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# Poster 1: Improving Rational Use of Parenteral Nutrition Through Clinical Pharmacist-Led Audit

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Ethics approval was not required

## Background and Introduction

The University of Hong Kong-Shenzhen Hospital (HKU-SZH) is a major comprehensive public hospital funded by the Shenzhen municipal government and managed by the University of Hong Kong (HKU) since 2012 to implement a healthcare reform model. HKU-SZH has attained Australian Council on Healthcare Standards (ACHS) accreditation in September 2015 and China's national 3A hospital accreditation in November 2017. HKU-SZH is a teaching hospital with 2,000 beds of which 420 Surgical, 473 Medical, 148 Oncology & 72 Critical Care beds potentially requiring parenteral nutrition (PN). Inappropriate use of PN often resulted in ineffective, costly and unnecessary therapy to patients. A clinical pharmacist-led audit was implemented to assess the situation.

## Objectives

1. To implement a quarterly PN audit with analysis and feedback to clinicians.
2. To evaluate the outcome of the audit.

## Method

Pharmacy department collaborates with dietetics department in conducting quarterly audit from January 2017 to December 2018. Every quarter, 100 PN prescriptions were retrieved randomly from the hospital information system. The PN clinical pharmacist team and medically qualified dietitians reviewed the prescriptions according to ESPEN, ASPEN, CSPEN and hospital's PN guideline. Any irregularities identified would be communicated to the prescribers for knowledge enhancement.

## Results

Among the different categories of errors, three most common types of prescribing error were identified: 1. Single use of amino acid or fat emulsion instead of admixture ; 2. Prescribing PN without justifiable indication ; 3. Wrong choice of drugs/nutrients and wrong route. The quarterly irrational prescriptions rate from January 2017 to December 2018 was found to be 11%, 18%, 23%, 26%, 3%, 11%, 7% and 3%. It shows that with the quarterly audit and feedback to clinicians the error rate had improved significantly after the first year of implementation of audit.

## Conclusion

Implementing PN clinical pharmacist-led audit can improve rational prescribing of parenteral nutrition.

## References

1. ESPEN Guidelines & Consensus Papers. <https://www.espen.org/guidelines-home>, 2019.

2.ASPEN Clinical Guidelines.

[http://www.nutritioncare.org/Guidelines and Clinical Resources/Clinical Guidelines/](http://www.nutritioncare.org/Guidelines_and_Clinical_Resources/Clinical_Guidelines/), 2018.

3. Dan Mei. Consensus for parenteral nutrition solutions compounding. Chinese Journal of Clinical Nutrition, June 2018,Vol.26,No.3.

## **Poster 2: Retrospective audit of antibiotics prescribed for patients with diabetic foot infection**

Omotola T. Omoloso, Sarah Peacock, Rachel Bruce, Dr Rahul Nayar, Elaine Ricci  
City Hospitals Sunderland NHS Foundation Trust (CHSFT).

### **Background and Introduction**

Diabetic foot infections (DFI) usually begin as a diabetic foot ulcer (DFU) and can worsen quickly<sup>1</sup>. At CHSFT, the current antimicrobial guidelines in place are in line with antimicrobial stewardship guidance<sup>2</sup> (DOH) for the treatment of DFI based on the severity of the infection, which are suitable for retrospective audit.

### **Aims and Objectives**

Identify if patients are administered antibiotics within guideline parameters.

Standards: 100% of patients should 1. Be administered the first dose of intravenous antibiotics within an hour from prescription 2. Have appropriate cultures obtained before the first dose is given 3. Have a documented review of antibiotics.

### **Method**

All patients included in the audit were diabetic, with an active foot infection, assessed by the Specialist Diabetes Foot team and admitted into hospital between March and September 2017.

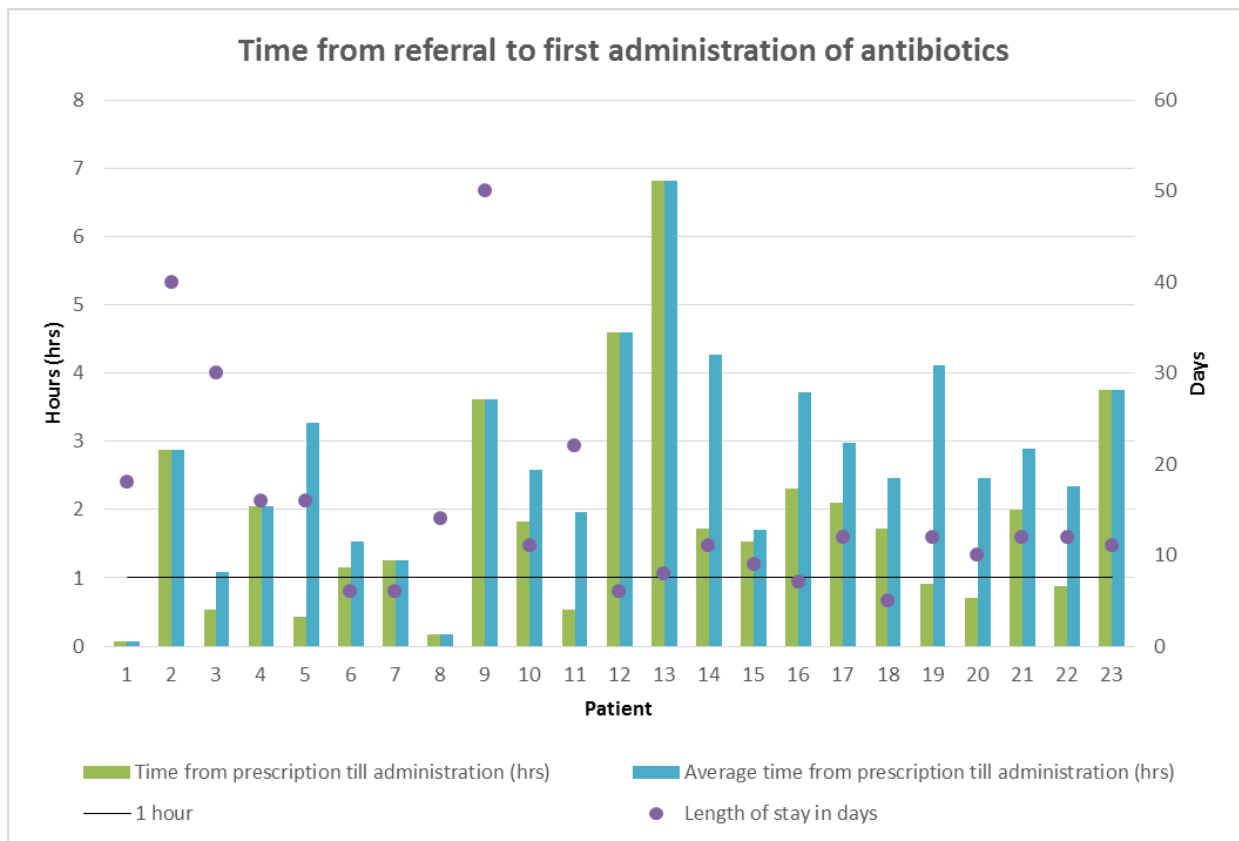
Decision to admit a patient is based on the severity of their DFI and based on clinical assessment of the patient.

### **Results**

On admission, 23 patients were prescribed a total of 57 doses of intravenous antibiotics. 23 % of total prescribed were given within the first hour of prescription.

65% of patients had their wound swabs for cultures, either on admission or in clinic prior to admission and 1 patient had a blood culture taken which did not grow any bacterium.

All patients except 1 (95%), had a documented review in their medical notes.



Graph showing length of stay (days) and time (hours) from prescription of first IV antibiotics to administration of IV antibiotics

### Discussion and Conclusion

Intravenous antibiotics on admission were prescribed mostly at the same time, however with different start times; therefore not all intravenous antibiotics can be administered within the first hour. This may be due to insufficient use of a function in the electronic prescribing system which ensures antibiotics are administered at the time of prescription.

Wound cultures may have been taken at previous diabetic foot MDT and therefore not on admission.

This study did not require ethics approval.

### References

1. National Institute for Health and Clinical Excellence. Diabetic foot problems: prevention and management. National Institute for Health and Clinical Excellence site. Available at: <https://www.nice.org.uk/guidance/ng19>. Accessed Oct 1, 2018.
2. Public Health England. Guidance: Start Smart - Then Focus Antimicrobial Stewardship Toolkit for English Hospitals. Updated March 2015. Department of health and social care and Public Health England on gov.uk site. <https://www.gov.uk/government/publications/antimicrobial-stewardship-start-smart-then-focus>. Accessed Oct 17, 2018

# Poster 3: An audit of adherence to standards when practising under a Patient Group Directive (PGD) within the Adult and Paediatric Emergency Department Triage area

Lucy Vernon, Runa Patel-Kumar, Chaitali Patel

## Background and Introduction

NICE Medicines Practice Guidance (MGP2) on Patient Group Directions was updated in March 2017, leading to the Trust guidelines being updated (2). The focus of this audit is standard 1.5.7 of NICE guidelines, which concentrates on the usage of PGD's (2). Adherence to standards on PGD usage will ensure best quality health outcomes for patients, ensuring they are receiving safe and timely access to medicines.

## Aims and Objectives

- **Aim:**
  - To determine the adherence to NICE (standard 1.5.7) and Trust guidelines, when practising under a PGD.
- **Objectives:**
  - To determine whether the PGD is available for reference in the clinical area being used
  - To determine compliance with NICE standard 1.5.7
  - To determine whether the patient met the inclusion criteria of the PGD or any exclusion criteria
  - To determine whether the practitioner has signed the agreement to practice under the corresponding PGD.

## Method

The audit was carried out retrospectively over a two-week period in the Emergency Department (ED). NICE and local guidelines provided the information for our data collection tool. Triage notes were used and allowed accurate identification of medicines administered under a PGD. Microsoft Excel 2010 was used to analyse data and calculate an average percentage over the two-week period.

## Results

<b>Figure 3: Percentage of medication that was administered under the PGD that met the following criteria in line with SGH Trust Guidelines and NICE Guidelines</b>	Paediatric ED	Adult ED
<b>Documentation of Patient's Name</b>	86%	96%
<b>Documentation of Hospital Number</b>	74%	77%
<b>Documentation of allergies</b>	86%	99%
<b>Documentation of weight</b>	88%	0%
<b>Documentation of Medication Name</b>	100%	100%
<b>Documentation of Dose</b>	97%	99%

<b>Documentation of Route of Administration</b>	96%	100%
<b>Documentation of Date</b>	98%	100%
<b>Documentation of Time</b>	99%	99%
<b>Name of healthcare professional</b>	54%	74%
<b>Signature of healthcare professional</b>	98%	96%
<b>Healthcare professionals that had signed to practice under the corresponding PGD</b>	93%	90%
<b>Indication documented</b>	92%	N/A
<b>Pain score documented</b>	94%	38%
<b>Patients that met the inclusion criteria</b>	95%	58%
<b>Patients that met any exclusion criteria</b>	0%	0%
<b>Documentation that medicine was administered under a PGD</b>	100%	100%

### **Discussion and Conclusion**

Documentation of patient names and hospital numbers weren't well recorded, with no documentation on the prescription. Signatures rather than names were recorded, making it hard to identify the nurse who had administered the medication under the PGD. Additionally, two separate PGD folders were kept, meaning some nurses had signed one PGD, but not the other, making it additionally challenging to identify if they had undergone the necessary training. In conclusion, currently the ED is not fully adherent to the updated local and national guidelines. More adequate and thorough training is needed of practitioners when administered medication under a PGD to ensure patient safety.

### **References**

1. National Institute for Health and Care Excellence. *Patient Group Directions (Medicines Practice Guidance, MPG2.)* London: NICE; 2017. Available at: <https://www.nice.org.uk/guidance/mpg2/chapter/Recommendations#training-and-competency>

## **Poster 4: Investigation surrounding the role dementia friends can play in bridging knowledge gaps of undergraduate healthcare students.**

Emma Boxer, University of Sunderland, Sunderland, SR1 3SD, United Kingdom

### **Background and Introduction**

With current aging populations, dementia prevalence is rising. Already 1 in 14 people over the age of 65 in the UK have dementia [1]. This number is expected to rise, with the estimate being the number will double by 2045 [2]. With this, it is important to evaluate whether healthcare professionals can provide appropriate care for this patient group.

### **Aims and Objectives**



The objectives of this study were to ascertain whether;

there is currently a gap at undergraduate level surrounding dementia teaching, the dementia friends session could bridge this gap, student knowledge of dementia improved, students felt this session would benefit them and their patients in practice and finally whether undergraduate level was appropriate to implement the session.

### **Method**

Between October 2018 and March 2019, 165 undergraduate healthcare professionals took part in a dementia friends' session. Students completed a short survey to assess the value of the session.

### **Results**

Student's dementia knowledge increased after the session with a 72.41% increase in those who felt they had a good knowledge and a 266.67% increase in students who felt they had an excellent knowledge. When asked if students felt there was a gap at undergraduate level surrounding dementia teaching, just over half of students either agreed or strongly agreed (52.11%) and most of the remaining students were undecided. 78.18% of students felt the information session was relevant to their university learning and 84.85% of students concluded the session was either important or very important to undergraduates.

### **Discussion and Conclusion**

There is currently a gap in the teaching surrounding dementia at undergraduate level. Incorporating the dementia friend's information session for undergraduates is an enjoyable way to increase student knowledge of the condition and prepare them to interact with this patient group in practice. Going forward more qualitative research could be undertaken to pinpoint what about the dementia friend's session is successful.

### **References**

- [1]Alzheimer's Society . (2018). Who gets dementia?. Available: <https://www.alzheimers.org.uk/about-dementia/types-dementia/who-gets-dementia>. Last accessed 18/01/2019.
- [2] David Cameron. (2015). Prime Minister's challenge on dementia 2020. Department of Health and Social Care

## **Poster 5: Review whether prescribing of Oseltamivir for treatment and prophylaxis of influenza adhered to Trust guidelines for flu season 2017/18**

**Min Na Eii, City Hospitals Sunderland NHS Foundation Trust**

### **Background and Introduction**

Public Health England and the National Institute for Health and Clinical Excellence are recommending the prescriptions of antivirals for treatment of hospitalised patients with influenza as it can reduce mortality rates and support the early use of antivirals in patients with proven or suspected seasonal influenza if they meet the listed criteria [1 – 3]. Treatment and prophylaxis use of neuraminidase inhibitors is only one part of a wider package of measures to prevent severe influenza-related illness and death.

## **Aims and Objectives**

This audit aims to review whether the prescribing of oseltamivir for treatment and prophylaxis of influenza at a local hospital adhered to Trust guidelines set.

## **Method**

Patients, excluding neonates and children < 18 years old, prescribed oseltamivir for treatment and prophylaxis of influenza between 1<sup>st</sup> December 2017 and 31<sup>st</sup> January 2018 have been included in this audit. Data from the hospital's electronic prescribing system was accessed and analysed using an audit tool designed to collate data.

## **Results**

100 patients were selected at random and analysed. 62% of the patients were found to be prescribed the correct dose of oseltamivir for prophylaxis and treatment adhering to Trust guidelines whilst 35% were non-adherent and 3% were indeterminable as it was unclear whether the nephrologists have adopted a separate guideline for patients on dialysis. 39 patients who received treatment were Influenza A positive and 22 patients were Influenza B positive.

## **Discussion and Conclusion**

The audit findings were presented at the clinical governance meeting for Acute Medicine as patients are likely screened for flu on admission and have oseltamivir prescriptions initiated or reviewed on the acute medicine ward. It was also presented at the antimicrobial stewardship committee and proposed that the 2018/2019 guidelines to utilise eGFR as guidance for dosing in renal impairment as oppose to creatinine clearance which has been reviewed by microbiologists and implemented.

## **References**

1. Public Health England. The use of antiviral agents for the treatment and prophylaxis of seasonal influenza: PHE summary of current guidance for healthcare professionals. November 2014
2. Public Health England. PHE guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza. Version 8.0. September 2017
3. NICE Guidance [TA168]. Amantadine, oseltamivir and zanamivir for the treatment of influenza. February 2009. [Accessed 21st March 2018] Available from: <https://www.nice.org.uk/guidance/TA168>

## **Poster 6: Improving patient flow on a multi-speciality inpatient ward- The impact of an enhanced ward pharmacy service**

Rhys Williams, Christine Griffin, Catherine Hall, Sonia Attley, Jenny Harries  
The Royal Glamorgan Hospital, Cwm Taf University Health Board

### **Background and Introduction**

NICE guideline NG94 recommends that organisations should '*Include ward-based pharmacists in the multidisciplinary care of people admitted to hospital with a medical emergency*'.<sup>1</sup>.

Currently in Cwm Taf, the clinical pharmacy service varies between wards and clinical teams due to capacity. Pharmacy technicians support clinical pharmacists by managing medication supply and processing discharge prescriptions. Improving patient flow is a key priority within NHS acute hospitals.

### **Aim:**

To improve patient flow by decreasing the time from patients being deemed medically fit for discharge (MFFD) to the medicines being ready for home.

## **Objectives:**

- Increased proportion of pre-midday discharges
- Decreased length of stay
- Decreased re-admission rates

## **Method**

The enhanced model provided a clinical pharmacist and technician (7.5hrs per day) to a dedicated medical ward, compared to the 'standard service' of 3hrs per day per ward. The pilot ran for three months between June- August 2018, and data collected during this time period. Ethics approval was not required.

The model engaged in additional services including:

- Twice weekly consultant ward rounds with pharmacist independent prescribing as part of the ward round
- Pharmacy led twice weekly discharge board, utilising SORY discharge methodology (adapted from NHS Croydon discharge planning methodology SORTY)
- Pharmacy led discharge counselling
- Pharmacy led medication chart re-write

## **Results**

- 53% reduction in the median time from MFFD to medication ready for discharge (Figure 1)
- 13% increase in early afternoon discharges (between 12:00 and 15:00) compared with other medical wards
- 0.5 day reduction in the median length of stay
- 4.3% reduction in the average 28day readmission rate

## **Discussion and Conclusion**

This quality improvement project has demonstrated the benefits to patient flow and quality that an enhanced ward pharmacy team can deliver. The enhanced pharmacy service pilot has developed into a multidisciplinary quality improvement team with the aim of improving the rate of pre-midday discharges to >33%, as outlined within the SAFER patient flow guidance<sub>2</sub>.

## **References**

1. National Institute for Health and Care Excellence. Emergency and acute medical care in over 16s: service delivery and organisation. NICE Guideline NG94. 28 March 2018. Available from <https://www.nice.org.uk/guidance/ng94/resources/emergency-and-acute-medical-care-in-over-16s-service-delivery-and-organisation-pdf-1837755160261>
2. NHS Improvement. Rapid Improvement Guide to: The SAFER Patient Flow Bundle. 26 September 2016. Available from <https://improvement.nhs.uk/documents/633/the-safer-patient-flow-bundle.pdf>

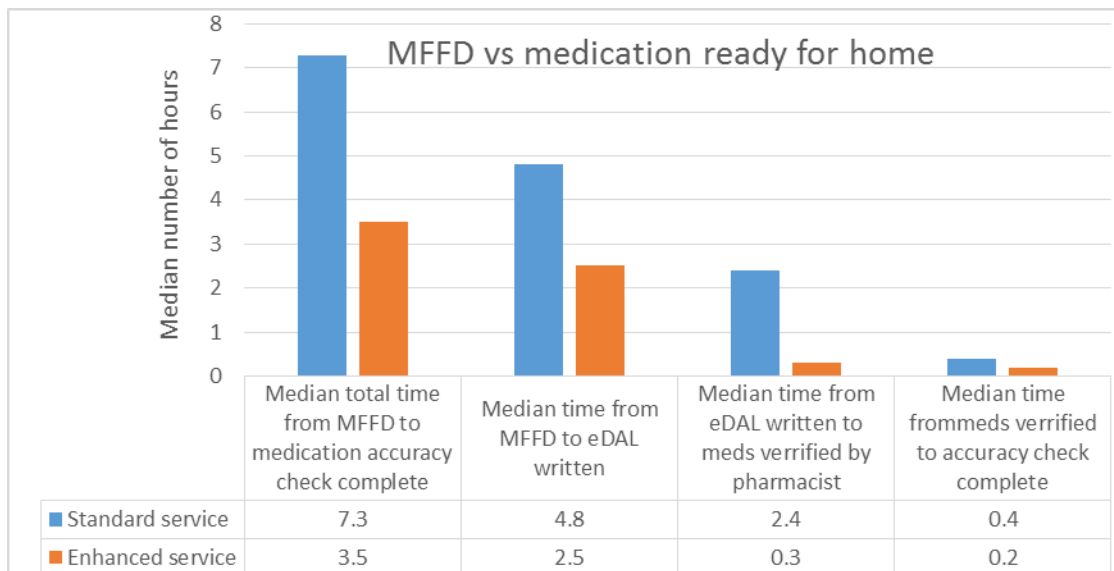


Figure 1 A graph highlighting the median time taken to complete each discharge task

## Poster 7: Evaluation of a new pharmacy service in the emergency department for medical patients

S. Pegler, D. Greenwell, J. Jenkins, C. Al-Mokhtar, CH. Her, A. Taylor, J. Rogers, ABMU Health-Board, Morriston Hospital

### Background and Introduction

Historically, clinical pharmacy services to the emergency department (ED) have been poorly developed. However, pharmacists are now broadening their clinical roles to support ED clinicians<sup>1</sup>. While the value of clinical pharmacy has been demonstrated in other clinical settings<sup>2</sup>, the impact in ED is less well established.

A baseline audit (n = 309) showed a pharmacist made at least one clinical contribution to patient care in 83% of patients referred to medicine from ED, indicating the need for a new pharmacy service providing earlier medicines reconciliation and pharmacist input into clinical-decisions.

### Aims and Objectives

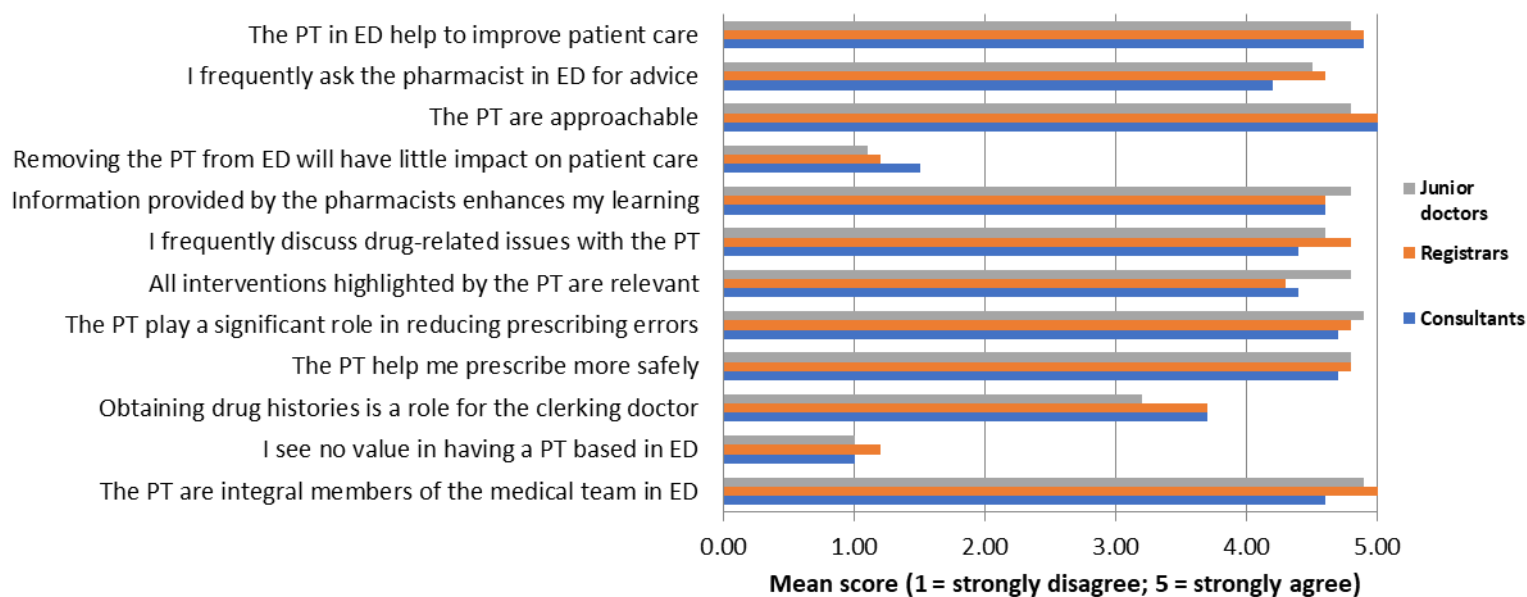
Provide early input into the care of medical patients in ED to facilitate:

- Earlier medicines reconciliation.
- Earlier pharmacist input into clinical-decision making.
- Identification of medication-related admissions.
- Increased use of patients'-own medication (PODs).
- Improved timeliness of medicines administration.
- Improved education for doctors.
- Improved quality of prescribing.

### Method

The pharmacy team (PT - 4 pharmacist and 2 technicians) provide a consistent clinical pharmacy service to ED from 08:00 – 16:00.

## Graph showing the results of an audit questionnaire disseminated to ED and medical clinicians



### Results

All the aims of the service have been achieved. Time to medicines reconciliation has reduced from 12 hours to 2 hours. Technicians increase the use of PODs and transfer of medication to wards. Clinicians confirm that the service is highly valued and considered essential for patient safety (see below).

### Discussion and Conclusion

The new service provides earlier medicines reconciliation and clinical contributions to patient care promoting safer, more appropriate prescribing. Increased use of PODs and onward transfer of medication to wards reduces pharmacy workload, reduces cost and ensures timelier drug administration and less missed doses. Recognition of medication-related admissions has increased. The service is highly valued by clinicians. In conclusion, the new ED pharmacy service has achieved its aims and objectives and proven to be highly successful. Ethical approval not required as this was a service evaluation.

### References

1. Aiello M, Terry D, Selopal N et al. Examining the emerging roles for pharmacists as part of the urgent, acute and emergency care workforce. *Clinical Pharmacist*. 2017; Vol 9, No 2 [online] DOI: 10.1211/CP.2017.20202238.
2. Collignon U, Osborne CA, Kostrzewski A. Pharmacy services to UK Emergency Departments: a descriptive study. *Pharm World Sci*. 2010; 32:90-96.

# Poster 8: The Learning Needs of Pharmacy Technicians Working in General Practice

Kerry Street - Primary Care Learning Environment Lead – Pharmacy, Ellen Williams – Director of Regional Pharmacy Training, Pharmacy Workforce Development South (PWDS), Mary Carter – South West Pharmacy Medicines Optimisation Training Programme Director, Pharmacy Workforce Development South (PWDS)

## Background and Introduction

The role of pharmacy technicians in general practice is evolving with the growth of GP clinical pharmacists. The HEE Wessex Primary Care Training Hub (PCTH) needed to understand the role, tasks undertaken and training available to enable the provision of quality assured training opportunities for GP pharmacy technicians (GPPTs).

## Aims and Objectives

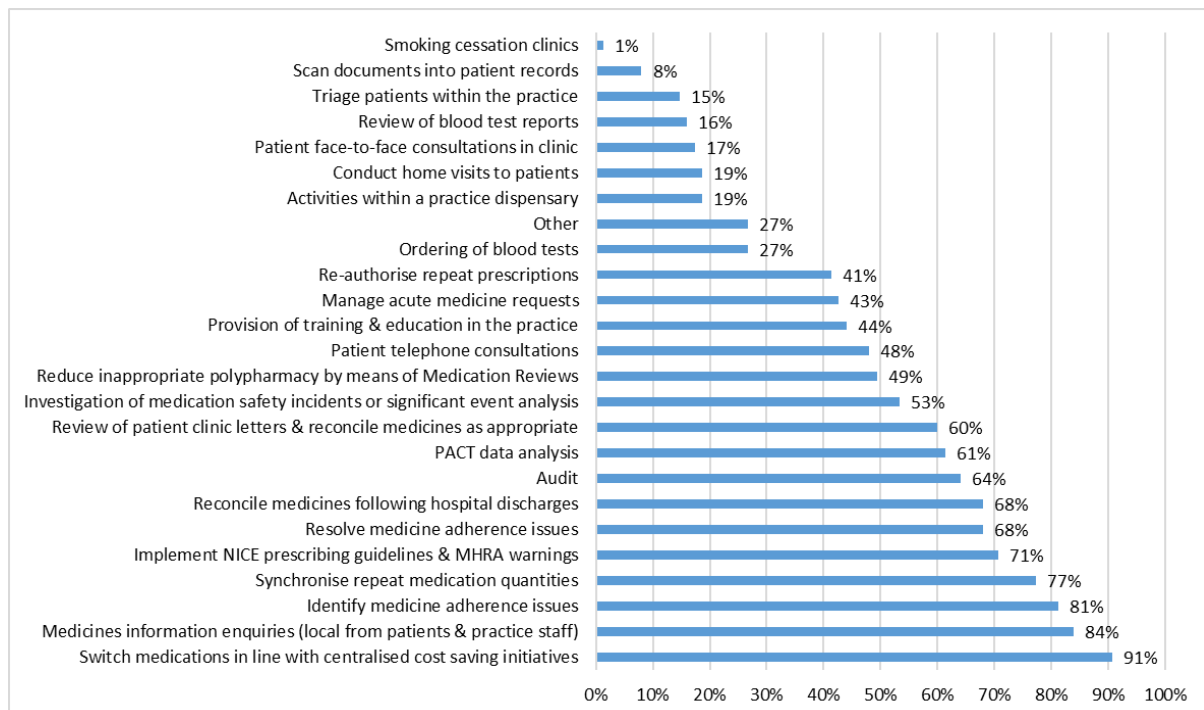
- Understand the GPPT role and training needs
- Identify existing training for GPPTs
- Plan training provision for GPPTs

## Method

A survey<sup>1</sup> was structured in collaboration with PWDS and local GPPTs using SurveyMonkey®. The SurveyMonkey® link was distributed via social media platforms including Twitter, Facebook, Association of Pharmacy Technicians UK (APTUK), GPPT discussion forums and local networks. This research did not require ethical approval.

## Results

75 UK GPPTs completed the survey, tasks undertaken are extensive and often complex:



57% of GPPTs were supervised by a clinical pharmacist, for most (52%) this is remote. For others, GPs provide supervision.

Over 50% of GPPTs stated the following training would support their role:

- interpretation of biochemistry
- medication review
- consultation skills
- health promotion
- clinical triage skills
- understanding general practice e.g. contracts

Many stated that training was not accessible and that their learning was 'on the job' and opportunistic.

### **Discussion and Conclusion**

GPPTs add value to the GP team, undertaking a variety of complex tasks that also support GP clinical pharmacists to focus on advancing their roles. Accredited relevant work-based training for GPPTs is not available; there is a gap in providing support and quality assuring competencies through training. Post-registration pharmacy technician accreditations are established in secondary care and supported by a national competency framework<sup>2</sup>.

Due to these findings, an accredited training programme for GPPTs is being developed and piloted for 2019/20 across HEE South. An aim is to also support the development of a national primary care pharmacy technician competency framework.

### **References**

1. HEE Wessex (2018). GP Pharmacy Technician Learning Needs Survey. [Online] <https://primarycaredorset.co.uk/wp-content/uploads/2018/11/GP-Pharmacy-Technician-Role-Learning-Needs-Report-2018.pdf>
2. NHS Pharmacy Education & Development Committee (2016). Nationally Recognised Competency Framework for Pharmacy Technicians: The Assessment of Medicines Management, version 3. [Online] <http://www.nhspehc.nhs.uk/Docs/SupportStaff/MMS%20National%20Framework%20v3%20January%202016.pdf>

## **Poster 9: Evaluating a potential role for Community Pharmacists in post-bariatric nutrient support (VITAMINS)**

Graham, Y<sup>1,2</sup>, Earl-Sinha, C<sup>2</sup>, Parkin, L<sup>2,3</sup>, Callejas-Diaz, L<sup>2,3</sup>, Mahawar, K<sup>1,2</sup>, Small, P.K<sup>1,2</sup>, de Alwis, N<sup>1</sup>, Hayes, C<sup>1</sup>.

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<sup>2</sup>Faculty of Health Sciences & Wellbeing, University of Sunderland, Sunderland SR1 3SD

<sup>3</sup>Dept of Pharmacy, Sunderland Royal Hospital, Kayll Road, Sunderland, SR1 3SD

### **Background and Introduction**

Patients are under the care of the bariatric multi-disciplinary team for two years before discharge into General Practice. Guidelines advocate annual monitoring of nutritional status and supplementation, but no consensus exists on what this should entail. A patient-reported need for further post-surgical vitamin and mineral supplementation support has been identified. Community pharmacists do not have a defined role in post-bariatric support but have skills and accessibility that could support patients long-term.

### **Aims and Objectives**

Explore a potential role for community pharmacists in post-bariatric surgical nutrient support.

### **Method**

NHS Ethics was obtained. Participants were recruited from a large NHS bariatric surgical unit and community pharmacies selected through analysis of geographical referrals to the unit and approached in writing. Semi-structured interviews were carried out, audio-recorded and transcribed verbatim. A qualitative constant-comparative framework was used to identify common themes and develop a conceptual framework with which to identify a potential community pharmacy role in bariatric patient support.

### **Results**

Twenty-five participants were recruited. Bariatric staff (n=9) reported negligible interaction with community pharmacists, but felt establishing communication and a pathway to embed them as part of patient care would provide additional support, resource and potentially improve supplementation compliance. Community pharmacists (n=16) reported poor knowledge of bariatric surgery and weren't able to identify bariatric patients in routine practice, but understood issues with absorption of vitamins. Pharmacists felt appropriate training and a pathway created in collaboration with the bariatric team, would benefit patients and extend community pharmacists roles.

### **Discussion and Conclusion**

Opportunities exist to involve community pharmacists in post-bariatric patient support for vitamin and mineral supplementation. Pharmacists possess pharmacokinetic knowledge of medication meaning that education around bariatric procedures and nutritional recommendations for patients would be straightforward. Communication between bariatric units and community pharmacies is needed to discuss logistics of support in practice and construct a framework to ensure patient's needs are met and recommendations followed.

### **References**

1. Graham Y, Callejas-Diaz L, Parkin L, Mahawar K, Small P, Hayes C. Exploring the Patient-Reported Impact of the Pharmacist on Pre-bariatric Surgical Assessment. OBES SURG (2018) <https://doi.org/10.1007/s11695-018-3592-2>

## **Poster 10: Improving the standard of direct oral anticoagulation counselling at the Princess Royal Hospital (PRH) Telford**

**Logan, R and Pearson, H**  
**Shrewsbury and Telford Hospitals NHS trust**

### **Background and Introduction**

We have a well-established system for providing inpatient warfarin counselling by pharmacy at initiation prior to discharge. The team are trained and confident in ensuring that patients are equipped to take their warfarin safely and effectively. The same standard of counselling was not offered to patients initiated on direct oral anticoagulants (DOACs) despite carrying the same risks. Ethics approval was not required.

### **Aims and Objectives**

To improve the safety and compliance of DOACs by standardising counselling provided to our patients.

### **Method**

Training sessions and information leaflets were provided to all relevant pharmacy staff on the counselling points given on DOAC initiation. Staff completed self-assessments on their confidence in providing DOAC counselling pre and post training.

Inpatients initiated on DOACs were identified, and counselled effectively using the tools provided. A standardised memo on the patient's electronic record was used when counselling had been given allowing data to be captured.



Data was analysed weekly to identify patients that had not been counselled allowing us to target these patients before discharge.

## Results

A total of 31 staff members attended the training. The results from the self-assessments showed an increase in their confidence from 2.5/5 to 4.5/5.

Table 1 shows the percentage of inpatients started on a DOAC that received counselling by pharmacy at baseline and up to four months after training sessions.

Month	Percentage of patients counselled
June 2018	0%
July 2018	29%
August 2018	44%
September 2018	52%
October 2018	60%

Table 1

## Discussion and Conclusion

The training sessions provided a standardised format to follow when providing DOAC counselling and improved staff confidence in providing necessary counselling. This led to a significant increase in the number of patients discharged with an improved understanding and awareness of the importance of their treatment and potential side effects, improving safety and compliance. The standards for counselling inpatients started on DOACs and the methods for documenting this have been brought in line with the well-established and effective processes already in place for patients started on warfarin.

## References

1. Bhandal S, Pattinson J. How to support patients taking new oral anticoagulant medicines. *Clinical Pharmacist*. 2013;5:268
2. Carollo A, Adamo A, Giorgio CD, *et al*. The Importance of Clinical Pharmacist Counselling in Improving Patient Medication Adherence. *European Journal of Hospital Pharmacy: Science and Practice*. 2013;20:A121
3. Chaplin S. Safer use of anticoagulants: The NPSA patient safety alert. *Prescriber*. 2007 18: 17-24. doi:10.1002/psb.77

## Poster 11: A Multidisciplinary Approach to Improving Patient Flow and Saving Nursing Time in Paediatrics

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Bradford Teaching Hospitals NHS Foundation Trust

### Background and Introduction

Increasing bed pressures on the paediatric ward has impacted on patient flow. A multidisciplinary approach to the discharge process enhances efficiency<sup>1</sup>. Thus, it was suggested employing a Senior Pharmacy Assistant (SATO) as a contact point between the ward and pharmacy would allow nurses to focus on patient care<sup>2</sup>.

There is variance between consultant ward rounds impacting on discharge times. It is hoped a more consistent approach will allow children expedite discharge. It is thought the SATO could concentrate on discharge prescriptions ensuring the process is more streamlined and efficient.

## Aim

To have 95% of paediatric patients on Ward 30 discharged within 2 hours once the decision to discharge has been made by May 2019.

## Objectives

- Gather staff nurse perceptions on time saved by the SATO
- Improve the patient experience by achieving a more fluid approach to patient flow
- Develop recommendations for the future roll-out of the service

## Method

Various methods have been used to collect data:

- audits
- covert and overt observations
- questionnaires
- retrospective review of patient notes

## Results

Since the introduction of the SATO, there has been a decrease in the time taken to discharge patients. On average, the time has reduced by 33% (Figure 1).

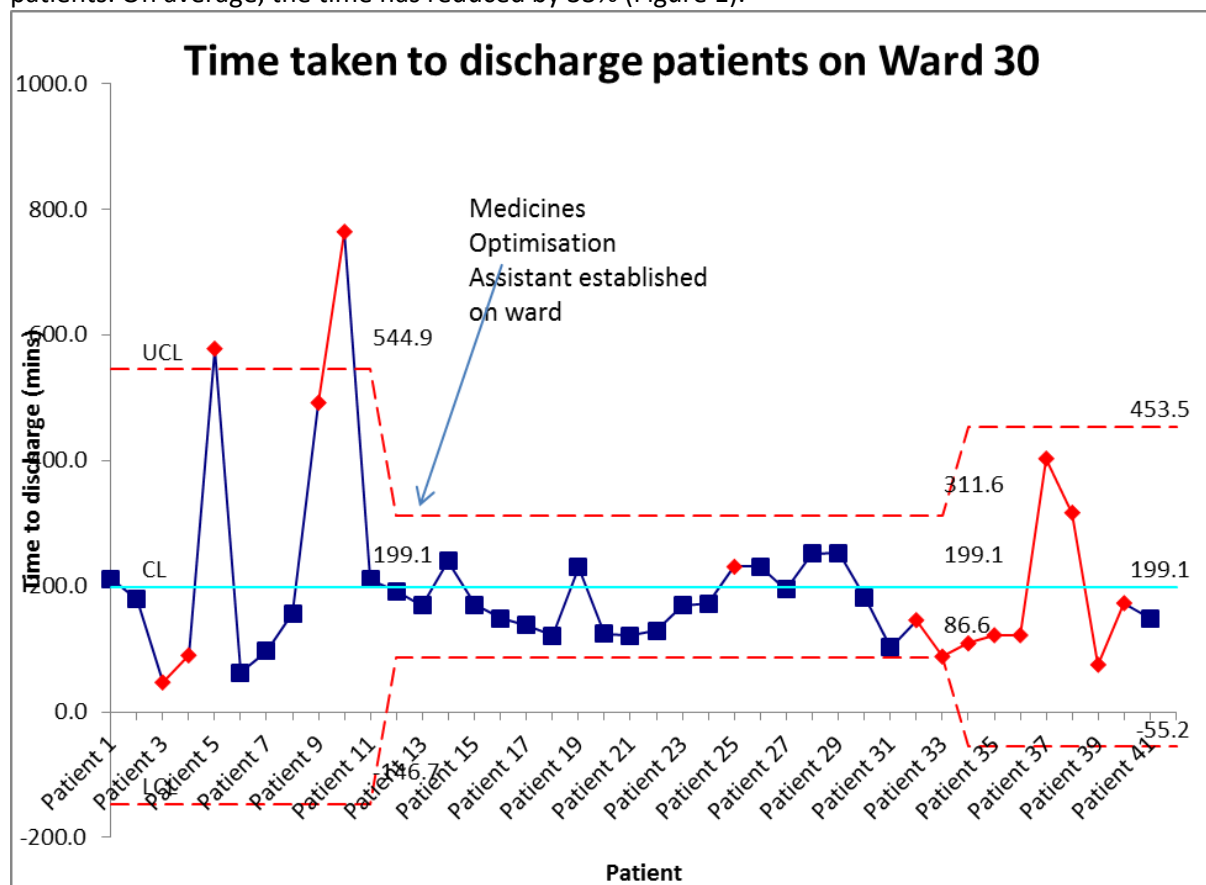


Figure 1. Time taken to discharge patients on Ward 30

Taking responsibility for clinic room duties, saved 14 hours/month nursing time. There has been an improvement in staff morale reflected by the culture survey. TTOs arrive on the ward in a timely manner. Thus, there is less stress on families resulting in fewer complaints and a better patient experience.

## Discussion and Conclusion

Barriers to the project have included lack of buy-in from the consultants initially – potentially due to lack of knowledge about the project to start off with. Initially it was difficult to 'spread the word' about the project therefore not all nurses knew about it. The project is still ongoing with the focus now being to commence a POD campaign.

## References

1. Stokes H and Sexton J. From decision to discharge. An evaluation of the discharge prescription journey at The Royal Liverpool and Broadgreen University Hospitals NHS Trust (RLBUHT). *International Journal of Pharmacy Practice* 2014;22;102-103.
2. Rathbone AP, Jamie K, Blackburn J, et al. Exploring an extended role for pharmacy assistants on inpatient wards in UK hospitals: Using mixed methods to develop the role of medicines assistants. *European Journal of Hospital Pharmacy* 2018; <http://dx.doi.org/10.1136/ejhpharm-2018-001518>

## Poster 12: The Effectiveness of a Pharmacy Technician's Integration with a Home-Based Hepatitis C Delivery Service

Samantha Bird, Specialist Pharmacy Technician, Hospital Pharmacy Services Nottingham Limited, Breanne Dilks, Hepatology Network Manager, Nottingham University Hospitals, Brian Thomson, Hepatology Consultant, Nottingham University Hospitals, Guy Wilkes, Managing Director, Hospital Pharmacy Services Nottingham Limited.

**Background and Introduction:** The introduction of direct acting anti-virals (DAAs) transformed management of Hepatitis C (HCV); dramatically improving patient outcomes. NHS England set out its bid to eradicate HCV by 2025<sup>1</sup>. To increase capacity and safely deliver treatment to patients for whom secondary care is not accessible, a regional home-based model was developed. The high cost of DAAs and rapidly evolving evidence base required precise pharmacy stock management and logistics.

**Aims and Objectives:** To integrate a Specialist Pharmacy Technician into a Hepatology department to administrate the home-based service, manage the supply of DAAs and coordinate treatment of HCV patients. To determine the impact of this role in meeting the service needs, avoiding wastage, optimising logistics, treatment adherence and releasing specialist nursing capacity.

**Method:** A Specialist Pharmacy Technician was appointed to work within the Hepatology clinical team 3 days a week, working alongside the nurses, MDT co-ordinator and Regional Manager. The technician held responsibility for coordinating patient care, from initial contact to pre-treatment preparation, clinical monitoring, dispensing and treatment delivery.

**Results:** From October 2017 to March 2019, the technician enabled home-based treatment for 170 HCV patients. The treatment outcomes did not differ to those in local secondary care and 96% of patients successfully completed treatment. 100% of patients rated their experience of the delivery service as 'good' or 'great' (45% survey response rate). The technician carried out regular communication with patients, ensuring and enabling timely supply, seamless care and reducing opportunity for disengagement. Billing accuracy improved and obsolete or wasted stock was reduced to zero.

**Discussion and Conclusion:** Integrating pharmacy and medicines supply functions with management of home-based HCV delivery services is very effective in achieving medicines optimisation, bringing benefits to patients, pharmacy and clinical teams.

## References:

1. NHS England. NHS England sets out plans to be first in the world to eliminate Hepatitis C. Available at: <https://www.england.nhs.uk/2018/01/hepatitis-c-2/> (Accessed February 2019)
2. All-party Parliamentary Group. Liver health inquiry report. Eliminating Hepatitis C in England March 2018. Available at: <http://www.hcvaction.org.uk/sites/default/files/resources/Eliminating%20Hep%20C%20APPG.pdf> (Accessed February 2019)
3. HCV Action. Good practice case study: Nottingham University Hospitals NHS trust Homecare treatment delivery. Available at: <http://www.hcvaction.org.uk/resource/good-practice-case-study-nottingham-university-hospitals-nhs-trust-homecare-treatment> (Accessed February 2019)

## Poster 13: Identifying mental health related potentially hazardous prescribing indicators: a systematic review

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<sup>3</sup> Pharmacy Department, Greater Manchester Mental Health NHS Foundation Trust, Manchester, United Kingdom

### Background and Introduction

Indicators of potentially hazardous prescribing, known as prescribing safety indicators (PSIs), have been developed for use across primary<sup>1</sup> and secondary care<sup>2</sup>, and form part of national medicines optimisation strategies. Despite the fact that prescribing errors and medication-related harm may be common in patients with mental illness<sup>3</sup>, there has been limited research focusing on the development and application of PSIs specifically for this population.

### Aims and Objectives

Identify mental health (MH) related potentially hazardous prescribing indicators.

### Method

Seven databases were searched (1990 to 2019). Studies that developed, validated or updated a set of explicit medication-specific indicators or criteria that measured prescribing in terms of safety or quality were included, irrespective of whether they contained MH indicators or not. Included articles underwent further screening to extract any MH related indicators, which was determined based on our operational definition. Two expert MH clinical pharmacists screened the identified MH indicators and selected PSIs that described potentially hazardous prescribing that could cause significant risk of harm. PSIs were categorised into prescribing problems and medication categories. Ethics approval was not required.

### Results

Seventy-nine unique studies were included, 70 of which contained at least one MH related indicator. No studies were identified that focused specifically on PSIs for patients with mental illness. A total of 1386 MH indicators were identified (average 20 (SD=25.1) per study); 245 of these were considered potential PSIs. Among PSIs the most common prescribing problem was 'Potentially inappropriate prescribing considering diagnoses or conditions' (n=91, 37.1%) and the lowest was 'omission' (n=5, 2.0%). 'Antidepressant' was the most common PSI medication category (n=85, 34.7%).

### Discussion and Conclusion

This is the first systematic review to identify a comprehensive list of MH related indicators of potentially hazardous prescribing. This list created the foundation for a new suite of PSIs that is currently being developed using the Delphi technique to reach consensus between experts.

## References

1. Spencer R, Bell B, Avery AJ, Gookey G, Campbell SM, Royal College of General P. Identification of an updated set of prescribing--safety indicators for GPs. *Br J Gen Pract.* 2014;64(621):e181-90.
2. Thomas SK, McDowell SE, Hodson J, Nwulu U, Howard RL, Avery AJ et al. Developing consensus on hospital prescribing indicators of potential harms amenable to decision support. *Br J Clin Pharmacol.* 2013;76(5):797-809.
3. Keers RN, Williams SD, Vattakatuchery JJ, et al. Prevalence, nature and predictors of prescribing errors in mental health hospitals: a prospective multicentre study. *BMJ Open.* 2014;4(9):e006084.

## Poster 14: Near patient Pharmacy dispensing- Improving patient experience on a busy Ambulatory Unit at the John Radcliffe Hospital, Oxford

Sophie McGlen, Emma Heyden, Raymond Atienza-Hawkes, Paul Devenish, Jordan Bowen, Mridula Rajwani, *Oxford University Hospitals NHS Foundation Trust*

### Background and Introduction

The Ambulatory Unit (AAU) at the John Radcliffe Hospital sees over 900 patients a month. On average 45% of those patients need 'To Take Out' medications (TTOs). Patient experience feedback has flagged up waiting times for medication causing delays. Nurse-dispensed TTO packs in AAU account for 30% of TTOs but are more expensive and have a restricted range of medications. These have had a limited improvement in patient experience/ waiting times.

### Aims and Objectives

1. To improve waiting times for TTOs and patient experience
2. To support the AAU with a dedicated Pharmacy service.
3. To reduce medication costs from the unit due to Nurse-dispensed TTO packs.

### Method

In July 2018 a satellite pharmacy on AAU was launched with dedicated in-house pharmacy team. Data collected:

1. The numbers of TTOs being dispensed from the ward using TTO packs
2. Following introduction of the satellite all prescriptions dispensed on the ward versus TTO packs
3. Patient experience surveys
4. The time between writing of the TTO and the time the patient was discharged from the unit was calculated from the electronic prescribing system before and after introduction of the satellite.

### Results

The average waiting time for medications reduced from 165 to 95 minutes.

The average number of TTOs dispensed per month directly from AAU compared with central pharmacy increased from 31% to 58%. (Fig1)

The reduction in TTO packs issued from the ward resulted in a saving of £478.77 over 6 months.

### Discussion and Conclusion

The introduction of the ward-based pharmacy dispensary service has increased the number of TTOs that can be dispensed in-house. This results in a 71 minute reduction in waiting times and an improvement in patient experience on subsequent survey. The limitation to these data is that delays to patients leaving the unit may be related to factors other than medications.

### References

No references.

# Poster 15: Transfer of Medication Changes on Discharge from Hospital to Primary Care

Tia Shillingford-Cox. Supervised by Edel Brown and Ibrahim Hassan

## Background and Introduction

Information within inpatient discharge summaries (IPDS) are required to reach primary care providers in a 'timely, clear and unambiguous' manner<sup>1</sup>. Miscommunication can, and has, lead to errors in an unintentional deviation from the intended regime.

## Aims and Objectives

Determining the timeliness of transfer IPDS to a primary care provider, assessing the quality also 100% of IPDS must:

1. Be sent within 24 hours of discharge
2. Accurately document stopped, unchanged, amended and new medicines
3. Have appropriate reasons documented for stopped, amended and new medicines
4. Have appropriate anti-coagulation referrals as per trust policy for patients initiated on DOACs

## Method

202 IPDS were analysed for the dates between the 29<sup>th</sup> October and 4<sup>th</sup> November 2018. The time the patient left the ward was compared to the time the IPDS was 'saved' in the Documentation tab on Cerner. Drug histories were compared to IPDS. Reasons for stopping, amending or initiating new medicines were searched for throughout all sections of the IPDS.

## Results

*Standard 1: Not met*

- 75% (n = 151) of IPDS were sent within 24 hours of discharge

*Standard 2: Not met*

- 72% (n = 145) of IPDS documented all medicines in the appropriate category

*Standard 3: Not met*

- 81% (n = 164) of IPDS provided appropriate reasons for changes in medicine regimes

*Standard 4: Met*

## Discussion and Conclusion

Standards 1 to 3 were not met which could potentially result in primary care providers being unable to continue a patient's care appropriately and safely. Oversight of these mistakes could potentially root from either human error, and/or the use of Cerner.

## References

1. Royal Pharmaceutical Society. (2012). Keeping patients safe when they transfer between care providers – getting medicines right. Accessed via <https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Publications/Keeping%20patients%20safe%20transfer%20of%20care%20report.pdf> on 25/02/2019

## **Poster 16: Use of Clopixol Acuphase® (zuclopenthixol acetate) on the inpatient care wards within Northumberland Tyne and Wear (NTW) NHS Foundation Trust**

Ruth Ayre, Claire Thomas, Dr Mohamed Morsy

**Background/Introduction:** A serious untoward incident on an acute, adult, general psychiatric ward occurred which involved the use of zuclopenthixol acetate injection (Acuphase®) to control acute disturbance & the post-incident investigation revealed several concerning issues. An audit was required to see if the issues raised were isolated to this one event or were endemic to the Trust.

### **Aims and Objectives:**

- Determine if the prescribing of Acuphase® was consistent with its licensed indications and Trust policy.
- Determine if the rationale for prescribing Acuphase® was documented in the patient record (RiO).
- Determine if monitoring was undertaken post Acuphase® administration.
- Compare the use of Acuphase® across NTW, identifying any differences in clinical practice needing further investigation.

**Method:** An audit form was designed and data was retrospectively collected for adult patients to whom Acuphase® was dispensed from January 2016 to March 2017.

### **Results:**

- 97% of prescriptions were compliant with licensed indications for the prescribing of Acuphase® but 2 patients received greater than the licensed maximum dose over the 14 day treatment period.
- 35% of patients did not have the rationale for use of Acuphase® documented; 28% were in accordance with Trust policy.
- Only 10% received complete monitoring as required by the Trust policy.
- One area of the trust accounted for 62% of the prescribing of Acuphase®.
- 3 patients received Acuphase® who were naive to antipsychotic treatment.
- Only 50% of patients had a medical review before a dose was used.
- 

**Discussion and conclusion:** Significant variations were found in the prescribing, administration and monitoring of Acuphase and an improvement is required. The audit results have been disseminated and discussed at all levels of the trust. Awareness and training is occurring for all members of the clinical team and specific clinical guidance on the use of A re-audit on the use of Acuphase will occur after implementation of the clinical guidance.

## **Poster 17: Development and implementation of training for pharmacists new to out-of-hours services**

Cheryl Way<sup>3\*</sup>, Richard Bowen<sup>1</sup>, Alexandra Gibbins<sup>2</sup>, Mair Davies<sup>3</sup>, Karen Hodson<sup>4</sup>, Helena Rosado<sup>5</sup>, Elen Jones<sup>3</sup>, Elizabeth Ward<sup>5</sup>

<sup>1</sup>National Programme Director, 111 Wales Service, <sup>2</sup>Abertawe Bro Morgannwg University Health Board, Swansea, <sup>3</sup>Wales Office, Royal Pharmaceutical Society, <sup>4</sup>School of Pharmacy & Pharmaceutical Sciences, Cardiff University, <sup>5</sup>Royal Pharmaceutical Society, London, UK

## **Background and Introduction**

Pharmacists in Great Britain are moving into new roles in out-of-hours services. The Royal Pharmaceutical Society worked with expert groups to develop a 100-day transition programme for pharmacists new to working in NHS111.

## **Aims and Objectives**

The aim of this pilot was to evaluate whether the NHS111 Transition Programme is effective in delivering the confidence and competence required by pharmacists moving into NHS111.

## **Method**

A baseline questionnaire was completed by participants new to NHS111 Wales. The number of shifts worked and calls completed over 100 days was recorded. Portfolios were reviewed. Semi-structured qualitative interviews with the participants and tutors were conducted, recorded, transcribed verbatim and thematically analysed. The project was reviewed, at the Joint Study Review Committee of the Health Board in December 2017, and classed as service evaluation which did not require a R&D application.

## **Results**

Four of six participants completed the questionnaire. Three worked full time and one part time, in GP practice, hospital or community pharmacy. Three had more than ten years and one between two and five years' experience. All had a post-graduate diploma or MSc. Three had limited and one moderate knowledge of the programme topics. Three were partially confident and one confident in their ability to use the skills/techniques. Those who completed the questionnaire did the greatest number of shifts and calls. Three on-line portfolios were reviewed. Those interviewed liked the tutor support, moderated peer review, structure, Moodle site and self-directed learning. They agreed that the knowledge and capability guide, RPS portfolio guidance, access to the portfolio and integration with other training required improvement. Participants' knowledge and confidence improved during the programme.

## **Discussion and Conclusion**

The results suggest that the programme provided support to pharmacists new to NHS111, but would benefit from further refinement. Future work will include the development of phase 2 training and evaluation using a larger cohort of participants.

## **References**

1. Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101.

## **Poster 18: Evaluation of an advanced pharmacist practitioner prescribing cognitive enhancing medication (CEM) within the Northumberland Memory Service**

Stavert, L. Barnes, T. Thomas, C, Pharmacy Dept, NTWFT

**Background/Introduction:** A 12 month pilot was commissioned to evaluate the impact a pharmacist independent prescriber (PIP) could have in the Memory Service.

**Aims and Objectives:** The aims of the role is to release clinical time within the service through the following establishing a PIP to be responsible for key medicines optimisation tasks and better utilise skill mix within the team. It is expected that this will allow the team to function more efficiently, utilising a better skill mix thus reducing the time to wait for assessment



**Method:** After clinical assessment, diagnosis and initiation of CEM by the Consultant Psychiatrist, patients are referred to the pharmacist to:

- Assess compliance.
- Assess tolerability / side effects.
- Prescribe dose titration.
- Switch or deprescribe medication.
- Holistic review of all prescribed medication.
- Review and request any monitoring needs.

This novel role will be reviewed, both quantitatively and qualitatively every 3 months and fed back to Trust governance and clinical groups.

**Results:** Over the initial 3 month period 227 clients were reviewed by the PIP and 124 prescriptions were issued. The PIP has integrated well into the team and is a valued member. So far the implementation of the PIP role across 2 days into the existing pathway has released 16 hours of clinical time every week.

**Discussion and conclusion:** The opportunity has increased job satisfaction and use of prescribing enhanced skills, as well as creating learning and training opportunities for pharmacy and the wider team. By having a single point of access for medication issues it is hoped that communication to primary care (including GPs and pharmacies) will improve. The role is to be expanded to other hubs within the same pathway to replicate the same efficiencies demonstrated within this team.

## **Poster 19: Evaluation of Enhanced Clinical Pharmacy Service on Older Peoples Wards**

Teresa Barnes, Claire Miller, Aniqah Rezwana, Caoimhe McClean, Claire Thomas  
Pharmacy Dept. Northumberland, Tyne and Wear NHS Foundation Trust

**Background/Introduction:** Difficulties in recruiting medical staff led to skill mix review and initial rollout of extended pharmacy service on older people's wards in line with medicines optimisation agenda and CQC Key lines of enquiry.

### **Aims and Objectives:**

1. To release medical staff time by providing an enhanced pharmacy service.
2. To improve the quality of patient care by increased medicines optimisation.

**Method:** Two Specialist Clinical Pharmacists were recruited to work on 2 wards – one functional and one organic elderly care ward. The pharmacists were available to the ward for 37.5 hours per week. In addition to NTW clinical pharmacy service standards the roles undertaken were:

- Transcribing all leave and discharge prescriptions.
- Transcribing all medication charts.
- Updating patient electronic medication records and related assessments.
- Increased input at all stages of the patient journey.
- Increased contact with patients/carers for medication issues.
- Integrating with the MDT attending all meetings including the 72 hour and discharge meetings, improving quality and quantity of clinical interventions.
- Medicine optimisation at the interface of care.

Clinical supervision was provided by an Advanced Pharmacist Practitioner. Data was collected over a 3 and 6 month period to evaluate the increased service.

#### **Results:**

1. Approximately 8 hours doctors time was saved per week in medicines optimisation tasks that would have previously been completed by a doctor.
2. Clinical interventions per patient increased 5 fold on average per patient for both wards.
3. Medicines reconciliation completed for 100% patients (average trust-wide is 87%).
4. Overwhelmingly positive feedback received from ward teams, including medical staff.

#### **Discussion and conclusion:**

We have shown that by investing in extended medicines optimisation through a dedicated pharmacist, releases time to care for doctors and also improves quality of service. This service is now being rolled out to other areas.

#### **References:**

1. NICE Medicines Optimisation Guideline (NG5) – Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes. NICE guideline (March 2015) accessed at [nice.org.uk/guidance/ng5](http://nice.org.uk/guidance/ng5)
2. Care Quality Commission - Key lines of enquiry, prompts and ratings characteristics for healthcare services. Accessed at [www.cqc.org.uk/sites/default/files/20180308\\_healthcare-services-kloes-prompts-and-characteristics.pdf](http://www.cqc.org.uk/sites/default/files/20180308_healthcare-services-kloes-prompts-and-characteristics.pdf)

## **Poster 20: Five year data demonstrating the impact of a pharmacist in a multidisciplinary pre-admission percutaneous coronary intervention (PCI) clinic**

Manning S, Hayes C, Gudka D, Pottle A  
Royal Brompton and Harefield NHS Foundation Trust, London

#### **Background and Introduction**

Pharmacist involvement as part of a multidisciplinary pre-admission service has been shown to reduce medication discrepancies and improve patient safety during hospital admissions <sup>(1)</sup>. Patients undergoing elective percutaneous coronary intervention (PCI) at Harefield Hospital are seen in a pre-admission clinic prior to their procedure. Patients undergoing PCI require dual antiplatelet therapy (DAPT) to reduce the risk of instent thrombosis <sup>(2)</sup>. Patients are reviewed by a cardiology specialist pharmacist and specialist nurse. The pharmacist reconciles the patients medications and records this on the hospital EPMA system; initiates aspirin and/or clopidogrel to start one week before the procedure; optimises cardiovascular medications where necessary; counsels the patient on withholding medications prior to the procedure and provides the patient with a leaflet tailored to the advice given.

#### **Aims and Objectives**

Data collected on each patient encounter was analysed to establish the number of patients:

- Reviewed by a pharmacist
- Prescribed antiplatelets or other medications
- Counselled on stopping medications pre-procedure
- Identified with additional clinical or pharmaceutical issues

## Method

Five-year data was analysed from an in-house database between January 2014 and December 2018. Ethics approval was not required.

## Results

During the five-year period, 3243 patients were reviewed by a pharmacist in clinic. Of these patients (see table 1), 448 (14%) were initiated on DAPT (aspirin + clopidogrel) and 1582 (49%) of patients were initiated on a single antiplatelet medication (aspirin, clopidogrel, prasugrel or ticagrelor). 550 patients (17%) were prescribed alternative medications.

1893 (58%) patients were counselled on stopping medications pre-procedure. This included 554 patients who were taking diuretics, 770 patients taking metformin, 295 patients taking oral anticoagulants and 274 patients using insulin.

Additional clinical or pharmaceutical issues were identified in 689 (21%) patients.

**Table 1 Medications prescribed**

Medication	Number of patients
<b>Antiplatelets</b>	2030
DAPT (aspirin + clopidogrel)	448
Aspirin	158
Clopidogrel	1400
Prasugrel	6
Ticagrelor	18
<b>Lansoprazole</b>	372
<b>Statin</b>	38
Atorvastatin	29
Rosuvastatin	5
Simvastatin	4
<b>Bisoprolol</b>	26
<b>Ramipril</b>	8
<b>Enoxaparin</b>	21
<b>Anti-anginal</b>	85
GTN spray	62
Isosorbide mononitrate	12
Nicorandil	11

## Discussion and Conclusion

Over a five year period it has been shown that pharmacists as part of a multi-disciplinary team play a key role in optimising patient's medications prior to PCI.

## References

1. Kwan Y *et al.* Pharmacist medication assessments in a surgical preadmission clinic. *Arc Intern Med* 2007;167(10):1034-40
2. Sousa-Uva M *et al.* 2018 ESC/EACTS Guidelines on myocardial revascularisation. *European Heart Journal* 2019;40:87-165

# **Poster 21: Evaluating the benefits of having the pharmacy team closer to the wards on patient flow and the service offered.**

Chan J, Dixie M, Benninghoff K, Patel N, Omar M, Morrow J, Ozols R, Hart M, Clifton C, Begum S, Ahmet M, Ejaz M, Marian C, Omar N. Barking, Havering and Redbridge University Hospitals

## **Background and Introduction**

Hospital pharmacy should be recognised as a 'clinical workforce.' We should be working with the wider MDT to choose, prescribe and monitor their medicines. (1) Furthermore early discharge is a key element to improving patient flow according to the 'SAFER patient flow bundle.'(2)

## **Aims and Objectives**

To develop the clinical pharmacy service to the care of the elderly wards at Queens Hospital by moving the service closer to the patients and other healthcare professionals.

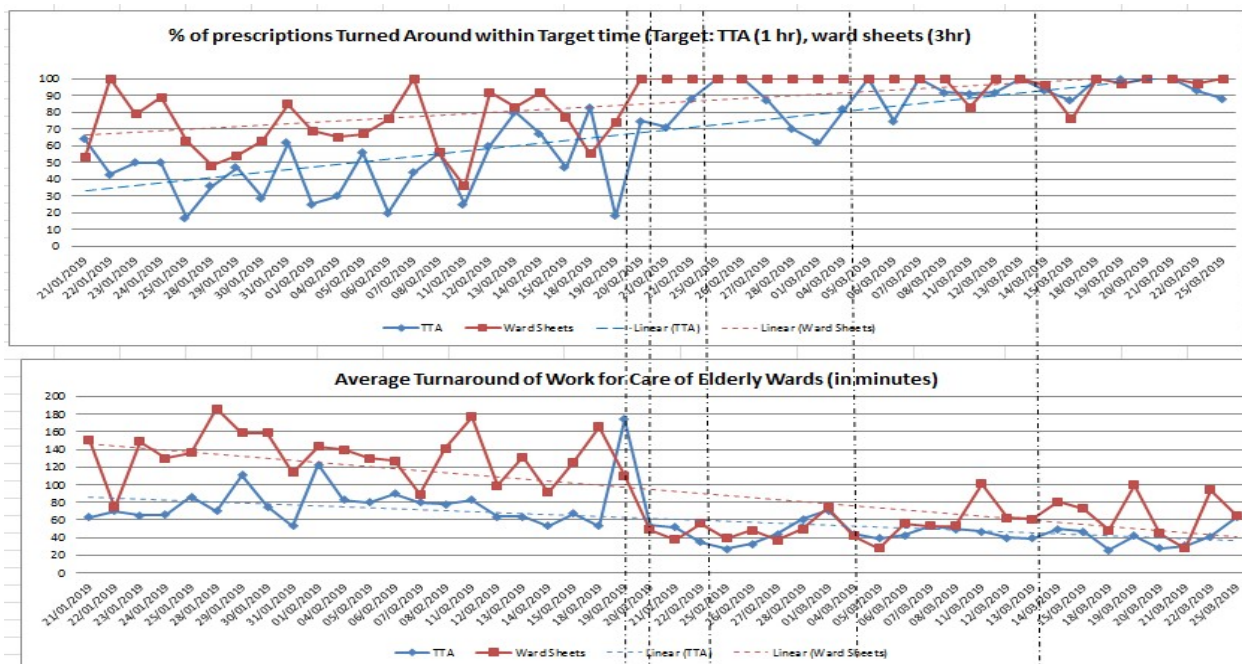
## **Method**

Pharmacy team members from clinical and dispensary areas collaborated with the ward managers, service manager and matron to redesign the service offered to the care of the elderly wards.

- A smaller dispensary was set up near to the ward areas. All drugs except controlled drug TTAs were dispensed by the hub.
- Job descriptions were written for each team member and roles revised to become ward based.
- In patient item dispensed were placed in patient's locker by pharmacy staff. Where appropriate, they would counsel before locking drug in bedside locker.
- TTAs were taken to the wards by the pharmacy team and patient counselled.
- Daily production board and huddles were set up.
- Pharmacy team to lead on all medicines management to include but not exclusive to:
  - (a) Temperature monitoring.
  - (b) Safe storage of medicines

## **Results**

Project started on the 19<sup>th</sup> February 2019. There were 4 PDSA cycles.



No drugs requiring re-dispensing post intervention.

### Discussion/Conclusion

By having a pharmacy team working on the wards, we improved patient flow by reducing the turnover time for medicines. Additionally, the percentage of work completed within target time increased post intervention. We have increased our patient facing time and reduced the number the omitted medicines. We have completely eliminated the need to re-dispensing medicines and have been able to support with medicines management on the wards.

### References

- 1) Royal Pharmaceutical Society. SHAPING PHARMACY FOR THE FUTURE Hospital Pharmacy: A briefing for members in England. Royal Pharmaceutical Society. November 2017. <https://www.rpharms.com/Portals/0/Hospital%20pharmacy%20briefing%20-%20final.pdf?ver=2017-12-13-152059-520> [Accessed 12/03/2019]
- 2) NHS Improvement. *Rapid Improvement Guide to: The SAFER Patient Flow Bundle*. September 2017. <https://improvement.nhs.uk/documents/633/the-safer-patient-flow-bundle.pdf> [Accessed 12/03/2019]

### Ethics approval

Ethics approval was not required for this project

## Poster 22: Innovative pathway model for the detection and treatment of atrial fibrillation – The Capture AF Service

Khanbhai, Z and Manning, S – Royal Brompton and Harefield NHS Foundation Trust, London

### Background and Introduction

The prevalence of atrial fibrillation (AF) in the UK is around 2%, affecting more than 10% of people aged over 80 years. AF is associated with a high risk of stroke. Early identification and treatment reduces this risk <sup>(1)</sup>. The Capture AF service is an innovative service allowing seamless identification, treatment and management of patients with AF. It involves community pharmacists recording the

patient's ECG with a Kardia monitor and directly referring patients with undiagnosed or suboptimally treated AF to the Arrhythmia Care Team at Harefield Hospital.

### Aims and Objectives

To evaluate the impact of the Capture AF service.

### Method

28 community pharmacists received intensive training on AF, how to record an ECG using a Kardia monitor and documenting the consultation on a PharmOutcomes referral form. Patients were automatically referred by the community pharmacist if they had a possible new AF diagnosis, previous AF diagnosis and not anticoagulated, anticoagulated but experiencing side effects or compliance issues or a high AF symptom burden. Patients initiated on anticoagulation were referred to the community pharmacist via the New Medicines Service (NMS)<sup>(2)</sup> for adherence monitoring.

### Results

During a pilot (May-October 2016) and final phase (May 2018 -March 2019), 1682 patients were enrolled. (NMS referral - final phase only).

RESULTS		
Total screened	1682	
	Number	Percentage
<b>Kardia ECG results</b>		
Normal	1362	81
Possible AF	158	9
Unclassified	157	9
Unreadable	6	0.4
<b>Referral results</b>		
Patients referred	291	17
Referred patients seen in clinic	90	31
Potential new AF	36	23
Actual new AF	18	11
False positive for AF	18	11
Previous AF not anticoagulated	8	5
Investigations (holter, ECHO) organised in clinic	27	30
Referred to GP	36	12
Medication optimised in clinic	31	34
Referral for NMS	8	

Of the 1682 enrolled, 90 were seen in clinic. 18 patients were newly diagnosed with AF, 8 patients with previous AF were started on anticoagulation. 31 patients had their medications optimised including dose adjustment of DOAC, cessation of antiplatelet, titration of rate control medication and conversion from warfarin to DOAC.

### Discussion and Conclusion

The results demonstrate that the Capture AF service is a robust multi-disciplinary pathway for detection, protection and perfection of AF. The direct-referral pathway ensures that patients are reviewed by a specialist team and receive optimal treatment and management. Referral back to the community pharmacist via the NMS enhances adherence to anticoagulation.

## References

1. National Institute for Health and Care Excellence. Atrial fibrillation: the management of atrial fibrillation,(CG180). London: NICE; 2014.
2. Elliott R, Boyd M, Waring J et al. Understanding and appraising the new medicines service in the NHS in England. Available from: <http://www.nottingham.ac.uk/~pazmjb/nms/downloads/report/files/assets/basic-html/index.html#1>. London: UCL School of Pharmacy;2014
3. Alderwick, H., & Dixon, J. (2019). The NHS long term plan. *BMJ (Clinical Research Ed.)*, 364, l84. <http://doi.org/10.1136/bmj.l84>

Ethics approval was not required as this is externally funded research project regarding provision of a new service.

## **Poster 23: Identifying New Patients Requiring Medication Histories and Organising the Pharmacy Technician Team using PRIDEway Improvement Methodology**

**Dixie M, Barking, Havering & Redbridge University Hospitals NHS Trust (BHRUT)**

### **Background and Introduction**

BHRUT developed the PRIDEway quality improvement methodology as part of the NHS Partnership with the Virginia Mason Institute (VMI) to develop a 'lean' culture of continuous improvement to put patients first<sup>1</sup>. The current pharmacy technician clinical service had no visibility on how busy the medication history (DHx) workload was each day and staff were visiting wards to discover patients whose DHx had already been done due to manual methods of recording completion.

### **Aims and Objectives**

To identify, each morning, the numbers of new patients who need a DHx completing, by ward and use this to organise the team with the aim to complete the DHx for all patients for 19 wards by the end of the day.

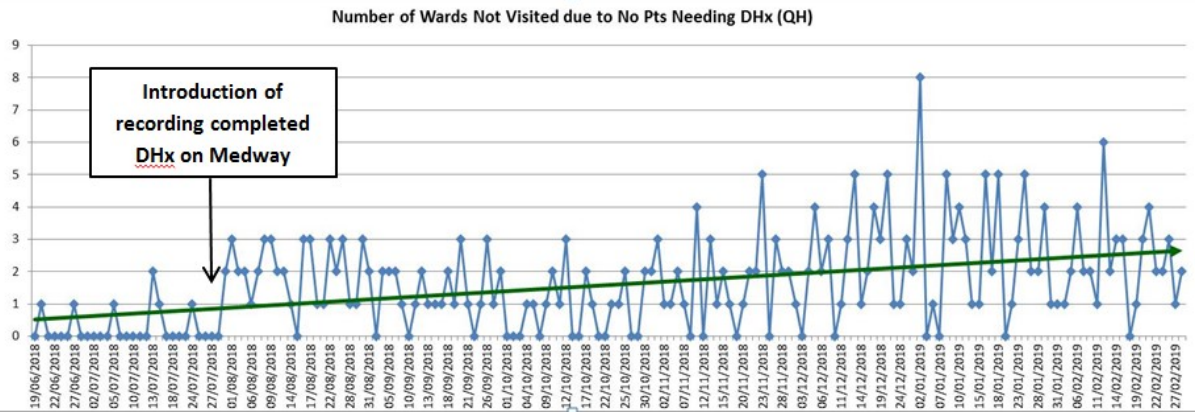
### **Method**

Using PRIDEway methodology, a value stream map of the process was produced and waste exercises carried out to identify the parts of the process that did not add value to the patient or service. An electronic method of recording completed DHx was introduced as was a production board was developed giving a visual overview of the workload and progression of the day's work.

A 5 minute huddle was introduced giving feedback on the completion of the previous days workload. Barriers preventing the completion were discussed as well as adjustments to the current day's rota with the aim to complete all new patients on the required wards.

### **Results**

The electronic recording and production board data showed an increase in wards not needing to be visited due to them having no new patients, allowing re-direction of staff. This led to the percentage of incomplete wards decreasing by using the resources more efficiently.



### Discussion and Conclusion

This project allowed better use of resources and reduced time of staff spent trying to identify manually how many patients need DHx each day with an outcome that allows us to complete our wards more efficiently.

### References

1. NHS Partnership with Virginia Mason Institute. <https://improvement.nhs.uk/resources/virginia-mason-institute/> (accessed 21/03/2019)

**Ethical Approval:** This project did not require any ethical approval

## Poster 24: Assessing the clinical competence of foundation Pharmacists (FPs) in hospital pharmacy practice

Sumayya Kasuji Senior Pharmacist Education and Training. Hull University Teaching Hospitals NHS Trust

Rebecca O'Rourke Clinical Fellow University of Leeds

### Background and Introduction

Pharmacists in Great Britain undertake five years of formal training prior to registering as pharmacists. However, FPs in hospital usually receive a further period of training and assessment. During this time, pharmacists who may be known as Clinical Supervisors (CSs) make decisions about the competence of the FP. As there are no formal training requirements for pharmacist CSs and there is no defined curriculum against which FPs are assessed, the methods by which CSs assess the clinical competence of FPs are unknown. In the future, the workplace learning of postgraduate pharmacists in Yorkshire and Humber (Y&H) may be regulated formally using documents such as the Health Education England Quality Framework (HEEQF) (HEE,2017) and the Royal Pharmaceutical Society Foundation Pharmacist Programme (RPSFPF) (RPS,2014).

### Aims and Objectives

To explore how hospital CSs make decisions about the clinical competence of FPs.

### Method

Ten CSs from seven hospitals Trusts from the Y&H region were voluntarily recruited and interviewed using one-to-one semi-structured interviews. Ethical approval was obtained from the University Ethics committee; the Research and Development unit at the student's place of work and from NHS R&D.

### Results

The methods used to assess clinical competence were developed locally. All participants were aware of the RPSFPF and the HEEQF; but due to resource constraints; none had utilised the HEEQF. Four CSs had developed clinical competency checklists or a programme which incorporated standards



from the RPSFP for local use; others looked for specific human behaviours to aid decision making. Positive behaviours included good communication with the multidisciplinary team, whereas negative behaviours included error rates. Additionally, all relied on a formal postgraduate diploma qualification to aid the assessment process.

### **Discussion and Conclusion**

There is a heavy reliance on a formal postgraduate diploma to aid the assessment of clinical competence, but it is important to note that many departments lack the resources to utilise additional frameworks.

### **References**

1. Health Education England. 2017. HEE Quality Framework Handbook 2017-2018. [Online]. [Accessed 23<sup>rd</sup> November 2017]. Available from: <https://hee.nhs.uk/>
2. Royal Pharmaceutical Society. 2014. RPS Foundation Pharmacy Framework – A framework for professional development in foundation practice across pharmacy.

## **Poster 25: Evaluation of Inhaler Technique for hospital pharmacy staff**

Vibha Teli, Principal Pharmacy Technician, Royal Brompton and Harefield NHS Trust

Inhaled medications are the cornerstone of asthma, COPD and other respiratory related therapy, however they can only be effective if they are used properly. Using an inhaler device incorrectly means that little or no medicine reaches the lungs. Training in correct inhaler technique is essential to improve outcomes and improve cost effectiveness of prescribed therapies.

### **Aims and Objectives**

The aim of this project was to improve the knowledge of pharmacy staff about the technique required for different inhaler types and make them more confident in their ability to counsel patients. Incorrect inhaler technique is common, regardless of the type of inhaler device is prescribed.

### **Method**

Patient facing pharmacy staff were invited to take part in the study and asked to complete an initial questionnaire to gauge their level of knowledge and confidence about how to use different types of inhalers. They were then asked to attend an inhaler technique training session on how to use an inhaler device correctly, be familiar with common errors encountered and how to check for correct inhalation technique. After the training they were asked to repeat the questionnaire. The effectiveness of the training was analysed by comparing the results of the two questionnaires.

### **Results**

The sum of all the scores shows that there was an improvement in the scores for over 80% of the responders post training.

### **Discussion and Conclusion**

Correct inhaler technique depends on the inhaler type and it is therefore important that the patients understands the correct steps to use their inhaler device. Pharmacy staff should know how to use

the inhaler devices and be aware of the common errors so they can confidently demonstrate correct inhaler technique to patients.

References:

1. Sanchis J, Gich I & Pedersen S. Systematic review of errors in inhaler use: has patient technique improved over time? *Chest* 2016;128(5):
2. Capstick TG, Clifton JJ Inhaler technique and training in people with chronic obstructive pulmonary disease and asthma.
3. <https://www.respiratoryfutures.org.uk/media/69774/ukig-inhaler-standards-january-2017.pdf>