

Clinical Pharmacy Congress 2018

POSTER ABSTRACT BOOK

SESSION: FRIDAY PM

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1. Patient awareness and assessment of delirium post cardiac surgery at Royal Brompton and Harefield Foundation Trust

Introduction:

Delirium is a state of mental confusion that can affect surgical patients, which can increase the time a patient spends in critical care areas.

Objectives:

(1) To assess patient awareness, incidence and documentation of delirium post cardiac surgery and (2) to establish patient perspective of their cardiac surgical journey at RBHT.

Methods:

Design: Retrospective study. *Patients:* One hundred and seventy nine consecutive cardiac surgical patients were included in the study. *Interventions:* Days spent in ICU, hours spent on ventilation, record of Glasgow coma, Richmond Agitation and Sedation Scale(RASS) and CAM ICU scores, treatment received for delirium, documentation of dependency (smoking/ alcohol status) and treatments for dependency prescribed (nicotine/ pabrinex/ chlordiazapoxide) were noted. All patients treated for a delirium were asked to complete patient journey questionnaire.

Results:

179 patients were analysed out of which 16 patients were treated for delirium. The documentation of dependency (smoking and alcohol status) was completed in 8% (n=179) of patients. 40% (n=28) of patients with documented dependency were prescribed the appropriate treatments. The percentage documentation of delirium assessment (Glasgow coma, RASS and CAM ICU scores) was 82% (n=179). A sample of 10 patients who were treated for delirium was contacted. 90% (n=10) of patients did not receive any information on delirium prior to surgery. 50% (n=10) of patients would have liked a tour of the high dependency areas before surgery, 30% of patients had had major operations before so knew what to expect from the high dependency areas. Finally 20% of the patients assumed that a tour of these areas would frighten and make them more concerned about the surgery.

Conclusion:

Awareness of patients at dependency status may lead to better recognition of risk of delirium. Patient journey maybe improved by the provision of information on delirium and a tour of the critical care areas.

2. Improving cost-effective prescribing and outcomes for diabetes in primary care: a targeted collaborative approach.

Jeanette Tilstone, Head of Medicines Optimisation, Medicines Optimisation Team (MOT) NHS Bury CCG and Dr Susannah Rowles, Consultant Physician, Diabetes & Endocrinology, Pennine Acute Hospitals NHS Trust.

Background and Context

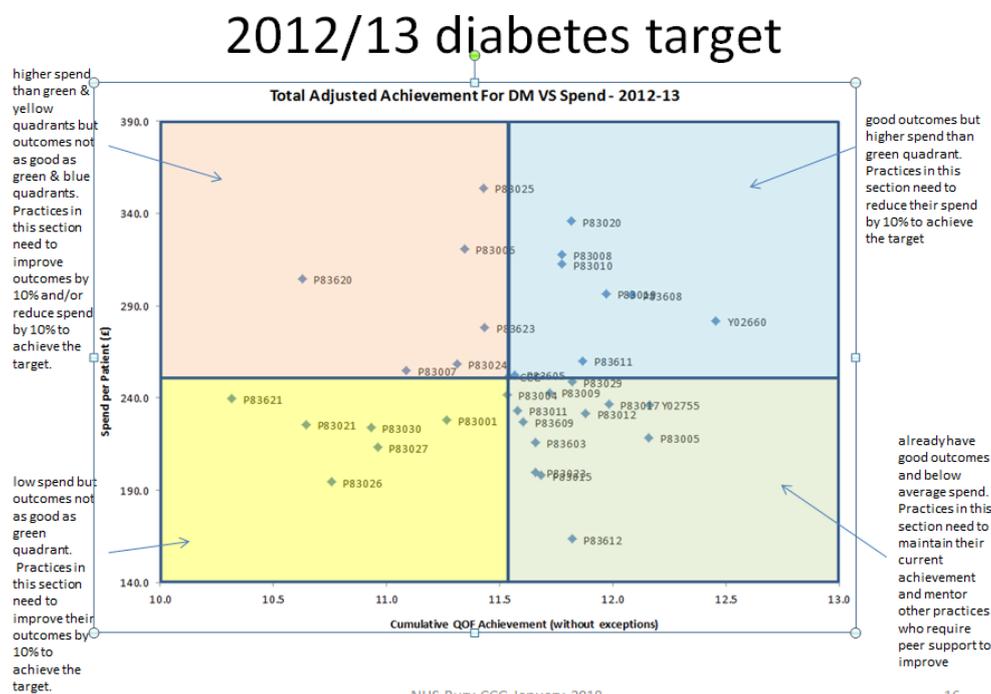
In 2009/10/11 Bury had the North-West's highest diabetes prescribing costs, with wide inter-practice variation in spend and no correlation of spend to better outcomes e.g. HbA1c targets; diabetes-related hospital admissions. New drugs for type 2 diabetes (T2D) had been adopted quickly by Bury clinicians and were being 'added in' to existing regimes to chase lower HbA1c targets.

Objectives

- Reduce prescribing spend to England average levels, and reduce variation.
- Educate and support clinicians to review prescribing regularly in line with NICE guidance, and encourage a less 'gluco-centric' approach to treatment of T2D.
- Demonstrate that higher spend did not correlate with better outcomes.

Method

- A spend vs outcomes¹ benchmarking tool was devised to illustrate the variation amongst practices:



- The benchmarking data was shared with all practices. Practices were financially incentivised to encourage reduction in spend or improved outcomes.
- Meetings were arranged with clinicians in every practice to explain the benchmarking tool and target, and advise what action was needed.

¹ Quality and Outcomes Framework (QOF) composite score for diabetes indicators

- Data was shared with the Consultant-led Community Diabetes team who provided education sessions within practices, with content tailored to individual practices and informed by prescribing data.
- The MOT supported clinicians to review and, where appropriate, revise prescribing of oral hypoglycaemics, long-acting insulin analogues, and blood glucose test strips in T2D to comply with NICE guidance.
- The outcomes measure was changed in 2015 to 'diabetes-related hospital admissions' and the incentive discontinued in 2016.

Results

- Average spend reduced from £291(2011) to £257(2017) – now 15% below England average.
- Practice variation in spend reduced from £325(2011) to £165(2017).
- Outcomes (diabetes indicators in QOF and hospital admissions) are the best in Greater Manchester².

Conclusions

- Benchmarking data mapped to outcomes is a powerful tool in changing prescribing behaviour.
- Enhanced support targeted into practices via joint MOT and Community Diabetes team was essential to achieving successful outcomes.
- Excellent patient outcomes can be achieved without increasing costs.

Ethics approval was not required for this project because it was routine medicines optimisation work.

² Demonstrated by chart in poster version.

3. A collaborative approach to Stopping Over-Medication of People with a Learning Disability, Autism or Both (STOMP¹) in Bury

Nigget Saleem (NS), Clinical Lead, Medicines Optimisation & Learning Disabilities (LD), Jeanette Tilstone, Head of Medicines Optimisation, and Susan Storey, Medicines Optimisation Team (MOT) NHS Bury Clinical Commissioning Group (CCG).

Introduction

In response to NHS England's "call to action"² to tackle the over-prescribing of antipsychotics in patients with LD, NS led a project involving collaborative working between the local CCG, 31 GP practices and Pennine Care Foundation Trust (PCFT). The goal was to increase the quality of life for this group of patients by reducing unnecessary adverse effects, particularly sedation and long term cardiovascular complications/risks.

Objectives

- Identify patients with LD prescribed antipsychotics for challenging behaviour.
- Undertake a detailed review of each of these patients.
- Work with and reassure carers if met with resistance.
- Reduce and withdraw antipsychotic prescribing where prescribing was considered inappropriate.
- Support patients and carers through reduction and withdrawal.

Method

- MOT identified patients with LD prescribed antipsychotics using GP Practice LD registers.
- The PCFT LD specialist pharmacist visited each GP practice & carried out a detailed review of the patients identified.
- Meetings were arranged with a lead GP within each practice to discuss the reviews recommendations & to agree an action plan.
- MOT pharmacy technicians worked alongside GP practice pharmacists to implement agreed action plans for withdrawal of antipsychotic medication.
- Ongoing support provided to patient/carer during reduction regime.

Results

Baseline data:

- 195 LD patients prescribed antipsychotics
- 127 prescribed for challenging behaviour

By November 2017:

- 22 patients successfully withdrawn
- 35 patients on a reduction plan
- 16 patients on reduced dose of antipsychotic

Conclusions

- Involving patients, carers and family members is crucial to decision making.
- Joint working is essential to achieving successful outcomes.
- LD team nurses are a great resource to provide behavioural support.

- Communication between primary and secondary care clinicians has improved.
- Regular contact with the patient/carer during the reduction process built confidence.
- Outcomes are exceeding initial expectations.

References

1. NHS England STOMP Guidelines (2016). Available from <https://www.england.nhs.uk/wp-content/uploads/2016/06/stopping-over-medication.pdf>
2. NHS England Call to action letter to health professionals (2015). Available from <https://www.england.nhs.uk/wp-content/uploads/2015/07/med-advice-ld-letter.pdf>

Ethics approval was not required for this project

4. The impact of bariatric surgery on patients with type 2 diabetes

Sarah Anderson, City Hospitals Sunderland

Background

The aim of this study was to investigate diabetes medication use in a group of 26 patients with type 2 diabetes who underwent bariatric surgery.

Objectives

- 1) To find out whether the number of anti-diabetic agents used in this group of patients decreased following bariatric surgery. And if so;
- 2) To investigate whether a specific type of bariatric surgery procedure is more beneficial over others in terms of reducing diabetes medication use post-surgery.
- 3) To investigate long term cost of medication vs bariatric surgery used to treat type 2 diabetes, and whether the cost of bariatric surgery may provide a better value treatment option.
- 4) To investigate whether the number of patients on insulin changed following bariatric surgery.

Method

This study required and received ethics approval. Retrospectively the study was carried out analysing anti-diabetic medication use in patients before and after surgery who underwent a loop bypass, a Roux-en-Y bypass or a sleeve gastrectomy.

Results

The average number of diabetes medications per patient decreased following surgery and was found to be: 1.88 at point of referral, 2.00 at pre-surgery clinic, 0.72 following surgery discharge, 0.65 three months after surgery, 0.62 six months after surgery & 0.12 twelve months after surgery. The number of patients on insulin did not change after surgery.

Patients who underwent a Roux-en-Y bypass were on fewer medications after surgery compared to patients who underwent a loop bypass or sleeve gastrectomy.

Conclusion

Six months after surgery 57% of patients were on 0 anti-diabetic medications indicating remission/reversal of the disease may have been achieved through weight loss and hormonal changes.

Long-term the cost of bariatric surgery may be more cost effective than a high intensity medication regimen used for the treatment of type 2 diabetes. However, this depends on whether significant reversal/remission is achieved and maintained.

5. Extending Integrated Medicines Management Services to seven days a week- ensuring safe, consistent, high quality care.

Holden, J¹, Davison, J¹, Parkin, L^{1,2}, Miller, D¹.

1. City Hospitals Sunderland NHS Trust, Sunderland

2. University of Sunderland

Background

NHS England's NHS Services, Seven Days a Week Forum was established in 2013 to consider how NHS services can be improved across the seven day week¹. The clinical pharmacy team at CHS makes a significant contribution to care through its Integrated Medicines Management (IMM) service. An IMM service has been shown to reduce errors by an average of 4.2 per patient, reduce length of stay by almost 4 days for medical admissions and reduce readmission rates².

To make the maximum improvement to patient outcomes clinical pharmacy services should be available seven days a week³.

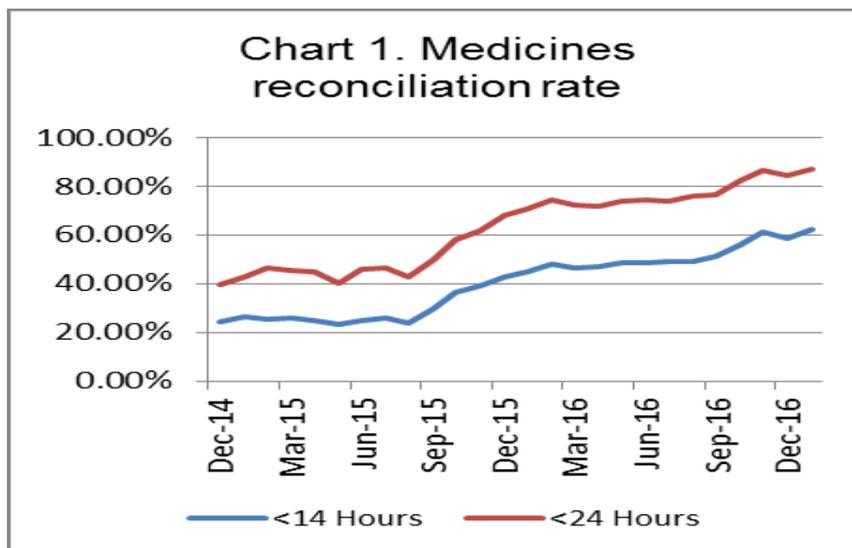
Objectives

- To provide an IMM service on weekends.
- To enhance patient experience, improve clinical efficiency and patient safety through increased deployment of clinical pharmacy staff.
- To demonstrate improved outcomes through monitoring of metrics.

Method

The existing Monday to Friday IMM service was extended to operate on weekends. The workload was predicted and staffing levels agreed. Data was collated and analysed before and during the implementation phase to demonstrate improvements in medicines reconciliation rate, medicine verification times and pharmacist input into discharge prescription processing. Ethics approval was not required.

Results



The medicines reconciliation rate has increased from 39% within 24 hours pre-implementation to 87% after implementation with a similar increase in the completion of medicines reconciliation within 14 hours (Chart 1). The time to verification of medication was reduced from an average of 44 hours in June 2015 to 26 hours in April 2017. Pharmacist involvement in the provision of weekend discharge medication rose from 39% of discharge items at the beginning of the implementation to 93% of items in May 2017.

Discussion

A seven day clinical pharmacy service has achieved improvements in medication safety with a significant increase in medicines reconciliation rates, reduced time to medicines verification and greater involvement in the provision of discharge medications.

References

1. NHS Services, Seven Days a Week Forum: Summary of initial findings 2013. <https://www.england.nhs.uk/wp-content/uploads/2013/12/forum-summary-report.pdf> (Accessed 7 June 2017)
2. Scullin C, Scott M.G, Hogg A, et al. An innovative approach to integrated medicines management. *Journal of Evaluation in Clinical Practice*. 2007;13(5):781-788
3. NHS England. Transformation of seven day clinical pharmacy services in acute hospitals 2016. <https://www.england.nhs.uk/wp-content/uploads/2016/09/7ds-clinical-pharmacy-acute-hosp.pdf> (Accessed 7 June 2017)

6. Improving medication management for liver transplant patients – Introducing a specialist pharmacist service to the liver outpatient clinics

Lindsay Smith and Alison Orr, Kings College Hospital NHS Foundation Trust, Denmark Hill

Introduction/Background/Context

King’s College Hospital (KCH) is a large tertiary referral centre for liver transplant services. Liver transplant patients have incredibly complex medicines management needs. Poor medicines management in these patients can lead to; unnecessary polypharmacy, costly readmissions, poorer clinical outcomes and patient dissatisfaction.

Objective(s)

- To improve review of the overall health of transplant recipients to ensure graft survival and reduce hospital readmissions.
- To reduce the number of prescription requests made between outpatient appointments by 50% within the first 12 months
- To reduce the amount of pharmacy related queries to other liver pharmacists and members of the MDT

Method

New transplant patients discharged between September and December 2017 were booked onto the pharmacist clinic list. Patients were reviewed prior to being seen by a senior doctor. This consultation included medication review, actioning prescription requests and booking blood tests. Any issues were then handed over to the clinician.

Results

Intervention data was collected throughout the pilot period. The pharmacist saw 45 patients and made 64 separate interventions.

Intervention type	
Medication knowledge assessment/education	5
Immunosuppression dose adjustment/switch	5
Prophylactic medication stopped as per protocol	5
Counselling for non-adherence	4
Queries with supply of Medication	9
Medication queries	6
Medicines Reconciliation/checking for interactions	2
Renal Function – dose adjustment of Medication	2
Fracture risk assessed/started on bone protection	6
Patient Referred to another service (e.g. Dermatology/Pain)	2
Other	10
Medication information to other HCP	10
Total number of interventions	64
Total number of patients	45

Table 1: The types of intervention made by the specialist pharmacist

Discussion/Conclusion

Medication optimisation has been improved through full review by a specialist pharmacist allowing discontinuation of unnecessary items and finite courses, review of side effects and initiation of medications to improve bone health, optimise blood pressure control, ensure healthy cholesterol levels and improve diabetic control. The pharmacist also ensures patient's medication lists are updated guaranteeing accurate medicines reconciliation. We have not yet seen a reduction in the number of patients who request prescriptions between appointments. This service gives direct access to specialist medication information and raises awareness of the services offered by the specialised liver pharmacy team. The feedback so far is positive. We plan to carry out a patient satisfaction survey 6 months after the introduction of the service.

Ethics approval

Ethics approval was not required for this project as it was an audit.

7. Exploring the impact of pharmacist-led feedback on prescribing behaviour: A qualitative study

Lloyd M, St Helens & Knowsley Teaching Hospitals NHS Trust, Whiston, UK

Watmough S, Edge Hill University, Liverpool, UK

O'Brien S, St Helens CCG, St. Helens, UK

Furlong N, St Helens & Knowsley Teaching Hospitals NHS Trust, Whiston, UK

Hardy K, St Helens & Knowsley Teaching Hospitals NHS Trust, Whiston, UK

Introduction/Background/Context

Prescribing errors occur frequently in hospital settings.¹ Pharmacist-led feedback has potential to improve prescribing outcomes² although the literature exploring the impact of feedback on prescribing behavior is limited. An understanding of this impact could inform future prescribing interventions.

Objectives

To explore the impact of pharmacist-led feedback on prescribing behaviour.

Method

Semi-structured interviews were conducted with prescribers who had received pharmacist-led prescribing error feedback. A topic guide was used to explore error type and the impact of feedback on prescribing. Interviews were transcribed verbatim and analyzed thematically using a framework approach.

Results

Thirty-eight interviews were conducted with twenty-three prescribers with sixty-five errors discussed. Identified themes (Table 1) included affective behaviour, learning outcome, prescribing behavior and likelihood of error recurrence. Prescribers reported that feedback was educational and described a range of adaptive prescribing behaviours. Prescribers were more mindful and engaged with prescribing tasks. Feedback facilitated reflection, raised self-awareness and informed self-regulation of prescribing behaviour. Enhanced information and feedback-seeking behaviours, and a raised situational awareness of error provoking factors to inform prescribing were described.

Table 1: Example quotes for each theme from the qualitative data

Theme	Participant number and grade	Quote
Affective behaviour	R4, FY2	<i>"I was thinking about what [ward pharmacist name] said and checking the dose, frequency and stuff and writing fifteen minutes before their meal."</i>
Learning outcome	R17, FY1	<i>"Distraction wise, I have an increased awareness now and perhaps better communication with the nursing staff too, just please don't interrupt me when I am prescribing."</i>
Prescribing behaviour	R5, FY1	<i>"I've changed computers or I'll use this room more [a quiet doctor's office] and I'll read through them again, even read through the TTO aloud when I'm doing the TTOs."</i>
Likelihood of	R12, FY1	<i>"With these it's not a mistake or a knowledge issue,</i>

error recurrence		<i>it's about the skill of prescribing"</i>
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Discussion/Conclusion

Pharmacist-led prescribing error feedback influences prescribing behavior with complex responses reported that resonate with the non-technical skills (NTS) of prescribing including teamwork, communication and situational awareness.³ Prescribers adapt their prescribing behavior in response to the environment and prescribing conditions, with their NTS activated in response to error provoking conditions. Here, pharmacists could be considered change agents with provision of feedback a catalyst to influence and optimize prescribing behavior. These findings have implications for multidisciplinary teamwork and prescribing pedagogy to make it a more contextualized educational process, aligned with a complex 'whole task' model⁴ of prescribing education. The NTS reported here provide tantalizing avenues of further enquiry that could be explored independently to optimize prescribing.

Ethical approval

Approval was obtained from relevant hospital and University ethics committees.

References

1. Dornan T, Ashcroft D, Heathfield H, et al. An in-depth investigation into causes of prescribing errors by foundation trainees in relation to their medical education. EQUIP Study. General Medical Council, 2009. Available from http://www.gmc-uk.org/about/research/research_commissioned.asp accessed 12th September 2017
2. Lloyd M, Watmough SD, O'Brien SV, et al. Exploring the impact of feedback on prescribing error rates in an acute hospital setting: A pilot study. *International journal of clinical pharmacy*, 2017; 39:1013-1017
3. Lloyd M, Watmough SD, O'Brien SV, et al. Exploring the impact of prescribing error feedback on prescribing behaviour: a qualitative study. *Research in Social and Administrative Pharmacy*, 2017; *In press*
4. McLellan L, Tully MP, Dornan T. How could undergraduate education prepare new graduates to be safer prescribers? *Br J Clin Pharmacol*. 2012;74:605–13.

8. Hospital pharmacists' perceptions of their medication communication with prescribers: A qualitative case study

Lloyd M, St Helens & Knowsley Hospitals NHS Trust, Whiston, UK

Watmough S, Edge Hill University, Liverpool, UK

O'Brien S, St Helens CCG, St. Helens, UK

Furlong N, St Helens & Knowsley Hospitals NHS Trust, Whiston, UK

Hardy K, St Helens & Knowsley Hospitals NHS Trust, Whiston, UK

Introduction/Background/Context

Prescribing errors are prevalent in UK hospitals¹ with poor communication between healthcare professionals, including pharmacists and prescribers, considered a leading cause of medication error.¹ Pharmacists' medication communication with prescribers has been reported as limited² and inconsistent³ in the literature whilst they have been described as working independently to doctors.²

Objectives

To explore the perceptions and experiences of hospital pharmacists on their medication communication with prescribers.

Method

This study was undertaken in a large UK teaching hospital. Semi-structured interviews were used to explore pharmacists' perceptions of medication communication with prescribers. All interviews were digitally recorded, transcribed and analyzed thematically.

Results

Twenty-nine pharmacists were interviewed. Three key themes emerged from the data (table 1). Pharmacists reported limited training in medication communication with prescribers, with these skills developed through postgraduate experience and reflection. Medication communication was inconsistent between pharmacists with various barriers described including service provision, workload, perceived urgency, prescriber rapport and communication anxiety, with unrealistic expectations of junior pharmacists described. The need for greater contextualized training in inter-professional communication was reported to prepare pharmacists for the challenges of hospital practice.

Table 1: Example quotes for each theme from the qualitative data

Theme	Participant number and grade (agenda for change)	Quote
Communication skills training	P15 (band 6)	<i>"There should have been more emphasis on inter-professional training and building those relationships...it's probably just taken for granted that we know how to communicate and resolve prescribing issues."</i>
Medication communication with prescribers	17 (band 8a)	<i>"Well he [junior doctor] was on the ward round with [consultant] so I didn't want to bother him, and I didn't want to get in the way."</i>

Pharmacist as a communicator	23 (band 6)	<i>“If I know the doctor then it is so much easier but if I don’t, then I have to build myself up to approach them and that is irritating. Talking to doctors that I don’t know on a personal and professional level is anxiety provoking for me.”</i>
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Discussion/Conclusion

This is the first known UK study exploring pharmacist-prescriber medication communication in-depth in a hospital setting. The study raises awareness of barriers to effective medication communication between hospital pharmacists and doctors, with implications for pharmacy education, and specifically hospital pharmacy training. Inconsistencies in medication-communication can limit pharmacist-prescriber collaboration and compromise patient safety.¹ Barriers to effective medication communication need addressing with enhanced training in inter-professional medication communication between pharmacists and prescribers needed. Such training can help standardize practice, optimize pharmacist-prescriber collaboration, and support the hospital pharmacist workforce, with potential to develop widely available training similar to other training elsewhere.⁴

Ethical approval

Approval was obtained from relevant hospital and University ethics committees.

References

- Dornan T, Ashcroft D, Heathfield H et al. An in-depth investigation into causes of prescribing errors by foundation trainees in relation to their medical education. EQUIP Study. General Medical Council, 2009. Available from http://www.gmc-uk.org/about/research/research_commissioned.asp accessed 12th September 2017
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9. A comparison of hospital doctor and pharmacy technician transcribing errors at discharge.

Lloyd M, St Helens & Knowsley Teaching Hospitals NHS Trust, Whiston, UK

Introduction/Background/Context

Discharge prescribing errors are common in UK hospitals with potential for patient harm.^{1,2} Pharmacy technicians are undertaking advanced roles in hospital settings including medicines reconciliation and accuracy checking of prescriptions.³ These technical skills could be transferrable to the transcribing of discharge medications from inpatient *medication* charts to support prescribers and the patient safety agenda. However, no known studies are available comparing pharmacy technician and doctor transcribing error rates

Objectives

To compare discharge transcribing error rates between pharmacy technicians and hospital doctors.

Method

Technicians were trained in the transcribing of discharge medications from inpatient to discharge medication charts. Prospective prescribing audits were undertaken by ward pharmacists to compare pharmacy technician (n=8) and doctor (n=12) discharge transcribing error rates. All wards were medical and matched for comparable pharmacist cover and patient turnover for each group. Data were analysed using relevant statistical tests.

Results

Transcribing error frequency was significantly different between groups with a lower error rate reported for pharmacy technicians (table 1). Error rates were lower for both type and severity of error in the pharmacy technician group.

Table 1: Difference in transcribing error frequency between pharmacy technicians and hospital doctors

Group	Items transcribed	Errors	Error rate (%)	Difference between groups (%)	χ^2 and p-value
Doctors	678	127	18.7%	14.9%	$\chi^2(1)$ =58.6, p<0.05
Technicians	654	25	3.8%		

Discussion/Conclusion

This is the first known study comparing pharmacy technician and doctor transcribing error rates, with pharmacy technicians reported as having significantly lower error rates. Such reductions in transcribing errors can improve patient safety by reducing medication errors between interfaces of care. By reducing error, inefficiencies in practice could be minimized, allowing doctors and pharmacists to focus on other patient facing responsibilities. Although the role of this service with full electronic prescribing is uncertain, this study demonstrates potential to further advance medicines optimization roles of hospital pharmacy technicians, especially in transitions of care, echoing recent government recommendations.⁴

Ethical approval

Ethical approval was not needed as this was a service evaluation. The project was registered with the hospital audit department.

References

1. Dornan T, Ashcroft D, Heathfield H, Lewis P, Miles J, Taylor D, Tully M, Wass V. An in-depth investigation into causes of prescribing errors by foundation trainees in relation to their medical education. EQUIP Study. General Medical Council, 2009. Available from http://www.gmc-uk.org/about/research/research_commissioned.asp accessed January 2018
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3. Napier P, Norris P, Braund R. Introducing a checking technician allows pharmacists to spend more time on patient focused activities, *Research in Social and Administrative Pharmacy* (2017), <http://dx.doi.org/10.1016/j.sapharm.2017.05.002>
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10. Antimicrobial Stewardship Programme in The University of Hong Kong-Shenzhen Hospital

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Ethics approval was not required

Background

Inappropriate use of antibiotic and emerging antimicrobial resistance is a prevalent issue in China (1-2). From 2012, regulatory control was implemented by the Chinese Ministry of Health (3). The University of Hong Kong Shenzhen Hospital, a pilot hospital of public healthcare reform in China introduced different measures to improve the situation,

Objectives

- To implement practical measures to control the antibiotic usage rate for inpatients < 60%, outpatients < 20%, the defined daily dose (DDDs) for inpatients < 40 and the antibiotic prophylactic usage rate for peri-operative surgery < 30%.

Method

Pharmacy department collaborates with clinical microbiology department in conducting antimicrobial stewardship trainings with assessment. Only medical staffs passing the assessment are conferred antimicrobial prescribing authority. Clinical pharmacists and clinical microbiologists check antimicrobial orders, conduct audits, provide timely feedback to the doctors and monitor undue delay from switching intravenous to oral therapy. Monthly summary of the antimicrobial interventions are discussed in respective specialties' MDT meeting for continuous quality improvements. Pharmacy department implemented electronic endorsement so that special antimicrobials (Big guns) must be approved electronically by authorised specialist before it can be electronically prescribed.

Results

From 2014 – 2017, significant improvement trend for respective years is observed on the antimicrobial usage rates, for inpatients they are 45.42%, 43.59%, 40.91% and 37.20% ; for outpatients they are 13.44%, 12.71%, 10.09% and 10.94%; the DDDs for inpatients are 58.55, 54.21, 48.84 and 32.97. The antimicrobial prophylactic usage rates for peri-operative surgery are 37.30%, 35.54%, 24.71% and 27.24%. These figures are much lower than the national regulatory requirement and the lowest among all hospitals in the city of Shenzhen.

Conclusion

Antimicrobial stewardship programme with multidisciplinary approach has demonstrated the effectiveness of reducing inappropriate and unnecessary use of antimicrobial drugs.

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11. An Evaluation of Pharmacist Independent Prescribers (PIPs) in the Southern Health and Social Care Trust (SHSCT) GP Out of Hours (GP OOHs).

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Background:

PIPs have prescribed in Northern Ireland since 2006 in primary and secondary care but not in GP OOHs. With increasing workloads and fewer doctors, GP OOHs struggle to cope with demand.¹ One study estimates that 28% of consultations to GP OOHs are partially or wholly spent on minor ailments² and an audit in NI suggests 10% of workload in OOHs is for routine repeat medicines requests.³ PIPs could therefore be a useful additional resource for GP OOHs.

Objectives:

To evaluate PIPs within the SHSCT GP OOHs setting.

Methods:

8 PIPs were employed on a sessional basis in Craigavon GP OOH in SHSCT over 6 months. PIP workload was captured and analysed in terms of:

- Number and type of cases triaged
- Public and clinician views on the service (via questionnaire)
- PIPs perceived competence in managing conditions in male and female patients in various age groups (via questionnaire).

Results:

PIPs triaged 1,207 cases (9.6%) of the 10,714 cases that presented during shifts, successfully closing 895 cases (8.4%). The majority of triaged cases (73%) were requests for routine repeat medications, the remainder (27%) were managing acute conditions. 100% of patients stated they had confidence and trust in the pharmacist. 80% of clinicians stated PIPs decreased their workload. PIPs perceived competence was highest when managing conditions in adults rather than infants/children. PIPs perceived competence in managing various conditions in female adults is shown in Figure 1.

Conclusion:

PIPs have added a valuable clinical role in the GP OOH setting, and have reduced GP time and workload by prescribing routine repeat medicines and managing acute conditions.

Statement:

This submission has not been presented at any conferences. Ethical approval was obtained from the School of Pharmacy Research Ethics Committee, Queen's University Belfast for the PIP questionnaire. The rest of the project was deemed to be service evaluation.

References:

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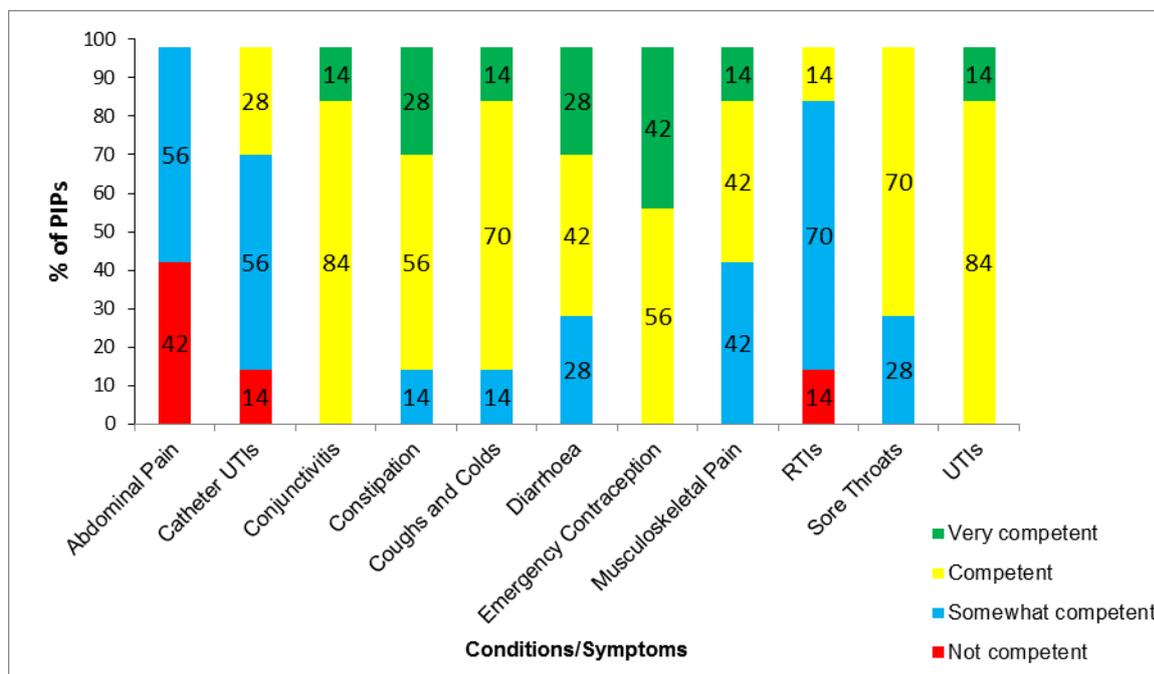


Figure 1. PIPs perceived competence in managing various conditions in female adults

12. Assessing the Impact of a Pharmacist-led Diabetes Clinic

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Introduction

The cost burden of diabetes has been estimated to be 10% of total NHS expenditure¹. The vast majority of this is spent on treating the complications rather than managing the condition itself^{1, 2}.

Objective

The aim of this audit was to assess the impact of a pharmacist-led diabetes clinic on diabetes outcomes.

Method

Clinics were set up in 6 of the most under-performing GP surgeries in terms of diabetes control in our CCG. 30 hours per week (over a 10-month period) of a band 8a independent prescriber were devoted to these clinics. Patients identified with a haemoglobin A1c (HbA1c) above target were invited to attend and supported through providing education and medication optimisation.

This audit did not require ethics approval.

Results

The following table shows the audit results:

Number of HbA1c's with improvement:	96
Number of HbA1c's without improvement:	2
Average HbA1c reduction achieved:	16mmol/mol* (1.5%)
Average baseline HbA1c:	77mmol/mol Range: 54mmol/mol to 144mmol/mol
Largest HbA1c reduction achieved:	107mmol/mol (from 144mmol/mol)
Number of HbA1c's now in the pre-diabetic range:	12/98**
Number that achieved target HbA1c's	38/98

*including 2 increases

**there are more but they are Type 1 diabetics and naturally their diabetes cannot be reversed

Discussion/Conclusion

Research has shown that improving the HA1c by 11mmol/mol for diabetics reduces the risk of microvascular complications by 25% and that 16% are less likely to suffer heart failure and there is a 14% reduction in myocardial infarction^{3, 4, 5}. As the average reduction achieved through these clinics was greater than this, these clinics have shown that they have had a positive impact on diabetes outcomes. However, only if these cohorts of patients are continued to be supported, so that improvements can be maintained, will the reduction in complications and associated financial savings be seen.

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indirect societal and productivity costs. York Health Economics Consortium Ltd. University of York. York, UK. 2012.

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13. A pilot study to investigate the use of Point of Care C-reactive protein (POC CRP) testing in community pharmacy to deliver appropriate interventions in Respiratory Tract Infections (RTIs)

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Introduction

Acute RTIs account for around 60% of antibiotics within primary care, yet often viral and self-limiting (1-3). NICE recommends POC CRP testing be considered in RTI patients where clinical assessment is inconclusive and whether antibiotics should be prescribed (4,5). This was a service evaluation, so no ethics approval was required.

Objectives

Investigate the feasibility of community pharmacy delivering POC CRP testing in RTIs. Assess patient enablement, satisfaction, future consulting intention; re-consultation; subsequent antibiotic prescribing.

Methods

Fineware analyser was selected. A management pathway was developed using NICE guideline CG191. A Standard Operating Procedure (SOP) developed and pharmacy staff briefed.

Patients accessed the scheme via referral from GPs, or pharmacy staff, or self-referral. First consultation was performed by the medicine counter assistant and included WWHAM questions. Referred patients were assessed by the pharmacist to establish suitability for the service or onward referral. Patients recorded a simple symptom score assessment, with follow up at 3 and 7 days by telephone to assess subsequent course of action, with responses recorded on PharmOutcomes.

Results

52 patients entered into the study. 25 referred via the GP surgeries, 6 by pharmacy staff and 21 self-referred. 7 were recommended self-care, one immediately referred to a GP and 44 deemed suitable for POC CRP testing. 95% of patients receiving the test and would have otherwise visited the GP and expected antibiotics. Summary results appear in Figure I. All patients reported a satisfactory experience with the quality of the consultation and intervention. None subsequently revisited the pharmacy or GP surgery.

Discussion

Although numbers were relatively small, the trial demonstrates community pharmacy can cost effectively deliver an efficient CRP POC service, with a high degree of patient satisfaction, and potentially significantly diminish the burden caused by RTIs in general practice with concurrent reduction in unnecessary antibiotic prescribing-in this case by 86%.

Figure I-outcomes associated with patients entering the trial

Patients assessed-52
Immediate GP referral-1 (subsequent antibiotic prescription)

Self-care recommended-7
CRP test-44
CRP test result > 100mg/ml-5
CRP test result 20-100mg/ml-4
CRP test result <20mg/ml-35
Action taken-GP referral 6 (subsequent antibiotic precription_
Watch and wait-5 (no subsequent GP referral)
Self -care-33 (no subsequent GP referral)
Antibiotic prescriptions avoided-38

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14. The Barnet Asthma Step-down Guideline – Simplifying and Optimising Asthma Treatment Step-down for Prescribers

15. Evaluation of Preoperative Prescribing of Surgical Antimicrobial Prophylaxis at Croydon University Hospital

Carla Bodagh, Helen McGowan, Croydon University Hospital

Introduction

Surgical Site Infections (SSIs) can occur during certain surgeries, thus the appropriate antibiotics are needed to prevent this risk¹. Overuse or inappropriate use can lead to increased antimicrobial resistance and prolonged hospitalisation. Therefore, it is imperative that evidence-based treatment provided to patients undergoing surgery have an indicated need for antibiotics. Pharmacists have a role to potentiate this by evaluating whether patients require/not require prophylactic antibiotics prior to surgery.

Aims and Objectives

1. Assess if patients are under-prescribed, over-prescribed or compliant with antimicrobial prophylaxis treatment
2. Administered with appropriate antibiotics according to local guidelines
3. Administered an intra-operative dose of the indicated antibiotic during prolonged surgeries
4. Screened for MRSA colonisation prior to surgery for appropriate choice of antibiotics

Method

Retrospective analysis took place where the following key criteria were identified: allergies, procedure, antibiotics given, choice of antibiotic, intra-operative antibiotics given and MRSA positive/negative. Data was collated between 4th December – 8th December 2017. A total of 135 patients were analysed using Microsoft Excel, but 75 of patients' procedures had guidelines. Compliance and need for antibiotics were determined from Croydon University Hospital's local guidelines and Scottish Intercollegiate Guidelines Network. Ethics approval was not required as this was an audit.

Results

According to guidelines, where n=75, 46.7% of patients were given prophylactic antibiotics and 53.3% of surgeries did not require it. Additionally, 72.0% had been appropriately assessed for antibiotics. Only 1.3% of patients were under-prescribed, but 22.7% were overprescribed. Taking all 135 patients, 49.2% who had no guidelines received either Augmentin 1.2mg or Cefuroxime 1.5g injection. No patients received intra-operative antibiotics and no patients tested positive for MRSA.

Discussion/Conclusion

Overall, the majority of patients received antibiotics appropriately, but this does not reach to the 100% target, which can give risk for SSIs. This may be due to extra precautions or perhaps patients are on other medications that may cause an interaction. Recommendations to improve this include developing more guidelines on different surgeries and ensuring that broad-spectrum antibiotics are not routinely given to patients without a clear indication. In light of the results, highlighting this to surgeons, pharmacists and other healthcare professionals will ensure all antibiotics

to be given appropriately. Future work should insist on discussing the need for antibiotics for those without guidelines within the multidisciplinary team.

References:

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To Evaluate Preoperative Prescribing of Surgical Antimicrobial Prophylaxis at Croydon University Hospital

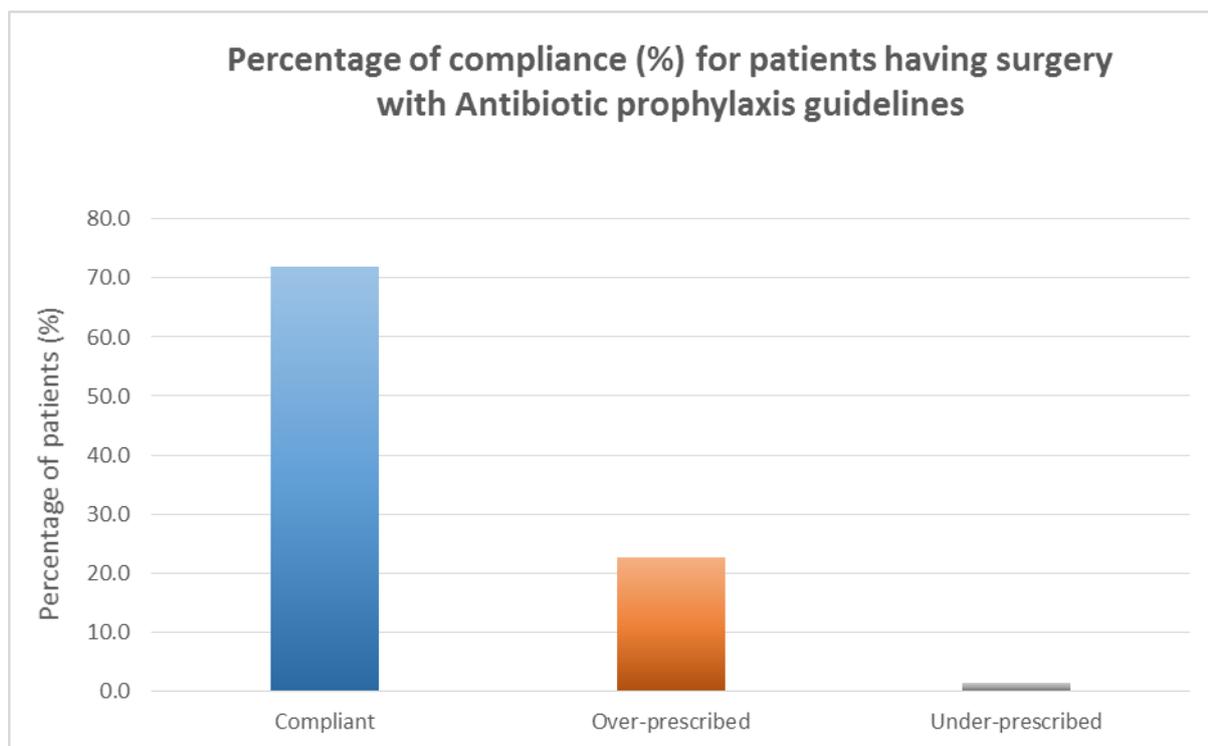


Figure 1: graph representing the percentage of patients (%) on or not on antibiotic prophylaxis who were compliant, over-prescribed and under-prescribed for their surgery, including patients' surgery who had no guidelines to indicate need.

