# Friday AM: Contents

# Poster 1: Long-term prescribing of opioid medicines for chronic non-cancer pain in primary care – A qualitative study

**Nirlas Bathia, Greater Nottingham CCP**
**Dr Glenys Caswell, School of Health sciences, University of Nottingham**
**Dr Roger Knaggs, School of Pharmacy, University of Nottingham**

**Background and Introduction**

Patients consider lack of side-effects and pain relief as desirable outcomes for the treatment of pain[1]. There is a lack of robust evidence on the benefits of long-term opioids[2]. The rise in opioid prescribing is paralleled by a rise is opioid related deaths[2]. There is very little guidance on withdrawing or tapering opioid doses[3].

**Aim and Objectives**

- To gain an understanding of patient perspectives associated with long-term prescribing of opioid medicines
- To gain an understanding of patient perspectives associated with tapering of opioid doses.

**Method**

Three GP practices invited 28 participants to this study. A semi-structured interview guide was developed to help with data collection. Interviews were recorded and transcribed verbatim. The data was coded and compared to identify similarities, repetitions, connections in the data. These were organised into interconnecting themes. Ethical approval 18/EM/0142.

**Results**

Four participants were interviewed. Data analysis identified four themes:

**Information about treatment options** – Participants received little information about opioid medicines. When participants' hopes to be pain free were not realised, increased doses of opioid were prescribed.

**Living with chronic pain** – Talking with people in a similar situation helped identify practical ways of managing pain. Participants found it difficult to cope with the emotional impact of living with chronic pain.

**Continuing or stopping long-term opioid medicines** – Participants encountered difficulties in reducing their opioid dose due to opioid withdrawal symptoms and a fear of increased pain.

**Relationship between patient and practitioner** – Concern was raised about locum GPs and GPs not usually involved in their care, for risk of being labelled as 'misusing' opioids.

**Discussion and Conclusion**

The subjective nature of pain, the potential for misuse of opioids, the desire to be pain free, the impact of chronic pain on mental well-being and the perceived lack of alternative options that will provide help, all contribute to difficulties for patients and healthcare professionals in managing chronic pain.

**References**

**1.** Goshua, A. Craigie, S. Guyatt, G et al (2018) Patient vales and preferences regarding opioids for chronic non-cancer pain: A systematic review. Pain Medicine, 19: 2469-2480.
**2.** Stannard, C (2018) Where now for opioids in chronic pain? DTB 56:118-122.

**3.** Sandhu, H. Underwood, M. Furlan, AD. et al (2018) What interventions are effective to taper opioids in patients with chronic pain? BMJ 2018; 362:k2990.

# Poster 2: Pharmacist Prescribing of Discharge Medication on a Trauma and Orthopaedic Ward

Bridget Featherstone, Clinical Pharmacist, Cambridge University Hospitals NHS Trust
Eilis Rahill, Lead Pharmacist Surgery, Cambridge University Hospitals NHS Trust

**Background and Introduction**
It has been recognised that utilising prescribing pharmacists within the discharge process realises benefits in terms of accuracy and timeliness of discharge (1, 2).
A service development around a pharmacist prescriber facilitating discharge prescriptions was started on an elective orthopaedic ward.

**Aims and Objectives**
The main aim of this service evaluation was to investigate the impact of a prescribing pharmacist, writing and amending discharge medications for patients on the ward, on the time it then takes for each step of the discharge process.

**Method**
Data was collected for patients who were discharged from the ward during the evaluation period. The pharmacy team noted as to when they were informed that a patient was identified as being fit for discharge - this was documented as the time informed of the discharge. The subsequent timeframes were collected retrospectively using the hospital's prescribing system, EPIC.

During the intervention period, the prescribing pharmacist checked each morning as to which patients were medically fit and due for discharge on that day. Discharge medication was then written for relevant patients. The pharmacist service was available between 9.30am and 4.30pm on four weekdays.

Data was processed using Microsoft excel and simple data analysis undertaken.

**Results**
During the data collection period 47 discharges were processed, and from these 40 were analysed. 70% of these discharge prescriptions were written by a doctor and 30% by the pharmacist.

| | Baseline w/c 14th June | Intervention period w/c 10th September | |
|---|---|---|---|
| | Doctor prescribed n=23 | Doctor prescribed n=28 | Pharmacist prescribed n=12 |
| Time from being informed the patient is going home to the prescription of discharge medication | 97mins | 95mins | 47mins |
| Time from the discharge medication being prescribed to the review by a pharmacist | 61mins | 116mins | 43mins |
| Time from review to the medication being dispensed | 90mins | 104mins | 69min |
| Time from the medication being prescribed to the medication being ready | 151mins | 220mins | 112mins |
| **TOTAL TIME from identification of patient discharge to medications being ready** | **248minutes** | **315minutes** | **159minutes** |

These results are based on a relatively small number of discharge prescriptions and statistical analysis has not been applied.

**Conclusion**
A prescribing pharmacist focussing on review and writing of discharge medication on an orthopaedic ward reduced the time taken from knowledge that a patient is ready for discharge to the discharge medications being complete and ready for that patient.

**References**
1. Physick A., Smolski K., Mann S., Price G. Pharmacy innovation at discharge – impact of pharmacist non-medical prescribing on quality and streamlining processes. J Med Optimisation 2016;2(1):7-11
2. Rapid improvement guide: optimising medicines discharge. Accessed via: https://improvement.nhs.uk/resources/rapid-improvement-guide-optimising-medicines-discharge/

# Poster 3: A Service Evaluation of Clinical Pharmacists Working in a Collaborative Integrated Community Network

**Goh C, Moncrieff E, Karsan S, Rai D, Shah S, Steele J, Galloway L. Croydon Integrated Community Network Medicines Optimisation Service, NHS Croydon CCG.**

**Background and Introduction**
Croydon has developed a model for joining up health and social care by forming Integrated Community Networks (ICNs). The ICN Medicines Optimisation Service (ICN MOS) was developed as part of this. The ICN core team consists of GPs, clinical pharmacists, community nurses, social workers, personal independent co-ordinators from Age UK and network facilitators.

**Method**
A self-administered anonymised online survey was sent to all the ICN core team. The survey contained six multiple choices using 5-points Likert scale and two open-ended questions. The agreement scores are calculated based on the answers and qualitative comments are analysed thematically.

**Results**
A total of 45 (25%) responses were received; 35% from GPs, 15% from social workers, 11% from network facilitators and 39% from other professionals. A summary of the responses is shown in Table 1. Disciplines that disagreed with some of the statements included allied health care practitioner, network facilitator and social workers. About 50% of responders refer more than 1 patient a month to the service and 90% state they action the recommendations made all of the time or most of the time, where applicable.

Table 1: Summary of responses from multiple choice questions

| | Strongly Agree | Agree | Neither Agree or Disagree | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 1. I understand the role of the ICN Pharmacists in the integrated community network | 30 | 14 | 0 | 1 | 0 |
| 2. I know which types of patients to refer to the ICN Pharmacists | 16 | 26 | 2 | 1 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3. I know how to refer a patient to the ICN Pharmacists | 27 | 14 | 2 | 2 | 0 | |
| 4. I think that the contribution of the ICN Pharmacists to patient care is valuable | 34 | 10 | 1 | 0 | 0 | |
| | More than once a week | More than monthly | Less than monthly | No, never | N/A | |
| 5. How often do you refer patients to the ICN Pharmacists? | 3 | 21 | 14 | 4 | 3 | |
| | Always | Most of the time | Sometimes | Not very often | No, never | N/A |
| 6. I action the advice or recommendations of the ICN Pharmacist | 27 | 12 | 1 | 0 | 1 | 4 |

For the open questions, the general theme was that all disciplines value the input of the pharmacists with many stating that they particularly value the holistic approach provided. Suggestions for improvement included liaising more closely with community pharmacies and giving feedback on our role and impact.

**Discussion and Conclusion**

Whilst most of the responses are positive, the survey has identified areas for improvement. The next step is to engage with the disciplines who gave a negative response to see how best to make improvements.

# Poster 4: Compliance to Trust guidelines in the management of Hospital-acquired pneumonia (HAP)

*Written by Nazmin Ahmed, Pre-registration Pharmacist, Croydon University Hospital*

**Background and Introduction**

Hospital-acquired pneumonia (HAP) has been associated with an increased inpatient stay, morbidity and mortality[1]. Optimising antimicrobial use by following good antimicrobial prescribing and improving guideline compliance is a fundamental part of pharmacy practice and can reduce risks such as antimicrobial resistance and improve clinical outcome[2].

**Aims and Objectives**

The aim of this audit is to measure compliance with Trust guidelines[3] by measuring:

1. The percentage of patients with a documented allergy status and reaction
2. Compliance to guidelines for antimicrobial therapy
3. The percentage of patients that receive a documented 48-72-hour antibiotic review
4. The percentage of patients switched from IV to oral antibiotics after a 48-72-hour review

**Method**

The audit was approved by Trust Clinical Audit Panel. The audit collated data from patients on all wards that were diagnosed with HAP between June and September 2018. The inclusion criteria were patients that received a HAP diagnosis ≥ 48 hours of admission unless having had a recent admission. Patient records were used to access ward round notes, TTAs and drug charts and data

was recorded and analysed using a data collection tool which recorded patient demographics, admission and clinical data.

**Results**

| | Standard (%) | Achieved (%) |
|---|---|---|
| **Documented allergy status** | **100** | **100.0** |
| **Documented allergy reaction (including N/A from NKA)** | **100** | **66.7** |
| **Compliance to guidelines or advice from microbiology** | **100** | **80.0** |
| **48-72-hour antibiotic review** | **100** | **80.0** |
| **Oral switch by 72 hours or justified continued IV therapy** | **100** | **50.8** |
| IV to oral switch (post-review) | - | 26.2 |
| Continued IV therapy (Justified clinically/by microbiology) | - | 13.8 |

**Discussion and Conclusion**

Reasons for non-compliance were due to prescribing incorrect doxycycline doses and inappropriate prescribing of broad-spectrum antibiotics. Allergy status documentation met standards but documenting the reaction did not, due to omission and partial documentation. The review standard was not met due to omitted documented reviews 48-72 hours from initiation. The IV to oral switch standard was not met mainly due to lack of documented clinical justification.

The main limitation was that co-morbidities, age and renal function were not considered.

Four out of five standards were not met, suggesting improvement in antimicrobial prescribing is needed. Pharmacy intervention, yearly guideline reviews, refining documentation processes on Cerner and staff education may improve compliance and antimicrobial prescribing practices.

**References**


1) **1.** Masterton RG, Galloway A, French G, et al. Guidelines for the management of hospital-acquired pneumonia in the UK: Report of the Working Party on Hospital-Acquired Pneumonia of the British Society for Antimicrobial Chemotherapy. *Journal of Antimicrobial Chemotherapy.* 2008;62(1): 5-34. Available from: https://academic.oup.com/jac/article/62/1/5/844812#14623667 [Accessed: 23/12/18]

2) The Incentives Team. *Commissioning for Quality and Innovation (CQUIN) Guidance for 2016/17*. NHS England. Version: 3, 2016

3) *Management Of Common Infections In Adult Inpatients.* 2017. Available from: Croydon University Hospital NHS Trust. [Accessed: December 2018]


# Poster 5: Reducing treatment delays for breast cancer patients receiving goserelin therapy at St Bartholomew's Hospital


**Steven Ta and Christopher Watson – St Bartholomew's Hospital, Barts Health NHS Trust**


**Background and Introduction**

As the cancer-surviving population continues to grow[1,2], demand for cancer services across the NHS is increasing. St Bartholomew's Hospital (SBH) treats approximately 60 patients with advanced or

oestrogen-receptor positive early breast cancer each month with goserelin (a hormonal therapy drug). Day unit nurses have reported treatment delays of up to 2 hours for these patients.

**Aims and Objectives**

This quality improvement project aimed to reduce the average delay in goserelin treatment by 1 hour from baseline median in 6 months.

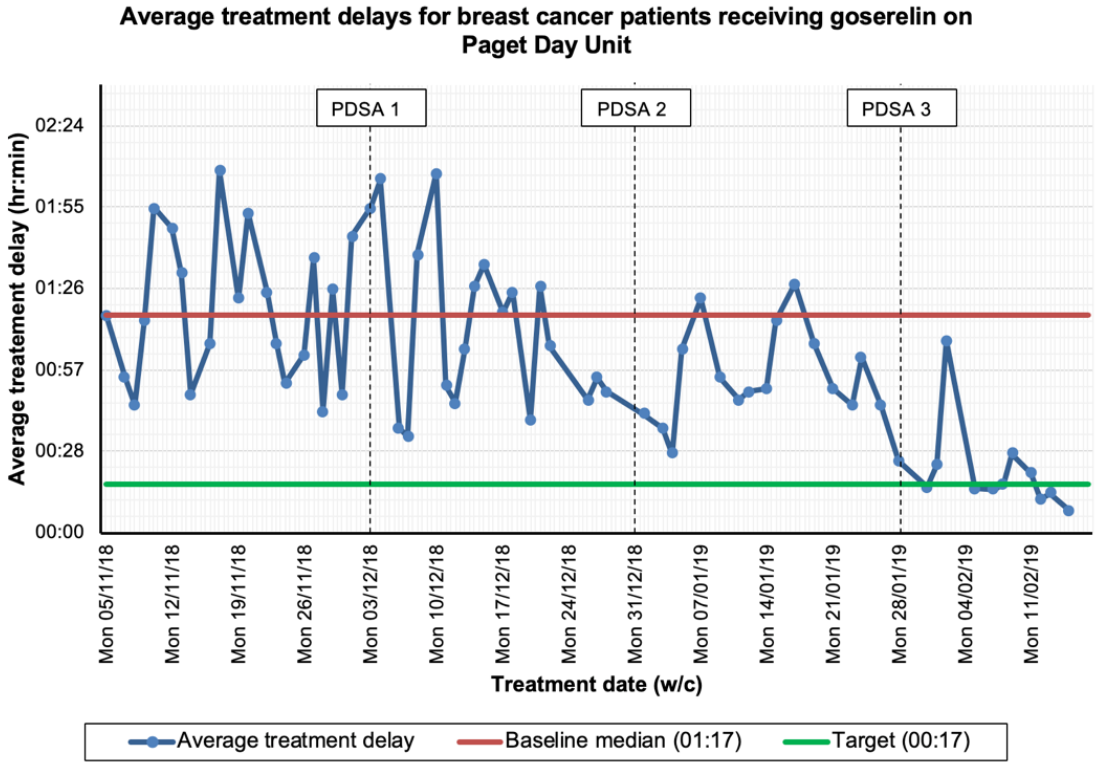
**Method**

Data was collected retrospectively over a 15-week period (05/11/18 to 16/02/19) from a total of 208 appointments using ARIA. The baseline median of treatment delays was 1 hour 17 minutes with a baseline average of 1 hour 18 minutes. Three "Plan-Do-Study-Act" (PDSA) cycles provided structure for implementing and evaluating the proposed interventions in this project.

**Results**

The first PDSA cycle involved promoting advance screening of goserelin prescriptions by clinic pharmacists which resulted in a modest improvement in average treatment delay (by 5 minutes) (see Figure 1). This was further improved in the second PDSA cycle (by 18 minutes), where advance screening was facilitated by an accurate list of scheduled patients emailed by the nurse coordinator every morning. The greatest improvement was seen following the third PDSA cycle (by 33 minutes) where goserelin became ward stock and nurse-led administration was implemented.

**Figure 1.** Run chart of average treatment delays for breast cancer patients receiving goserelin.




**Discussion and Conclusion**

Overall, this project has enhanced the patient experience. However, continued data collection and learning will be necessary to monitor the effectiveness of the third cycle. If successful, these findings

can be generalised and applied to other breast cancer agents, such as fulvestrant which is also screened by the clinic pharmacist. To ensure sustainability of this project, feedback from patients and day unit staff must be obtained on a regular basis. Engagement with the stakeholders must also take place to identify further issues that may occur.

**References**

**1.** Cancer Research UK. Cancer incidence for all cancers combined. Available from: https://www.cancerresearchuk.org/health-professional/cancer-statistics/incidence/all-cancers-combined [Accessed 12th October 2018].
**2.** Quaresma M, Coleman MP, Rachet B. 40-year trends in an index of survival for all cancers combined and survival adjusted for age and sex for each cancer in England and Wales, 1971–2011: a population-based study. Lancet. 2015; 385:1206–18.

**Ethics Approval**

Ethics approval was not required for this quality improvement project.

# Poster 6: Using a point-prevalence survey to determine appropriate IV antibiotic prescribing in hospitalised patients.

Joshua Reynolds Pre-registration Pharmacist, Croydon University Hospital

**Background and Introduction**

IV antibiotics are not significantly more effective than oral antibiotics when a patient is haemodynamically stable in most cases[1] and their prolonged usage can cause unnecessary harm to patients due from of cannula-related infections, which can lead to increased risk of antimicrobial resistance.[2] Therefore early switching from IV to oral antibiotics is important to minimise these risks, as well as reducing costs, and reducing hospital length of stay. This audit will indicate how well the hospital follows the standards that are expected for IV antimicrobial stewardship to improve patient outcomes and minimise risks to patients including antimicrobial resistance.

**Aims and Objectives**

To assess the appropriateness of IV antibiotic use in the trust, standards are based from CQUIN goal 2c:

- Prescribed antibiotics follow Trust guidance or otherwise make sense
- IV antibiotics have a documented 48-72 hour review
- Oral antibiotics are switched by 72 hours unless clinically indicated with clear documentation.

**Method**

A data collection tool was adapted from the CQUIN data collection template for goal 2C & was piloted by a pre-registration pharmacist. All admitted inpatients, excluding day cases and A&E patients, on a prescribed course of IV antibiotics between 12/11/18 to 14/11/18 were included in the audit. Data collection was completed using Cerner®, was processed and analysed through Microsoft Excel. The study did not require any ethical approval.

**Results**

| Standards | Total Number of patient checked | Amount that met the standards | Percentage Achieved | Target |
|---|---|---|---|---|
| Allergy Status recorded | 165 | 165 | 100% | 100% |
| Indication documented | 165 | 165 | 100% | 100% |
| Follows trust guidelines (where available) | 136 | 75 | 55% | 90% |
| Justifiable antibiotic choice | 152 | 119 | 78% | 100% |
| 24-72 hour review | 165 | 127 | 77% | 90% |
| Appropriate Review | 165 | 98 | 60% | 90% |

**Discussion and Conclusion**

Targets for allergy status and indication being documented were met, despite this justifiable antibiotic choice missed the choice standards. This could be explained through poor adherence to trust guidelines, with this target also not met. Antibiotic choice should be determined from trust guidelines, therefore poorly followed guidelines may they need updating. Review timings and review appropriateness also missed the trusts standards, and therefore when & how reviews need to be done, and how this should be documented need to be highlighted.

**References**

**1.** Broom, J., Broom, A., Adams, K. and Plage, S. (2016). What prevents the intravenous to oral antibiotic switch? A qualitative study of hospital doctors' accounts of what influences their clinical practice. *Journal of Antimicrobial Chemotherapy*, 71(8), pp.2295-2299.

**2.** Cyriac, J. and James, E. (2014). Switch over from intravenous to oral therapy: A concise overview. *Journal of Pharmacology and Pharmacotherapeutics*, 5(2), p.83.

# Poster 7: The role of primary care pharmacist in the management of chronic illnesses in young people aged 10-24 years: a systematic review

M. Almunef, J. Mason, C. Curtis and Z. Jalal, University of Birmingham

**Background and Introduction**

It is known that the transition of care between childhood and adulthood for people with chronic disease can be difficult. Pharmacists are well placed to support this transition[1].

**Aims and Objectives**

This review aims to explore the current role of primary care pharmacists in the management of chronic illnesses in young people aged 10-24 years.

**Method**

Systematic search of four databases: MEDLINE, EMBASE, Cochrane Library and CINAHL using MeSH and Emtree terms covering three main themes: pharmacist, young people and chronic illnesses. Inclusion criteria: articles identifying the role of primary care pharmacists in the management of chronic illness and its acute manifestations in young people aged 10-24 years. Exclusion criteria: articles on secondary care. Chronic conditions such as disability. Acute disease. Articles were

critically appraised using CASP tools. Ethical approval was not required as this project was a systematic review.

**Results**
Eight articles were included in the review. These articles were conducted in UK(3), USA(3), Netherlands(1) and Chile(1). Seven of them included original research studies. The remaining article was a literature review. Two studies utilised pharmacists to manage specific chronic illnesses. Both showed significant improvements in young people's quality of life and knowledge about their disease and its treatment. Some research studies gathered the opinions of pharmacists (3) and young people (1) based on their experiences. Community pharmacists identified many roles that they felt were of high priority to their practice when dealing with young people. These included supporting young people to develop generic health care skills, counselling and building trusted relationships directly with young people and provision of specialist services[1][2].

**Discussion and Conclusion**
There is a lack of published literature regarding the role of pharmacists in the management of chronic illness in young people. Further research is necessary to provide more evidence that primary care pharmacists could be further utilised in supporting young people with their medications.

**References**
1. Gray N, Shaw K, Smith F, et al. The Role of Pharmacists in Caring for Young People With Chronic Illness. Journal of Adolescent Health, 2017; 60 (2): 219-225.
2. Koster E, Philbert D, Winters N, et al. Medication adherence in adolescents in current practice: community pharmacy staff's opinions. International Journal of Pharmacy Practice, 2015; 23 (3): 221-224.

# Poster 8: Assessing the impact of a dedicated ward pharmacy service on the hepatology ward

## Jiwani S[1], Rani U[1], Jessa F[1], Mott A[1], Shah T[1]

[1] Pharmacy Department, Royal Free London NHS Trust

**Background and Introduction:** At the Royal Free Hospital pharmacists and technicians provide a daily morning service on the hepatology ward involving medication history taking, medication reconciliation, prescribing advice and processing discharge summaries (DS). In the afternoon DS are clinically screened and processed in the main pharmacy.

**Aims and Objectives:** Assess whether implementing an all-day ward pharmacy (DWP) service would reduce patient discharge times and impact patient/staff experience.

**Method:** From 5th to 23rd March 2018, a DWP service was provided on the ward whereby a pharmacist +/- technician was available between 9-4.30pm to carry out all inpatient pharmacy duties, with availability of a computer on wheels (COW) to facilitate dispensing of DS. Data from 5th to 23rd March 2017 provided a comparison.

**Results:** 55 DS were received during the period compared to 44 in 2017 on the same ward. The median time taken to discharge a patient from pharmacy receiving a DS to the patient leaving hospital was unchanged between the DWP and comparison group (4.24 hours vs 4.07 hours p=ns). However the median time taken for pharmacy to dispense discharge medication was reduced with the DWP service from 1.12 to 0.51 hours (p=ns). Of note, discharge medication dispensed using the COW took a significantly shorter time than those dispensed by main pharmacy (0.19 hours vs 1.29 hours).

During the DWP period, a total 345 interventions were made on DS, of which 11% were moderate and 1% was major. 57% of patients were counselled by pharmacy on their discharge medication and MDT satisfaction with the DWP service increased from an average of 6.5 to 9.25/10 following the implementation.

**Discussion and Conclusion:** Implementation of a DWP did not impact on overall patient discharge time; however the time taken by pharmacy to process the DS was reduced. Further work should be carried out to fully understand the challenges to the discharge process.

**References:** None

# Poster 9: Raising the profile of medicines safety: Changing practice and sharing learning from medication incidents

Pauline Lockey and Rebecca Coon (Lead Pharmacists, Medication Safety Officers) at County Durham and Darlington NHS Foundation Trust (CDDFT)
Acknowledgements to CDDFT Medicines Safety Team -Dawn Ledger, Tracy Marshall, Helen Simpson and Emily Whales for ongoing support and development of this programme and to Lynne Henderson, Lead Pharmacist Northumbria Healthcare NHS FT (previously CDDFT) for support in initiating 'Did You Know…?' posters

**Background and Introduction**
The Patient Safety Alert: Improving medication error incident and reporting[1,2] in March 2014 was a key driver in raising the profile of medicines safety in CDDFT. Our evolving programme, focussing on changing practice and sharing learning from medication incidents, aims to ensure the value of reporting is recognised.

**Aims and Objectives**
Our aims were to make reporting of medicines safety issues matter within CDDFT and share learning by:

- Improving feedback to reporters
- Promoting recording of outcomes
- Sharing learning with staff at all levels across organisation
- Raising the profile of 'known' medicines safety risks
- Encouraging widespread change in practice

**Method**
Part of our strategy was to develop a series of adaptable 'quick read' templates to convey a clear message to a targeted audience.
These templates included:

- Did You Know?' Posters – 37 produced since 2014
- Medicine Safety Bubbles – 14 produced since 2017
- Key Medicines Safety Messages – 12 produced since 2018

A monthly theme was shared in a variety of ways at individual, team and organisational levels.

**Results**
Implementation resulted in improvements in:

| Measure | 2012/2013 | 2017/2018 |
|---|---|---|
| Number of medication incidents reported | 1119 | 1235 |
| Number of medication incidents reported by medical and nursing staff | 548 (49%) | 836 (68%) |
| Percentage of medication incidents with a recorded outcome | 43% | 75% |
| Percentage of medication incidents where feedback was provided to reporter | 4% | 70% |

Qualitative Outcomes included:

- Increased engagement with staff across the organisation and awareness of medicines safety messages
- Potential increased awareness of 'known' medicines safety risks, especially high risk areas e.g. insulin

- Evidence of display and use of 'quick read' templates in multiple locations
- Improved clinical and senior team engagement with safe and secure handling of medicines issues
- Amendments to the electronic prescribing system

**Discussion and Conclusion**

The increased number of medication incidents reported by medical and nursing professionals and qualitative outcomes suggests improved staff engagement, potentially due to seeing changes in practice as a result of reporting.

Although we appreciate that sharing messages through posters and safety messages isn't a novel idea, the structure that we have applied ensures that are messages are meaningful, consistent and that the system is sustainable.

**References**


1. NHS Improvement: Patient Safety Alert: Improving medication error incident and reporting March 2014
2. NHS Improvement: PSA: Improving medication error incident and reporting; supporting information. March 2014


# Poster 10: Title Discharge/TTA medicines wastage in the hospital setting (AUDIT)


**Arnold Hammond, Zahra Khan; Croydon University Hospital**


**Background and Introduction**

Pharmacists play a key role in vacating hospital beds by employing discharge medicines. However, these are wasted as patients go home without their medicines. It was estimated that £300 million worth of NHS medicines were wasted every year [1,2]. TTA/discharge medicines ensure patients continue treatment until they are assessed by their GPs.

**Aims and Objectives**

To assess whether the suggestions made in a previous audit were implemented and successful in reducing wasted discharge medicines. 100% of all patients should leave the hospital with their discharge medicines.

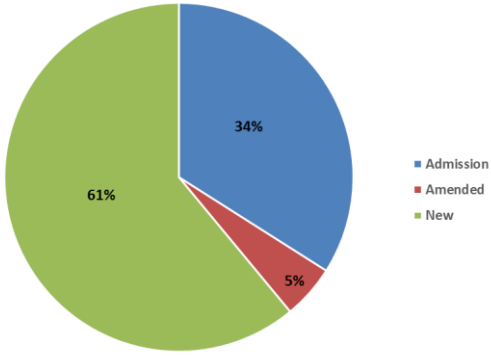
**Method**

The data for the audit was collected from 12/11/18 to 23/11/18. Only inpatient wards were included in this audit. The data as collected by retrieving discharge medicines left behind by patients and discharge letters returned to the pharmacy via data collection forms. The period assessed was from September to October 2018. The results were analysed on Microsoft Excel 2016. Patients were telephoned on the second week of data collection to ascertain the reasoning behind leaving their discharge medicines.

**Results**

428 items were returned to the pharmacy. This figure shows that the standard was not met. Figure 1 shows the distribution of the type of discharge medicines were wasted. Upon speaking to respondents, all patients who left their TTAs behind blamed the waiting time for their

**Fig. 1 - Percentage of admission, amended and new medicines returned to the pharmacy**



discharge medicines as the reason for leaving their medicines behind.

**Discussion and Conclusion**
The most returned medicine was paracetamol (n=19), however antibiotics accounted for 13% of the wastage. This in turn could prevent patients from completing treatment initiated or optimised in hospital. Some of the recommendations include the use of OSD medicines to decrease that may be dispensed for discharge, thereby reducing waiting times. Pharmacists should assess the need for supplying medicines that can be obtained in a community pharmacy. This would improve waiting times and ensure patients go home with their discharge medicines.

**References**
1. Gross, Z. (2001). How pharmacists help speed up the discharge process to release beds. [online] Pharmaceutical Journal. Available at: https://www.pharmaceutical-journal.com/news-and-analysis/feature/how-pharmacists-help-speed-up-the-discharge-process-to-release-beds/20005441.article [Accessed 21 Jan. 2019].
2. Hazell, B. and Robson, R. (2015). Pharmaceutical waste reduction in the NHS. [online] England.nhs.uk. Available at: https://www.england.nhs.uk/wp-content/uploads/2015/06/pharmaceutical-waste-reduction.pdf [Accessed 16 Jan. 2019].

This audit was approved by the hospital's ethics committee as patients were contacted via telephone.

# Poster 11: The Level of Concordance to Standard Operating Procedures When Transferring Patients from St. George's to Queen Mary's Hospital

**Jessica Lynch, Matthew Harrison**

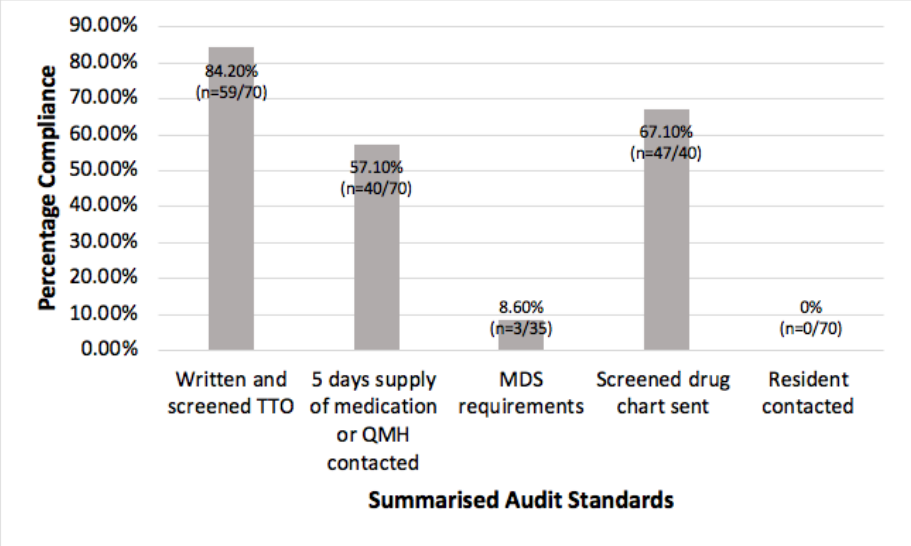
**Background and Introduction**
A UK-based study discovered that 38% of all primary care patients over the age of 75 and 30% of patients taking more than 5 medications are affected by a prescribing or monitoring error over a 12-month period (1). When transferred, 30-70% of patients will experience an error or unintended change in medication (2). Pharmacists at QMH caring for the elderly rely upon staff at SGH to follow the transfer SOPs to allow for optimal and safe patient care.

**Aims and Objectives**
To assess the level of compliance in the supply of medication and transfer of information in patient transfers from SGH to QMH against the transfer SOPs and compare this to both the introduction of iCLIP and to data from alternative hospitals.

**Method**
The audit was completed from November 2018 to January 2019. A collection tool was designed to based on the standards set in the SOPs. A pilot study on 12 patients allowed improvement of the collection tool and data was collected over 3 weeks using the patients' notes, drug charts, iCLIP, JAC and the resident logger. No ethical approval was required.

**Results**

84.2% of patients had a written and screened TTO. 57.1% had at least 5 days' worth of medication on arrival. 8.6% blister pack patients had annotated TTO's stating its details. The resident pharmacist was not contacted for any of the patient transfers.




**Discussion and Conclusion**

Only 20% of all transfers were in full accordance with the SOPs. Other hospitals had similar results and iCLIP exhibited no benefit in SOP compliance. Contributing factors for the poor compliance may include a lack of understanding of the SOPs and how to meet them, time constraints and pressure for discharges. The concluding recommendations are a designated pharmacist to deal with transfer queries, a checklist for patient transfers and further down the line incorporating it into the iCLIP system.

**References**

1. Avery A, Barber N, Ghaleb M, Franklin BD, Armstrong S, Crowe S, et al. Investigating the prevalence and causes of prescribing errors in general practice: the PRACtICe study. London: General Medical Council; 2012.

2. National Patient Safety Agency and National Institute for Health and Clinical Excellence. Technical safety solutions, medicines reconciliation. 2007 guidance.nice.org.uk/PSG001

# Poster 12: Pharmacist involvement in ward rounds: Impact on discharge processing times

**Gardiner, S & Berry R. Cambridge University Hospitals NHS Foundation Trust (CUHFT), Cambridge**

**Background and Introduction**

Due to bed pressures, hospitals require an efficient turnover of patients, therefore timely discharges are required. A pharmacist attending the ward round (WR) could reduce the discharge time by

encouraging and aiding the writing of discharges, and resolving unintentional discrepancies before discharge. [1,2]

**Aims and Objectives**

To describe the impact of pharmacists on WRs on discharge times by determining the time change for each discharge process. To identify if ward-based activities are being utilised to aid discharge.

**Method**

Band 6 pharmacist (B6P) undertook ward duties while band 7 pharmacist (B7P) attended WRs to optimise and reconcile medication, and aid the writing of discharge medication. The electronic prescribing system (Epic) provided discharge process times. Descriptive and comparative data analysis undertaken using SPSS vs 23.

**Results**

99 (baseline) and 54 (intervention) discharges. Table 1 provides a comparison of times and frequency of ward-based activities. All times reduced, on average, with statistical significance on time to clinically screen, overall time and number of pended discharges (those saved by B7P for doctor to sign).

**Table 1: Discharge process timings and provision of ward-based activities**

| Time (mins) | Measure | Baseline (n=96) | Intervention (n=53) | p value |
|---|---|---|---|---|
| Pharmacy informed to discharge written | Median (IQ) | 51 (12.5, 164.0)[A] | 34 (5.0, 90.0)[B] | 0.226* |
| Discharge written to clinical screen | Median (IQ) | 15 (7.3, 38.5) | 10 (5.0, 21.5) | ***0.010**** |
| Clinical screen to medicine supply | Median (IQ) | 60 (31.8, 104.3)[A] | 58 (31.5, 90.5)[C] | 0.715* |
| Total discharge | Median (IQ) | 158 (111.5, 255.0) | 111 (55.0, 153.0) | ***0.010**** |
| Pending of a discharge | Median (IQ) | - | 5.0 | - |
| **Ward-based activity** | | | | |
| Labelling of patient's own drugs | No. (%) | 7 (7.3) | 4 (7.5) | 0.954[#] |
| Satellite dispensing | No. (%) | 32 (33.3) | 10 (18.9) | 0.086[#] |
| Pended discharges | No. (%) | 9 (9.4) | 22 (41.5) | ***<0.001**[#]* |

**Adjusted sample size for discharges not informed to pharmacy before being written and those not requiring any inpatient pharmacy dispensing [A] (n=49) [B] (n=38) [C] (n=21) [#] Fisher's exact, [*]Mann-Whitney-U**

**Discussion and Conclusion**

Overall, the discharge process reduced by 47 minutes when a pharmacist attended the WR. Reduction in time to write the discharge attributed to the B7P encouraging signing of discharges. Time reduction could be maximised if discharges were signed earlier, or a prescribing pharmacist funded.

This service evaluation reflects the effect of one practitioner on a WR in one hospital trust, therefore generalisability limited to similar environments. Data was collected by the pharmacist delivering the service, which potentially could introduce bias to patient selection and data collection. However, all patients were included and timings obtained from Epic.

This small scale service evaluation shows the potential benefits of pharmacists on WRs as it enhances the ability to pre-empt discharges through improved communication. If all discharges were reduced by 47 minutes, then this activity could be justified.

**References**


1. Cadman B *et al.* Pharmacist provided medicines reconciliation within 24 hours of admission and on discharge: a randomised controlled pilot study. BMJ Open 2017;7:e013647.
2. Byrne SM *et al*. *Impact of team-versus ward-aligned clinical pharmacy on unintentional medication discrepancies at admission*. Int J Clin Pharm. 2017; 39(1):148-155.

# Poster 13: Using hospital ePrescribing data within GP practices to support medicines reconciliation post discharge

Richard Cottrell – Senior Clinical and ePrescribing Pharmacist, NHS Ayrshire & Arran
Lynn Carleton – Principal Pharmacist Electronic Prescribing, NHS Ayrshire & Arran

**Background and Introduction**
For patients discharged following a period of inpatient care, the medicines reconciliation process carried out within GP practices is an important part of their ongoing care and medicines optimisation. Unfortunately discharge communication across the secondary-primary care interface is largely dependent on the timely receipt and content of the Immediate Discharge Letter. Where the letter is delayed, incomplete or contains insufficient information, obtaining further information on prescribing and administration within the hospital environment can require significant time and effort to obtain, often requiring direct contact with the hospital.

**Aims and Objectives**

To improve the availability of information on prescribing and medicines administration during inpatient admissions, to support GP practice-based pharmacy staff.

**Method**
A web based tool was developed to provide rapid and detailed access to data held within the NHSAA ePrescribing system. This was passed through the local clinical governance process to facilitate the sharing of relevant clinical information across the primary-secondary care interface.

This allowed for easy review of pharmaceutical care planning, prescription and administration of medicines within the hospital to aid in the medicines reconciliation process post discharge.

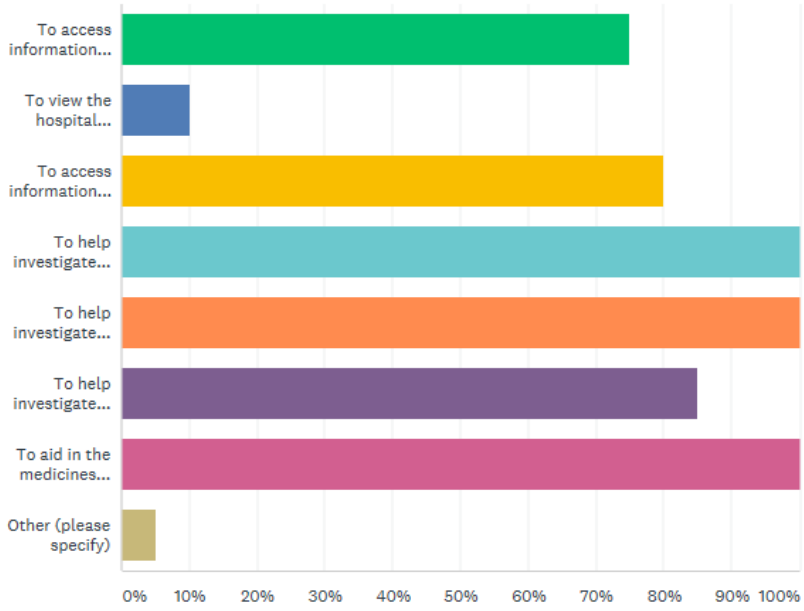
The intervention was assessed using an online survey to collate feedback from the primary care pharmacy team on the design and usefulness of the tool.

**Results**
Results from the survey indicate that the tool has multiple benefits including:

- Improved quality of medicines reconciliation
- Time saved due to improved availability of information
- Reduction in number of queries to the hospital
- Clinical pharmacist time saved

For what purpose(s) do you access the tool? (Please tick all that apply - if you have never used the tool please leave blank)

Answered: 20 Skipped: 0




| ANSWER CHOICES | | RESPONSES | |
|---|---|---|---|
| To access information with regard to the patient's admission (e.g. admission/discharge date, ward details, responsible consultant(s), etc.) | | 75.00% | 15 |
| To view the hospital ePrescribing system's recorded allergy status | | 10.00% | 2 |
| To access information available within the pharmaceutical care plan | | 80.00% | 16 |
| To help investigate what medicines the patient was prescribed whilst they were an inpatient | | 100.00% | 20 |
| To help investigate medicines that have been stopped during the patient's admission | | 100.00% | 20 |
| To help investigate medicines administration whilst an inpatient –e.g. usage of PRN medicines or general compliance with treatment | | 85.00% | 17 |
| To aid in the medicines reconciliation process within your practice | | 100.00% | 20 |
| Other (please specify) | Responses | 5.00% | 1 |

*Figure 1 – Excerpt of web survey results*

**Discussion and Conclusion**

The uptake and results have been very encouraging and reflect the benefits of making detailed information from secondary care available to staff in primary care. Benefits relating to improved efficiency can be estimated as being equivalent to £22,404 p/a – a significant amount achieved within existing resources.

**References**

None

# Poster 14: Examining the utility of the Connect with Pharmacy (CwP) intervention in reducing elderly readmission

**Fatima Sabir[1], Justine Tomlinson[1,2], and Heather Smith[1].**

**1. Medicines management and pharmacy services, St James University Hospital, Leeds Teaching Hospitals NHS Trust, Leeds, West Yorkshire**

**2. School of Pharmacy and Medical Sciences, University of Bradford, Bradford, UK**

**Background and Introduction**

Substantial evidence demonstrates an increased risk of hospital admission when patients move between care providers [1 2]. This is particularly pronounced in elderly patients who are more likely to have complex needs [3].

**Aims and Objectives**

We investigated whether sharing discharge information would impact on hospital readmission rates in this population.

**Method**

Leeds Teaching Hospitals Trust (LTHT) recently implemented a web-based intervention ("Connect with Pharmacy"; CwP) that allows hospital pharmacy staff to securely share pertinent discharge information with the patient's community pharmacy. To evaluate intervention efficacy, data collected as part of routine clinical management were retrospectively analysed. For primary analysis, patient admission rates were tracked 6 months prior (baseline) and 6 months' post-referral. Secondary measures included change in total length of stay (LoS) if readmitted, duration of emergency department (ED) visits and polypharmacy.

**Results**

In the sample of patients (all aged 65 years and older) tracked in the first 6 months of the intervention (n = 647; Mean age = 81 years, 389 female), admission rates following referral (M=1.1, SD=1.49) reduced relative to baseline (M=1.31, SD=1.36) (V=38766; $p < .001$). There was no reduction in total LoS (V = 63462, $p = .12$), but subsidiary analysis revealed a post-referral reduction in number of days spent in hospital lasting less than 3 days ($\chi 2 = 13.37$, $p < .001$). There were no statistically reliable differences for number of ED visits, hours spent in ED, nor was there an effect of polypharmacy (all $p$'s > .05).

**Discussion and Conclusion**

The CwP intervention has been successfully implemented at LTHT and admissions for patients referred were reduced by 21.2% during the intervention period. The result showing a reduction in LoS post-intervention for short stays indicates that there may also be further benefits for patient experience and hospital flow. Conducting economic cost-benefit analysis is the next step towards larger scale adoption.

**References**

1 Coleman EA. Falling Through the Cracks: Challenges and Opportunities for Improving Transitional Care for Persons with Continuous Complex Care Needs. *Journal of the American Geriatrics Society* 2003;51:549-55.

2 Royal Pharmaceutical Society. *Keeping patients safe when they transfer between care providers - getting the medicines right: Final report* 2012. http://www.rpharms.com/current-campaigns-pdfs/rps-transfer-of-care-final-report.pdf.
3 Care Quality Commission. *Managing patients' medicines after discharge from hospital: National study*. 2009.

# Poster 15: A qualitative evaluation of the Connect with Pharmacy service – the perspectives of hospital and community pharmacy teams

**Natalie Janjo[1], Natalie Tam[1], Heather Smith[2] and Justine Tomlinson[1,2].**
1. School of Pharmacy and Medical Sciences, University of Bradford, Bradford, UK
2. Medicines management and pharmacy services, St James University Hospital, Leeds Teaching Hospitals NHS Trust, Leeds, West Yorkshire

## Background and Introduction

Upholding patient safety is an important role for all pharmacists. Hospital discharge however, often results in problems with 20% of patients experiencing some degree of medication related adverse event.[1] In addition, 27% of patients require urgent readmission[2], most likely due to adverse drug reactions.[3] In January 2017, a new discharge referral pathway called 'Connect with Pharmacy' (CWP) was trialled by Leeds Teaching Hospital Trust and Community Pharmacy West Yorkshire. CwP supports the continuity of medication management following discharge by providing community pharmacy teams with up to date information about medication changes during hospital admission.

## Aims and Objectives

The aim of this qualitative evaluation project was to identify areas for improvement with CwP and propose recommendations to enable maximum engagement with the service and full utilisation of the system.

## Method

Fifteen semi-structured interviews with hospital pharmacy staff (n=5) and community pharmacy staff (n=10) who use CwP were audio-recorded and transcribed. Interviews focused on: barriers and facilitators to using CwP, perceived benefits and drawbacks, and training. Thematic analysis was used.

## Results

Pharmacists found CwP very easy to use however highlighted the need for more training. Barriers to use included remembering passwords and finding time during the working day to log in. Community pharmacists perceived that discharge communication was received quicker via CwP. Hospital staff However, highlighted variability in its use due to work pressures. The potential benefits of CwP for patients were not evident to the pharmacists.

## Discussion and Conclusion

CwP has improved transfer of information between the hospital and community pharmacy and was considered a better way of working. It was generally perceived as a quick, secure and efficient system, which was of value to community pharmacists. Suggested improvements included integration with current computer systems to aid access, more training for all staff and obtaining patient feedback to assess the wider effects of CwP.

**References**

1 Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. Adverse Drug Events Occurring Following Hospital Discharge. *Journal of General Internal Medicine* 2005;20:317-23.

2 van Walraven C, Rokosh E. What Is Necessary for High-Quality Discharge Summaries? *American Journal of Medical Quality* 1999;14:160-69.

3 Parekh N, Ali K, Stevenson JM, Davies JG, Schiff R, Van der Cammen T, Harchowal J, Raftery J, Rajkumar C, group Ps. Incidence and cost of medication harm in older adults following hospital discharge: a multicentre prospective study in the UK. *British journal of clinical pharmacology* 2018;84:1789-97.

# Poster 16: Introducing a Pharmacy Undergraduate Student-led Health Check Service at the University of Bradford

**Justine Tomlinson, Kristina Medlinskiene, and Kevin Adams.**
**School of Pharmacy and Medical Sciences, University of Bradford, Bradford, UK**

**Background and Introduction**

There is a growing emphasis on developing communication and clinical skills during pharmacy undergraduate programmes.[1] Student-led health check services add to development of such skills. Students delivering these services found them as good as learning from lectures, problem-based teaching, workshops and placements.[2]

**Aim**

To pilot feasibility of a student-led health check service.

**Method**

Following ethical approval a student-led health check service was designed by adapting the national health check service framework and work at University of Reading.[3] Six pharmacy undergraduate students (Year 3) recruited in this pilot were trained prior to the service delivery. Students worked in pairs to perform health checks over three days in private consultation rooms by following standard operating procedures. One or two supervisors were available at all times. Assessments by students included: BMI calculation; blood pressure; physical activity and lifestyle; QRISK3 calculation. Supervisors performed cholesterol and blood glucose tests. Students interpreted results and discussed with supervisors before offering lifestyle advice to participants. Each participant completed a feedback form.

**Results**

Thirty-eight participants (28 staff members and 10 students) from across the University attended the service. The health check lasted on average 41 minutes (range 18-60 minutes). Majority of participants, n=36 (98%), stated they are very likely to recommend the service to a colleague and attend again (n=34, 89%). Many participants (n=33, 87%) stated they would make changes to their lifestyle because of the health check. Recommendations for improvement included easier booking processes, clearer location signposting and instructions before the appointment. The pharmacy students valued the opportunity to try advanced communication skills, including coaching, applying their theoretical knowledge to real practice.

**Discussion and Conclusion**

The service was received positively by the University's community. Pharmacy undergraduate students were able to efficiently deliver a high quality service. Future work will focus on incorporating this service within the pharmacy undergraduate programme.

**References**

**1.** General Pharmaceutical Council (2019). Consultation on initial education and training standards for pharmacists. Available at: https://www.pharmacyregulation.org/sites/default/files/document/consultation_on_initial_education_and_training_standards_for_pharmacists_january_2019.pdf [Accessed 14 January 2018].
**2.** Langran C and Alexander A. (2012). Can an On-site Clinical Experience Be as Good as or Better Than Learning from Lectures, PBLs, Workshops and External Placements? Research in Social and Administrative Pharmacy 8(6):e13-e14.
**3.** Langran C, Hannan R, Greenland B, and Donyai P. (2017) Outreach activity of healthy living assessments provided by pharmacy students to the local community. International Journal of Pharmacy Practice Supplement 1:43-44.

# Poster 17: A Clinical Audit to Assess the Appropriate Use of Citrate for Regional Anticoagulation in Continuous Renal Replacement Therapies

*Lorna Hanna[1], Nisha Bhudia[1], Clara Hernandez Caballero[1]*
*1 : Royal* Brompton and Harefield NHS Trust

**Background and Introduction**

Continuous Renal Replacement Therapy (CRRT)

CRRT is a method of extracorporeal blood purification used to attain solute and fluid homeostasis continuously.

Anticoagulation

Anticoagulation is generally required for a functional circuit. Citrate is the first line option for regional anticoagulation [1], but if contraindicated, then heparin is used accordingly.

Flow Rates

The CRRT flow rate is dependent on the anticoagulation used and the patient's weight.

**Aims and Objectives**

Aim:

To assess the compliance of initiating CRRT filtration as per trust guidelines.

Objectives:

- To evaluate whether the anticoagulation used to initiate CRRT complies with the local guidelines
- To assess whether the indication for CRRT is documented on ICCA

**Method**

Data collection:

Data covering a 9-month period, from January 2018 to September 2018, was extracted from the trust electronic prescribing system (ICCA).

Data Analysis

Data was analysed using Microsoft Excel.

**Results**

The results showed that only 18 of the 187 patients, were initiated on CRRT using Citrate as the anticoagulation of choice (Figure 1).

The results also confirmed that the indication for the initiation of CRRT was documented on ICCA for 97% of patients.

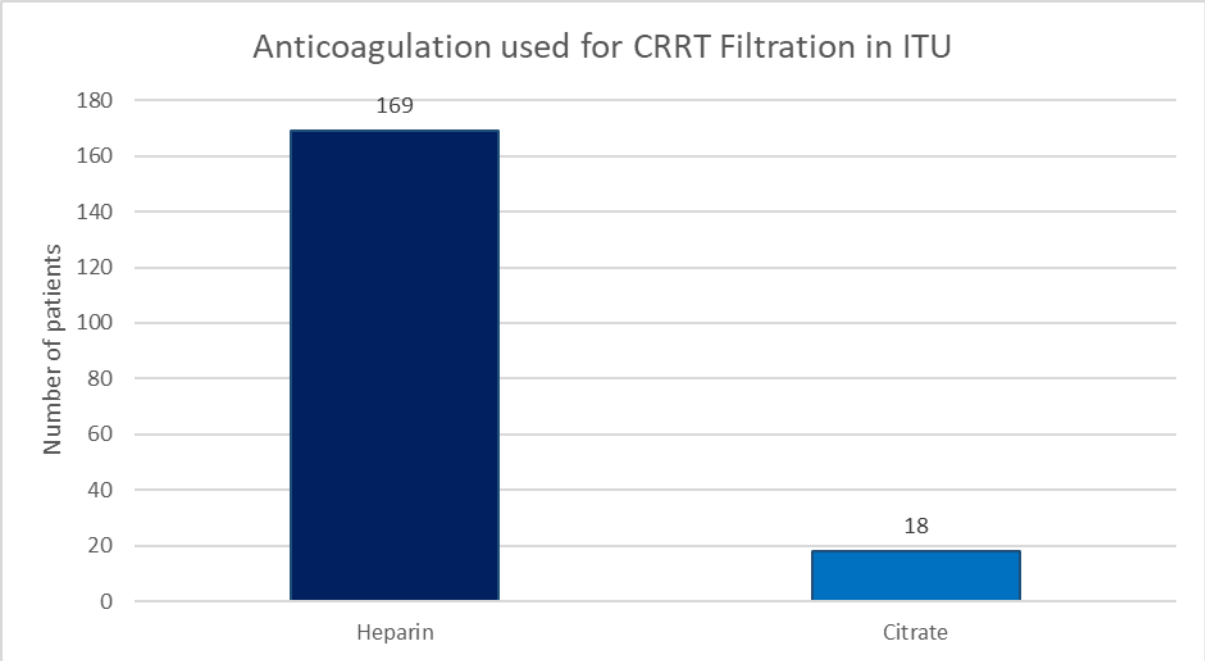



*Figure 1. A bar graph showing the number of patients who were initiated on CRRT using citrate, the first line anticoagulation of choice, or heparin*

**Discussion and Conclusion** The majority of patient in ITU were not receiving CRRT in line with the recommendations from the local guidelines. The introduction of citrate as the first line anticoagulant is relatively new and it is therefore evident that it is taking time for staff to adapt to it. Therefore, the action plan going forward should be focussed on education and aids available on the wards to familiarise staff with the guidelines.

This will mean conducting education sessions for staff to inform them of the changes to the guidelines and explain the rationale behind it, enhancing understanding and adherence.
A 'Quick CRRT Anticoagulation Guide' should also be designed and made accessible on ITU, to provide an easy to use reference for ITU staff, helping to ensure the correct anticoagulant is used for each patient.

**References**

[1] Khwaja A: KDIGO Clinical Practice Guidelines for Acute Kidney Injury. Nephron Clin Pract 2012, 120(4):179-184

# Poster 18: A novel way to improve the timely administration of Parkinson's medicines in the hospital setting

Richard Cottrell – Senior Clinical and ePrescribing Pharmacist, NHS Ayrshire & Arran
Nicholas Bryden – *Parkinson's Nurse Specialist*, NHS Ayrshire & Arran

**Background and Introduction**

Parkinson's is a progressive neurological disease with symptom control dependent on timely administration of medication[1]. Within the hospital setting, delayed administration leads to significant complications, delayed discharge and deterioration of the patient's clinical condition.

**Aims and Objectives**

It was hoped that the pilot project would assist nursing staff in optimising the care they delivered to their patients with Parkinson's through the intelligent and innovative use of existing resources (specifically ePrescribing and pre-existing ward electronic whiteboards).

Importantly, this was to be done without imposing further workload on nursing staff.

**Method**

Using live data from the ePrescribing system, the ePrescribing team and eHealth worked to introduce a dynamic prompt to administer Parkinson's medicines, alongside the existing patient details on the ward whiteboard.

ePrescribing medicine's administration data was further used to both identify a suitable pilot ward and monitor the impact of this development on the timely administration of Parkinson's medicines to inpatients.

**Results**

ePrescribing medicines administration data over a 12-week period was reviewed (looking at 6 weeks either side of introduction of the Parkinson's prompt on 1/10/2018). This showed a clear improvement in both the proportion of administrations of Parkinson's medicines which took place on time and an overall reduction in the average and median time difference between scheduled and administered time of these medicines.

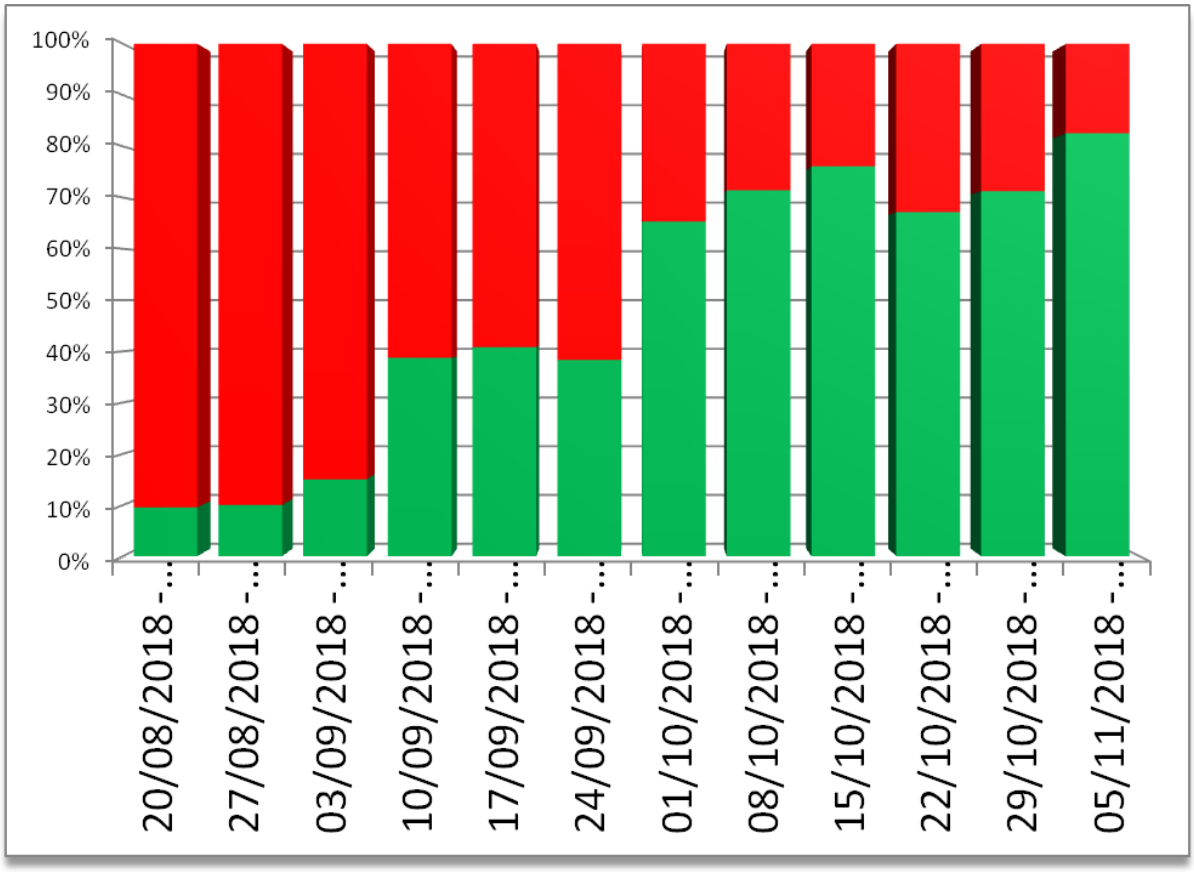



*Figure 1 –Parkinson's medicines administered on time (Green) versus early/late (Red). (Implementation occurred on 1/10/18)*

**Discussion and Conclusion**

The whiteboard prompt has had a clear impact in improving the timely administration of this group of medicines. Given the importance of Parkinson's patients getting their medicines on time, we believe this will have a positive impact on their disease control whilst admitted to hospital.

Looking to the future, we hope to roll this development out to other clinical areas to spread the benefit of this piece of work.

**References**

**1-** Parkinson's UK – www.parkinsons.org.uk

# Poster 19: A Review of the current on-call and residency Pharmacy Service provided to the Acute Medical Unit out-of-hours

Vivien Chow, Rikisat Lawal, Catherine Leung

**Background and Introduction**

St. George's University Hospital provides an out-of-hours pharmacy service by an on-site Band 6 resident pharmacist in accordance with the local out-of-hours guidelines and policies [3]. As part of the service, resident pharmacists has to provide clinical service to the Acute Medical Unit ward (AMU) for acutely unwell patients who would require urgent pharmaceutical care.

**Aims and Objectives**

**Aims:**

To review the current on-call Pharmacy Service provided to the AMU by resident pharmacists, in order to identify areas which can be developed for service improvement.

**Objectives:**

1. A minimum of 10 patients on AMU must have drug history documented on the AMU Night-take handover (100%)
2. 95% of the patients reviewed by the resident pharmacist must have VTE risk assessment completed on admission as per national standard [1]
3. 95% of the patients reviewed by the resident pharmacist must have oxygen prescribed as per BTS 2015 audit [2]

**Method**

This study does not require ethics approval and does not contain any ethical and governance issues. An audit tool was developed and a pilot audit carried out. A prospective audit was undertaken on 15 weeks (one full cycle). Data were collected from the resident logger and AMU Night take handover and analysed using Microsoft Excel®.

**Results**

| STANDARD | TARGET | ACTUAL |
|---|---|---|
| **A minimum of 10 patients on AMU must have drug history documented on the AMU Night-take handover** | **100%** | **6.6%** |
| **All patients reviewed by the resident pharmacist must have VTE risk assessment completed on admission** | **95%** | **78.52%** |
| **All patients reviewed by the resident pharmacist must have oxygen prescribed** | **95%** | **73.52%** |

**Discussion and Conclusion**

The audit results showed that none of the standards were fully met. The shortfalls of each standard were explored, and recommendations were made by addressing both internal and external factors in order to help resident pharmacists to meet the expected quality of service.

Recommendations include:

1. Implement a call filtering system for urgent bleeps only by informing the nurse-in-charge before bleeping the pharmacist.
2. Educate nurses that the on-call service is reserved for critical queries and ensure handover between nurses to avoid any duplication of queries.
3. Note down the time taken to answer bleeps to help identify resident pharmacists that require more support.

**References**
[1] NICE (2018) Auditing Venous Thromboembolism risk assessment at South London Healthcare Trust, Available at: https://www.nice.org.uk/sharedlearning/auditing-venous-thromboembolism-risk-assessment-at-south-london-healthcare-trust [Date accessed: 31/12/2018]
[2] British Thoracic Society (2015), Emergency oxygen audit report, Available at: https://www.brit-thoracic.org.uk/document-library/audit-and-quality-improvement/audit-reports/bts-emergency-oxygen-audit-report-2015/ [Date accessed: 31/12/2018]
[3] Pharmacy department, St. George's hospital (2018), Richmond AMU night shift standard

# Poster 20: Patients' Experiences of a Community Pharmacy Subcutaneous Clinic

**Caoimhe Stewart**, *MPharm student*, Division of Pharmacy and Optometry, University of Manchester
**James Clark, MRPharmS,** *Business Development Manager*, McKesson UK
**Li-Chia Chen**, *Senior Lecturer*, Centre for Pharmacoepidemiology and Drug Safety, Division of Pharmacy and Optometry, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester, Manchester Academic Health Science Centre.

**Background and Introduction**
In line with the NHS's initiatives[1,2], a new model of care was developed by the Northern Lincolnshire and Goole and McKesson UK to provide subcutaneous injections (which are normally given in the outpatient setting within an acute trust) in the community pharmacy setting.

**Aims and Objectives**
This study aimed to assess the patient experience of receiving the new service and factors attributing to the positive experiences.

**Method**
A longitudinal survey was conducted from March 2018 to February 2019 using a self-reported, paper-based anonymised questionnaire, which contains 20 questions covering the aspects of convenience/amenity, service delivery, satisfaction, measured in a Linkert/rating scale. The survey was conducted at patient's first visit, the 6$^{th}$-month and discharge from the service; from March 2019, the survey was conducted at the first visit, and then twice a year at set months until discharge because the anonymity caused difficulty in tracking individuals. Descriptive statistics were used to report the results. Ethical approval was not required for this service evaluation.

**Results**
Most of the total responses (n=45) were collected from the first visit (51.1%). The most common reason of visits was receiving Herceptin (46.7%) and Denosumab (13.3%) for cancer treatment, followed by receiving Omalizumab for urticaria (21.6%) or asthma (13.5%). At the visit, patients felt either extremely likely (93.3%) or likely (4.4%) to recommend the service to friends and family if they need it. A high proportion of patients scored above 8 of 10 on the rating scale for the convenient date/time (100%) and locality (95.6%) of appointment at those visits.

**Discussion and Conclusion**

This early-stage evaluation demonstrated a positive patient experience with the new model of care. Further study will need to compare the results with existing models, e.g. homecare and outpatient day units, and understand specific themes surrounding patient experience.

**References**


1. NHS England, Five Year Forward View, 2014. https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf (Cited on 7 March 2019).
2. Churchill D. NHS Long Term Plan, 2019. https://www.longtermplan.nhs.uk/ (Cited on 7 March 2019).


# Poster 21: Audit of Alemtuzumab Prescribing and Monitoring at South Tees

## Gold Standard Service – At What Cost?


Vivien Horton, Advanced Clinical Pharmacist Neurosciences
South Tees Hospitals NHS Foundation Trust


**Background and Introduction**

Alemtuzumab is a highly effective disease modifying treatment (DMT) for relapsing-remitting multiple sclerosis, but requires close supervision and monitoring pre, post and during treatment to ensure patient safety and minimisation of side effects.

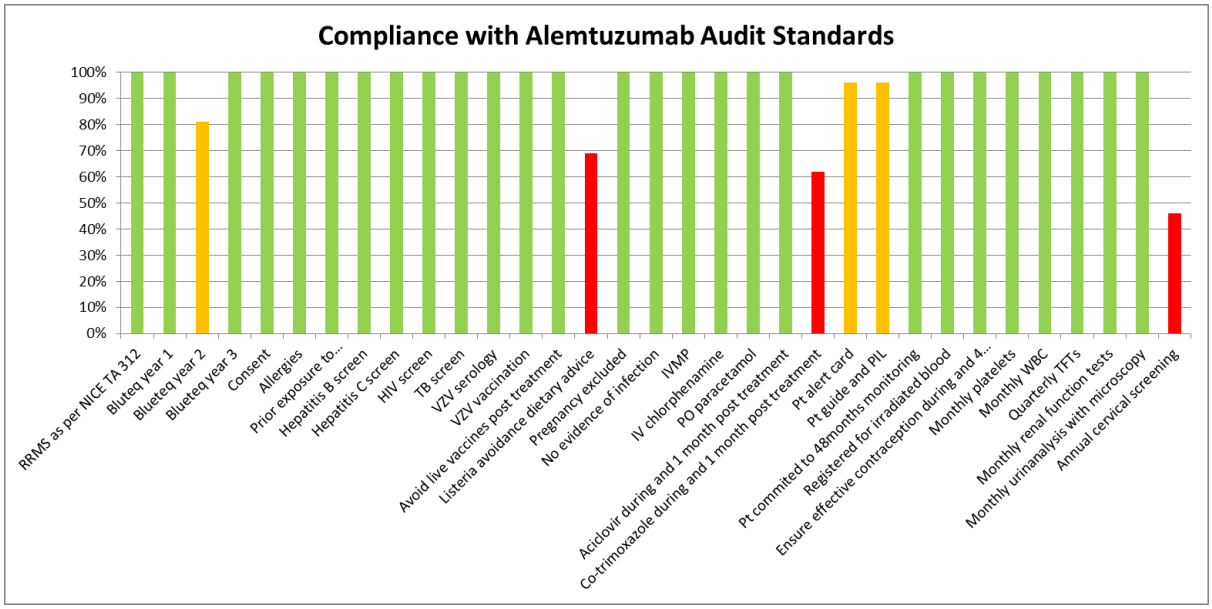
**Aims and Objectives**

The aim of this audit was to determine how safely alemtuzumab has been used at South Tees since its introduction. NICE TA312[1] describes the approved indication for alemtuzumab and Blueteq® system requires confirmation that the patient's clinical condition meets the NHS England commissioning standards. The manufacturer has made recommendations for safe use of alemtuzumab via the SPC[2] and risk management checklists[3]. These were combined to form audit standards.

**Method**

26 patients treated with alemtuzumab since 2014 were identified via Blueteq® and verified with the pharmacy system. WebICE® was used to view blood results and patients' notes were requested for data collection.

**Results**




**Discussion and Conclusion**

There was a high level of compliance with audit criteria, 27 out of 33 criteria achieved 100% compliance. This is testament to the dedication of the MS team.

81% Blueteq® compliance for year 2 was due to availability of continuation forms at the time of treatment. Reduced compliance around listeria dietary advice and co-trimoxazole prescription was due to guidance being updated after treatment. One patient appeared not to have received a patient alert card and guide. The MS team were not able to access annual cervical screening in our region.

The main concern raised was around sustainability of this service. There are 2000 patients with MS cared for by the team and 426 patients prescribed DMTs. Monitoring of alemtuzumab is currently delivered by monthly 30 minute MS nurse appointments. Patients on alemtuzumab could increase to 50 next year, requiring 300hours/600 clinic slots which is unsustainable. These results have been discussed with the neurology directorate and different ways of delivering this service are being urgently investigated.

**References**

**1.** NICE Technology Appraisal Guidance, TA312, 2014. Alemtuzumab for treating relapsing-remitting multiple sclerosis https://www.nice.org.uk/guidance/ta312

**2.** Genzyme Therapeutics, 2018. Lemtrada® 12mg concentrate for solution for infusion SPC, https://www.medicines.org.uk/emc/product/5409/smpc accessed November 2018.

**3.** Genzyme Therapeutics, 2018. Lemtrada® 12mg concentrate for solution for infusion Risk Materials, https://www.medicines.org.uk/emc/product/5409/rmms

# Poster 22: Audit of Omitted and Undocumented Doses of Medicines on Cardiac Wards

**Firdhaus Nasir, Kara Spiteri, Kim Richmond, St. George's University Hospitals NHS Trust.**

**Background and Introduction**

Of the 973 medication-related incidents reported in St George's Hospital in 2018, 28% (269/973) were caused by omitted and delayed medicines [1]. This study fulfils the recommendation set out in the 2010 Rapid Response Report by the National Patient Safety Agency (NPSA) on conducting an annual omitted doses audit [3].

**Aims and Objectives**

1. To determine the percentage of missed and omitted critical medicine doses.
2. To determine the proportion of undocumented doses that were administered.
3. To review the location of omitted and undocumented doses by ward and identify interventions for implementation.

**Method**

Data was extracted from the daily 'omitted doses' report generated by the Trust's electronic chart system iClip. All administered, intentionally omitted and undocumented doses were reviewed and investigated over a seven-day period, suggesting recommendations based on identified trends. This study did not require ethics approval.

**Results**

291 patients were assessed over the audit period. Of the 9141 recorded doses, 28% (2565/9141) were critical medicines. Benjamin Weir ward had the most omitted (17% 139/799) and undocumented (6% 44/799) critical medicine doses, with Caroline and Belgrave following behind. Patient refusal contributed to 56% (923/1636) of omitted and undocumented doses, consisting of analgesia (36% 336/923), laxatives (31% 289/923) and insulin (6% 55/923).
46.2% (117/253) of undocumented doses were due to patients not being promptly taken off iClip. 6% (14/253) of undocumented doses were actually given, highlighting the risk of double dosing a patient.

Table 1 – Audit standards and extent to which they were met

| No. | Standard | Expected Adherence | Observed Adherence |
|---|---|---|---|
| **1** | All doses administered are documented as given | 100% | 99.8% (7505/7519) |
| **2** | All critical medicines are administered unless a reason is given. | 100% | 95.9% (2173/2265) |
| **3** | All omitted doses should be documented with a reason given. | 100% | 84.5% (1383/1636) |

**Discussion and Conclusion**

Limitations include small sample size, short duration and the retrospective nature of the study. Recommendations include better handover between healthcare teams, pocket guides for nurses on how to use iClip, reviewing regular analgesia and laxatives to consider changing them to 'when required' medications by prescribers, patient self-administration of insulin, effective counseling for anticoagulation and a collaborative benchmarking scheme [3] between the cardiac wards to monitor progress.

**References**

1. Spiteri K. Trust Medication Incident Report Q1-2 2018.19. St George's University Hospitals NHS Foundation Trust 2018
2. National Patient Safety Agency; Rapid Response Report: Reducing harm from omitted and delayed medicines in hospital; Published 24th February 2010. http://www.nrls.npsa.nhs.uk/alerts/?entryid45=66720
3. Nembhard IM. Learning and Improving in Quality Improvement Collaboratives: Which Collaborative Features Do Participants Value Most? Health Services Research 2009; 44(2).

# Poster 23: Lipid modification therapy for patients admitted on intensive statin therapy following acute coronary syndromes

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**Background and Introduction**

European Society of Cardiology (ESC) recommends high intensity statins in all patients following acute coronary syndromes (ACS), regardless of admission cholesterol concentration. Reductions in low-density lipoprotein (LDL) levels significantly reduces risks of cardiovascular death, non-fatal myocardial infarction (MI), ischaemic stroke, and coronary revascularisation. The addition of ezetimibe, and more recently PCSK9 inhibitors, to statin therapy has been shown to lower LDL cholesterol levels further and improve cardiovascular outcomes.

**Aims and Objectives**
To assess lipid modification therapy for patients admitted on max dose statin therapy post-ACS.

**Method**
Data on lipid-lowering therapy was collected prospectively, over an 8-week period in August 2018, for all patients presenting with ACS. Ethics approval was not sought because this analysis was an assessment involving no changes to current services being delivered.

**Results**
252 patients presented with ACS, 28 (11%) of which admitted on atorvastatin 80mg. All other patients were optimised to atorvastatin 80mg daily during admission. Mean total cholesterol and LDL levels on admission in all patients was 4.7 and 2.8 mmol/L and, in patients receiving atorvastatin 80mg on admission, 4.7 and 2.7 mmol/L respectively, with good self-reported adherence to therapy. Therapy remained unchanged for these patients following ACS; all 28 continuing atorvastatin 80mg on discharge.

**Discussion and Conclusion**
Intensifying statin therapy in patients' naïve to, or on low to moderate intensity statins is common practice following ACS; however, there is an unmet need to optimise lipid therapy in patients admitted on maximal doses of statin therapy. This data suggests upward of 10% of patients presenting with ACS may already be on optimal titrated lipid therapy and treatment intensification with alternative agents is as yet an unmet treatment strategy. This data supports use of pharmacists to identify those potentially eligible for lipid intensification and could have a key role in initial

assessments of such agents to further optimise patients' secondary prevention medication post-ACS event.

# Poster 24: The impact on cost savings by vial sharing and dose rounding infliximab vials by the Biologics Pharmacy Team at Cambridge University Hospital NHS Foundation Trust

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**Background and Introduction**
Cessation of infliximab vial sharing by nursing staff at ward level prior to 2015 encouraged the biologics pharmacist to appraise alternative options which included dose banding, and the combination of dose rounding and vial sharing. The dose rounding and vial sharing infliximab intervention was selected as it yields the highest value of savings.

**Aims and Objectives**
To realise savings by optimising the infliximab prescribing on the adult infusion unit using dose rounding and vial sharing in combination.

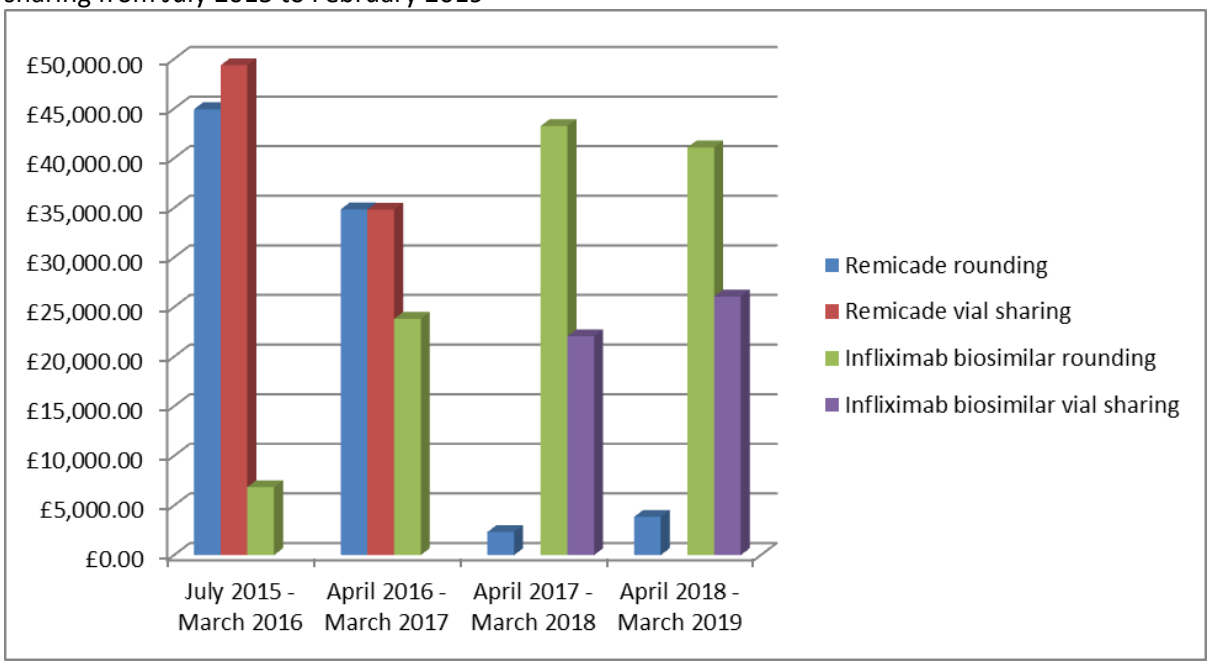
**Method**
The introduction of the Trust electronic prescribing system, Epic allows the biologics pharmacy team (BPT[1]) to identify suitable patients, and check their prescribed dose in advance of their scheduled appointment. The biologics pharmacy technician accesses the patient list of infliximab appointments a week in advance and highlights doses which can be;

1. Rounded down of doses to the nearest 5% (agreed with specialist teams)
2. Vial sharing remaining doses

Patients from all specialist teams are reviewed by the biologics pharmacist, once agreed the biologics pharmacy technician calls the patients to confirm their attendance. The clinically screened prescriptions are routed to the aseptic pharmacy to be made for the patients due in Tuesday to Friday the following week. The infusion unit keep the BPT informed of any cancellations of appointments which allows the infliximab bags to be saved and used for another patient prescribed the same or similar dose.

**Results**

Table 1: Savings made by biologics pharmacy team interventions: infliximab dose rounding and vial sharing from July 2015 to February 2019




**Discussion and Conclusion**

The interventions made by the biologics pharmacy team and colleagues on the infusion unit have resulted in no waste of vials since the first attempt to vial share in July 2015. The process involves careful selection of patients to be included as a vial share. Patients, who frequently do not attend or cancel their appointments, are identified and excluded. The rounding down of doses by 5% has resulted in no concerns about loss of efficacy or adverse events.

**References**

1. Medicines, Diagnostics and Personalised Medicine Policy Team, NHS England Commissioning framework for biological medicines (including biosimilar medicines)– NHS England September 2017

# Poster 25: Evaluation of the knowledge of adult patients in Mayotte on Paracetamol (acetaminophen)

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**Background and Introduction**

Paracetamol is the most prescribed and widely used analgesic and antipyretic worldwide. A study[1] on patient knowledge of Paracetamol was conducted in metropolitan France, but none to our knowledge in the French overseas territories.

**Aims and Objectives**

To assess the state of knowledge of adult patients on Paracetamol, and then to put in place the relevant information and advice to be given to the patients.

**Method**

A prospective study was set up, through a questionnaire with 6 simple questions. Throughout the summer of 2018, each adult patient (over 18 years of age) at the pharmacy was interviewed.

**Results**
259 patients, aged 18 to 84 years (average 36 years), agreed to answer. 57.5% of them spoke French. The average interview time was 3 minutes.
13.1% of participants do not know the maximum authorized dose of Paracetamol, or evaluate it at more than 1 g. 18.1% ignore the maximum daily dose of Paracetamol, or think it is 4 g or more. 13.9% mention a minimum time between 2 doses of less than 4 hours. 66% do not know that this drug can cause adverse reactions, and 38.2% think that Paracetamol can also treat other diseases besides pain and fever, including fatigue (42.1%), insomnia (5.3%) or cough (5.3%). Finally, 51.7% think there is a difference in efficacy between the specialties Doliprane, Efferalgan, Dafalgan and their generic Paracetamol.
A significant difference appears in terms of awareness of the existence of adverse reactions between non-French speakers (29.1%) and Francophones (55%).
Only 2 patients in total answered all 6 questions correctly.

**Discussion and Conclusion**
The level of patient knowledge is inconsistent and insufficient to ensure optimal and safe use. We must carry out systematic reminders during dispensations, and consider specific and targeted communications to improve the general public's knowledge of paracetamol, a “too common” drug, with additional attention given to non-French-speaking people.

**References**
**1.** Patients' knowledge about paracetamol (acetaminophen): a study in a French hospital emergency department, Boudjemai Y et al, Ann Pharm Fr. 2013

# Poster 26: The Hospital Pharmacist Position Throughout the Patients Clinical Pathways in a Home Care Services of a French Hospital

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**Background and Introduction**
Home care services have to respect the same regulatory requirements as any other health institution with accommodation in particular regarding patient medicinal care. The home care service works with the hospital pharmacy on the same bases as their other care services with accommodation.

**Aims and Objectives**
The objective of this work is to position the hospital pharmacist at different stages of the patients clinical pathways in a home care service to improve his security related to drug management.

**Method**
Many evaluations were performed to produce a comprehensive update on practices concerning the medication circuit. 4 clinical pharmacy activities were experimented: medication reconciliation, formalization of prescription pharmaceutical analyses and the transmission of information about appropriate use of drugs, but also the participation of a pharmacist during the service’s weekly work meeting.

**Results**
133 pharmaceutical input analyses were performed corresponding to 77% of patients admitted to the service (N = 188). 91 Pharmaceutical Interventions (IP) were transmitted as a result of these analyses and 47% of these IPs resulted in a reassessment of the prescription (N = 43). This

corresponds to 0.7 IP by prescribing analyzed. 23% of the IP concerned high-alert medications. Reconciliation concerned 48 patients corresponding ¼ of the population in this study. It highlighted 38 unintentional divergences (UD) i.e. 0.79 UD per patient. Personalized information and advices on the proper use of medicinal products concerns minimum ¼ of patients. By designating a privileged interlocutor with this home care service, exchanges and coordination between the two services are improved.

**Discussion and Conclusion**

The first positive feedbacks of those experimentations confirm the benefits gained thanks to the hospital pharmacist interventions, which are closer to the healthcare team and patients. Nevertheless, the deployment and the execution of those pharmaceuticals activities on a daily base may only occur by adjusting available pharmaceutical resources, including human resources.