This post replaced Consultant Oncology sessions.

Method
Quality Measure Indicators (QMI) were collected for 20 patients before/after the CBR appointment. QMI 1 = Time (days) from surgery to start of radiotherapy. QMI 2 = Time (days) from MDT to oncology consultation. QMI 3 = Patient experience at CBR consultation. QMI 4 = number of new patients seen by CBR over 6 months.

30 radical breast radiotherapy patients were given patient experience surveys.

Results
QMI 1: time from surgery to radiotherapy start decreased by 12.7%. QMI 2: time from MDT to oncology consultation decreased by 45.2%. QMI 3: 70% surveys returned: 100% understood the recommendation, side-effects and could give informed consent for radiotherapy; 95.2% understood the radiotherapy pathway. QMI 4: new referrals: increased by 15.6%, the CBR undertook 19.6% workload.

Conclusion
The introduction of a CBR at our Trust significantly reduced time to new patient consultation and radiotherapy start; and demonstrated excellent patient experience for patients, despite the increase in new referrals. Consultant radiographer posts need to be expanded to develop and improve clinical oncology services.

References

Poster Authors:
- Ruth Bees, Consultant Breast Radiographer
- Dr Charles Candish
- Dr Jo Bowen
- Dr Clive Charlton
11. Improving the availability of ER and HER2 results for breast cancer (BC) patients at breast Multi-Disciplinary Team (MDT) meetings

Background/Purpose
Establishing the ER and HER2 status for BC patients at the time of breast MDT meeting is essential for clinicians to make informed decisions to achieve clinical management of care for patients with (BC) being compliant with NICE guidelines.

Problem
In 2017, 50-80% patients were discussed at their 1st MDT meeting with ER/HER2 results. Continuous quarterly audits of HER2 turnaround times (TAT) did not show drastic improvements, despite changes made to the laboratory workflow.

Method
In June 2018, an audit investigating HER2 result TAT and the availability of HER2 result at MDT was performed to give baseline data. An in-depth analysis of the breast core biopsy pathway (sample taken in clinic to result issued at pathology) was performed. New testing strategies were discussed between the Clinicians, Pathologists and Laboratory teams.
In August 2018, a new strategy for testing was implemented; new pathways within the laboratory were introduced and tested through a series of Plan-Do-Study-Act (PDSA) cycles.
Repeat audit in September was performed to assess the impact of these changes.

Results
• An increase in the percentage of cases available for discussion with a ER/HER2 result at MDT from 31% to 91%.
• A reduction in ER/HER2 result average TAT by 4 days.

Conclusion
Improvement of ER/HER2 testing pathways in the Cellular Pathology Department has led to an overall improvement in the ER/HER2 results TAT, and their availability MDT. This ensures compliance with NICE guidelines and has the ultimate impact on patient management.

We have raised awareness of Cellular Pathology and the processes samples must go through for analysis and ER/HER2 testing.

Poster Authors:
• Siobhan Taylor, Clinical Scientist
• Leanne Hughes
• Margaret Ralphs
• Debs Robinson
• Dr Patricia Vergani
12. Reducing the length of stay for an end of life patient on the oncology/haematology wards

Background
Fast track continuing healthcare funding (FT CHC) provides immediate funds for care for individuals at the end of their life. These individuals are expected to have a poor prognosis, all active treatment withdrawn and to be deteriorating rapidly. On some wards the palliative care team, doctors, ward nurses, specialist nurses or the onward care team complete the applications.

Problem/Purpose
On Lilleybrook and Rendcomb ward these applications were completed by the palliative care team (but only if they were complex patients). If their needs were not complex, then the ward doctors and nurses would complete the referrals. The doctors would complete the supporting statement whilst the ward nurses would complete the care plan. These often weren’t well coordinated and delays started to be evident in the applications being sent to CHC.

Method
As a therapy team (OT/PT) in conjunction with the advanced nurse practitioner, we decided to take the lead in completing these applications and coordinate the discharge plans. We decided we would complete the application and have conversations with the family to ensure their needs were met. We collected statistics to identify the timescales of when a patient was declared suitable for FT CHC funding and when the application was submitted.

Results
We identified that patients waited a median of 2 days in hospital before the FT CHC application was submitted. The therapy team collected statistics which highlighted that the referrals were done within a median of 1 day.
ZONE 2.1
13. Ensuring all Deaf British Sign Language (BSL) users experience effective communication with the Trust

Background/Problem
Imagine being in pain, feeling anxious and having to come into a busy hospital for care and treatment. Now add to that scenario the fact that you live in a silent world and can observe others talking, but not take part. How must it feel to be addressed soundlessly, to be examined, moved and touched while watching others communicating with ease about you, but not with you?
This project is about putting processes in place to facilitate effective communication between Trust staff and Deaf patients using our services.

Aim
My aim is for 100% of Deaf BSL-users to experience good quality 2-way communication in all of their dealings with the Trust. This will improve the patient’s experience and ensure that staff can carry out their tasks and deliver care effectively.

Method
Working closely with Gloucestershire Deaf Association, I listened to ‘lived experiences’ of Deaf BSL users. The ‘Deaf Communication Card’ and reception counter-top notice were created as a result, raising awareness and empowering our Deaf patients. Our patients’ letter template has been reworked into Plain English and has a more concise format.
With help from GDA and Trust staff, accurate communication needs alerts are now on Patients’ TrakCare records, stating that they are Deaf BSL users. This means that whenever the patient’s record is accessed, their communication need is shared.

Results
The results of putting these processes in place have been virtually instant improvements. The Trust is aware of a Deaf patient’s communication needs at the start of their journey with an appointment letter and the timely booking of a BSL interpreter.

Implications
The principles and methods used in this project can be adapted to suit patients with other communication needs, such as people with impaired hearing whose needs are completely different to those who are Deaf and people with visual or speech impairment.

Poster Authors:
- Carol McIndoe, Patient Experience Improvement Manager - Disability Equality
14. Setting up a Urology Emergency Skills Course

**Background**
Exposure to Urology is under-represented at medical school and studies have shown that up to a third do not feel confident managing urological emergencies. Many junior doctors will never rotate through Urology during their training; however, urological emergencies such as urinary retention can happen to any patient, in any specialty, at any time.

**Aim**
Urology emergency skills are not difficult to learn and by increasing exposure in a controlled environment with highly experienced trainers we hoped to improve attender's confidence at managing these common situations and reduce the burden upon a busy acute urology service.

**Method**
Our brief for the course was that it should be free, convenient (not requiring study leave) and open to all. The faculty for the course were the urology registrars providing training on 4 areas: simple/complex catheterisation, suprapubic catheterisation, haematuria/bladder washout & nephrostomy management. Equipment and facilities were provided by the Sandford Education Centre. Models were provided by Mediplus.

**Results**
20 people attended the course on May 29th which ran from 6.30-9pm with attenders ranging from junior doctors to HCAs. It ran smoothly and we received excellent feedback with 100% of attenders saying they would recommend the course to a colleague.

**Next steps**
Looking forward, the Urology themed core trainees will organise the course which will provide excellent experience and help with specialty interviews. There are several departments that we think would benefit from the course, in particular ED & community healthcare. We are therefore running another course in August and intend to hold several courses each year.

**Poster Authors:**
- Matthew Crockett, Urology ST7 Doctor
15. Development of outpatient 'LocSSIPs' for the Oral & Maxillofacial Department - the Gloucestershire Experience

**Purpose**
To improve patient safety and overall experience by adapting current National Safety Standards for Invasive Procedures (NatSSIPs) to develop a Local Safety Standard for Invasive Procedures (LocSSIPs) for use in the Oral & Maxillofacial Surgery outpatient department of a district general hospital.

**Method**
Two proformas were developed to be used peri-surgically for all outpatient oral and maxillofacial procedures in the Trust; the first as a pre-operative / post-operative session checklist and the second as a checklist for each individual patient during their treatment. Colleague feedback was gained on how they felt this process had affected patient safety. Patient feedback was also taken.

**Results**
Verbal patient feedback was overwhelmingly positive. Colleague feedback was also good and uptake of the checklists was excellent 6 months after introduction. Incident reporting was also more common especially for missing notes and faulty equipment, which in the past had been poorly reported. No 'Never Events' occurred during data collection.

**Conclusion**
Patient and colleague feedback was good following the introduction of the LocSSIPs checklists. We encourage other surgical colleagues to introduce these to their outpatient surgical practice / environment. We believe this has improved the safety and overall experience of our patients.

**Poster Authors:**
- Thomas Lees, Associate Specialist: Oral & maxillofacial surgery
- Andrea Beech, Consultant Oral Surgeon
16. Keeping the Home in Homeostasis; saving bed days through an outpatient blood monitoring service with day case intravenous fluid and electrolyte replacement

**Background**
Patients with high output ileostomy or malabsorption frequently require intravenous (IV) replacement therapy to maintain health. This patient cohort are at risk of re-admission with acute kidney injury.

**Aims**
1. Allow safe discharge of those patients reliant on frequent IV fluids and/or electrolytes.
2. Reduce the incidence of re-admission with AKI and deranged electrolytes.

**Method**
The Nutrition Support Team identified patients at risk of dehydration and electrolyte imbalance. A nurse-led blood monitoring service was set up with day case attendance for IV fluid and electrolyte replacement as required. IV fluids and electrolytes were predominantly prescribed by the specialist nurse. The NST multidisciplinary team guided ongoing management of complex patients. Face-to-face follow up was achieved in parallel to day case attendance for IV replacement or at the NST outpatient clinic.

**Results**
Estimated bed-days saved avoiding a 5 day re-admission with AKI per 6 months
Jul–Dec 2015: 45
Jan-Dec 2016: 350

Estimated bed-days saved avoiding 2 day inpatient stay for IV magnesium
Jul–Dec 2015: 6
Jan-Dec 2016: 60

Actual bed-days saved by avoiding extended length of inpatient stay
Jul–Dec 2015: 98
Jan-Dec 2016: 799

Total bed-days saved
Jul–Dec 2015: 149
Jan-Dec 2016: 1209

**Conclusion**
The NST outpatient blood monitoring service, with day case IV fluid and electrolyte replacement saves bed days and keeps patients at home. It allows at risk patients to avoid lengthy inpatient stay and readmission with AKI. The multidisciplinary NST delivers comprehensive management of a complex patient group. Independent nurse prescribing enhances the efficiency of the service. This service is on-going.

**Poster Authors:**
- Margaret Collins, Specialist Nurse, Nutrition Support Team
- Alexandra di Mambro
- Mathangi Balasubramani
- Robert Cronin
- Sarah Price
- Jennie Dawson
- Zeinab Zakir
- Joanna Senior
17. Comparison of M5 and M6 versions of the MARIA® imaging system in patients attending symptomatic breast clinic at Thirlestaine Breast Centre, including a sub-study to research the dielectric constant of aspirated cyst fluid.

This study builds on previous work undertaken in healthy volunteers. The MARIA® breast imaging system is a CE-marked radio-frequency medical imaging device that uses an electromagnetic technique to exploit contrasts between normal, benign and malignant tissues. The device requires the patient to lie prone with their breast positioned within a scanning cup, with an antenna array housed underneath.

There are three recruitment routes for this study:

1) A comparison study between images obtained between the M5 array and the M6 array when the patient is not removed from the cup insert between scans. This is analysing back-to-back repeatability between the systems and within each system itself.

2) A comparison study between images obtained between the M5 array and the M6 array when the patient is asked to sit up between scans. This is measuring repeatability after the disruption of the patient getting up and then repositioning themselves for the scan.

3) A study to measure the dielectric constant of routinely aspirated cyst fluid to analyse differences in this measurement depending on cyst type. This research is believed to be the first of its kind that the authors are aware of.

Study approved by Yorkshire & The Humber-South Yorkshire Research Ethics Committee on 16 January 2019, with recruitment beginning in April 2019.

Poster Authors:

- Richard Sidebottom, Consultant Radiologist
- Caroline Gillett (Micrima ltd)
- Iain Lyburn
18. Skin toxicity following Post-Mastectomy Radiotherapy (PMRT) and its impact on Quality Of Life (QOL)

Background
PMRT reduces the risk of breast cancer recurrence. There are no nationally agreed guidelines for the use of bolus with PMRT; its use can be associated with significant acute and late skin toxicity. These toxicities can have substantial impact on the QOL of patients.

Method
We undertook this project to obtain baseline data prior to considering implementing changes to our PMRT protocol. Quality Measure Indicators (QMIs) were collected for patients at the end of PMRT and for 6 weeks afterwards. QMI 1: Patient assessment of skin reaction using Radiation Therapy Oncology Group (RTOG) grading system. QMI 2: If, when and from whom advice was sought regarding skin toxicity. QMI 3: Impact of skin toxicity on QOL. Surveys were given to 30 patients to complete on their last day of radiotherapy and again at 2, 4 and 6 weeks after radiotherapy.

Results
QM1: 79% and 58% patients reported ≥ grade 2 skin toxicity at 2 and 4 weeks after radiotherapy respectively. QM2: 50% patients sought advice regarding skin reaction after the end of radiotherapy. QM3: 50% patients stopped wearing their prosthesis; 48% felt unable to wear normal clothing.

Conclusion
Skin toxicity following PMRT with bolus in our department results in peak skin toxicity 2-4 weeks after radiotherapy and this has a negative impact on QOL. Patients need advice regarding skin toxicity after completion of PMRT. Further research is indicated into improved skin care products, the use of bolus for PMRT and skin toxicity review clinics in order to improve skin toxicity and QOL.

Poster Authors:
- J. Bailey
- Ruth Bees, Consultant Breast Radiographer
- Jo. Bowen
- S. Elyan
- P. Jenkins
- B. Milliner
ZONE 2.2
19. Macmillan Specialist Psychology Survivorship Project

Background
Between June 2018 and June 2019, the Cancer and Palliative Care Psychology (C&PCPsyc) service, aided by Macmillan project funding, has developed and delivered a specialist psychology cancer survivorship group intervention to respond to the needs of the increasing number of cancer survivors referred to the service.

The intervention draws on an Acceptance and Commitment Therapy (ACT) model.

Method
During the year-long project to develop and evaluate the impact of this intervention, the group intervention was delivered twice to patient groups with cancer survivorship concerns.

Results
For those attending the group intervention, improvements occurred in mood, wellbeing, functioning, acceptance, confidence, understanding and level of distress.

Conclusion
Evaluation feedback confirmed the value of group interventions, and demonstrated ACT-consistent outcomes. Waiting times for all patients referred to the service were lower during the six month group screening period, compared to the previous six months, despite referral numbers being higher in this latter period. This may be due to the additional resource of the group and the group assessment clinic, which temporarily increased capacity within the usual service resource.

Materials now exist to support delivery of future groups, including protocols, handouts, slides and evaluation packs. These can be adapted for pathways other than survivorship.

Implications
Limited staffing within the overall Cancer and Palliative Care psychology service will be a major constraining factor in the sustainability of the group intervention, and therefore in the service’s intended aims to reduce waiting times and increase intervention options for the growing number of cancer patients requiring psychological intervention.

A recent increase in the number of palliative care referrals requiring a more urgent response also now presents new challenges for the service.

Poster Authors:
- Dr Rachael Edge, Clinical Psychologist
- Harriet Smith
- Sue Savory (Project Sponsor)
20. South West Team Transplant – “Transplanting as many people as possible with the shortest possible waiting time”

**Background**
Kidney transplants transform the lives of patients who receive them. If a patient is fit enough to have a transplant this is the best treatment for advanced kidney disease. The process of being deemed fit for a transplant, listed and ultimately transplanted can be lengthy, with delays in getting tests performed or other speciality reviews before transplant listing. Even after workup is complete there may be a wait before the patient is activated on the transplant list, and after listing there is usually a wait of 2-4 years until a donor becomes available.

**Aim**
The Gloucester Renal Unit is proud to be part of South West Team Transplant. We are a multidisciplinary group from across the South West, from transplant units and referring units, united around the aim of transplanting as many people as possible with the shortest possible waiting time.

**Method**
Inspired by the NHS Improvement Change Model and supported by the Kidney Quality Improvement Partnership (KQuIP), we are improving the pathway for our patients through:

- Leadership – training for all team members
- Spread and adoption – sharing across the region and beyond
- Mobilisation and motivation – embedding our transplant philosophy throughout the pathway
- System drivers – Development of patient-focused drivers and change ideas
- Improvement Tools – utilisation of KQuIP resources, LifeQI
- Project Management – ongoing face-to-face support from KQuIP
- Measurement – adoption and customisation of the Transplant First Dashboard

We have built a robust foundation to support the success of this project, and look forward to seeing improved transplant outcomes in the years to come.

**Poster Authors:**
- Jim Moriarty, Consultant Nephrologist on behalf of South West Team Transplant
21. An Audit of the perioperative management of diabetes in major surgery at Gloucester Royal Hospital (GRH) using Perioperative Quality Improvement Programme (PQIP) data

Background
Optimal peri-operative management of glucose control in diabetic patients is essential. GRH collects data on patients undergoing major surgery as part of PQIP since 2018 and identified diabetes management for improvement. Key indicators included measuring HbA1c on all diabetic patients before major elective surgery and consider postponing non-urgent surgery if HbA1c>8.5%. Other recommendations include measuring blood glucose regularly and aiming for blood glucose levels of 6-12 mmol/l throughout surgery.

Method
We looked at the GRH PQIP database after 6 months of recruitment to identify patients with Type 1 or Type 2 diabetes. We audited the perioperative management of diabetes against key indicators to identify areas for improvement. Reviewing our trust guidelines and PQIP recommendations we set our standards:
- 100% of patients will have an HbA1c measured before major elective surgery
- Postponing non-urgent surgery will be considered if HbA1c>8.5% in 100% of cases
- 100% patients will have a capillary blood glucose (CBG) measured on admission
- 100% of patients will have CBG measured hourly in the perioperative period
- Blood glucose levels will be kept at 6-12 mmol/l throughout surgery in 100% cases
- Variable rate insulin infusions (VRII) will be used if blood glucose >12 mmol/l in 100% cases

Results
We identified 14 patients with diabetes out of a database of 86 cases (16%). All cases were elective, from September 2018 – February 2019. Of the 14 cases, 5 were treated with insulin, 5 with non-insulin glucose lowering medication and 4 were diet controlled. None of the standards were met.
- 71% had an HbA1c measured, and in 29% the HbA1c was >8.5%.
- Out of the 4 cases with an HbA1c>8.5%, 3 were not delayed due to surgical urgency.
- 71% had a CBG measured on admission.
- 43% had a VRII appropriately commenced when CBG>12 mmol/L.
- 29% maintained CBG between 4-12 in the perioperative period.
- None recorded hourly perioperative CBG’s.

Conclusion
Our results have identified intraoperative measurement and documentation of CBG requires significant improvement. No cases recorded hourly perioperative glucose measurement. Several cases had no documentation at all throughout surgery. We have also identified not all patients had an HbA1c measured. Comparing our data with the national PQIP data, GRH has a higher proportion of diabetic patients (16% vs 13%) and those with an elevated HbA1c (29% vs 20%). In order to improve practice, we introduced pre-operative assessment nurse training sessions, are establishing a nurse champion to assist with diabetic queries pre-operatively, referring high risk cases for post-op diabetic nurse follow up and forming a joint working group with diabetic liaison nurses to review the current pathway and assess impact of new insulin regimes and pumps.

Poster Authors:
- Dr Jeanie Worthington, ST5 Anaesthetics
- Dr A. Bevan
- Dr H. Murdoch
ZONE 2.3
22. From Older Person Liaison & Assessment (OPAL) to Frailty Assessment Service (FAS) and beyond

Background
What is important to note is that our Trust has a long history of believing that a different approach is required for individuals living with frailty.

Method
The Improved Better Care Fund provided the resource to develop a comprehensive service that is now established as the Four Pillars Frailty Work Programme; a programme that looks at the individual living with frailty. The programme basically encompasses an education, an outreach, a Frailty Unit and an in reach function.

Results
We only started formally in October 2018 but have already seen more than 550 additional patients compared with the same period last year. Our length of stay on the Frailty Assessment Unit (based on AMU) is consistently below 24 hours, with our lowest LOS being 17.6 hours for April 2019.
We seek to discharge as many individuals as possible (for the last five months we have discharged between 40% and 54% of all our patients) within 24 hours. Furthermore when our patients do become admitted to the main hospital their LOS is on average up to two days shorter than those of the same type that were not part of the service.

Next Steps
Going forward we will expand the service and look to see how we can work closer with our GCS colleagues in IAT as part of a 9 month pilot.

Poster Authors:
- Donna Little, Advanced Clinical Practitioner
- Teresa Clift
- Jeanette Godwin
- Alice Hosking and team
23. #LittleThingsMatter Campaign

Problem
How do we engage teams in falls reduction

Purpose
To reduce falls on wards

Method
1st of April “April falls day” 2018 marked the start of the campaign “#Little things matter” focussed on reducing falls.
The goal of this campaign was to change the culture and the way we think about falls, by showing that if everyone makes a little change in practice, we can bring about big changes for our patients. We could very easily inforce and tell everyone they must complete a falls bundle, but where is the sustainability, so I wanted to slowly change and really imbed the practice.
The campaign started April 1st across medicine, supported by the falls champions and ward managers and was planned to run for 1 year.

The plan was to gradually expand to incorporate surgery, this went quicker than planned, by week 2 we were fully rolled out across the trust bed base.

Each month the campaign focussed on different areas that contribute towards falls, aiming to reduce that risk with small tests of change. i.e. April, call bells, is the call bell in reach?

If a patient can’t reach the bell, how can they get help when they need to mobilise?
May, Non Slip sock’s or well-fitting Slippers reduce falls; don’t forget your patients feet before they mobilise.

This was supported with Posters, Audits and Twitter

Results
Along with the NHSI fall collaborative and the introduction of open visiting falls were reduced

Conclusion
This campaign had great uptake across the trust.

Poster Authors:
- Matthew Little, Senior Nurse
24. Pilot study of neurodevelopmental diagnostic clinic model in school aged children, for whom diagnostic conclusions have been difficult to reach in Gloucestershire.

Background
Neurodevelopmental assessment of primary school aged children in Gloucestershire involves collation of educational reports followed by assessment with a paediatrician. For some, this model of working can lead to a delay in diagnostic conclusions due to complexities with the child.

Aim
This pilot was a model of multi-professional working between a paediatrician and clinical psychologist using two structured assessments for children with diagnostic challenges. The aims were to gather data on clinician and patient experience, time from referral to diagnostic outcome, and the advantages and difficulties of this method, with the purpose of providing information for the MDT reviewing the primary school aged pathway for ASD diagnosis.

Method
The paediatrician selected patients for whom reaching diagnostic conclusions had been challenging. Data collected included demographic details, presenting problem, time to diagnosis from referral and parent completed questionnaires. ADOS and DISCO assessments were carried out. Thirteen children were enrolled with a median age of 9 years and 4 months. Eleven participants were male. Five participants were given a diagnosis of ASD, with the other children receiving diagnoses of ADHD or other cognitive or behavioural difficulties. Six families gave parental feedback; most felt that the process assisted their understanding of their child but requested more follow-up support.

Conclusion
The clinicians felt the process was beneficial, resulted in improved clinician satisfaction and produced increased diagnostic accuracy in a complex patient group. This process resulted in positive patient experience and is likely to shorten time to diagnosis using a model of working that is closer to NICE guidance.

Poster Authors:
- Dr Lucy Austreng, Foundation Year 2
- V. Thurston
- S. DeGressi
- C. McAuley
25. Medicines Optimisation Pharmacy Assistants on Wards (MO ATO)

Background
Patients were being transferred from ward to ward – in particular from assessment units onto wards – but their medicines were not always being transferred at the same time. This issue resulted in missed doses, duplicate prescriptions, lost medicines and time spent by ward staff in tracing medicines, writing new prescriptions and traveling backwards and forwards to Pharmacy to collect urgent medicines.

Aim
To reduce the amount of medication being left behind on AMU when patients were transferred to a new ward

Method
Employ Medicines Optimisation Pharmacy Assistants (MO ATO) to complete the following tasks each day (Monday – Friday):
- 9am – Transfer all medication left on AMU to patient’s bed side locker on new ward
- 12pm – all medications ordered by pharmacy for patients on AMU dispensed, accuracy checked and delivered to ward and placed in patients bed side locker

This was piloted successfully on AMU in GRH for over 4 months resulting in a safer and more efficient service to AMU.

Results
- Reduction in missed doses
- Reduced medicines wastage
- Reduced returns for Distribution
- Reduced time dealing with duplicate prescriptions
- Reduced time spent on medicines management on wards by nursing staff
- Reduced time spent in Pharmacy tracing missing medicines
- Eliminate time spent on collecting missing medicines from Pharmacy Departments
- Improved patient flow

Next steps
- Business case for funding approved and additional staff recruited
- Implementation to the following wards commenced August 19
  AMU, 9B, 8B, 7A, 5A
- Subsequent wards to be introduced in a phased approach
- Future roles to be added as project develops
- MOATO to continue data collection to prove benefits realisation

Poster Authors:
- Bilal Topia
- Israr Baig
- Phoebe Davis
26. Patient Health Information Enquiry Service - the antidote to Dr Google

Background & Problems
The 2016 Picker inpatient survey score showed that our provision of patient information had exceeded the “Picker average” of 19% and we needed to improve. Patients need to agree to consent, are encouraged to self-manage their care and we need to ensure person centered care, to achieve this patients need the most appropriate information.

Aim
To improve the provision of good quality information to digitally literate patients. The ultimate goal is to decrease the Picker Score, however it is acknowledged that this project is just the start of larger patient information journey.

Method
Utilising tools such as driver diagrams for change ideas and process mapping to develop a service, and with a multidisciplinary team of a librarian, head of quality and website lead, an online patient information enquiry service was created on our Trust website. User testing helped us measure our processes including access, time taken and satisfaction. The service was launched in Autumn 2018. Posters and flyers have been produced and there is an ongoing publicity plan. As this is an innovative service we have nothing to benchmark the improvement against, however evaluations from users will be analysed to ascertain satisfaction and usage rates measured, staff workload is one of our balancing measures.

Results
The service is operational and staffed by qualified librarians with several queries received. There is considerable interest from other library services. Enquiries are sent via an online form and are dealt with within 24 working hours. After initial triage the enquirer is signposted to relevant, good quality, up to date, appropriate patient websites. To date we have had a variety of queries including requests for information on foods with high iron, use of oxygen at home, global aphasia and treatment for hypothyroidism. The service is still in development and new ways of increasing usage are being investigated.

We are also using outcome measures (number of enquiries and feedback), balancing measures (impact on staff time) and process measures (number of enquiries completed within the time frame) to improve the service. Despite the service still being in development the service has been replicated by Yeovil District Hospital Library Service.

Lessons learnt
A visible web presence is essential, discover the constraints and opportunities of your website before implementing
The service may take time to reach it’s full potential
Librarians are well placed to deliver such a service

Background & Problems:
The 2016 Picker inpatient survey showed that we could improve our provision of information to patients

Poster Authors:
• Lisa Riddington, Library & Knowledge Services Manager
ZONE 2.4
27. Safety Brief

Background
As part of a small team from Gloucestershire hospitals we worked with the NHSI collaborative looking at multiple tools to reduce falls. After brainstorming and discussion with others as part of the collaborative we identified several ideas that may help reduce falls.

Aim
Our strategy focused on approaches to
• Improve identification of risk
• Improve communication of risk
• Improve knowledge and utilisation of falls bundle
This part of the project focussed on Is there a way to improve communication of falls risk along with other risk factors to patients in an effective consistent way?

Methods
After scoping the needs of the ward staff we designed a safety brief form that could be used as a real-time document throughout the day. This form design was moved through several PDSA cycles before live testing on the wards
Live testing was on 2 wards
During live testing and further PDSA cycles the form had one final modification and was redesigned to go on the back of the safe to respond form
Once embedded this was introduce to 6 more wards throughout trust

Results
Reviewing trust wide falls date, there was a reduction of falls in the areas using the safety brief, however there was also a reduction across the trust from the other parts of the NHSI falls collaborative including #littlethingsmatter, during this period there was also a move to open visiting which may also have has an effect

Conclusion
This worked well, was received well by the wards and is still in use on the wards

Poster Authors:
• Matthew Little, Senior Nurse
• Catherine Hopkins
• Jon Burford
28. Oral vs intravenous pulsed alfacalcidol for the treatment of secondary hyperparathyroidism in haemodialysis patients - an audit of efficacy and cost

**Background**
Activated Vitamin D remains the mainstay of treatment for secondary hyperparathyroidism (SHPT) in haemodialysis patients. There is variable evidence as to whether oral or intravenous administration of the Activated Vitamin D preparation alfacalcidol is superior.

**Aim**
Our audit aimed to show comparable efficacy of pulsed oral vs IV alfacalcidol in the control of SHPT for haemodialysis patients, by measuring monthly bone profile and three-monthly parathyroid hormone (PTH).

**Methods**
A supply shortage of IV alfacalcidol led to 11 patients being switched to oral alfacalcidol in the second week of Oct. 2018 at the same dose as previous IV therapy. Bone profile including calcium and phosphate were measured monthly before the switch, and monthly for 6 months after. PTH was measured at baseline, 3 and 6 months.

**Results**
After 6 months, the PTH (51 to 58 pmol/l) calcium (2.45 to 2.38 mmol/L), and phosphate (1.81 to 1.90 mmol/L) were not significantly altered. Alfacalcidol doses did not increase over the audit period (1.40 mcg/dose to 1.34 mcg/dose).

Costs for IV alfacalcidol in our unit are £0.259/mcg and oral alfacalcidol £0.158/mcg. Paricalcitol (an alternative IV activated vitamin D preparation) costs £12.50 per equivalent dose. Including savings from nursing time and use of consumables, we estimate approximately £4000 savings compared to IV alfacalcidol, and £20000 competed to IV paricalcitol, in a single small satellite unit.

**Conclusion**
Our findings support the safety and efficacy of oral rather than IV pulsed alfacalcidol for haemodialysis patients with SHPT, with substantial cost benefits.

**Poster Authors:**
- Qiaoling Zhou (ST4 Renal Doctor)
- Israr Baig (Pharmacy)
- Sally Pugh (Dietitian)
- Jim Moriarty, Consultant Nephrologist
29. S.H.E.D. (Support and Help for Every Dad)

**Aim**
Improving Dads’ involvement in NNU to promote immediate caregiving engagement

**Background**
1:10 Babies born in Gloucester Royal Hospitals is admitted to the Neonatal Unit. This highly specialised intensive care ward is not part of any parent’s plan for their baby. The families are unprepared for such experience. They are often offered hurried information about the Unit while being prepared for the imminent delivery of their sick/or premature baby. Due to the emergency of the situation, it’s often too late for discussion. The importance of parents partnering in the care of their baby is acknowledged but the priority of the baby’s and mother’s immediate needs to be stabilised in the first 24 hours, leaves dads feeling alone, disjointed and unheard.

**Method**
This awareness was explored using various methodologies e.g. observational audits, surveys and verbal feedback.

**Results**
Comparison between the start of the awareness to six months in its implementation was dramatic.
1. Dads who benefitted from this implementation are supporting new dads. 31 questionnaires were sent out with 100% response rate, showing the eagerness to engage to help change the culture.
   • Positive interaction from staff; more open to implement ways to ensure dads involvement.
   • Dads tell us they felt “less angry and frustrated” as they are now feeling supported. Approximately 37% of dads’ responded that they had the opportunity to bond with their newborns’ within the first 24 hours compared to the same % who felt unprepared for neonatal unit admission.
   • Multi-disciplinary teams became involve.

**Poster Authors:**
- Elizabeth Tenn-Stewart, Band 6 Neonatal Nurse
30. Inter-fractional uterine and cervix motion during radiotherapy for cervix cancer

**Background/Purpose**
Studies have shown that the positional change of the uterus during radiotherapy for cervix cancer can be significant. This investigation quantified the inter-fractional movement of the uterus and cervix in patients with cervical cancer undergoing radiotherapy treatment and assessed the relationship between uterus and cervix positional change and bladder volume.

**Method**
85 retrospective cone beam computed tomography (CBCT) images from 11 pre-operative cervix cancer patients who had undergone radiotherapy were fused with the planning CT scans. The change in the uterus and cervix positions on the CBCT scans compared to the planning CT scans was quantified. The change in uterine angle and bladder volume were also measured. Changes in uterus position and angle were correlated with bladder volume changes using linear regression.

**Results**
The largest range of movement was in the superior / inferior direction with a range of 0.02 cm to 3.61 cm. The change in uterine angle was 0° to 23°. A significant correlation was found between the displacement of all the uterus and uterine angle change with bladder volume change.

**Conclusion**
Inter-fractional uterus and cervix movement can be substantial and can vary from patient to patient. Despite the use of a full bladder drinking protocol large variations in bladder volumes between fractions can occur and this can impact on the position of the uterus and cervix. This study supported the purchase of an ultrasound scanner which is now used daily to confirm bladder volumes prior to radical cervix radiotherapy.
31. Improving quality of TrakCare e-learning

**Background**
E learning has been an option for TrakCare training since before TrakCare was launched in December 2016. It was created as an alternative to face to face training, to be accessible and easy to use and comparable to other e learning modules via the Trust e learning system, Kallidus. At its first launch there were 170 e learning modules, related to each TrakCare security group role.

**Purpose**
The drivers for improvement were multifactorial. The TrakCare system underwent an upgrade in July 2019 and together with user feedback, the e learning modules were thoroughly reviewed by the TrakCare Training e learning Specialist.

**Method**
User feedback reported the modules were long, repetitive, and the accompanying audio restricted staff from completing training in an open workspace. To reflect system changes, the e learning was reviewed using the original template matrix as a basis. The matrix structures which modules are required for each security group role and engagement with organisational leads gained sign off for the revised matrix all roles within TrakCare.

Technical issues in using Adobe Captivate and HTML5, were overcome to enable users to complete the e learning without hindrance. The modules were peer reviewed for quality and close collaboration with the trust e learning team, allowed the 65 modules to be published soon after the upgrade.

**Results**
A significant reduction in time required to complete e learning was the highlighted outcome, (>50%) but further evaluation is required to monitor its efficacy and gain user feedback.

**Poster Authors:**
- Allysun Gore, EPR / TrakCare Training Team
- Victoria Palframan
32. ASP Conference Abstract – The Palliative A-E: An ABCDE approach to assessing and managing dying patients using simulation teaching

Background:
ABCDE approaches are a proven and effective method of assessment in emergencies but could they be used in end of life care? We developed a simulation teaching station for Foundation Programme Doctors to learn and practice an ABCDE style examination in the unconscious dying patient who cannot communicate symptoms verbally. The aim was to improve the confidence around assessing and managing dying patients.

Methods
A cohort of Foundation Doctors from Gloucestershire Hospitals NHS Trust were presented with a simulation case, assessing an unconscious dying patient. One member assessed the patient with other members contributing ideas. Ultimately the group was taught an ABCDE approach (a structured examination assessing Airway, Breathing, Circulatory, Disability and Exposure aspects, tailored to dying patients) and questioned on management options, with feedback throughout. A survey conducted before and after the teaching aimed to assess the cohort’s confidence in assessing these patients.

Results
The pre-intervention surveys demonstrated low confidence in Junior Doctors in assessing dying patients both before and after graduation with 30 out of 30 and 28 out of 30 candidates feeling somewhat confident or less, respectively. Following the session, confidence in assessing these patients improved with 15 out of 20 feeling very or extremely confident and 100% of candidates finding the session and ABCDE technique useful.

Conclusions
The ABCDE approach to assessing the dying patient appears to improve the confidence Junior Doctors. Simulation teaching allowed for effective demonstration and practice. This method may lead to an improvement in symptom control in our dying hospital patients.

Poster Authors:
- Dr Michael Casey, Foundation Year 2/Clinical Teaching Fellow
- Dr Emma Husbands
- Dr Catherine Morrison
ZONE 2.5
33. Management of Challenging Patients

Background
This quality improvement project was driven from an increasing trend of incidents of violence and aggression from patients to staff in Critical Care. Over the last four years the severity of injury to staff both physically and emotionally has doubled. We identified a reoccurring theme with a complex group of patients suffering from mental health problems, previous suicide attempts, recreational drug use and abuse of alcohol. Due to the difficulty of managing them they have experienced a prolonged stay in Critical care and poor patient experience. They have often cause injuries to themselves, our staff as well as damaging equipment and the hospital environment. Often these patients have experienced different kinds of abuse in their past from emotional, physical and even sexual abuse. They have socialised and grown up in a world where violence and aggression are used to express and protect themselves. We realised that as a team we were reactive in our approach to these patients and not fully aware of the patient’s full mental and social history before planning their care.

Aim
We want to achieve a 75% compliance by 30th May 2018 (50)

Effective management:
1. The use of a patient screening tool
2. Patient risk documented and discussed at ‘TEAM SAFETY’ meetings
3. Intervention risk assessments implemented
4. Management guidelines implemented
5. Staff safe holder trained, confident and their safety maintained

Conclusion
This work can be adapted to any clinical area, this work has had significant impact to both our patients and staff improving their safety and experience.

Poster Authors:
- Deborah Elliott, Senior Sister, Department of Critical Care
- Sarah Mather, Senior Sister, Department of Critical Care
34. Increased self-efficacy after brain injury group intervention

**Purpose**
To evaluate the impact on self-efficacy (and hence self-management of long-term condition) of a six-session education/rehabilitation group intervention for people with acquired brain injury.

**Problem**
Self-management of symptoms is a key component in long-term conditions, including brain injury. Self-efficacy (an individual's sense of their ability to deal with their condition) is strongly linked in the literature with effective self-management, so an intervention that can increase self-efficacy will be linked with a range of improved outcomes. Establishing the impact on self-efficacy of a brain injury group intervention currently run by the Gloucestershire Brain Injury team will help inform the continued provision of this group.

**Methods**
A self-efficacy questionnaire was administered before and after the intervention. The group ran over six weekly sessions and was facilitated by a Clinical Psychologist and an Occupational Therapist, and covered information and management strategies about the common consequences of brain injury.

**Results**
Based on 96 completed before-and-after questionnaires, there was a statistically significant increase in self-efficacy after the intervention. In addition, there were statistically significant increases in strategy use, e.g. relating to fatigue management and concentration difficulties. There was very high patient satisfaction with group attendance (100%).

**Conclusion**
Attendance at a six-session group intervention relating to the management of the consequences of brain injury is associated with increased self-efficacy, with positive implications for ongoing implementation of self-management strategies.

**Poster Authors:**
- Andy Champion, Clinical Psychologist
- Nicky Jago
- Mark Giles
- Aileen Thomson
35. WHO Checklist - The Writing's on the Wall

Background
The World Health Organisation (WHO) Surgical Safety Checklist has been shown to reduce surgical complications, and improve teamwork and communication in theatre. Currently, there is no standardised way the checklist is performed. In Gloucester and Cheltenham hospitals, a paper checklist was used. A review of current practice (survey of 110 theatre staff and an audit in April 2018) showed not all points were consistently discussed, and those that were, were often done without the full attention of the team.

Aim
The aim was to achieve 80% compliance and engagement with the checklist by the entire team by April 2019.

Method
To improve the effectiveness of the WHO Surgical Safety Checklist, it was proposed to move from a paper checklist to a wall-mounted checklist, to refine the points included, and to change the timing of ‘time out’ to immediately prior to knife-to-skin. The new wall-mounted checklist was designed, and trialled in one of the general theatres in Gloucester Hospital in September 2018. During this trial period, data was collected over a 5-day period, and 17 ‘sign ins’, ‘time outs’ and ‘sign outs’ were captured.

Results
The new process was well received and led to a dramatic increase in attention and engagement, particularly at ‘time out’ and ‘sign out’ (100% vs 58% with the paper checklist). All points on the checklist were discussed 80-100% of the time. Feedback was gained and the new checklist was rolled out to all theatres. Since April 2019, the new checklist is being used in all theatres across the Trust.

Poster Authors:
- Dr Tom Knight
- Dr Claire Cushley, Core Trainee (CT2) ACCS Anaesthetics
- Dr Helen Murray
- Dr Lawrence Kidd
36. Enhanced Supportive Care

**Purpose**
To offer a new service to patients diagnosed with incurable upper gastro-intestinal cancers, delivering a proactive palliative care style of patient-centred care earlier. Palliative care can improve symptom control, quality of life and ensure patients’ priorities and preferences are met. This may also impact on interactions health care services, particularly towards the very end of life.

**Problem**
Patients are often referred to palliative care at a stage when they are rapidly deteriorating and prognosis is short, meaning they receive a reactive service and have limited opportunity to benefit. The term ‘palliative care’ and its association with death for both professionals and patients, deters earlier referral to and engagement with the service.

**Methods**
This was delivered as a CQUIN. The ESC service was outpatient based and consultant led. Patients were identified through MDTs and rapidly offered assessment. Follow-up depended on needs. A questionnaire supported needs assessment. Patients were referred to other services as needed.

**Results**
Patients offered ESC or palliative care review at diagnosis increased (43%-93%)
The service was accepted by 85% of patients
Symptom burden was high - 82% had at least one severe/overwhelming symptom at diagnosis
On follow-up, average severity score of 11/13 symptoms had improved
Average length of hospital stay in the last 30 days of life fell, equating to a saving of £88000 / year
Patient/relative feedback was very positive.

**Conclusion**
ESC benefits patients. Fixed term funding is enabling short term expansion. Robust data collection and service analysis continue

**Poster Authors:**
- Dr Kate Tredgett, Consultant in Palliative Medicine
37. Clinical trial participation at Thirlestaine Breast Centre, Gloucestershire Hospitals NHS Foundation Trust.

The Breast Imaging team at GHNHSFT has been active in development of several important national clinical research projects. A state-of-the-art contrast enhanced spectral mammography (CESM) unit, recently installed at Thirlestaine Breast Centre, will enable participation in these trials. This will contribute to core Trust strategic objectives for the next 5 years (specifically Driving Research, Centres of Excellence, Outstanding Care and Quality Improvement) and enables our patients to participate in these important studies.

In addition to funding the CESM equipment, the Cobalt charity is supporting the appointment of a trial coordinator within GH R&D to assist with trial management and support the clinical staff.

We will recruit to:

BRAID: Risk Adaptive Breast Screening – A Tailored Imaging Approach. A randomised trial of imaging modalities for personalised screening of women with dense breasts, including abbreviated MRI and CESM.
Cl: Prof Fiona Gilbert, Cambridge

LORIS: Surgery versus Active Monitoring for Low Risk Ductal Carcinoma in Situ (DCIS). Will utilise the new CESM/biopsy unit.
Cl: Dr Matthew Wallis, Cambridge / CRUK Clinical Trials Unit, Birmingham

SMALL: Comparing standard surgical excision of small grade I screen detected cancers with radiological excision with no surgical intervention. Will utilise the CESM/biopsy unit.

PHOENIX: Identification of biomarkers to predict response for emerging therapeutic agents for triple negative breast cancer. Utilising MRI.
Cl: Andrew Tutt, Institute of Cancer Research, London

CONTEST Contrast enhanced digital breast tomosynthesis in women with a strong suspicion of breast cancer. Will utilise CESM. Cl: Prof A Evans, Dundee

Poster Authors:
- Dr Richard Sidebottom, Consultant Radiologist
- Eleanor Cornford
- Iain Lyburn
- Sarah Vinnicombe
38. Putting Mouth back into Body

Background
Poor oral health can affect our ability and desire to eat and drink; impact negatively on our ability to communicate; and has an overall effect on dignity and well-being. There is evidence that suggests, hospitalisation is associated with the deterioration of oral health. This in turn has been linked to an increase in hospital acquired infections; poor nutritional intake; longer hospital stays, and general increased care costs.

Purpose
To improve awareness, assessment and administration of effective mouth care across the Trust, by providing education and training.

Aim
Aiming to improve patient experience and reduce prolonged hospital admissions.

Method
Pre-audit questionnaires were completed by nursing staff and patients on selected wards across the Trust; focusing on knowledge and experience of effective mouth care for nursing staff and exploring barriers. Patient questionnaires focused on changes to oral care during hospital stays and access to appropriate oral care equipment/resources.

Results
60% of staff had not received training in assessing and providing mouth care. The main barriers assisting with mouth care reported was time and patient compliance. 79% feel they’d benefit from further mouth care training. 12/23 patients were not asked if mouth care support was needed and 25% of patients feel their mouth care/health had worsened since hospitalisation.

Conclusion
Pre-questionnaire findings provide support to help the Mouth Care Matters Team devise an effective assessment tool and develop a comprehensive training plan for nursing staff in an attempt to fulfil the needs of both nursing staff knowledge and confidence whilst also improving patient health-related quality of life.

Poster Authors:
- Charlotte Malone, Speech and Language Therapist
- Sophie Finch-Turner
- Kerry Holden
- Lauren Proctor
- Stephanie Wright
- Hannah Bullock
ZONE 2.6
39. Introducing Hypnobirthing Courses across Gloucestershire in order to reduce anxiety of and increase preparedness for birth

**Background**

It is estimated that 1 in 5 women have severe fear of birth. Hypnobirthing has been becoming increasing popular over the last few years, with research showing that women who are frightened of giving birth have longer labours and are more likely to need intervention (27/06/2012, British Journal of Obstetrics and Gynaecology).

**Method:**

270 new mothers completed an on-line survey on their experience of antenatal education and what they would like from NHS antenatal education and 60% asked for a hypnobirthing or breathing and relaxation class to support them in their preparation for birth.
- Business plan: developed to run courses at GHNHSFT.
- Training: 23 midwives were trained in facilitating hypnobirthing courses.
- PILOT (PDSA) - hypnobirthing courses were advertised set up and run from March 2019 with on-going evaluation.
- Workshops run for staff on increasing confidence in supporting women who are hypnobirthing

**Evaluation**

Couples were asked prior to the course starting and at the end of the course about their anxiety levels and preparedness (in terms of knowledge levels) for labour and birth.

The measures used were on a scale of 1-10:
1. Level of anxiety when thinking about labour and birth.
2. Level of knowledge for labour and birth.

**Results**

- Levels of anxiety when thinking about labour and birth reduced from 7 to 3.
- Levels of preparedness (in terms of knowledge) for labour & birth increased from 5 to 8"
40. A multi-professional approach to improve postnatal care in the community

**Background**
In 2016 Better Births was launched. The report recommended improvements to postnatal care focusing on multi-professional and cross boundary working, seamless transition between professionals including Health Visitors (HV) and GP’s and the introduction of new roles e.g. Maternity Support Workers (MSW’s).

**Method**
A multi-professional integrated community pathway was developed in collaboration with Health Visitors and other stakeholders including service users. MSW’s were introduced to support greater flexibility within the postnatal pathway.

**Results**
- 80% of women seen during the pilot were seen on the correct pathway.
- Women received postnatal care 50-60% of their postnatal appointments by their own named midwife compared to previous audit results of 10.5%.
- A previous baseline audit demonstrated that only 50% of women were discharged by their named midwife. With the introduction of the new pathway this increased to an average of 90%.
- The new pathway enabled midwives to discharge women to the care of the Health Visitor beyond day 10 –14 to support reduction of duplicated visits by HV & Midwife sometimes visiting on the same day. In addition increasing support for women between Day 14 and HV contact at 6 weeks.
- Whilst during the pilot only 58% of women were discharged beyond day 14, as the pathway has embedded this is slowly increasing as confidence in the pathway grows.
- 100% of women were given information regarding the HV role and signposted to the HV website at first contact.
- The introduction of the Maternity Support Workers has improved the key performance indicators across the newborn screening programme.

**Poster Authors:**
- Dawn Morrall, Clinical Lead for Better Births Programme
- Kay Davis
- Rachel Pritchard
41. Service evaluation project on the use of adaptive planning target volume (PTV) margins for prostate radiotherapy

Aims
To determine whether an adaptive treatment margin allows for the reduction in planning target volume (PTV) margins. The dosimetric impact of an adaptive PTV margin, and adaptive PTV with reduced margins (from 10mm to 7mm for PTV1) were assessed using dose data acquired from Cone Beam Computerised Tomography (CBCT) and planning scans.

Methods
An adaptive PTV (10mm margin) and reduced margin adaptive (7mm margin) was derived from the first five fractions CBCTs and the planning CT. Coverage of the PTVs were assessed on subsequent weekly CBCTs. Dose Volume Histograms (DVHs) from the CBCTs were compared to the original planned DVHs to ascertain whether the delivered treatment varied from the original plan.

Results
The mean prostate PTV1 D95 (in Gy) for the planned, adaptive and reduced volume margins were 62.3 (range 58.9-68.2), 60.7 (53.4-65.4) and 63.7 (57.2-68.1) respectively. No statistically significant difference was detected between the planned prostate PTV1 D95 and the adaptive prostate PTV1 (p=0.078). A statistically significant difference was detected between the planned prostate PTV1 D95 and the mean of the first five CBCTs (p=0.005). The mean centre of gravity of the first five CBCTs for all patients (in mm) were; in the lateral, anterior/posterior and superior/inferior directions -0.3, 0.1 and 1.6 respectively.

Conclusion
No statistical difference was found between the planned prostate PTV1 D95 and the adaptive prostate PTV1 (p=0.078). However the variations between patients for the adaptive PTV1 D95 suggest that the adaptive margin would not be an adequate class solution for this group of patients.

Poster Authors:
- Anne McKenna, Research Lead Radiographer
42. Reduction in blindness rates since the introduction of digital photographic screening in an English diabetic eye screening programme

**Background**
A retrospective analysis of audit data to determine the effects of the Gloucestershire Diabetic Eye Screening Programme combined with other factors in reducing blindness in the population.

**Method**
Causes of blindness have been recorded since August 2005 in the county of Gloucestershire that introduced systematic retinal screening for people with diabetes in 1998.

**Results**
In the 3 years 1st Aug 2005 - 31st July 08, the annual incidence of Seriously Sight Impaired (SSI) or blindness in Gloucestershire was reduced to 5.33 per annum or 0.025% of the population with diabetes and Sight Impaired (SI) or partial sight 8.7 per annum or 0.041% of the population with diabetes.

Over the following decade there was a progressive reduction in registrations until the last 3 years when, between 1st April 2014- 31st March 2017, the annual incidence of Seriously Sight impaired SSI or blindness was reduced to only 0.67 per annum or 0.002% of the population with diabetes and sight impaired or partial sight 3.3 per annum or 0.010% of the population with diabetes.

**Conclusion**
There has been a progressive reduction in registrations of both SSI and SI in Gloucestershire since 2005. This which is likely to be due to a combination of the systematic diabetic retinopathy screening programme, better control of the diabetes and more effective treatments for diabetic retinopathy.

**Poster Authors:**
- Angela Dale, Ophthalmic and Vision Sciences Practitioner (AHCS), Senior Diabetic Eye Screener/Grader, Ophthalmic Imager
- I.M. Stratton
- S.J. Aldington
- K. Price
- P.H. Scanlon
43. GloStars: Gloucestershire Hospitals Staff transition and support network for newly qualified professionals

Background
Research shows that newly qualified nurses (NQN) are either leaving the profession or feeling burnt out within the first three years of qualifying. NQN are finding it increasingly harder when entering the profession, with increasing workloads and expectations, alongside short staffing leaves NQNs feeling unsupported and fatigued.

Aim
To improve the experience of newly qualified professionals within the trust, by creating a network ‘GloStars’ to support new starters during their transition period. Aiming to improve retention and wellbeing of staff whilst supporting their development.

Method
Setting an aim and purpose using SMART Goals tool, we then developed a driver-diagram which identified our primary and secondary drivers. Following this we selected our target group (NQN preceptor’s Sept 18) we then collected pre-data from “cohort 1”. The pre-data was a mix-methods approach. We then took this data alongside our driver-diagram identifying three intervention. Prior to implementing these interventions, we used a PDSA cycle to help build a structured approach. The interventions used were as follows;

• Face to face newly qualified nurse ‘Ask me anything’ session.
• Set up Twitter account for GloStars and host a Twitter Chat on Student nurse to NQN.
• Ward walks and 1-1 chats.

These were then implemented to the new cohort (Cohort 2 March 19) during the 6 months of the preceptorship program. To monitor the outcomes of these interventions we chose to use a 5-point Likert scale to measure overall support during the first six months of transition. This was taken before and after the interventions.

Poster Authors:
• Charlotte Jakab-Hall, Chief Nurse Junior Fellow
• Sophie Finch-Turner, Chief Nurse Junior Fellow
44. To Reduce Length of Time to Post Discharge Therapy for Fractured Neck of Femur Patients (#NOF)

**Background & Problem**
NICE recommendation: Patients should be able to continue an uninterrupted rehabilitation programme when they return to their own homes.

The ‘Hip Sprint’ audit (Chartered Society Of Physiotherapy 2017) found post ward discharge #NOF patients nationwide could wait one month+ before starting home rehabilitation. Anecdotal evidence on Ward 3A suggested patients could be waiting similar lengths of time. This was supported by baseline data: average wait 31 days (median 22 days)

**Aim**
To minimise deconditioning of patients and to return them to a quality of life acceptable to the individual in a timelier manner the therapy service aimed to: Reduce the time between discharge and follow up by the therapy service for #NOF patients to less than 2 weeks by June 2019

Potential additional impact: reduced length of stay (LOS) (with related financial implications) due to more positive risk taking by ward staff (i.e. whether patients would be found to be sent home earlier safe in the knowledge they would be seen sooner)

**Method**
Changes were tested in order to allow ward based therapy staff to visit patients in their own home.

Specific criteria needed to be set due to no additional funding being available for the project to prevent any negative impacts on the current inpatient service. The patient would need to:

- live within 15miles of GRH
- be able to follow simple instructions
- previously mobile & independent +/- an aid pre #NOF

Baseline data was collected followed by collection of the same data for the duration of the trial of changes

**Results**
Discharge to follow up: Baseline: 31.2 days average (median 22 days)

Trial: 7.8 days (median 8 days, max 10 days)
8/10 patients achieved outdoor mobility, improved quality of life (patients reported now being able to attend various pre-booked appointments and social activities)

LOS: Baseline 12 days
Trial 9.8 days
2.2 days reduction in LOS, average cost saving of £8800 for the ten patients seen in the trial.

**Implications**
The trialled changes to the service achieved the aim of allowing patients to be seen within two weeks. During the trial there were no measured negative impacts on GHNHSFT ward based services. LOS reduced by 2.2 days with £8800 average cost saving for the Trust.

The therapy service would like to extend this trial to measure the impact on a greater number of patients.

**Poster Authors:**

- Terry Flemons, Therapy Clinical Lead
ZONE 2.7
45. Improving specialist care for patients with Nephrostomies

Background
Nephrostomies are vital for patients with obstructed kidneys and are relied upon to preserve renal function, often to allow further treatment adjuncts such as chemotherapy in cancer patients. When they fall out, they put patients at risk of renal failure, pain and sepsis.

Problem
- Nephrostomies frequently falling out, or blocking.
- Dressings noted to be in poor state, connections not being changed
- Resultant increase in morbidity and number of emergency admissions and nephrostomy exchanges

Aim
- Quantify percentage of nephrostomies being replaced due to premature falling out, and identify reasons for this recurrent problem
- Enable all patients with nephrostomies access to regular, specialist dressing and connector changes

Method
- Retrospective 1 year audit of all nephrostomy changes and insertions
- Discussion with district nurses to identify barriers to community care – inadequate funding identified.
- Cost analysis performed for all required dressings
- Approached the CCG to negotiate further funding

Results
- On average a nephrostomy falls out every 18 days, comprising 11% of the workload for new insertions
- Demonstrated that there is poor access to the specialist required dressings due to financial restraint, which directly caused unnecessary emergency admission, patient distress and burden on the Urology and Radiology services

Conclusion
- Our bid to increase dedicated funding to enable patients and nurses to access specialist dressings was successful
- As a result the CCG contract was amended and £20,000 was made available
- Each patient can now be given enough supplies to last until next scheduled nephrostomy change
- Plan to re-audit after 12 months

Poster Authors:
- Jonathan Cobley, Urology Registrar
- Jonathan Ord
46. Aveta Birthing Unit: Continuity of Carer Model

Background & Problem
The National Maternity Review identified a vision for Maternity Services across England for them to become safer, more personalised, kinder, professional, and more family friendly. Every woman should be able to access care centred around her individual needs and circumstances. It was proposed that staff be supported to deliver Women Centred Care during the Antenatal, Intrapartum and Postnatal periods that provides safer care to women and families. This in turn then impacts to reduce still births and pre-term births.

Aim
20% of women by March 2019 within Cheltenham being booked under the Continuity of Care Model at Aveta Birth Unit. These women then being cared for in labour by a known Midwife whom they have met at least once during their pregnancy.

Method
A PDSA Cycle was devised with a plan of action and a Driver Diagram created of a proposed Care Pathway to be implemented during the project to meet our aim. Baseline data was collected through audit to identify our current level of continuity antenatally and postnatally in order to compare this to the Continuity Model once established, to determine if improvement has been achieved.

Engagement of Birth Unit staff and training to ensure effective knowledge of all additional aspects of care to be provided. Cascading of plan to community staff and appropriate referral of women to the Continuity Model. Continual audit to identify of we are fulfilling our aim. Audit locally to identify if the Model of care has impacted locally on still birth and prem-birth figures. Audit view of women of their experiences.

Results
Until women booked under the Continuity Model reach delivery we are unable to assess how effective the model is. Benefits Envisaged:

- Increased satisfaction for women and their families.
- Increased job satisfaction for Midwives.

Implications
Share data when available locally with the team, managers, Trust and Better Births Team. Promotion of the service.

Poster Authors:
- Hazel Williams, Lead Midwife Aveta Birth Centre
- Debbie Mumford
- Lisa Land
- Emma Ross
47. Prescribing tolvaptan for autosomal dominant polycystic kidney disease within the general nephrology clinic setting

Background
Tolvaptan is the first commercially available drug shown to improve rate of decline in renal function in patients with Autosomal Dominant Polycystic Kidney Disease (ADPKD). Patients commencing tolvaptan require frequent follow-up and monitoring, which some units have approached with service redesign and initiation of specialist ADPKD clinics. Here we present the experience within our Trust of managing patients with ADPKD on tolvaptan within an undifferentiated general nephrology clinic.

Methods
Patients receiving tolvaptan for ADPKD were identified through our electronic record. Records were analysed to determine baseline demographics, maximum tolerated dose, biochemical monitoring and whether tolvaptan was discontinued.

Results
19 patients prescribed tolvaptan were identified at various stages of CKD 2 to 3b, with a median eGFR at commencement of tolvaptan of 43 mL/min/1.73m². All but three patients had renal function measurements up to 12 months post-commencement. 84% of patients achieved the maximum tolvaptan dose (90mg/30mg) – more than in the original tolvaptan trials. Of the intended 289 monitoring LFTs across the cohort, 279 tests were performed. Tolvaptan was discontinued in 2 patients. Changes in renal function were in keeping with the published literature.

Conclusion
Here we present a cohort of patients established on tolvaptan for ADPKD who were managed in an undifferentiated general nephrology clinic within a Trust that is one of the top ten users of tolvaptan in the UK. Our data suggests innovative treatments may be safely and effectively delivered within general nephrology clinics without necessarily requiring major service redesign.
48. Developing a research positive culture in Renal Medicine

Offering patients the opportunity to participate in clinical trials is a priority in both the NHS 10 Year Plan and GHNHSFT Strategy document. We describe our unit’s journey from having minimal clinical research activity to a thriving multidisciplinary research culture.

False Start – R+D approach a research-naïve department with opportunities to participate in clinical trials. Accepted as site for PIVOTAL; nephrologist, dialysis nurse, pharmacist lead. Setup takes 20 months, recruit 7 patients against target of 25.

Reboot – R+D approach us with more trials and support from the generic R+D team. Two consultants act as Principal Investigator (PI). Several trials recruit to expected numbers on time.

Expansion – Steady growth in trials and patients recruited. Projects cross over with other disciplines; three nephrologists, one radiologist, one dietitian as PIs.

Consolidation – Existing trials prioritised, recruitment targets adjusted (up or down) where needed. Regular meeting to identify new projects, troubleshoot, celebrate success. New trials taken on according to local skill and patient mix, importance of clinical question, overlap with existing trials. All new doctors offered research training. Staff aware of trials and pathway for patient participation even if not research trained themselves.

Future – Developing permanent staff and trainees as future researchers and research leaders. Collaboration with Biophotonics group and UK Renal Trials Network in developing and steering novel research proposals. Using our experience to support and grow a research culture in other specialities.

Conclusion – With engaged and enthusiastic staff and support from an excellent R+D department, units can develop and sustain a positive research culture.

Poster Authors:

- Dr Jim Moriarty, Consultant Nephrologist
49. Developing a positive staff culture using Restorative Clinical Supervision

Aim
The aim of the QI project was to engage 20% of delivery suite midwives in Restorative Clinical Supervision (RCS) over 3 months during June 2018 to provide support to staff working in a stressful environment. Delivery Suite was selected as the Maternity Staff Culture and Engagement survey 2016 demonstrated significant numbers of midwives were suffering from work related stress due to the emotional impact of the clinical work.

Methods
The primary driver was based around facilitating the staff to engage with RCS.
The PMA team recognised that in order to get engagement there were 4 main PDSA cycle themes:

1. Educate the staff about RCS and benefits of RCS
2. Introduce the PMA role to key strategic groups and gain support of senior staff
3. Facilitate staff clinical release to book RCS sessions in safe spaces
4. Deliver and evaluate effective RCS sessions

Results
• Successfully engaged with 20% of midwifery workforce on Delivery Suite in defined period
• Main contacts were through group attendance by adding to an existing meeting
• Positive staff evaluation of RCS following serious incidents
• On target to engage with 60% of workforce in 1st year across the county
• Good uptake of the A-equip e-learning module - 16% in first quarter

Lessons learnt and next steps:
• Staff engagement with the PMA for 1:1 RCS has been challenging. Awareness of the role and service has been raised through education, communication, networking and visibility in all clinical areas. There have been significant issues with staff release on clinical shifts and the inflexibility 12 hour shift patterns create. This is an on-going PDSA cycle.
• Themes from RCS sessions have been collated and Feed Forward Forums developed to discuss issues and form a self directed solution based forum
• Longer term evaluation of the PMA service on staff culture, sickness, recruitment and retention will be conducted
• We have shared our PMA and quality improvement with our Nursing colleagues in the Trust - the PMA team are actively supporting the Trust and University of Worcester in the upcoming PA training – Professional Advocates.
• Shared examples of excellence in practice presenting work at 1st National PMA Conference and Better Births Regional Conference. PMA’s in other Trusts have adopted some of the team ideas and launch material. We are again presenting at the second national PMA conference in September 2019

Poster Authors:
• Jo Daubeney & Annie Lester, Professional Midwifery Advocates
50. Using TrakCare to improve access to Spiritual Care

Background
The Chaplains team were using a report regarding patients requiring a spiritual care visit. However, the lack of contemporaneous data regarding ward moves and discharges, resulted in patients being missed by the chaplaincy team.

Method
A TrakCare Configuration and Business Analyst met with the chaplain’s team to understand their needs and how this could be met within the TrakCare system. They considered all available options and reviewed the team needs in line with available functionality. They allocated each of the chaplain’s team a role within TrakCare which facilitated each team member the ability to generate a TrakCare report of those inpatients who had requested a chaplain’s visit for spiritual care.

The report was configurable; to show only patients who were actually in the hospital, reducing the teams time spent attempting to visit patients who had been discharged. The functionality also enabled the chaplain’s team to generate a report by faith, allowing the most appropriate team member to conduct the visit, enabling more time to be spent with each patient and provide more visits. The ward plan view was demonstrated so patients exact location could be found, reducing the need to interrupt nursing staff. A bespoke training package on the new functionality within TrakCare was devised and delivered to the chaplains’ team.

Results
In the first week after training, the chaplains team reported that 4 patients who would have been missed, were captured by the TrakCare report and each received visits from the chaplains team.

Poster Authors:
- Allysun Gore, EPR / TrakCare Training Team
- Mark Adams
ZONE 2.8
51. The introduction of dietetic supplementary prescribing in the renal dialysis population in the management of Chronic Kidney Disease-Mineral Bone Disorder (CKD-MBD)

**Background**
The introduction of dietetic supplementary prescribing in the renal dialysis population in the management of Chronic Kidney Disease-Mineral Bone Disorder (CKD-MBD)

Renal dietitians have the skills to advise on bone mineral medications but until recently have not been able to prescribe these medications. Patients often require a second consultation with a prescribing clinician to initiate the dietitians plan, causing frustration and delay for all involved.

**Aim**
To introduce dietetic supplementary prescribing with the aim of reducing the time required for patients to receive new medications for the treatment of CKD-MBD by 50% in 6 months.

**Method**
Outcome measure: Time from dietetic recommendation to medication dispense date pre and post intervention.
Process measure: Number of dietetic prescriptions.
Balancing measures: Number of patients with an improvement in biochemistry 1 month post prescription and patient satisfaction of the process.

**Results**
- Median time to prescriptions reduced from 13 days to 1 day, demonstrating a 92% improvement in process following the introduction of dietetic supplementary prescribing.
- Biochemistry improved in 92% of patients compared to 63% improvement pre-intervention by month 1.
- Satisfaction survey pre-intervention confirmed patients believe there is time delay following dietetic recommendations.

**Implications**
Dietetic supplementary prescribing improves time taken for patients to receive medications for the treatment of CKD-MBD, with improved related biochemistry as a secondary outcome. This could lead to delayed disease progression.

Delivering an efficient service for the management of long term conditions where diet, lifestyle and medicines are key features avoids unnecessary clinician contacts/time for the sole purpose of accessing medicines and has the ability to improve patient experience and promote advanced dietetic skills to facilitate service improvement.

**Poster Authors:**
- Liz Brice, Renal Dietitian
- Sally Pugh, Renal Dietitian
52. Acts of Kindness; An intervention to support undergraduate medical student’s wellbeing during clinical placement

Background
It has been well documented that Undergraduate medical students have a higher prevalence of mental health conditions compared to their peers, but more worryingly they are also less likely to seek support if they are suffering (1-3).

Aim
We aimed to implement a ‘random acts of kindness’ reporting system within our undergraduate centre and evaluate its impact upon our students overall wellbeing.

Method
A ‘random acts of kindness’ reporting system was introduced to encourage students and faculty to anonymously report any selfless acts or achievements that merit special recognition. Each month the ‘acts of kindness’ were collated and disseminated to students and faculty. The impact upon the students’ wellbeing was then evaluated using a questionnaire with both quantitative and qualitative elements.

Results
Over 50 ‘random acts of kindness’ were reported over a 3 month period. 64 students responded to the questionnaire across three year groups. 64% of responders appreciated the ‘random act of kindness’ initiative and commented that it was ‘nice to acknowledge sweet things’ and it was ‘good to know nice things go on’. Students also valued the cross year group involvement stating ‘I was quite lost at the beginning of the placement and the kindness that the seniors showed was ‘life-saving’.

Conclusion
This intervention demonstrated that students appreciated the ‘random acts of kindness’ and found it easy to engage with and reflect upon. This low cost intervention, which could be easily replicated by other undergraduate centres, allowed our students across all year groups to feel part of a community here in Gloucestershire, positively impacting upon their overall wellbeing whilst on clinical placement.

References
3. Peters D, Horn C, Gishen F. Ensuring our future Doctors are resilient. BMJ. 2018;362

Poster Authors:
- C. Oliver
- A. Gosal
- M. Young
- L. Bowen
- C. Priest
- Z. Brown
- P. Davies
- A. Samuels
53. Keep Calm. Stay Warm. A Quality Improvement Initiative to prevent Surgical Site Infection (SSI) through Perioperative Temperature Management

Background
A surgical site infection (SSI) is an infection that occurs after surgery in the part of the body where the surgery took place. SSIs are the 3rd leading cause of hospital acquired infections. It affects both the patient and organisation. The impacts to the patient include, but not limited to, prolonged hospital stay, negative effect on quality of life due to losing of job while in the hospital or being treated, morbidity and mortality. Treatment of SSIs are also a huge financial burden to the organisation amounting to approximately £10,000 per patient. This cost includes extended length of hospital stay, antibiotics, and further surgeries.

One of the key elements to reduce SSI rate is to prevent patient form developing Inadvertent Perioperative Hypothermia (IPH). Patients with low core body temperature of less than 36 C are at risk or SSI and also cardiovascular diseases. Hypothermia can cause the blood vessels to constrict, reduce blood circulation and tissue perfusion, thus affecting effective wound healing.

Aim
To increase compliance to Inadvertent Perioperative Hypothermia (IPH) NICE Guidelines in Chedworth and Kemerton Day Surgery Units by 30 % within 6 months.

Method
Three PDSA Cycles used which include:

1. Initiating IPH Risk Assessment for all patients undergoing elective surgery in CGH General Theatres
2. Implemented interventions guidelines for pre-warming patients according to their risk, as per NICE Guidelines
3. Staff education on importance of warming and ASA Grading and documentation

Results
Process Measure: Compliance to IPH NICE Guidelines increased from 12.5% to 58% in 3 months

Outcome Measure: Incidence of IPH reduced from 33% to 14% in 3 months.

Next Steps
1. IPH Risk assessment will be part of the Pre-operative Checklist
2. Education pack for all staff.
3. Include importance of warming in patient’s letters/leaflets.

Poster Authors:
- Nur-in Mohammad, Chief Nurse Junior Fellow
54. Impact of a National Basic Colonoscopy Skills Course on Colonoscopy Performance

Background
The JAG Basic Skills in Colonoscopy Course aims to standardise colonoscopy training within the UK and is mandated in JAG certification criteria, but its impact on trainee performance is unknown. The Gloucestershire Endoscopy Training Centre delivers these courses. We aimed to evaluate the impact of course attendance on colonoscopy performance, as measured using the unassisted caecal intubation rate (CIR) and the performance indicator of colonic intubation (PICI).1

Method
Trainees awarded colonoscopy certification between 2011-2016 were stratified into groups according to the number of procedures performed prior to the course, namely <70, 70-140 and >140 procedures. Within each group, outcomes rates were calculated for each of the 50 procedures before and after the course through analysis of the JAG Endoscopy Training System (JETS) portfolio. Interrupted time series models were then used to detect step-change improvements occurring after the course.

Results
A total of 369 trainees were included in the analysis, who performed <70 (N=118), 70-140 (N=121) or >140 (N=130) procedures prior to the course. Over the 50 procedures prior to the course, all three groups saw significant improvements in CIR, with an average increase of 4.2, 3.6 and 1.7 percentage points per 10 procedures in the <70, 70-140 and >140 groups, respectively (all p<0.001). In those with <70 procedures at the time of the course, a significant step-change improvement in CIR was detected, from 46% in the last procedure before the course, to 51% in the first procedure afterwards (p=0.005). No significant improvement in CIR was detected in the other two groups, with changes of 68% to 71% (p=0.239) and 86% to 87% (p=0.354) for the 70-140 and >140 procedure groups, respectively. For PICI, all three groups saw a significant step change improvement, with average increases of 5.6 (p<0.001), 5.4 (p=0.003) and 3.9 (p=0.014) percentage points for the <70, 70-140 and >140 groups, respectively. Based on pre-course trends, this improvement was equivalent to that stemming from performing an additional 17-30 procedures.

Conclusions:
Attendance of a standardised knowledge-based and hands-on colonoscopy course appears to improve colonoscopy performance, as measured by PICI. However, the optimal timing of course attendance appears to be at earlier stages of colonoscopy training (<70 procedures).

Poster Authors:
- Keith Siau
- James Hodson
- Geoff Smith
- John T Anderson
- Roland Valori
- Paul Dunckley,
55. JAG provisional colonoscopy certification: does this sufficiently equip trainees with competencies in diagnostic colonoscopy?

Aims
Quality assurance of UK endoscopy training is overseen by the Joint Advisory Group on gastrointestinal endoscopy (JAG). Since 2011, provisional colonoscopy certification (PCC) has been awarded centrally by JAG when trainees fulfil JAG competencies for diagnostic colonoscopy. PCC often marks the transition from full-time colonoscopy training to newly-independent practice. Worldwide, robust real-world performance data of newly-independent colonoscopists are lacking. We aimed to assess the progress of key performance indicators before and after PCC, specifically the: 1) unassisted caecal intubation rate (CIR; national standard: ≥90%), 2) rate of moderate-severe patient discomfort (defined as >3/5 on a Likert scale) [national standard: <10%], 3) rate of sedation use at doses exceeding JAG recommendations, 4) polyp detection rate (PDR).

Methods
A UK-wide observational study of JAG Endoscopy Training System (JETS) e-Portfolio colonoscopy entries (N=257,800) from trainees awarded PCC between July 2011 to July 2016 was undertaken. KPIs were studied over 10 procedures using the moving average method. Trends in the 200 procedures leading up to PCC, and in the 100 after PCC, were assessed using linear regression.

Results
733 trainees from 180 UK training centres were awarded PCC after a median of 265 procedures and 3.1 years. At the point of PCC, the cohort as a whole had a CIR of 93.6%. This fell slightly, to a nadir of 90.9% during the early post-PCC period, where 78% of procedures were performed independently, before recovering after around 100 procedures post-PCC. Rates of moderate/severe discomfort and high sedation at the point of PCC were low, at 3.0% and 3.8%, both of which improved significantly in the 100 subsequent procedures (p=0.003, <0.001, respectively). The overall PDR was 27.6% at the point of PCC, and remained stable subsequently (p=0.183).

Conclusion:
Rates of trainee KPIs are meeting JAG standards in the lead-up to PCC, and generally remained stable or improved subsequently during the post-PCC period of newly-independent practice. This demonstrates that JAG certification is a robust marker of competence in diagnostic colonoscopy, and supports the role of credentialing for the quality assurance of endoscopy training.

Poster Authors:
- Keith Siau
- James Hodson
- Steve Ward
- Paul Dunckley,
56. Haemostasis experience at completion of specialist training in gastroenterology: analysis of the jets e-portfolio

Background
The JAG Basic Skills in Colonoscopy Course aims to standardise colonoscopy training within the UK and is mandated in JAG certification criteria, but its impact on trainee performance is unknown. The Gloucestershire Endoscopy Training Centre delivers these courses. We aimed to evaluate the impact of course attendance on colonoscopy performance, as measured using the unassisted caecal intubation rate (CIR) and the performance indicator of colonic intubation (PICI).1

Method
Trainees awarded colonoscopy certification between 2011-2016 were stratified into groups according to the number of procedures performed prior to the course, namely <70, 70-140 and >140 procedures. Within each group, outcomes rates were calculated for each of the 50 procedures before and after the course through analysis of the JAG Endoscopy Training System (JETS) portfolio. Interrupted time series models were then used to detect step-change improvements occurring after the course.

Results
A total of 369 trainees were included in the analysis, who performed <70 (N=118), 70-140 (N=121) or >140 (N=130) procedures prior to the course. Over the 50 procedures prior to the course, all three groups saw significant improvements in CIR, with an average increase of 4.2, 3.6 and 1.7 percentage points per 10 procedures in the <70, 70-140 and >140 groups, respectively (all p<0.001). In those with <70 procedures at the time of the course, a significant step-change improvement in CIR was detected, from 46% in the last procedure before the course, to 51% in the first procedure afterwards (p=0.005). No significant improvement in CIR was detected in the other two groups, with changes of 68% to 71% (p=0.239) and 86% to 87% (p=0.354) for the 70-140 and >140 procedure groups, respectively. For PICI, all three groups saw a significant step change improvement, with average increases of 5.6 (p<0.001), 5.4 (p=0.003) and 3.9 (p=0.014) percentage points for the <70, 70-140 and >140 groups, respectively. Based on pre-course trends, this improvement was equivalent to that stemming from performing an additional 17-30 procedures.

Conclusions:
Attendance of a standardised knowledge-based and hands-on colonoscopy course appears to improve colonoscopy performance, as measured by PICI. However, the optimal timing of course attendance appears to be at earlier stages of colonoscopy training (<70 procedures).

Poster Authors:
- Keith Siau
- James Hodson
- Geoff Smith
- John T Anderson
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ZONE 2.9
57. GHFT Finance Team - Our Journey to Outstanding ‘Count Me In!’

Background
Our Use of Resources rating is currently Requires Improvement, it recognises how we use our finances, delivering value for money plus how we deliver on quality and performance are all equally as vital in order to deliver Best Care for Everyone.

Purpose
At the beginning of this year, the department plus our Director of Finance met to discuss how we could build upon the ideas for improvement which had been previously raised at the quarterly department meetings but didn’t necessarily go anywhere. To be able to turn those ideas into actions was key!

Aim
We are focusing on 6 key areas wrapped around our campaign called Count Me In.

1. Accreditation
2. Training
3. Communication & Networking
4. Systems & Processes
5. Leadership
6. Personal Development & Peer Support

Method
To better engage staff across the Trust we created a campaign called Count Me In. With help from the Finance PMO a structure and process was established. We use this at Trust events, key meetings and regularly on our Twitter account #GHFTCountMeIn. This messaging is about helping staff to gain a better understanding of NHS finances and how we can best use our resources to provide high quality, efficient and sustainable care for patients.

We are currently working through the Future Focused Finance accreditation. This process is about reflecting on what we are doing well and what we can share as well as where we can improve and learn from others. This process will help towards our goal of becoming an outstanding finance function. There are 3 levels of accreditation, levels 2 & 3 are peer assessed by other accredited finance teams across the country.

Results
We have recently developed successful financial awareness training for all Trust staff. Attendees complete an evaluation form at the end of each session and so far (as of July 2019) 92% of our attendees said ‘yes’ or ‘mostly’ that their understanding of NHS finances has improved.

Conclusion/Next Steps
We are proud of the work we have started and there is much more to achieve in the next year!
Training aimed specifically at budget holders commences September 2019.

Poster Authors:
- Hayley Summers, Programme Facilitator
- Johanna Niehues
- Josh Penston
- Rob Neale
58. Feasibility Trial of Trauma Assessment and Treatment Unit

Background:
Acute orthopaedic referrals have greatly increased, stretching our resources. Patients either wait to be seen in the Emergency department or are admitted while awaiting test results though discharge can then take longer than expected. Some patients require admission solely to receive intravenous antibiotics.

Method:
We performed a two-week feasibility trial of a Trauma Assessment and Treatment Unit (TATU) with two main aims:
1) prevent avoidable admissions
2) reduce waiting time in ED
For two weeks in June, we converted one six-bedded bay on ward 3B to an assessment unit, with reclining chairs. It was staffed by one nurse and the on call orthopaedic team (Consultant, Registrar, F2). We also trialled using once daily intravenous antibiotics, to allow day case treatment when appropriate.

Results:
Over 14 days, we admitted 83 patients, 21 of whom returned for further planned assessment or treatment as a day case. Of the 84 bed days that were lost by converting the bay, 54 bed days were saved by patients avoiding admission.

The presenting complaints were as follows: 49% infection, 17% fractures, and 19% acute spine conditions. Patients spent a mean of 3 hours on TATU. The number of patients seen each day varied between 5 and 17.

95% of patients were extremely likely or likely to recommend TATU to a friend or family.

Next Steps:
There were some concerns over privacy, which will be addressed.

These results show that TATU in this site is viable and merits further development. We plan a longer trial to better evaluate its effect.

Poster Authors:
- Will Mason, Consultant Trauma & Orthopaedic Surgeon
- Hamish MacDonald
- Olly Pearce
- Di Thomas
- Bernie Turner
- Anna Blake
59. Comparison of spinal plus GA vs GA alone on Post-operative pain in Robot Assisted Laparoscopic Prostatectomy patients

Aim
Different anaesthesia techniques were being utilised to provide anaesthesia and analgesia for Robot Assisted Laparoscopic Prostatectomy (RALP) patients. We wanted to assess whether either technique led to more favourable post-operative conditions for patients.

Methods
An audit was undertaken of the different techniques being used for anaesthesia (GA alone or GA plus spinal) and the post-operative time in recovery, opiate requirement and pain scores.

Results
Still under analysis, but seem to indicate additional of spinal anaesthesia seems to result in less spasm pain in recovery, shorter recovery stay, less opiate use, both in the immediate post op period, and over the next 48 hours.

Conclusion
Addition of spinal may improve post-operative conditions for patients undergoing RALP. Results will be fed back to department with the aim of encouraging a change in practice.

Poster Authors:
- Dr Jeannine Stone, Post CCT Fellow Anaesthesia
- Oliver Barker
- Rob Orme
**Background/Purpose**
Gallery ward was created to help manage patients who are medically fit, but remain in hospital, differently.

One of the other main drivers for the creation of Gallery ward was to provide patients with a better patient experience whilst waiting to be discharged. This has been an evolving process over the past year, but this poster would chart the past years service improvements relating to the improvement in patient experience and safety. These have been achieve through QI, Sweeney and general service improvement methodology, as the ward fosters a continual service improvement culture, with yearly ward objectives.

**Results**
The outcomes of its first year in operation demonstrated a significant improvement in the number of patients being discharged directly home, correlating with a reduction in a length of stay as well.

The main areas for highlighting within this poster are:
1. 1st hour prioritise and admission checklist
2. Patient feedback tree and you said/we did approach
3. ward day room mural/ activities
4. what matters to me and the 4 questions
5. patient falls awareness.

**Poster Authors:**
- Catherine Hopkins, Clinical Lead Therapist – Gallery Ward
ZONE 3.1

1st floor
61. The Royal College of Ophthalmologists’ National Ophthalmology Database study of cataract surgery: report 6, The impact of EyeSi virtual reality training on complications rates of cataract surgery performed by 1st and 2nd year trainees

**Problem**
One risk factor for the occurrence of posterior capsular rupture (PCR) during cataract is when the operation is performed by a junior surgeon. Surgery simulator machines can assist the development of a surgeon by allowing practicing of surgery techniques in a virtual environment.

**Purpose**
To investigate the impact of EyeSi surgical simulators on PCR rates for cataract surgery performed by 1st and 2nd year trainee surgeons.

**Method**
A Royal College of Ophthalmologists’ National Ophthalmology Database Audit study of 1st and 2nd year surgeons’ PCR rates between 2009 and 2016. Participating centres provided information on their surgeon’s access to an EyeSi.

**Results**
Over the study period, 17,831 operations were performed in 29 centres by 265 1st and 2nd year trainee surgeons. 6,919 (38.8%) operations were performed before access to an EyeSi, 8,648 (48.5%) after access to an EyeSi and 2,264 (12.7%) operations by surgeons with no access to an EyeSi. The overall unadjusted PCR rates for the before, after and no access to EyeSi groups were 3.5%, 2.6% and 3.8% respectively. Over the study period, there was a 38% reduction in the surgeon’s unadjusted PCR rates from 4.2% to 2.6% for surgeons with access to an EyeSi, and a 3% reduction from 2.9% to 2.8% for surgeons without access to an EyeSi.

**Conclusions**
1st and 2nd year trainee surgeons’ unadjusted PCR rates have decreased since 2009 which has significant benefits for patients undergoing cataract surgery. This reduction aligns with the introduction of EyeSi simulator training.

**Poster Authors:**
- Paul HJ Donachie, Medical Statistician for The Royal College of Ophthalmologists National Ophthalmology Database
- John D Ferris
- Beth Barnes
- Martina Olaitan
- John M Sparrow

Problem
Cataract extraction is the most frequently performed surgical intervention in the world and demand is increasing due to an ageing demography. One option to address this challenge in the UK is to offer selected patients immediate sequential bilateral cataract surgery (ISBCS) instead of conventional delayed bilateral cataract surgery (DSCS).

Purpose
To investigate potential differences in clinical factors between ISBCS and DSCS using data submitted to the Royal College of Ophthalmologists’ National Ophthalmology Database Audit.

Methods
Eligible patients were those undergoing ISBCS or DSCS from centres with a record of at least one ISBCS operation between 01/04/2010 and 31/08/2018.

Results
During the study period, 1,073 patients had ISBCS and 248,341 DSCS from 73 centres. A higher proportion of ISBCS patients were unable to lie flat (11.3% vs. 1.8%; p <0.001), unable to cooperate (9.7% vs. 2.7%; p <0.001); underwent general anaesthesia (58.7% vs. 6.6% (p < 0.001)); had brunescent/white/mature cataracts (odds ratio (OR) 5.118); no fundal view / vitreous opacities (OR 8.381); had worse pre-operative acuity 0.60 LogMAR ISBCS vs. 0.50 (first) and 0.40 (second eye) DSCS and were younger (mean ages, 71.5 vs. 75.6 years; p < 0.001). Case complexity adjusted posterior capsular rupture (PCR) rates were comparable (0.98% ISBCS and 0.78% DSCS).

Conclusions
ISBCS was performed on younger patients, with difficulty cooperating and lying flat, worse pre-operative vision, higher rates of known PCR risk factors and more frequent use of general anaesthesia than DSCS.

Poster Authors:
- Paul HJ Donachie, Medical Statistician for The Royal College of Ophthalmologists National Ophthalmology Database
- John C Buchan
- Andy Cassels-Brown
- Christopher Liu
- Andrew Pyott
- Jennifer L Y Yip
- Mehran Zarei-Ghanavati
- John M Sparrow
63. Comparison of metrics used in The Royal College of Ophthalmologists’ National Ophthalmology Database Audit, between all contributing centres and GHNHSFT

**Problem**
The National Cataract Audit (NOA) annually reports results for contributing centres as part of the national programs of clinical audits. There is variation between centres in the recording of data for different parts of the patient pathway, and by publishing the results the audit aims to reduce this variation.

**Purpose**
To show the audit results for GHNHSFT in relation to other contributing NOA centres for cataract surgery performed between 1st September 2016 and 31st August 2017.

**Methods**
Comparison of metrics between GHNHSFT and all other contributing NOA centres for the most recently reported audit year. Metrics reported are the percentage of operations with a pre-operative visual acuity (VA) measurement, a post-operative VA measurement, both VA measurements, case complexity posterior capsular rupture (PCR) rate and the VA loss rate.

**Results**
From 182,761 cataract operations performed in 82 centres, a pre-operative VA was recorded for 91.5% of operations. From 158,858 operations, a post-operative VA was recorded for 75.7% of operations and both VA measurements for 71.7% of operations. The overall case complexity PCR rate was 0.89% and the overall VA loss rate was 0.64%.

For GHNHSFT, a pre-operative VA measurement was recorded for 92.8% of 3,521 operations, a post-operative VA for 86.0% of 2,989 operations, and both VA measurements for 80.8% of operations. The overall case complexity PCR rate was 1.05% and the overall VA loss rate was 0.29%.

**Conclusions**
The metric results for GHNHSFT compare favourably with the audit estimates for all contributing centres.

**Poster Authors:**
- Paul HJ Donachie, Medical Statistician for The Royal College of Ophthalmologists National Ophthalmology Database
- Beth Barnes
- Martina Olaitan
- Lynne Sander
- John M Sparrow
64. Aflibercept in the real world – a clinical audit of people with diabetic macula oedema from 21 UK hospitals

Methods
Anonymised data of patients undergoing anti-VEGF injections for diabetic macular oedema was exported from a dedicated ophthalmology electronic patient record systems. Those who had aflibercept injections only were included. For those who had both eyes treated, only the first eye to be treated was included and for those who had both eyes treatment started simultaneously, the better eye was included. Linear regression was used to relate change in visual acuity (VA) over 12 months from the first injection with age (grouped <65 years, 65 to 74, 75 and above), baseline letter score (<50 letters, 50 to 59, 60 to 69, 70 to 79, 80 or more) and number of injections.

Results
Data was available for 1566 patients who could have had 12 months follow-up from first injection. Of these 142 had no baseline VA in the 8 weeks prior to the first injection, 181 had no 12-month anniversary VA within 8 weeks of the 12-month anniversary, 40 had no baseline or 12-month data. Thus Because of missing data 363 patients (23%) were excluded from the analysis. The 1153 patients with complete data were of age 64 (57 to 73) years (median (25th to 75th centile)), with the baseline VA of 64 (54 to 72) ETDRS letters and had received 6 (5 to 8) injections. Over 12 months the VA improved by 5 (0 to 12) letters.

Worse baseline VA was associated with greatest improvement (p<0.001), those with fewer than 50 letters at baseline having improvement of 15 (18.7) (mean (s.d.)) letters and those with 80 letters or more losing 2.2 (5.7) letters. Older patients had smaller improvement (p=0.0002), patients aged 75 years and above gaining 4.6 (13.8) letters and those under 65 gaining 6.6 (14.3) letters.

The number of injections was of borderline significance (p=0.051) with each additional injection giving improvement of 0.4 letters.

Conclusions
Despite the high level of missing data the results concur with previous reports. The efficacy of antiVEGF demonstrating demonstrates a 5 letter gain similar to previous real life studies, the ceiling and floor effect on VA outcomes, with somewhat lower injection count (n=6).

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65. Transforming induction for medical students with the use of in situ simulation

**Background**
Induction is key for the preparation of medical students on a new clinical attachment. In situ simulation involves conducting simulation in the clinical environment; this is expected to increase fidelity and learning. It’s argued that in situ simulation is more effective for learning compared to other types.

**Aim**
In an attempt to make induction more interactive for our students, we came up with the idea of combining induction and simulation teaching.

**Method**
We took a group of fifth year medical students and divided them into the ‘control group’ and the ‘intervention group’. The control group had regular induction to the clinical environment, whilst the intervention group had this plus the opportunity to participate in an in situ simulation. Students were invited to complete a post induction questionnaire and partake in a focus group.

**Results**
The questionnaire showed results in favour of the simulation group. Of the students who participated in the simulation, 100% of them said they enjoyed it, found it beneficial to their learning and think it should be included in future induction, and 83% of students felt more comfortable assessing an unwell patient in their new clinical environment. Focus group discussions were analysed together as similar themes were noted throughout; these were Structure, Familiarity and Team.

**Conclusion**
The use of in situ simulation in induction can be easily transferred to other universities, hospitals and professional groups. We encourage educators to continue to develop this idea, and consider the integration of in situ simulation into future induction programmes.

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66. The Wellness Scale: Evaluating the impact of an innovative tool to support medical student wellbeing on clinical placement

Background
In an increasingly pressurised NHS, there are growing calls for medical schools to ensure that the doctors of the future are resilient practitioners (1). There are rising rates of mental health issues amongst all university students (2), and medical students are less likely to seek help than other students despite higher prevalence of mental health concerns (1). Potential barriers to addressing medical students’ wellbeing include the lack of recognition that they need support and not knowing how to access help.

Method
We developed a Wellness Scale for medical students on clinical placement in Gloucestershire. This asks them to identify which of four discrete categories best describes their status, using relevant descriptors of: well; stressed; becoming unwell; or unwell. The document also includes signposting towards relevant support.

Results
The students’ feedback indicated they felt the Scale was “accessible”, encouraging them that it is “acceptable and normal to get help”. Every student said they felt it improved their confidence with identifying their level of mental health. Thematic analysis of the focus group discussion has shown themes of accessibility, resilience and mentorship.

Conclusion/Next steps
Our students view the Wellness Scale as a useful tool that enhances their confidence in both ascertaining their level of wellness and finding appropriate avenues of support. We believe that introducing our Wellness Scale has initiated a useful step in encouraging students to take ownership of their own mental health. We hope to continue developing the document and expand its use to include students across all years on placement within our Trust.

References:

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67. Understanding patient’s perspectives of disease; communication skills teaching through video testimonies of real patient experiences

Background
Bristol medical school’s curriculum is undergoing radical change, with an enhanced focus on communication skills development. The importance of ensuring this teaching leads to high quality communication between doctors and patients is well established (1). Evidence advocates the use of video to support and enhance medical education (2).

Method
In this study patient testimony videos from an educational website called Speaking Clinically - an extensive collection of short movies in which patients talk frankly and openly about their medical conditions - were incorporated into teaching sessions, with the aims of enhancing sessions, improving student confidence in their communication skills and informing future curriculum construction.

Second year medical students undertook three communication skills teaching sessions. The first two ‘standard’ sessions ran as advised by the University; with students taking turns to experience a simulated patient consultation, followed by observer feedback. The third session included relevant, integrated videos from Speaking Clinically, which students watched following the consultation. Feedback was then collected via a questionnaire.

Results
Students reacted positively to the videos with 100% of students reporting that videos enhanced the session, compared to the ‘standard’ session. Students also felt more confident in empathetically communicating with patients, after integrating the videos into the session.

Students reported overwhelmingly positive views regarding the use of video.

Conclusion
The novel communication skills teaching model proposed through this study found that integrated patient testimony videos bring an added value to student’s teaching and increases confidence in their communication skills.

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68. Does Building a Community Promote Wellbeing within an Undergraduate Medical Education Centre?

Background
Medical Education has been shown to have a negative effect on students’ wellbeing.(1) Not only is there a higher prevalence of mental health conditions amongst these students but they are also less likely to seek support if required.

Method
(2,3) A ‘wellbeing toolkit’ was introduced at Gloucestershire Academy with the aim to build our community and review its impact upon our students’ overall wellbeing.

Over 70 students engaged with the wellbeing toolkit during their clinical placements.

Results
Fifth year questionnaire results showed that 100% either agreed or strongly agreed that a sense of community was important to them, with 77% agreeing or strongly agreeing that they had felt part of the Gloucestershire community during their placement. 100% of the students questioned felt that the toolkit had contributed to their overall wellbeing and went onto report that the toolkit ‘made you feel more connected with everyone’ and ‘part of a team’. Second year student’s results showed 100% responding felt supported whilst on placement and felt the toolkit promoted their overall wellbeing. Some reported that they ‘hadn’t felt stressed about anything’ and others felt that it was ‘a good opportunity to meet students from older years’. Focus group discussions found themes of familiarity, environment and fear of missing out.

Conclusion
This ‘wellbeing toolkit’ has positively contributed to our students’ experience whilst on placement in Gloucestershire. We hope that this straightforward intervention to create a sense of community within Gloucestershire Academy will be transferable to other trusts. Our students are more equipped to seek support, enjoy their placement and maximise their educational experience as a result.

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69. An Innovative Teaching Approach for the Clinical Assessments of Wounds

Background
The cost of wound care and wound management in 2013 was estimated to be costing the NHS £5.1 billion.(1) Medical schools across the UK are on average providing only 4.9 hours of wound related teaching to their undergraduate medical students during their five year programmes. (2)

Aim
The aim of this study was to introduce an innovative approach to teaching the clinical assessment and diagnosis of wounds to fifth year medical students at the University of Bristol.

Method
Fifth year medical students based at Gloucestershire Academy were invited to take part in a ‘Diagnosis and Management of Wounds’ teaching session. Students were randomly assigned to the intervention group or control group. All students undertook a pre-assessment exam based upon the Bristol Clinical Data Exam to establish their baseline knowledge.

The intervention group were delivered additional teaching and were required to follow instructions to make wounds using modelling equipment provided. Following the teaching session both groups underwent further examination and were asked for qualitative feedback about the sessions.

Results
The intervention group showed an increased improvement between their pre and post assessment score of 30%, compared to only 17% in the control group. The intervention group also expressed improved self-confidence in their sport diagnosis and management of basic wounds when compared to the control group.

Conclusion
This interactive and innovative approach to teaching wounds to Undergraduate students has demonstrated an improvement in both the understanding and knowledge of wounds and an improvement in self-confidence. This study has taken a didactic teaching approach and made it more engaging and memorable for the students with beneficial results.

References:

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70. A Simple Solution? The challenges of accurately preparing St Mark's oral rehydration solution on the ward.

**Background**
St Mark's oral rehydration solution (ORS) is used in patients with high output ileostomy to reduce stoma output and maintain hydration. St Mark's ORS recipe is intended to produce a drink with a sodium concentration of 90 mmol/L. The amount of each dry ingredient is given in spoon measurements.

**Method**
A study was created to determine the accuracy of using a 2.5/5 ml measuring spoon to make St Mark's ORS. 29 staff members participated, 12 of whom completed a questionnaire to investigate their experience in using St Mark's ORS. Participants measured sodium chloride, sodium bicarbonate and glucose powder using a 5ml/2.5ml medicine spoon. Each measured amount was weighed on electronic scales and recorded in grams. The potential sodium concentration in mmol was calculated.

**Results**
Results demonstrate a varied understanding of the rationale for St Mark's ORS. Concern about accuracy when making St Mark’s ORS and difficulty of adapting 1000 ml recipe for a 750 ml jug was observed. Using a measuring spoon produced a drink with a mean sodium concentration level of 146 mmol/L, far greater than the desired 90 mmol/L.

**Conclusion**
St Mark's ORS made with a measuring spoon will not be a hypotonic drink. The excessive sodium concentration will adversely affect electrolyte balance in patients at high risk of acute kidney injury. Variation in sodium concentration will affect palatability and patient compliance extending reliance on intravenous fluids and lengthening inpatient stay.

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71. SWAG - Sustainability Week At Gloucestershire Academy: An innovative programme to raise awareness of sustainability in healthcare for medical students

Background
Outcomes for graduates outlines the importance of sustainability teaching for medical students. But what is medical students’ awareness of sustainable healthcare? How important do they think it is? Are they keen to learn more about it?

Aim
The main aims of this project were to raise medical students’ awareness of sustainability in healthcare, encourage students to take an active role in it, and educate on key aspects of sustainability.

Method
An innovative, exciting new programme was developed for 20 University of Bristol final-year medical students at Gloucestershire Academy, and was undertaken in February 2019. The programme ran for 1 week alongside regular teaching, and was named SWAG (Sustainability Week At Gloucestershire Academy).
A programme was created incorporating several varied activities and challenges for students, including a ‘Guess the Cost’ game and daily email bulletins. Students were encouraged to think of solutions to improve sustainability on the wards, and gave short presentations with prizes for the best suggestions.
Pre and post intervention questionnaires were used to assess students’ attitudes towards sustainability, following thematic analysis of white space answers.

Results
After the intervention students had an improved knowledge of the principles of sustainable healthcare, and enthusiasm for involvement with sustainability and quality improvement in their future careers.

Next steps
We hope to follow up with students at a later date, once they start work as F1s, to see if they have a continued interest in sustainability.
This work could be used to develop a programme to be delivered across the University of Bristol’s academies, and further afield.

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All admissions to Gloucester Royal Hospital (GRH) between January and April 2018 and coded as no fixed abode (NFA) were measured against secondary care standards set by the Faculty of Homeless and Inclusion Health (FHIH).

As listed in the Standards, leaflets signposting local services were designed (with input from homeless patients), widespread education of hospital staff undertaken and a store of clean clothes provided and publicised.

The notes of 30 NFA admissions to GRH were examined. The average age was 38 years, 53% were admitted due to overdoses, 77% had drug or alcohol dependency and 63% had a psychiatric history.

Only 13 of the 30 patients were referred to the housing officer. Of these, one self-discharged and the remaining 12 were provided with accommodation on discharge and referred to relevant outside agencies e.g. drug and alcohol services.

53 staff were surveyed before, and 50 after the interventions. 91% had contact with a homeless person and 38% had experienced a homeless person being discharged to the streets without support. There was improved awareness of the homeless guideline (45 to 58%), information leaflet (34 to 62%) and location of the clothes store (34 to 88%).

A specialist housing officer for homeless patients admitted to hospital is hugely effective in avoiding discharge back to the street. Crucially this relies on staff making the referral. Implementation of FHIH Standards is achievable in secondary care but must be accompanied by a robust on-going programme of education.
‘Other Category’

73. Not another ice-breaker… Developing an innovative induction programme for medical students on clinical placements

Background
The GMC states that induction is required for every clinical placement medical students undertake.1 Study in this area of medical education is important due to the potential impact on students’ behaviour, conduct, wellbeing and sense of belonging early on in their medical careers.

Aim
The aim of this project was to develop an innovative induction programme focusing on student needs when starting placements in new hospitals, and evaluate its impact on student perception of induction.

Method
A learner-centred induction programme was developed, including breakout small group sessions on human factors, team building and learning in the clinical environment. A pilot programme was delivered in September 2018 and sessions modified according to feedback. The full programme was delivered in January 2019, with 25 third-year University of Bristol medical students starting placements at Gloucestershire Academy.

Pre and post induction questionnaires were distributed to determine knowledge, attitude and opinions on the value of induction.

Results
The results were very positive; the amount of students who found induction useful tripled after receiving our programme.

Conclusion
Transforming induction based on the data collected has the potential to immediately change students’ practice, but also their practice as doctors in future. Getting this right early on could therefore ultimately improve patient care.

Next steps
We aim to follow up with students in future to see if the induction programme has been beneficial outside of the classroom, and results will inform further development of general induction programmes for medical students.

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Emergency Care

74. An open-label, randomised controlled feasibility study to evaluate whether nasal fentanyl alone and in combination with buccal midazolam give better symptom control to dying patients when compared with standard as needed medication

Background
Many patients want to die at home and they invariably become unable to take oral medication as part of their terminal phase; symptoms are usually controlled using subcutaneous medications. There have been no studies examining the use of nasal fentanyl (NF) or buccal midazolam (BM) to control symptoms at the end of life.

Aim
To establish how best to conduct a definitive randomised controlled trial (RCT) to determine whether NF and BM given by families rather than standard breakthrough medication administered by healthcare professionals for patients dying at home, leads to faster and better symptom control and fewer community nursing visits.

Material and methods
This feasibility open-label RCT compared the efficacy of NF and BM administered by family members with standard breakthrough medication administered by nurses to terminally ill patients in a specialist palliative care unit. Partway through the study, a third observational arm was introduced where BM alone was used as study drug. The primary outcomes were whether recruitment and randomisation were possible; assessment of withdrawal and drop-out rates; and whether the proposed trial methods were acceptable and appropriate.

Results
The administration of NF and BM was considered acceptable by patients and families, and both medications were well tolerated. We were unable to consistently obtain data on quality of life outcome measures but there was no missing data with regards to how long doses controlled symptoms.

Conclusions
Participation in such a study in a hospice population was acceptable. The results will help planning of a future community study.

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75. Royal College of Paediatrics and Child Health (RCPCH) Quality Improvement Diabetes Collaborative: Improving the Clinic Experience

Background
Gloucestershire Paediatric Diabetes Team has implemented several innovations and seek to improve our patient engagement and experience to improve health outcomes.

Aim
Improve the clinic experience for patients, families and staff, based on their input, thereby encouraging greater engagement and patient attendance as part of the RCPCH QI programme

Methods
We undertook mapping process. We collected feedback from patients, families and staff. We identified areas for improvement, implemented Interventions and evaluation done.

Results
1. Clinic layout and furniture rearranged into ‘coffee table’ setting and 88% were positive about changes in clinic layout, 12% neutral

2. Patients wanting greater involvement in care decisions - Development of ‘getting ready for Clinic’ sheet enabling patient led consultation and to provide clear written action plans to be taken away from clinic with 94% positive responses, 6% neutral

3. Patients to have greater ownership of their diabetes management - Provided instruction leaflets and guidance on Diasend downloading in clinic to enable all patients to download from home. - Introduction of Hba1c record charts in clinic 86% found instructions valuable and 72% were happy to download at home.

4. Data on clinic waiting times collected and amended appointment letters to request patients arrive 15 minutes early for clinic. Review of clinic waiting times showed no significant changes.

Conclusion
Verbal and written feedback has shown families and children are engaging to a greater extent and more involved in their own diabetes management. They are more relaxed and have now found their voice.

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76. What do Doctors want from Out of Hours Specialist Palliative Care?

**Background**
There is debate about the optimum structure for services supporting patients with palliative care needs out of hours (OOH). In the UK, there is wide variation in the specialist palliative care (SPC) services offered. In Gloucestershire, healthcare professionals currently have access to a telephone advice line, but no face-to-face assessments.

**Aims**
The primary objectives were:
1. evaluate OOH SPC services currently available to hospital patients in Gloucestershire;
2. determine the level of support hospital doctors think they require to manage palliative patients OOH.

**Methods**
An anonymous questionnaire was sent to doctors of all grades in Gloucestershire Hospitals NHS Foundation Trust to establish their understanding of the services currently available and the level of SPC support required OOH. We followed up with email reminders.

**Results**
104 doctors replied. Only 30 had a correct understanding of the OOH SPC services available; 15 incorrectly thought that there was support from visiting SPC healthcare professionals. 49 had contacted the SPC team OOH at some point in their career, with the most common reasons relating to symptom control (33%) and medication advice (31%). 98% of participants found the advice they had received helpful. 76 participants agreed that an OOH telephone advice line was required, but of these, nearly half (46%) felt that additional support from visiting healthcare professionals was needed. 12.5% of participants felt that visiting SPC professionals were required instead of an advice line. 62% of participants believed that, with better education, clinicians would be less likely to require OOH SPC support.

**Conclusions**
Doctors valued the advice received from the OOH SPC team, but there was a lack of understanding about the precise services available. Despite this satisfaction, some felt that a visiting service would be of benefit. The majority thought that better SPC education would lead to less reliance on OOH SPC services.

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There is identified clinical need for improved cancer diagnostics. Earlier diagnosis is linked to better outcomes for patients. The Biophotonics Research Unit's goals are to pioneer the field of novel optical diagnostics within the clinical environment. We undertake research into vibrational spectroscopy (Raman and FT-IR), diagnostics for in vivo and in vitro discrimination of early cancers. Raman spectroscopy is the inelastic scattering of light, which occurs in just one in a million scattering events. The Raman spectra provide a biomolecular fingerprint of cells or tissues which is highly specific, reproducible and objective. The spectra enable discrimination of the different stages along the disease process.

Current projects are looking at application three clinical areas

- RaPIDE (Raman Probe for In-vivo Diagnostics (during oesophageal) Endoscopy). RaPIDE is developing a miniaturised Raman probe that slides down the working channel of an endoscope, to diagnose oesophageal cancer using Raman spectroscopy without the need for an invasive, expensive and distressing biopsy. The project is a collaboration between The Biophotonics Research Unit and Biomedical Spectroscopy Group at The University of Exeter, and Interface Analysis Centre at The University of Bristol.

- DOLPHIN (Diagnosis Of Lymphoma IN vivo). DOLPHIN is enhancing the design of a Raman needle probe to be used to analyse lymph nodes in the head & neck in vivo. The project is a collaboration between The Biophotonics Research Unit and Biomedical Spectroscopy Group at The University of Exeter, and Interface Analysis Centre at The University of Bristol.

- RAFTER (RAman For Thyroid CancER). RAFTER is a project funded by Cheltenham and Gloucester Hospitals Charity through FOCUS. Its aims to develop a rapid, minimally invasive diagnosis technique for swollen thyroid glands, to improve the screening process by avoiding the need for an invasive surgical biopsy. Many patients experience weakness of their vocal cords following surgery, but this less invasive approach to diagnosis will have little if any side effects. Using specially developed fibre-optic probes which can target tissue below the skin, we can tell the difference between healthy and cancerous tissue by measuring light from tissue when illuminated by a low-power laser; a technique called Raman spectroscopy.

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