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Royal College of Physicians and Society of Physicians in Wales

Improving general internal medicine (GIM) patient care and clinical practice

Abstracts

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Introduction

‘It is difficult to say anything about the past 2 years that hasn’t already been said.

‘The global health crisis that has been the COVID-19 pandemic has had a life-changing impact on every one of us, especially those in the NHS workforce. Reading through the submissions to our 2021 poster competition, I have never felt so proud of our trainee doctors – they have truly risen to the occasion, producing high-quality audit and improvement projects, and making a real difference to patient care and outcomes across Wales.

‘Because of the pandemic, we were unable to hold the Royal College of Physicians (RCP) and Society of Physicians in Wales (SPW) joint annual update in acute and general internal medicine in person, but together with Health Education and Improvement Wales (HEIW), we were keen to give trainees the opportunity to showcase their projects. This booklet contains the abstracts shortlisted for presentation on our virtual platform, along with those that were highly commended by our judges.

‘I would like to thank HEIW for supporting the RCP and SPW with this initiative and for providing funding for the prizes awarded, RCP college tutors and hospital postgraduate centres for helping to promote the poster competition, and finally, all the entrants for taking the time to submit and share their work. During the most difficult time in NHS history, you have all exceeded expectations, and I look forward to hearing more about your achievements in the future.’

Dr Olwen Williams OBE

RCP vice president for Wales

Consultant physician in sexual health and HIV medicine

The implementation of FIT at ABUHB – real-life experience and outcomes

**Authors: Dr Jamal Ahmed, Dr Muhammad Imran, Dr Rhodri Davies
Royal Gwent Hospital**

Introduction

A faecal immunochemical test (FIT) helps to detect signs of colorectal cancer (CRC). It uses antibodies against the globin moiety of human haemoglobin to quantify blood in stool. FIT is used in CRC screening; the range of sensitivity of these tests is 92–100%. As a result of delays due to the COVID-19 pandemic and increasing burden on endoscopy services, FIT should be used to prioritise patients with CRC symptoms.

Aim

To assess the implementation of FIT at Aneurin Bevan University Health Board (ABUHB) in the referral of patients to secondary care with suspected CRC.

Methods

All patients included underwent FIT between July 2019 – June 2020. Patients met criteria to undergo FIT, which included: >50 with unexplained abdominal pain or weight loss, 60 with anaemia without iron deficiency.

Results

In total, 995 patients underwent FIT. 57.7% were females: 57.7%, and 42.3% were males. 178 were positive and 817 were negative. 86 referrals were made to gastroenterology and 48 to colorectal services despite a negative FIT and 91 referrals were made pre-FIT. In FIT-negative patients who were investigated, 0% had CRC. 38.8% of referred patients with a negative FIT had no pathology. 10.6% of FIT-positive patients had CRC. Other pathology included polyps (27.5%), diverticulosis (12.9%) and colitis (6.2%).

Conclusion

We conclude that a negative FIT is a reliable marker in ruling out CRC and our results show similar efficacy to published data. Clinicians are encouraged to use FIT as a triaging tool in patients with suspected CRC in primary care.

The 'RED NIV pathway'

**Authors: Dr Joy Creaser-Thomas, Dr Michael Shiel, Dr David Varfill
Morrison Hospital**

Introduction

The primary cause of death secondary to COVID-19 infection is respiratory failure. During the first wave, 22 patients were started on ward-based continuous positive airway pressure (CPAP), with 81.2% mortality. Many had significant comorbidities or were in profound respiratory failure on initiating therapy.

Methods

We developed the 'RED NIV pathway' to facilitate earlier identification, treatment and escalation planning of individuals deteriorating due to COVID-19 infection. Patients with COVID-19 infection requiring more than 8L of oxygen to maintain saturations of 90% triggered an emergency alert. The patient was immediately assessed by a medical registrar, intensive care colleague and non-invasive ventilation (NIV) unit nurse.

Requirement and suitability for CPAP was assessed, and escalation decisions would be made and clearly documented. Individuals requiring CPAP were immediately transferred to ring-fenced beds on the respiratory ward to commence therapy. Patients deteriorating on CPAP for escalation would be reassessed by ITU. The pathway was formalised in a document available on the intranet following mass education of all departments.

Results

185 COVID-19 patients triggered an alert and were transferred to the respiratory ward over a 5-month period. 174 required CPAP. 42 patients (22.7%) required and were suitable for escalation to intensive care. In ward-based patients, the average length of time on CPAP was 4.85 days. Mortality for patients managed with CPAP, who were not candidates for intensive care, was 40.5%.

Conclusion

This pathway led to earlier identification, joint decision-making and improved communication between specialties. It ensured the initiation of CPAP therapy was appropriate, in a patient-centred manner, with reduced overall mortality.

The burden of nosocomial COVID-19 in Wales: results from a multi-centre retrospective observational study of 2,508 hospitalised adults

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Objectives

To define the burden of nosocomial (hospital-acquired) novel pandemic coronavirus (COVID-19) infection among adults hospitalised across Wales.

Design

Retrospective observational study of adult patients with polymerase chain reaction (PCR)-confirmed SARS-CoV-2 infection between 1 March and 1 July 2020 with a recorded hospital admission within the subsequent 31 days. Outcomes were collected up to 20 November using a standardised online data collection tool.

Setting

Service evaluation performed across 18 secondary or tertiary care hospitals.

Participants

4,112 admissions with a positive SARS-CoV-2 PCR result between 1st March and 1st July 2020 were screened. Anonymised data from 2,508 participants were returned, representing over 60% of adults hospitalised across Wales. The prevalence and outcomes (death/discharge) for nosocomial COVID-19 was assessed across a range of possible case definitions.

Results

Inpatient mortality rates for nosocomial COVID-19 ranged from 38% to 42% and remained consistently higher than participants with community-acquired infection (31%–35%) across a range of case definitions. Participants with nosocomial-acquired infection were an older, frailer, and more multi-morbid population than those with community-acquired infection. Based on the Public Health Wales case definition, 50% of participants had been admitted for 30 days prior to diagnostic testing.

Conclusions

This represents the largest assessment of clinical outcomes for patients with nosocomial COVID-19 in the UK to date. These findings suggest that inpatient mortality rates from nosocomial infection are likely higher than previously reported, emphasising the importance of infection control. The findings also support prioritisation of vaccination for COVID-19 negative admissions and trials of postexposure prophylaxis among inpatients.

Quality improvement project regarding outpatient clinic experience in Welsh internal medical trainees

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Background

Outpatient experience plays a key role in the new internal medical trainee (IMT) curriculum and the numbers of outpatient clinics attended has increased, from 40 over 2 years to 80 over 3 years. There have been long-standing issues with medical trainees accessing outpatient clinics and meeting the ARCP requirement.

Aims

Identifying Welsh IMTs' outpatient clinic attendance, local arrangements, barriers to attending, impact on trainee wellbeing, potential solutions and impact on COVID-19 on clinics.

Methods

An electronic questionnaire was disseminated via local associate college tutors and email to all IMTs in Wales. Data was analysed in Excel.

Plan-Do-Study-Act (PDSA) cycles include education and awareness of college tutors, associate college tutors and HEIW; HEIW letter disseminated to local health boards encouraging one ring-fenced clinic per week; producing a guide to outpatient clinic requirements and introduction of remote clinics onto TheCore.wales website for all trainees to access.

Results

Baseline data showed response from 17/18 Welsh training hospitals with a response rate of 57.8% evenly split across IMT1 and IMT2. It found that 21% of trainees had attended zero clinics, with a mean of 5.57 clinics per trainee. 79.2% of trainees had not met the recommendation of nine clinics in 4 months. Wellbeing scores were significantly worse in those attending fewer clinics. Barriers reported include reduced number of clinics running due to the COVID-19 pandemic, service provision and exam preparation. Some hospitals have instigated protected rota time for outpatient clinics and outpatient clinic attendance is on agenda for change.

Improving use of urinary catheters in patients with fracture neck of femur

Author: Dr Susan Tucker
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Introduction

Patients with fracture neck of femur (NOF) are commonly catheterised. Use of urinary catheters are associated with increased risk of infection, delirium and reduced mobility. Catheters are often inserted without clear indication nor plan to remove them. My aim was to reduce catheter usage and increase prompt removal.

Method

A spot audit was conducted of patients admitted with fracture NOF in University Hospital of Wales and University Hospital Llandough to assess the incidence of urinary catheters and time to trial without catheter (TWOC).

Two additional sentences and checkboxes were added to the fracture NOF clerking booklet, which is used for all patients admitted with NOF. It is also used as a guide to best management of such patients pre- and post-operatively.

The spot audit was then repeated approximately 18 months later. Data collected was compared to see if any improvement had been made.

Results

The average duration of time to TWOC was reduced by 3 days, however 36% of patients in the follow-up group were catheterised, compared with 16% of the original group. 72% of patients catheterised in the follow-up group had their catheters removed, compared with 66% in the original group.

Conclusions

The amended clerking proforma has improved the time to TWOC and improved catheter removal rates, though it may also have led to increased catheter usage. Major limitations are small numbers and delay between the two cohorts due to COVID-19. Ideally, I would aim to promote judicious use of catheters via local education and then re-audit.

Telecommunication during COVID-19: A multi-centre quality improvement project

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Introduction

Communication is an essential part of daily work in clinical settings. During the COVID-19 pandemic, more communication with patients/relatives is being done remotely (through phone or similar means). With no or little training, communication regarding sensitive decisions like DNAR/escalation plan/breaking bad news/death etc is challenging.

Methodology

This piece of work was carried out as a quality improvement project to help doctors and staff communicate effectively. Pre- and post-intervention qualitative data was collected. Online training/teaching session was organised (as intervention) across four sites.

Results

Pre-intervention data: 65 responses in total (15 foundation doctors, 12 SHOs, 21 registrars, nine consultants and eight allied healthcare professionals) 25% (16/65) has had some formal/informal training about telecommunication remotely, while 75% (49/65) has had no training. 5% (3/65) were extremely confident, 3% (2/65) were very confident, 44.5% (29/65) were somewhat confident, 44.5% (29/65) were not so confident, and 3% (2/65) were not at all confident about communicating remotely.

Intervention

A Microsoft Teams meeting was organised with two consultant leads to teach/train on how to effectively communicate remotely. It was attended by 59 participants in Singleton Hospital Swansea, 13 in Morriston Hospital Swansea, 10 in Glenfield Hospital Leicester and 15 in the Royal Liverpool University hospital.

Post-intervention data

There were 62 responses. 64.5% found the session extremely helpful while 35.5% found it very helpful 6.5% are now extremely confident, 32% are now very confident whilst 60% are somewhat confident and 1.5% were not so confident to effectively communicate remotely.

Conclusion

Remote communication during COVID-19, especially on matters relating to sensitive decisions, remains a challenge. Our project has shown that innovative teaching methods can help improve doctors' confidence in this regard.

Evaluating the appropriateness of antibiotic treatment of tonsillitis during COVID-19 in the north Wales primary healthcare setting

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Background

The COVID-19 pandemic has changed the delivery of primary care in the NHS. Consultations have largely moved from face-to-face to remote, forcing practitioners to modify the ways in which they deliver care to patients.

Aim

In this study, we aim to investigate the appropriateness of antibiotic prescribing in tonsillitis during the COVID-19 pandemic.

Design and setting

An observational analysis in the north Wales primary care setting.

Method

Retrospective review of computer records across five GP centres from March 2020 until the end of October 2020. Data was extracted and analysed using chi-square or Fisher exact rank and Mann-Whitney test.

Results

A total of 170 patients were enrolled. 77.1% of all consultations were done remotely, 22.9% were done by face-to-face assessment. 89.4% of all patients were prescribed antibiotics. Only 8.2% of all consultations described the use of either the CENTOR or FeverPain scoring system to guide antibiotic prescription. 58.8% of consultations contained sufficient information, allowing us to retrospectively calculate a score. Of cases with retrospectively calculated scores, 69.5% supported antibiotic prescription (68.1% vs 70.1% in face-to-face and remote consultation respectively) Our results have shown no significant difference ($p > .05$) in antibiotic prescribing behaviour comparing face-to-face and remote consultations.

Conclusion

Remote consultation is as effective as face-to-face consultation with regards to the assessment of tonsillitis and the appropriateness of antibiotic prescription in primary care.

Developing a GP-led same day emergency care (SDEC) service in a district general hospital

Authors: Dr Rebecca Vincent, Dr Louisa Morris, Leah Williams
Prince Philip Hospital

Introduction

COVID19 has potentiated the pressures on front-door services. A pre-COVID-19 review of admissions at a district general hospital showed that 35% of patients were suitable for an ambulatory pathway and, therefore, a GP-led SDEC was established.

Method

A core working group was created and an initial business case secured funding for two pilot phases, with one ongoing. These phases helped to inform the set up of the service, including moving from a pathway-based to a process-based model. Suitable patients from referral streams are identified on criteria including an AMB score.¹ Data was collected and analysed alongside the national evaluation framework metrics for SDEC² (targets included seeing 30% of the medical take and a 10% admission rate).

Results

SDEC saw 367 patients during the initial 6-month period (December 2020 – May 2021) which equated to 28% of the medical take. 8% of patients required hospital admission. Average length of stay was 157 (95–240) minutes. Commonly used exit strategies were hot clinics, yet 54% of patients were discharged with no follow up. 682 patients were admitted for less than 24 hours, representing possible missed opportunities for SDEC.

Discussion

Feedback regarding SDEC has been positive. SDEC is currently meeting targets but there is scope to improve by further engagement with referral streams. The GP model works, yet an acute physician would complement the service. As the acute medical take is getting busier, SDEC is invaluable to patient flow and it aligns with the unscheduled care plan for the hospital.

References

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- 2 NHS Wales. *Developing ambulatory emergency care in Wales – advice to health boards*. 2018.

Innovative heart failure (HF) service during pandemic is associated with low hospitalisation and mortality in patients with HF

Author: Dr Eugene Er
Princess of Wales Hospital

Introduction

The COVID-19 pandemic disrupted many outpatient services in Wales. As a consequence, the heart failure (HF) service in Princess of Wales Hospital adapted and was relocated to a community hospital and consultations were done via telephone. HF patients are associated with high mortality and hospitalisation rates, hence optimising HF therapies in these patients was of paramount importance during the pandemic.

Aim

To evaluate the effectiveness and impact of the adapted services on high-risk HF patients.

Method

This was a retrospective study that analysed data of HF patients in the service from March 2020 to January 2021. Baseline LVEF and NT-proBNP levels were collected and compared with post-optimisation follow-up values. Time to first review and number of face-to-face appointments and telephone consultations were also recorded.

Results

A total of 190 patients were identified during the study period. Average time for to first review was 21 days. An average of 1.3 face-to-face appointments and 4.4 telephone consultations were conducted for each patient. 35 patients were on quadruple HF therapy. Only 18 patients (9.4%) were admitted with HF and the mortality rate was 11% during this period.

Conclusion

Through innovation, the HF service still managed to keep hospitalisation and mortality rates low during the pandemic period. This is likely due to close monitoring and higher number of patients on optimised HF therapies achieved through frequent telephone consultations. Furthermore, time to first review of 21 days for patients was close to the recommended time of 2 weeks by NICE guidelines.

Cardiac diagnostic workup of ischaemic stroke

Authors: Rona Fishburn, Dr Nigel Brown, Dr Khalid Ali
The Grange University Hospital

Background

There are variable guidelines and some lack of consensus on cardiac diagnostic workup following ischaemic stroke (IS). Recommendations on minimum duration of cardiac rhythm monitoring range from 12 to 72 hours^{1,2} and guidance on patient selection is limited. This may result in unnecessary referrals and delays to investigation of high-risk patients. We aim to better define the subgroup of stroke patients who benefit from cardiac investigations and detail the tests they require. This will facilitate prompt initiation of secondary prevention.

Method

A retrospective analysis of 178 confirmed or suspected ischemic stroke (IS) patients who underwent cardiac rhythm monitoring and structural imaging (TTE) in Aneurin Bevan University Health Board between January 2020 and February 2021. Subgroup analysis of the clinical radiological stroke phenotype was applied using the trial of ORG 10172 in Acute Stroke Treatment classification system.³

Results

Cardiac rhythm monitoring detected atrial fibrillation (AF) in 10 patients (5.62%), nine of whom were in the partial anterior circulatory stroke subgroup. No patients in the lacunar (LACS) or posterior circulation (PACS) stroke subgroups had AF detected. A change in management resulted from six (9%) TTEs. No patients with abnormal causative vascular imaging had AF on cardiac rhythm monitoring or TTE.

Conclusions

Accurate stroke sub-grouping and use of inpatient telemetry improves diagnostic yield of cardiac diagnostic workup following IS. Formal ambulatory monitoring should be restricted to outpatients in PACS and POCS subgroups and those with indeterminate 72-hour inpatient monitoring. It is important that review of previous diagnostics and opportunities for pacemaker analysis are not missed.

References

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- 2 Kirchhof P, Benussi S, Kotecha D *et al*. ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. *Eur Heart J* 2016;37(38):2893–962.
- 3 Adams HP Jr, Bendixen BH, Kappelle LJ *et al*. Classification of subtype of acute ischemic stroke. Definitions for use in a multicenter clinical trial. TOAST. Trial of Org 10172 in Acute Stroke Treatment. *Stroke* 1993;24(1):35–41.

Using P/F ratio to predict management and prognosis for patients with COVID-19

Authors: Dr Alice Lucey, Dr Sara Fairbairn
The Grange University Hospital

Introduction

The Grange University hospital (GUH) opened on 17 November 2020 and cared for a total of 234 COVID-19 patients in their high care respiratory unit (HCRU) and 172 were candidates for full escalation. P/F ratio compares the partial pressure of oxygenation with the fraction of inspired oxygen. We have analysed the patients cared for on GUH HCRU to see whether their P/F ratio can be used to guide use of respiratory support, and to inform prognosis.

Methods

We use the term 'respiratory support' to mean high-flow nasal oxygen, continuous positive airway pressure or invasive ventilation. We looked at 170 patients for full escalation of care and calculated their P/F ratio on admission and on commencing respiratory support.

Results

92 patients required further respiratory support and of these 63 survived to discharge (68%). The median P/F ratio on admission for patients requiring support was 14.3, compared with 24.3 for patients who did not. Of the patients who received support and survived to discharge, the median P/F ratio on arrival was 15, compared with 13.9 for those patients who died. On commencement of support, the median P/F ratio was 10.6 in those patients who survived and 10 in those who did not.

Conclusion

P/F ratios are helpful in guiding which patients may require further respiratory support for COVID-19, as their P/F ratios on arrival were significantly lower than those who did not require support. It was also noted that P/F ratios were slightly higher in those that survived their admission.

An audit of annual medication reviews in patients over 75 with an anticholinergic burden score of 3 or more in a local general practice

Author: Claire McGregor
Singleton Hospital

Aims

There is an unmet need to reduce the anticholinergic burden (ACB) of patients who are prescribed numerous anticholinergic medications regularly. Anticholinergic drugs are often used in the elderly population and can afford relief from a wide range of diseases. However, prescribing multiple, or strong, anticholinergic medications can result in a high ACB 'score', putting patients at risk of clinically significant side effects. This audit aims to determine how effectively a local GP surgery is applying guidelines to review and reduce the ACB in this population to maximise safety.

Methods

An audit was conducted in a local Swansea GP surgery on all patients over the age of 75 who have an ACB score of 3 or more, to determine whether the guideline of an annual medication review in these patients was being met.

Results

Of all the patients in the surgery, 41 met the inclusion criteria. The notes and medications of these patients were analysed to determine whether a medication review to reduce their ACB had taken place within the previous 12 months. The results showed a success rate of 100% in this practice, with some patients having had multiple reviews, thus the standard set was exceeded.

Conclusions

Given the harm potentiated by anticholinergic polypharmacy in the elderly population, it is vital, yet simple, to reduce ACB with annual medication reviews. This audit reveals numerous factors contributing to the high success rate, demonstrating that improved education and awareness of the ACB score would be beneficial to surgeries, both locally and nationally.

Improving junior doctors' wellbeing

**Authors: Dr Emma Parkes, Dr James Hassall, Dr Eleanor Hartley
Prince Charles Hospital**

Background

RCP Wales recently released a summary of their annual census, detailing the COVID-19 pandemic's negative impact on doctors' wellbeing. These figures highlighted that supporting our colleagues' wellbeing is more important than ever.

Aim

Ask our junior doctor colleagues about their wellbeing.

Method

Design an online wellbeing survey and send to all junior doctors working in Prince Charles Hospital, Merthyr.

Results

Responses from a range of FY1 to registrar grades showed 76% of junior doctors did not feel their wellbeing was considered a priority by their employers. High levels of disengagement (mean: 2.48) and exhaustion (mean: 2.72) were calculated via the Oldenburg Burnout Inventory. 97% were tired when arriving at work, 60% felt emotionally drained by work, and only 57% felt engaged in work. Of concern, only 54% of junior doctors knew how/where to access wellbeing support.

Action

Design and host a weekly 'Junior Doctor Wellbeing Forum' (Forum) to provide opportunities to share thoughts, feelings and experiences in a judgment free environment.

Further results

Via the same survey method, 57% felt the Forum was the main form of wellbeing support. Of these doctors, 75% have attended the Forum, with 54% planning to attend. All Forums were reported as being beneficial in supporting wellbeing.

Conclusion

Our wellbeing survey echoed a similar message as the RCP census, and has produced a positive effect on junior doctors' wellbeing. In the future, the Forum will continue with additions of mindfulness and yoga sessions. To further support wellbeing, we are introducing a 'GREAT-ix' and a new mentoring scheme.

Development and implementation of a bleep simulation programme to improve medical student access to medical education during the pandemic

Authors: Dr Emily Appadurai, Dr Camile Jenkins
Prince Charles Hospital

Background

Final year medical students missed substantial clinical exposure and teaching due to COVID-19, perpetuating their expected anxiety towards commencing foundation training. In response, a bleep simulation programme was developed to increase engagement with medical education while creating a safer learning environment.

Methods

Junior doctors designed over 30 consultant-reviewed scenarios to emulate common clinical situations. A medical student resource pack was produced to facilitate real-time prescription and data interpretation during the simulation. Students were bleeped throughout the day with different scenarios. When patient review was required, assessment and management were conducted over the phone, supplemented by the resource pack to mitigate viral transmission. A socially distanced post-simulation debrief provided opportunity for feedback, additional teaching and clinical skills.

Results

On programme completion, all students (n=24) felt more confident in approaching and managing varied clinical scenarios. There was a significant improvement in practising independently and preparedness to carry a bleep ($p < 0.005$). Cohort prescribing confidence doubled following programme participation ($p = 0.003$) and 75% felt more comfortable escalating care for deteriorating patients.

Qualitative feedback indicated students felt better equipped for foundation training and sought additional simulation days for further skillset enhancement. Overall, the programme increased preparedness to begin foundation training despite pandemic-imposed restrictions on medical education.

Conclusion

This bleep simulation programme is a sustainable and effective pedagogy to utilise in medical school curricula to withstand service interruption without compromising education. The model could be replicated across other hospitals to augment student knowledge, skills and ultimately improve patient safety.

Clozapine-associated antibody deficiency and infection-related mortality rates in the general schizophrenia population in the UK – a combined analysis of UK immunology centres and Hospital Episodes Statistics (HES) database

Authors: Dr Rachel Bradley, Dr Antonio Pecoraro, Dr Mark Ponsford, Professor Stephen Jolles
University Hospital of Wales

Background

Early exposure to infectious diseases is a risk factor for development of schizophrenia, however the significance of ongoing infections following diagnosis and mechanism remain uncertain. We investigated the risk of hospital admission and mortality linked to infection in adults with schizophrenia and extend description of immunodeficiency associated with patients receiving clozapine, a medication uniquely prescribed in treatment-resistant schizophrenia.

Methods

We interrogated the NHS Hospital Episode Statistic (HES) database between 2015–18 to estimate 1) the odds of admission and 2) standardised mortality ratios associated with a discharge diagnosis of infection, in adults with and without a diagnosis of schizophrenia; and conducted a national survey of UK immunology centres.

Results

Annual admission rates and standardised mortality rates linked to a diagnosis of infection (including respiratory tract-specific infections) were significantly higher in adults with schizophrenia. 41 patients treated with clozapine were reported by 12 immunology centres in UK, all with reduced immunoglobulin levels. Marked reduction of class-switched memory B cells and impaired response to vaccination were commonly observed. A linear correlation was found between the number of infections and the degree of reduction of both IgG levels and class-switched memory B cells.

Conclusions

Prior to COVID-19, we found elevated infection rates in schizophrenia to be associated with increased mortality. Clozapine was associated with humoral immunodeficiency correlating with the burden of infections, extending observational evidence of a clinically relevant link between antipsychotic use in schizophrenia, and immunosuppression. Enhanced monitoring strategies to diagnose and treat antibody deficiency, alongside mechanistic studies are suggested.

Staffing a pandemic

Authors: Dr Cat Bralesford, Dr Ben Pyrke
Prince Charles Hospital

Introduction

In October 2020, Prince Charles Hospital was struggling to staff medical wards due to doctor sickness and unprecedented inpatient numbers. As the pandemic escalated, there was a risk that safe staffing levels, set out by the RCP, would not be maintained. We undertook a quality improvement project to address this.

Aims

To maintain safe staffing levels, in line with RCP guidelines, during the second COVID-19 wave. To increase flexibility of staffing to cover for sickness.

Methods

We used Excel spreadsheets to analyse the number of doctors available and then set minimum numbers of doctors required to staff all wards safely. Success was judged on how many days minimum staffing was achieved. Interventions:

Cycle 1: We redistributed junior doctors across inpatient areas, but excluded registrars from staffing numbers to protect clinic commitments.

Cycle 2: We redeployed a supernumerary foundation doctor from outside of medicine on days when she was needed to maintain safe staffing.

Cycle 3: We removed medical registrars from clinics to be included in ward staffing.

Cycle 4: We redeployed foundation doctors from outside specialties. We negotiated this at local management meetings and with Health Education Innovation Wales.

Results

In cycle 1, there were 14/21 (67%) days on which minimum staffing wasn't met, compared to cycle 4 with 8/55 (15%) of days understaffed. 100% of additional clinical areas were staffed.

Conclusion

We improved ward staffing levels. Our approach demonstrates a reproducible plan of how to manage inpatient pressures in order to maintain patient safety.

A second cycle quality improvement project (QIP) reviewing the impact of our award winning Joint British Diabetic Society (JBDS) based variable rate insulin infusion (VRII) with complementary VRII education and its effect on patient management

Authors: Dr Eleanor Wong, Dr Win Lei Yin, Dr Majd Protty, Dr Aftab Ahmed, Ania Yau, Louise Anderson, Dr Dana Ershaid,

Royal Gwent Hospital

Introduction and aim

Despite being common practice, inpatient management of VRII remains poorly performed. We introduced local changes and demonstrated benefits in initial quality improvement measures. In this study, we review the impact of the JBDS-award-winning VRII chart with additional education on the management of hyperglycaemic medical inpatients.

Method

Over 6 weeks, JBDS based VRII education was provided including online teaching links, diabetes workshops, doctors' lunchtime teaching and ward-to-ward MDT teaching. Inpatients on VRII in two hospitals were identified through their referrals to diabetic nurse specialists. Data was collected from medical documents, lab results and prescription charts. As a second cycle QIP, results of the data analysis were compared to the results of the first cycle.

Results

There was a total of 28 patients in this study (60% female; 60% type one diabetic). Compared to the initial QIP, we observed improvement of long-acting insulin was being continued whilst on VRII (100% vs 78.5%), diabetes specialist involvement (100% vs 93.4%), daily review (100% vs 94%), daily renal function testing (100% vs 93%); a variable of lower adherence in this cycle was holding diabetic oral medications (50% vs 100%). The remaining variables (hourly blood glucose 80% and documentation 100%) were unchanged between QIP cycles.

Conclusion

This second cycle QIP revealed that the VRII chart with education had a positive influence with regards to remaining on long-acting insulin and monitoring. Scope for future QIPs include education on stopping oral medications and teaching departments with infrequent internal medicine input.

Needle stick injury (NSI) management: an opportunity to improve

**Authors: Jared Charlton-Webb, Dr Simon Ford
Morrison Hospital**

Introduction

Needle Stick Injuries (NSI) are often under-reported and can lead to potentially high-risk side effects for healthcare professionals, eg HIV, Hepatitis B, and Hepatitis C. Our hospital has an extensive intranet-based policy, which anecdotally can be a challenge to find and difficult to follow, leading to raised anxiety among staff. We assessed the efficacy of the guidance and implemented an improvement.

Method

An online survey (SurveyMonkey) was sent to a theatre group of staff asking their experiences following NSI.

Results

55 responded, of which 35 (64%) reported a previous NSI in their career and only four (7%) within the past year. 84% of all surveyed were aware of the health board needle stick policy. Of those with NSI, 60% reported following the policy in some capacity. Reasons for not following included 'could not find the policy' (6%), attending A&E directly (28%), or not stating a reason (6%). After immediate care, over half did not report to occupational health (OH). Of those who did attend, only 55% received follow up from OH. Multiple respondents reported the policy to be 'time-consuming.'

Conclusion

Results show a poor use of the current NSI policy. We created NSI grab boxes containing a flow chart of NSI management, required blood bottles, stickers for donor/recipient and information for managers and recipients. The boxes were piloted in a busy theatre complex with intent to extend to all clinical areas. All feedback is reported via an online survey for future improvements.

Redeployed: following the impact of redeployment on the wellbeing of doctors through the COVID-19 pandemic

Authors: Dr Ryan Faderani,^A Dr Massimo Monks,^B Dr David Peprah,^B Dr Anthony Wijaya,^A Dr Aled Roberts^A

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Background

The COVID-19 pandemic has led to major changes in the NHS, including the mass redeployment of doctors, which has unknown consequences for doctors' wellbeing.

Aim

We aimed to investigate the impact of redeployment on doctors' wellbeing over the first and second COVID-19 waves.

Methods

We conducted a cross-sectional study at a Welsh NHS trust that involved distributing a wellbeing questionnaire to redeployed doctors over 2-week periods during the first and second waves of the pandemic.

Results

A total of 145 redeployed doctors were surveyed. There was a 24% increase in feeling stressed. Feeling valued by the team and the public significantly decreased by 19% and 38% respectively. Perceived respite between shifts decreased by 37%. 89% felt that their training had been negatively impacted, but 84% did not want training prolonged. Feeling supported by educational supervisors increased from 46% to 80%, and from 53% to 78% for clinical supervisors. Doctors felt safer in PPE in the second wave (39% to 62%) and confidence in PPE guidance increased from 51% to 73%. However, 81% of doctors redeployed in both waves did not feel safer.

Conclusion

As the COVID-19 pandemic has progressed, doctors have continued to have significant concerns regarding training and career progression; training bodies have done well to recognise this, however further support is needed. Furthermore, doctors are feeling less valued and more stressed. Safety at work has been a major concern across both waves, however better PPE supplies and vaccinations have improved perception of safety later in the pandemic.

Pandemic innovation – supporting junior doctors

**Authors: Dr Ben Pyrke, Dr Cat Bralesford
Prince Charles Hospital**

Introduction

The COVID-19 pandemic forced healthcare services to adapt to the challenges of staff illness, self-isolation, and an increased number of medical inpatients. This placed significant strain on doctors. Two junior doctors in Prince Charles Hospital, Merthyr Tydfil, undertook a junior doctor rota coordinator (JDRC) role, with the aim of maintaining safe staffing, improving communication, and supporting junior doctors.

Method

Medical doctors were pooled and the JDRCs sent out a weekly rota redistributing them. Pooling doctors allowed extra medical wards to be staffed and sickness or leave to be covered. JDRCs set up a dedicated email address and were contactable via WhatsApp. This allowed issues facing doctors to be raised and either dealt with directly or passed on to senior management. 23 doctors responded to a feedback questionnaire.

Results

100% said that JDRCs had a positive impact, improved communication and were approachable, enabling concerns to be voiced. 100% were able to take some or all of their annual leave and sickness was always or often covered. 77% said that wards were always or often safely staffed. Specific comments said staffing was 'more efficient' and 'more adaptable'.

Discussion

The JDRC role improved communication between management and junior doctors. The staffing system allowed annual leave to be taken and sickness to be covered, helping avoid burnout. We attribute this to knowledge of the workforce, greater approachability and flexibility.

Conclusion

JDRCs improved communication, maintained safe staffing and had a positive effect on doctors' morale during the COVID-19 pandemic.

Additional longlisted abstracts

The standard of abstracts received this year was extraordinarily high, and it was not easy to select those progressing to the final round. The following abstracts were not selected for the final round, but have nonetheless been commended by the judging panel.

Implementation and evaluation of a national COVID-19 secondary care guideline for Wales

Authors: Dr Mark Ponsford,^A Mr Rhys Jefferies,^B Dr Simon Barry^A

^AUniversity Hospital of Wales; ^BSwansea University

Background

The COVID-19 pandemic created an urgent requirement for a trusted source for up-to-date information to support clinical care decisions. We developed a simple and dynamic infrastructure that could adapt as new evidence emerged, utilising a digital implementation framework, particularly targeting consultants in Wales. At the time of writing, seven national pathways and approximately 260 information pages are freely available online, with over 180 pre-recorded video tutorials (www.covid19hospitalguideline.wales.nhs.uk).

Methods

We evaluated guideline implementation using the taxonomy of implementation outcomes model and assessed impact through analysis of guideline platform activity and a user survey, with additional sensitivity analysis to assess uptake variation by health board.

Results

During the first wave, there were nearly 170,000 page views from those signed in. Google Analytics show approximately 40,000 sessions and 31,000 video plays. Out of 4,521 registrants, 1,159 (23%) were consultants, equating to 45% of all medical consultants in Wales. Significant variation was evident between health boards (ranging from 31% to 74% possible consultants registered by region). Survey responses from 178 users gave an average rating of 4 out of 5 stars.

Conclusion

We utilised a digital implementation framework to rapidly deliver knowledge throughout hospitals in Wales, exceeding intended engagement targets and with excellent user feedback. Greater engagement appeared associated with facilitator activity. The rapid implementation of the guideline has coincided with Wales demonstrating more favourable intensive care survival rates and maintaining one of the lowest mortality rates when compared with the UK as a whole for the first wave of the COVID-19 pandemic.

Don't forget your PE kit – improving thrombolysis decision-making in a district general hospital (DGH)

Authors: Dr Jonathan Ayling-Smith,^A Dr Elizabeth Grant,^A Dr Emma Kealeher,^A Dr Hannah Cranch,^B Sinan Eccles,^C Dr Claire Williams^C

^AUniversity Hospital of Wales; ^BMorrison Hospital; ^CRoyal Glamorgan Hospital

Introduction

Multiple patients with pulmonary emboli (PE) were admitted in a short timeframe to a DGH. Inconsistency in management was noted, prompting discussion surrounding thrombolysis decisions.

Methods

All PE-related admissions to the Cardiac Monitoring Unit (CMU) between 2016 and 2020 were reviewed. Thrombolysis decision, relevant test results and outcomes were recorded and their concordance to local and national recommendations was analysed. Junior doctors were surveyed. Confidence in PE management was assessed, they were asked to select the appropriate management option for five clinical scenarios and if a 'bundle' would aid decision-making.

Results

57 patients were admitted over 4 years. 14 had a massive PE and 33 patients had a submassive PE. Of these, 12 (85.7%) and 17 (51.5%) were thrombolysed respectively. Echocardiograms were organised within 24 hours in 74% and follow-up echocardiograms performed in 54%. The pooled mortality at 1 year was 21%, with no significant difference between those thrombolysed and those not. The survey, to which 22 junior doctors responded, demonstrated that 73% described themselves as 'very' or 'fairly' confident. There was disparity in case management with the polar options of 'thrombolysis' and 'subcutaneous anticoagulation' being chosen at least once in each scenario.

All respondents supported a bundle. A consent form, information sheet and decision-making flowchart were created with stakeholder input and published locally.

Conclusion

We show mostly guideline-concordant practice. Variability in opinion among juniors, despite perceived confidence, was observed. Bundle creation with respondent and consultant input standardises management and prompts escalation to seniors early to negate overconfidence in complex situations.

Adolescent mental health attendance during the COVID-19 pandemic

Authors: Dr Zoe Johnson, Dr Grace Mckay, Dr Saurabh Patwardhan
Morrison Hospital

Introduction

A number of contemporary studies assert that the COVID-19 pandemic has had a negative impact on the mental health (MH) of the adolescent population (13–18 years). Our study aims to review MH-related attendance to a Children’s Emergency Unit (CEU) during the pandemic and compare patterns with a non-pandemic period.

Method

Retrospective review of adolescent MH attendances during 2020–2021 compared with 2013–2014.

Results

9,714 patients aged 0–18 years attended Morrison Hospital CEU during March 2020 – March 2021 compared with 16,289 children during 2013–2014.

344 adolescents (3.5% of total attendance) presented with MH related attendances during March 2020– March 2021, compared with 531 adolescents (3.3% of total attendance) during 2013–2014.

MH attendances during the national ‘lockdown’ period (March–June 2020) were 40.6% lower when compared with subsequent months.

Intentional overdose (54%) and substance and alcohol misuse (16%) were the two most prevalent MH attendances during the pandemic period.

Conclusion

Our data demonstrates a proportional increase in the number of adolescent MH attendances during the COVID-19 pandemic when compared with a non-pandemic period. These results may be associated with changes in social circumstances, support systems, and family dynamics during the pandemic.

The relative reduction in adolescent MH attendance during the national ‘lockdown’ may result in a subsequent increase of MH attendances in the forthcoming months.

Recommendation

Our study was conducted in a single hospital, which may limit its generalisability. Further multi-centre studies should be conducted to explore the complex nature of MH related attendance in relation to the COVID-19 pandemic.

An introduction to ‘de-escalation tool’ to prevent COVID-19 outbreaks

Authors: Dr Aneela Arooj,^A Dr Kawish Zaman,^A Dr Shireen Awan^B

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Introduction

The SARS-CoV-2 pandemic was declared by WHO in January 2020. Despite successful efforts in mitigating its impact, we observed that outbreaks were still happening in green (non-COVID) wards at Royal Gwent Hospital (RGH). The sensitivity of nasal or throat swab (viral PCR) is thought to be around 71%–98%, therefore chances of false negative tests are considerable.

Objectives

The aim was to minimise outbreaks in non-COVID wards by educating and familiarising Medical Assessment Unit (MAU) nurses with a ‘de-escalation tool’ in order to ensure that COVID-19 isolation is only discontinued after achieving set criteria. The criteria set out in the de-escalation tool are:

1. Negative COVID PCR swab
2. No temperature in last 48 hours
3. Alternative explanation of high temperature documented
4. Consultant/senior medical staff in agreement with patient transfer

Other comment: _____

Methods

From November 2020 to March 2021, we completed PDSA cycles during second wave of pandemic. Data for outbreaks in green wards was collected and transfer flow of patients in hospital was traced. Salient features were:

- 1) Assessing knowledge of front-door nursing staff regarding parameters being considered before transferring patients to green wards.
- 2) Educating nurses about the new ‘de-escalation tool sticker’ by organising face-to-face sessions and providing them with flyers.
- 3) Re-audit after implementation of above change.

Results

Data collected revealed four outbreaks in green (non-COVID) wards, and all four patients were transferred from MAU purple or amber area within the preceding 5–10 days. Moreover, all MAU nursing staff were using negative COVID-19 swab result as the only parameter for transferring patients from MAU to wards. After introduction of de-escalation tool, re-audit revealed no outbreak in RGH green wards. However, this was in context of nationally plummeting COVID-19 case numbers.

Conclusion

The de-escalation tool minimises chances of COVID-19 outbreaks in green wards and hence ensures patient safety. We plan to do further PDSA cycles to check for sustainability of our project.

Consultant-led ward round documentation: a quality improvement project

Author: Dr Alex Elliott-Green
University Hospital of Wales Hospital

Background

Ward round checklists are a recognised method for improving safety. Despite national guidance, implementation remains variable. This project evaluated the impact of a template on key medical ward round domains.

Methods

Ward round documentation was reviewed over a 2-week period in March 2021 on a medical short-stay unit at University Hospital of Wales, Cardiff. Data was collected on frequency of invasive device (cannulae and urinary catheters) placement, medication reviews, escalation plans and discharge planning. Further data for these domains was collected over 6 weeks following implementation of a ward round template with qualitative information collected to inform refinements.

Findings

Pre-intervention data showed poor documentation across all ward round domains. Mean uptake of the template following implementation was 50%, with availability and length the main cited barriers. Template introduction led to improvements in cannulae documentation (17.4%, $p=0.004$); escalation plans (30.3%, $p=0.0001$) and medication reviews (40.5%, $p<0.00001$) but not urinary catheter reviews (3.4%, $p=0.42$) or discharge planning (6.1%, $p=0.54$). Qualitative feedback suggested high satisfaction and that the template improved documentation quality.

Conclusions

This quality improvement project demonstrated improved documentation of key ward round domains with high satisfaction among junior medical staff. Evaluation of wider implementation across hospital sites is recommended.

Analgesia use in falls patients admitted under an acute frailty team: a quality improvement project

Authors: Dr Rhys Morris, Dr Cameron Abbott
Wrexham Maelor Hospital

Introduction

Falls in the elderly are very common, with many requiring hospital admissions. Increased pain in these patients delays safe mobilisation and increases the risk of delirium, which increases morbidity and mortality in these patients. This project aims to assess the use of analgesia in falls patients admitted under an acute frailty team.

Methods

This study collected prospective data on patients admitted under an acute frailty team in a district general hospital from 23 April 2021 to 2 June 2021 inclusive. Medical notes and prescription charts were reviewed for each patient to identify any injuries sustained, and assess analgesia prescribed. Further assessment of analgesia prescribed categorised it into being a 'regular' prescription or 'as required' prescription.

Results

In total 51 patients (30 female, 21 male) with a mean age of 84 years (range 50–107) were admitted during the study period. The mean delay from admission to transfer to the frailty unit was 2.2 days. The most common injury patterns were non-specific injuries (24 patients), fractures (13 patients), and head injuries (13 patients). A total of 25 patients (49%) did not have any regular analgesia prescribed, and further analysis of this group revealed 13 patients (25.5%) did not have any 'regular' or 'as required' analgesia prescribed.

Conclusion

Almost half of patients admitted under the acute frailty team with a history of falls were not prescribed any regular analgesia. Further analysis revealed a quarter of falls patients admitted did not have any analgesia ('regular' or 'as required') prescribed.

Refocusing on junior doctors' training needs in respiratory medicine post COVID-19

Authors: Dr Victoria Lewis, Dr Lydia Guhaniyogi
University Hospital of Wales

Background

Due to the complex demands of working during the COVID-19 pandemic, focus shifted away from the educational needs of junior doctors during their respiratory medicine rotation. We recognised that we needed to improve training opportunities for junior doctors on our general respiratory ward.

Aim

To identify junior doctors' training requirements and re-engage trainees and seniors in training opportunities.

Method

We conducted a survey of trainees who had rotated to the respiratory ward over the past 6 months and our current cohort to ascertain their perceived training priorities. We reviewed the foundation and internal medicine curriculums in order to address wider skills, such as critical appraisal. Using feedback, we introduced a 'goal of the week' for each junior. This involved each junior identifying an objective to achieve at the start of the week. The senior doctor supervising them would identify ways to achieve this and monitored their progress. We also introduced weekly protected respiratory teaching to provide further educational opportunities.

Results

Common themes identified were reduced experience in practical skills, such as pleural procedures, and a lack of formal teaching with opportunities to present. Attending specialist clinics and bronchoscopy were also priorities raised. Since introducing 'goal of the week' and weekly teaching, trainees feel more engaged and in control of their training needs.

Conclusion

Focusing training needs on a weekly basis and engaging trainees in their training ensures training opportunities are maximised throughout their rotation.

Comparing the risk of mortality in adults hospitalised with community-acquired and hospital-acquired SARS-CoV-2: a systematic review and meta-analysis

Authors: Dr Mark J Ponsford,^A Dr Simon M Stoneham,^B Dr Claire M Dallimore,^C Dr Davina Sham,^D Dr Khalid Osman,^A Professor Stephen Jolles,^A Dr Daniel Farewell,^E Professor Ian R Humphreys,^A Dr Thomas JC Ward^F

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Background

Little is known about the mortality of hospital-acquired (nosocomial) COVID-19 infection globally. We investigated the risk of mortality and critical care admission in hospitalised adults with nosocomial COVID-19, relative to adults requiring hospitalisation due to community-acquired infection.

Methods

We systematically reviewed the peer-reviewed and pre-print literature from 1 January 2020 to 9 February 2021 without language restriction, for studies reporting outcomes of nosocomial and community-acquired COVID-19. We performed a random effect meta-analysis (MA) to estimate the 1) relative risk of death and 2) critical care admission, stratifying studies by admission indication and nosocomial case definition.

Results

21 studies were included in the primary MA, describing 8,246 admissions across eight countries, comprising 1,517 probable or definite nosocomial COVID-19 and 6,729 community-acquired cases. Overall mortality was 30.5%. Immunosuppressed patients diagnosed with nosocomial COVID-19 were twice as likely to die as those admitted with community-acquired infection (RR=2.14, 95% CI: 1.76 to 2.61). Averaged across studies, the relative risk (RR) of mortality was 1.31 times greater in patients with nosocomial infection, compared with community-acquired (95% CI: 1.01 to 1.70). Rates of critical care admission were similar (RR=0.74, 95% CI: 0.50 to 1.08). Variation in mortality reporting by countries was also identified.

Conclusions

Our findings strengthen observational evidence that individuals with malignancy or transplant recipients are at markedly increased risk of death when infected by SARS-CoV-2 in hospital, compared with the community. Clinical and public health policy targeting nosocomial COVID-19 infections remain essential, with heightened precautions for immunosuppressed patient groups.

Improving communication between medical teams and next of kin (NOK) on medical wards at Morriston Hospital

**Authors: Dr Ester Breij, Dr Nicolette Sirju
Morriston Hospital**

Background

Due to the COVID-19 pandemic, medical practitioners have been unable to have discussions face to face with patients' NOK. The frequency of telephone contact by medical doctors has been poorly regulated and thus this inability to transfer information dynamically has increased the burden among the patients, medical staff and NOK. Across the hospital in the first 3 months of 2021, PALS received 129 requests for medical updates from relatives and received 40 complaints regarding poor communication.

Aims

To highlight delays in communication between medics and NOK and implement a simple system accessible to nurses and doctors to encourage this timely communication.

Method

Medical notes were audited prospectively over 3 weeks and data collected regarding the number of medical updates given, patient status (medically fit, stable but receiving treatment or deteriorating), job title of staff providing the update, and the ability of the patient to communicate with their families themselves.

Intervention

A family communication sheet was placed at the front of the patient notes for doctors and nurses to fill in each time they provided an update, with the aim of prompting more frequent and clearer communication.

Pre-intervention results

With duplicates entries removed, 79 patients in total were included in analysis. 49 patients were unable to provide updates to their families themselves. Of these, 33% of families received a medical update within the first 24 hours of admission; 44% of families of deteriorating patients received no medical updates at all.

The post-intervention analysis will be completed by July 2021.

Introduction of the 'MyAsthma' application in managing complex asthma patients in the outpatient setting

Authors: Dr Emma Parkes, Dr Victoria Lewis, Dr Kasia Zalewska
Royal Gwent Hospital

Background

The NHS is constantly developing ways to empower patients and reduce the burden on services. The COVID-19 pandemic prompted swift adaption of outpatient reviews to protect and support vulnerable patients, noticeably those with chronic respiratory diseases. The 'MyAsthma' application supports this by creating an effective remote monitoring platform, alongside empowering patients to monitor and review their asthma symptoms.

Aim

1. Enrol complex asthma patients in the 'MyAsthma' application.
2. Review patient engagement with 'MyAsthma'.

Method

Introduction of the 'MyAsthma' application to asthma patients receiving biologic therapy within Aneurin Bevan University Health Board (ABUHB) via telephone consultation. Patients answered a pre-set questionnaire regarding their asthma. Patients who consented were sent an electronic link to 'MyAsthma' application.

Results

A total of 27 patients were, with an age range of 21–73 years (median age 54). 58% of the patients have engaged with the application. All of these patients have remained engaged after 6 months. 48% patients have completed an online asthma control test (ACT), median score 14. Only two patients declined enrolment.

Discussion

Although in the early stage, the 'MyAsthma' application has shown good early engagement. All patients who were previously aware of the application had already downloaded it. Common reason for declining enrolment was lack of a smart phone.

Take home messages: Virtual monitoring is likely to be a permanent feature of healthcare in the future. The 'MyAsthma' application is to be rolled out to all asthma patients in ABUHB. There is also potential for similar programmes with other chronic conditions, such as COPD.

Speaking out on behalf of physicians in Wales

Through our work with patients and doctors, we are working to achieve real change across hospitals and the wider health and social care sector in Wales. Our 40,000 members worldwide, including 1,450 in Wales, work in hospitals and the community across 30 different clinical specialties, diagnosing and treating millions of patients with a huge range of medical conditions.

We campaign for improvements to healthcare, medical education and public health. We organise high-quality conferences and teaching that attract hundreds of doctors every year and our work with the Society of Physicians in Wales showcases best practice through poster competitions and trainee awards.

We work directly with health boards, trusts and Health Education and Improvement Wales (HEIW), we carry out hospital visits, and we collaborate with other organisations to raise awareness of public health challenges.

This is the seventh poster competition to be run in Wales. This year's entries demonstrate the wide and innovative practice that is happening across Wales and further afield. Improving clinical practice underpins the delivery of high-quality care to our patients.

Don't wait for the next competition – the team in Wales would love to receive further examples of your innovative practice and ideas. We can include them in our regular newsletter which is sent to all members in Wales. We are always looking for new case studies and solutions to use in our work with NHS Wales and the Welsh government.

If you would like information about next year's annual conference and would be interested in entering a future poster competition, please contact:

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