Airedale
NHS Foundation Trust

Library Current Awareness Bulletin: Pharmacy – April 2022

This is a current awareness bulletin from the Library & Knowledge Services team at Airedale. If you have any comments or queries please let us know. Our contact details can be found on the final page of this bulletin.

Please note: This bulletin contains a selection of material and is not intended to be comprehensive. Professional judgement should be exercised when appraising the material. The Library & Knowledge Services team takes no responsibility for the content and accuracy of the information supplied.

Articles can be accessed from the links provided. An OpenAthens account may be required to access some of the articles.

To create your free account, please go to https://openathens.nice.org.uk/

Alerts/Guidance

Alerts and Recalls for Drugs and Medical Devices (GOV.UK)
View the March and April Alerts

Letters and medicine recalls sent to health professionals (GOV.UK)
View the February letters and alerts

NICE Guidance and Advice List – Latest Updates

Specialist Pharmacy Service – Latest Updates

Vaccination Information

COVID-19 vaccination programme
NHS England

COVID-19 vaccines and medicines: updates for March 2022
Medicines and Healthcare products Regulatory Agency

News

Asian stories: A celebration of South Asian pharmacists in the UK
InPharmacy (National Pharmacy Association), 22 Mar 2022

BBC News articles on the pharmaceutical industry
[Articles published by BBC News on the pharmaceutical industry are collected here.]

Free membership for refugee pharmacists from Ukraine
Royal Pharmaceutical Society, 04 Apr 2022

GPhC reinstates full revalidation requirements
General Pharmaceutical Council, 23 Mar 2022

HEE to offer specialist mental health training for pharmacists
National Health Executive, 24 Mar 2022

More pharmacies should do NHS Health Checks to help tackle obesity, says new study
InPharmacy (National Pharmacy Association), 15 Mar 2022

RPS warns of misleading reports of drug recall
Royal Pharmaceutical Society, 24 Mar 2022

Supporting information: people coming to Great Britain from Ukraine
General Pharmaceutical Council, 22 Mar 2022

Use of the title 'Consultant Pharmacist'
Royal Pharmaceutical Society, 31 Mar 2022

Reports

Hub and spoke dispensing (open consultation)
Department of Health & Social Care, 16 Mar 2022

Personalised prescribing: using pharmacogenomics to improve patient outcomes
The Royal College of Physicians and British Pharmacological Society joint working party, 29 Mar 2022

Community Pharmacy

Co-designing a community pharmacy pharmacogenomics testing service in the UK
Rendell T., Barnett J., Wright D.
BMC Health Services Research, vol.22(1)
March 2022
[**Introduction**: Pharmacogenomics (PGx) testing services have been delivered through community pharmacies across the globe, though not yet in the UK. This paper is reporting a focus group study, the first stage of a participatory co-design process to increase the chance of a successful implementation of a PGx service through community pharmacy in the UK. **Aim:** To identify the barriers and enablers to implementing a community pharmacy based PGx service in the UK. **Method:** Three focus groups were conducted with community pharmacists (n = 10), prescribers (n = 8) and patients (n = 8) in England. The focus groups were recorded, transcribed and thematically analysed using the Braun

and Clarke six phase reflexive thematic analysis approach. **Results:** The analysis identified five themes about PGx testing in community pharmacies: (1) In- principle receptiveness, (2) Appreciation of the benefits, (3) Lack of implementation resources (4) Ambiguity about implications for implementation and (5) Interprofessional relationship challenges. **Conclusion:** The identified enablers for implementation of a PGx service were at a macro health system strategic level; the concerns were more at a granular operational procedural level. Overall receptiveness was noted by all three participant groups, and both prescriber and pharmacist groups appreciated the potential benefits for patients and the healthcare system. Prior to implementation in the UK, there is a need to disambiguate health professional's concerns of the guidance, resources, and knowledge required to set up and deliver the service and to resolve patient concerns about the nature of genomics.]

Price versus clinical guidelines in primary care statin prescribing: a retrospective cohort study and cost simulation model.
De Zarate M.O., Mentzakis E., Fraser S.D., Roderick P., Rutter P. and Ornaghi C.
Journal of the Royal Society of Medicine, vol. 115(3), pp. 100-111
March 2022
[**Objective**: To investigate the relative impact of generic entry and National Institute for Health and Care Excellence clinical guidelines on prescribing using statins as an exemplar. **Design**: Retrospective analysis of statin prescribing in primary care and cost simulation model. **Setting**: Royal College of General Practitioners Research and Surveillance Centre (RCGP R&SC) database and Prescription Cost Analysis (PCA) database. **Participants**: New patients prescribed statins for the first time between July 2003 and September 2018. **Main Outcome Measures**: Shares of new patients prescribed one of the five statins available in the British National Formulary, and cost of prescribing statins to new and existing patients in primary care in England. **Results**: General trends of statin' prescriptions were largely driven by a decrease in acquisition costs triggered by patent expiration, preceding NICE guidelines which themselves did not seem to affect prescription trends. Significant heterogeneity is observed in the prescription of the most cost-effective statin across GPs. A cost simulation shows that, between 2004 and 2018, the NHS could have saved £2.8bn (around 40% of the £6.3bn spent on statins during this time) if all GP practices had prescribed only the most cost-effective treatment. **Conclusions**: There is potential for large savings for the NHS if new and, whenever possible, ongoing patients are promptly switched to the first medicine that becomes available as generic within a therapeutic class as long as it has similar efficacy to still-patented medicines.]

Education & Training

Cross-sector pre-registration trainee pharmacist placements in general practice across England: A qualitative study exploring the views of pre-registration trainees and education supervisors.
Hindi A.M.K., Willis S.C., and Schafheutle EI.
Health & Social Care in the Community
March 2022
[The Pharmacy Integration Fund commissioned 95 cross-sector pre-registration trainee pharmacist placements across England, which incorporated trainees spending 3-6 months in general practice (GP), whilst employed in hospital or community pharmacy. Delivery models varied (blocks or split weeks/days); trainees had pharmacist tutors at the employing/base (hospital/community pharmacy) organisation and in GP. This study aimed to evaluate implementation of cross-sector pre-registration placements, and to identify barriers and enablers of a "successful" placement that achieved its intended outcomes. A qualitative study was undertaken, using semi-structured interviews with triads/dyads of trainee and pharmacist tutors at base and/or GP site. Interviews explored trainees' and tutors' GP placement experiences, and the contribution of GP placements to achieving intended learning outcomes. Data were thematically analysed. Thirty-four interviews (14 trainees, 11 base tutors, 9 GP tutors) were completed in 11 study sites (5 GP/hospital; 6 GP/community pharmacy). GP placements were perceived as valuable and producing well-rounded pre-registration trainees with a good understanding of two settings. Key benefits of GP placements were trainees' ability to work within multidisciplinary teams, and improved clinical and consultation skills. Contingency planning/flexibility was important when setting up cross-sector placements. GP tutor supervision which supported a gradual transition from shadowing to more independent clinical practice with feedback was perceived as valuable. Good collaboration between tutors at the base and GP site ensured joined-up learning across settings. All participants considered 13 weeks in GP an appropriate minimum duration; community trainees preferred longer duration (26 weeks) for more opportunities for clinical and consultation skills learning. Base and GP

tutors would welcome clarity on which pre-registration competencies should be achieved in GP placements, which would also aid quality and consistency across providers. Findings from this study identified key attributes of a successful pre-registration cross-sector training experience. These findings can inform policy reforms including changes to initial education and training of pharmacists.]

Hospital Pharmacy

Clinical nutrition and the role of hospital pharmacist in the management of covid patient.
Villarini A., Antonini M., Teseo G., Ricci D., Cavaliere A., and Peverini M.
Clinical Nutrition ESPEN, vol. 48 pp. 17-20
April 2022
[The nutritional status of everyone represents a fundamental element to maintain a good health and it can be related to infectious agents in some disorders. Prevention, diagnosis and treatment of malnutrition should be included in the management of SARS-CoV-2 patients in order to improve both short- and long-term prognosis. In Covid patients the choice of route of administration for nutrition is closely related to respiratory autonomy. In subjects who are not mechanically ventilated or with non-invasive ventilation (NIV), spontaneous oral feeding is strongly indicated, while considering the patient's comorbidity, chewing ability and swallowing. If this is not possible or if it is not possible to meet the appropriate nutritional needs, it is necessary to resort to artificial nutrition (enteral or parenteral). Enteral nutrition (EN) is preferred to parenteral nutrition (PN) because it allows to maintain the trophism of the gastrointestinal tract, involving a lower risk of infectious complications and it is easier to manage. PN is usually used in patients in whom NE is not feasible, insufficient or contraindicated, or in patients with invasive total mechanical ventilation. Based on these considerations, it would be necessary to develop a targeted nutritional pathway in order to support the management of Covid patients. In the nutritional management of these patients, the role of the hospital pharmacists is fundamental. They collaborate with clinicians, nutritionist, dieticians and speech therapists to choose the most appropriate nutrition, based on the clinical characteristics of the patient and on the availability of nutritional formulations in the therapeutic guide.]

Hospital pharmacy response to COVID-19 at two UK teaching hospitals: a departmental review of actions implemented to inform future strategy.
Aston J., Singh I., Cheng C., and Considine A.
European Journal of Hospital Pharmacy, vol. 29(1) pp. e36-40
March 2022
[**Objectives**: To determine the views of pharmacy staff on a departmental response to wave 1 of the UK COVID-19 pandemic in order to inform a strategy for a second wave at two large UK National Health Service (NHS) hospitals. **Methods**: This study was undertaken at two large teaching hospitals in the UK. Pharmacy staff attended local departmental focus groups. Staff attendance included pharmacists, pharmacy technicians and pharmacy assistants representing all pharmacy services including aseptics, ward-based services, dispensary/distribution and procurement. Responses were transcribed and analysed using thematic analysis. **Results**: A total of 138 pharmacy staff attended the departmental focus groups. This study identified which pharmacy-related changes implemented in the first wave will be beneficial to take forward into a second wave. These included extending the hours of the pharmacy service to critical care, retaining the competence of pharmacists and pharmacy technicians redeployed to critical care during wave 1, development of standard operating procedures for changes in practice, delivering/posting of dispensed outpatient medication to patients' place of residence, maintenance of ward-based pharmacy services, use of the healthcare app PANDO to aid team communication, utilisation of remote-controlled drug ordering, deployment of a COVID-19 ward stocklist, procurement of ready-made bags/prefilled syringes of critical care medications, aligning the central intravenous additive service with critical care demand to reduce waste and establishment of a pharmacy response in line with the hospital's implementation plan. **Conclusions**: This study has provided a number of recommendations for how hospital pharmacy departments may respond to a global pandemic. These experiences derived from the pharmacy departments at two large UK NHS Trusts may be used by other healthcare providers to help inform the pharmacy response to a global pandemic.]

Implementation of a pharmacist-led transitional pharmaceutical care programme: Process evaluation of Medication Actions to Reduce hospital admissions through a collaboration between Community and Hospital pharmacists (MARCH)

En-Nasery-de Heer S., Uitvlugt E.B., Bet P.M., van den Bemt B.J.F., Alai A., van den Bemt P.M.L.A., Swart E.L. et al

Journal of Clinical Pharmacy and Therapeutics

March 2022

[**What Is Known and Objective**: The recently conducted Medication Actions to Reduce hospital admissions through a collaboration between Community and Hospital pharmacists (MARCH) transitional care programme, which aimed to test the effectiveness of a transitional care programme on the occurrence of ADEs post-discharge, did not show a significant effect. To clarify whether this non-significant effect was due to poor implementation or due to ineffectiveness of the intervention as such, a process evaluation was conducted. The aim of the study was to gain more insight into the implementation fidelity of MARCH. **Methods**: A mixed methods design and the modified Conceptual Framework for Implementation Fidelity was used. For evaluation, the implementation fidelity and moderating factors of four key MARCH intervention components (teach-back, the pharmaceutical discharge letter, the post-discharge home-visit and the transitional medication review) were assessed. Quantitative data were collected during and after the intervention. Qualitative data were collected using semi-structured interviews with MARCH healthcare professionals (community pharmacists, clinical pharmacists, pharmacy assistants and pharmaceutical consultants) and analysed using thematic analysis. **Results and Discussion**: Not all key intervention components were implemented as intended. Teach-back was not always performed. Moreover, 63% of the pharmaceutical discharge letters, 35% of the post-discharge home-visits and 44% of the transitional medication reviews were not conducted within their planned time frames. Training sessions, structured manuals and protocols with detailed descriptions facilitated implementation. Intervention complexity, time constraints and the multidisciplinary coordination were identified as barriers for the implementation. **What Is New and Conclusion**: Overall, the implementation fidelity was considered to be moderate. Not all key intervention components were carried out as planned. Therefore, the non-significant results of the MARCH programme on ADEs may at least partly be explained by poor implementation of the programme. To successfully implement transitional care programmes, healthcare professionals require full integration of these programmes in the standard work-flow including IT improvements as well as compensation for the time investment.]

Integration of clinical pharmacists into a heart failure clinic within a safety-net hospital.

Shah S.P., Dixit N.M., Mendoza K., Entabi R., Meymandi S., Balady-Bouziane N., and Chan P.

Journal of the American Pharmacists Association, vol. 62(2) pp. 575-579.e2

March-April 2022

[**Background**: Management of heart failure with reduced ejection fraction (HFrEF) requires timely initiation and up-titration of guideline-directed medical therapy (GDMT). In safety-net hospitals (SNHs), limited health care staff and resources make achievement of optimal medical therapy challenging. Recent studies have shown that medication titration performed by clinical pharmacists can improve outcomes in ambulatory management of HFrEF; however, the impact of these services within an SNH remains unknown. **Objective**: Determine the impact of integrating clinical pharmacists into a heart failure (HF) clinic on initiation and titration of GDMT within an SNH. **Methods**: We performed a single-center retrospective cohort study of patients with HFrEF treated in an ambulatory HF medication titration clinic within an SNH before and after clinical pharmacist integration. Primary outcomes included dose optimization rates of GDMT, time between clinic visits, and time to optimization of GDMT. Exploratory secondary outcomes were all-cause, HF, and cardiovascular acute care service utilization and all-cause, HF, and cardiovascular mortality before and after clinical pharmacist integration up to 6 months after initial clinic visit. **Results**: A total of 153 patients with HFrEF were treated. Baseline characteristics in the pre- and postintervention groups were comparable. After clinical pharmacist integration, there was a statistically significant improvement in optimization of renin-angiotensin-aldosterone system inhibitor or hydralazine-nitrate equivalent (82% vs. 94%, P = 0.02). Dose optimization rates of beta-blockers (90% vs. 83%, P = 0.22) and mineralocorticoid receptor antagonists (57% vs. 57%, P > 0.99) were unchanged. There was a statistically significant reduction in mean time between clinic visits (26 vs. 14 days, P < 0.001) and in mean time to optimization of GDMT (88 vs. 45 days, P = 0.002). All-cause mortality was reduced (13% vs. 2%, P = 0.01). **Conclusion**: In SNHs, where limited health care staff and resources present as barriers to timely initiation and titration of GDMT, integration of clinical pharmacists into HF clinics can serve as a practical solution.]

Interprofessional Collaboration between ICU Physicians, Staff Nurses, and Hospital Pharmacists Optimizes Antimicrobial Treatment and Improves Quality of Care and Economic Outcome.
Schmid S., Schlosser S., Gülow K., Pavel V., Müller M., and Kratzer A.
Antibiotics, vol. 11(3)
March 2022
[**Background**: Antibiotic resistance is a worldwide health threat. The WHO published a global strategic plan in 2001 to contain antimicrobial resistance. In the following year, a workshop identified crucial barriers to the implementation of the strategy, e.g., underdeveloped health infrastructures and the scarcity of valid data as well as a lack of implementation of antibiotic stewardship (ABS) programs in medical curricula. Here, we show that interprofessional learning and education can contribute to the optimization of antibiotic use and preserving antibiotic effectiveness. We have initiated interprofessional rounds on a medical intensive care unit (MICU) with a focus on gastroenterology, hepatology, infectious diseases, endocrinology, and liver transplantation. We integrated ICU physicians, hospital pharmacists, nursing staff, and medical students as well as students of pharmacy to broaden the rather technical concept of ABS with an interprofessional approach to conceptualize awareness and behavioral change in antibiotic prescription and use. **Methods**: Clinical performance data and consumption figures for antibiotics were analyzed over a 10-year period from 2012 to 2021. The control period covered the years 2012-2014. The intervention period comprised the years 2015-2021, following the implementation of an interprofessional approach to ABS at a MICU of a German university hospital. Data from the hospital pharmacy, hospital administration, and hospital information system were included in the analyses. A specific electronic platform was developed for the optimization of documentation, interprofessional learning, education, and sustainability. The years 2020 and 2021 were analyzed independently due to the SARS-CoV-2 pandemic and the care of numerous COVID-19 patients at the MICU. **Results**: Implementation of an interprofessional ABS program resulted in the optimization of antibiotic management at the MICU. The suggestions of the hospital pharmacist for optimization can be divided into the following categories (i) indication for and selection of therapy (43.6%), (ii) optimization of dosing (27.6%), (iii) drug interactions (9.4%), (iv) side effects (4.1%), and (v) other pharmacokinetic, pharmacodynamic, and pharmacoeconomic topics (15.3%). These suggestions were discussed among the interprofessional team at the MICU; 86.1% were consequently implemented and the prescription of antibiotics was changed. In addition, further analysis of the intensive care German Diagnosis Related Groups (G-DRGs) showed that the case mix points increased significantly by 31.6% during the period under review. Accordingly, the severity of illness of the patients treated at the ICU as measured by the Simplified Acute Physiology Score (SAPS) II increased by 21.4% and the proportion of mechanically ventilated patients exceeded 50%. Antibiotic spending per case mix point was calculated. While spending was EUR 60.22 per case mix point in 2015, this was reduced by 42.9% to EUR 34.37 per case mix point by 2019, following the implementation of the interprofessional ABS program on the MICU. Through close interprofessional collaboration between physicians, hospital pharmacists, and staff nurses, the consumption of broad-spectrum antibiotics, e.g., carbapenems, was significantly reduced, thus improving patient care. In parallel, the case mix and case mix index increased. Thus, the responsible use of resources and high-performance medicine are not contradictory. In our view, close interprofessional and interdisciplinary collaboration between physicians, pharmacists, and nursing staff will be of outstanding importance in the future to prepare health care professionals for global health care to ensure that the effectiveness of our antibiotics is preserved.]

Medication not accounted for in hospital electronic medication administration records: a retrospective observational study.
Walker K., Harding A.M., Tran J., Wembridge P., Garrett K., MacMillan K., Rofe O., Jones N., and Taylor D.
The Medical Journal of Australia, vol. 216(5) pp. 248-254
March 2022
[**Objective**: To determine the nature, extent, and cost of discrepancies between the quantities of medications supplied to medical departments and administered to patients in public hospitals. **Design**: Multicentre, retrospective observational study; analysis of electronic pharmacy drug management system (medication supply) and medication administration data for twenty frequently used medications. **Setting, Participants**: Medical, surgical, and emergency department (ED) wards in each of four public hospitals in Melbourne, Victoria, during the 2019 calendar year. **Main Outcome Measures**: Discrepancy between the quantity of medication supplied and administered to patients (as proportion of medication supplied), overall and by hospital and ward type; direct cost to the hospitals of the discrepancies. **Results**: The overall discrepancy rate (all medications, hospitals, ward types) was 19.2% (95% CI, 19.0-19.4%); overall rates by hospital ranged from 5.8% (95% CI, 5.7-5.9%) to 26.7% (95% CI, 26.6-26.9%). The discrepancies were largest for medications useful for self-treatment: oral antibiotics (eg, phenoxymethylpenicillin

250 mg capsule, 86.8%; 95% CI, 83.1-89.9%) and gastrointestinal medications (eg, ondansetron 4 mg tablet, 53.3%; 95% CI, 52.9-53.7%). Discrepancies were larger for oral than equivalent (or similar) parenteral formulations; they were generally low for controlled medications (temazepam, diazepam, oxycodone). Overall discrepancies were larger for EDs (32.3%; 95% CI, 32.2-32.5%) than for admitted patient wards, but differed between EDs (range: 25.7%; 95% CI, 25.5-26.0% to 39.5%; 95% CI, 39.2-39.7%). The estimated direct cost to hospitals of the discrepancies for the selected medications was $27 800. **Conclusion**: Substantial quantities of medications supplied to hospital wards and EDs are not accounted for in electronic administration records.]

Potential impact of national recommendations to use short course antibiotic therapy on antibiotic use in the emergency department of a UK hospital: retrospective observational study.
Powell N., Wade L., Iqbal-Elahi R., McDonald C., Philips R., Owens R., Amir A., Cho S., Nampa T., Lim D., Tai K. et al
European Journal of Hospital Pharmacy, vol. 29(2) pp. 72-78
[**Background and Importance**: The National Institute for Health and Care Excellence (NICE) antimicrobial prescribing guidelines for common infections recommend short course antimicrobial therapy in order to reduce antibiotic associated harm. **Objective**: To quantify the opportunity to reduce antibiotic use in an emergency department (ED) through adoption of these short antibiotic course recommendations. **Design, Settings and Participants**: A retrospective observational study in an ED in the UK with 95 000 attendances a year. Patients managed in the ED between 1 December and 31 December 2019 with the following infections were identified: acute otitis media, human and animal bites, pyelonephritis, lower urinary tract infections, cellulitis, cough, infective exacerbation of chronic obstructive pulmonary disease, pneumonia, sore throat, sinusitis, and diverticulitis.
Outcome Measure: Excess antibiotic use due to either a protracted course length, or not meeting criteria for antibiotics. **Results**: 395 patients (260 adults and 135 children) were identified. Of the 1215 days of antibiotic therapy, 198 (16%) were excess because of protracted course lengths. In terms of antibiotic defined daily doses (DDD), there were 1201.5 antibiotic DDD prescribed, of which 232 (19%) DDD were excess because of protracted course lengths. If both protracted courses and unnecessary antibiotic use were included, then 321 (27%) DDD were excess. Excess antibiotic use and total antibiotic use by infection group were: 123/546 (23%) DDD in lower respiratory tract infection, 46/59 (79%) in upper respiratory tract infection, 44/231 (19%) in upper and lower urinary tract infection, 0/113 (0%) cellulitis, 77/180 (43%) bites, and 30/40 (75%) diverticulitis. Excess antibiotic use, as a proportion of all antibiotic use in the ED, was 321/4291 (7.5%) DDD, and of whole hospital antibiotic use, the ED's excess use was 321/33 566 (0.96%). **Conclusion**: Adoption of NICE antibiotic prescribing guidelines for common infections has the potential to reduce total antibiotic use in the ED by 7.5% and contribute to the hospital-wide antibiotic stewardship programme.]

What influences the implementation and sustainability of antibiotic stewardship programmes in hospitals? A qualitative study of antibiotic pharmacists' perspectives across South West England
Monmaturapoj T., Scott J., Smith P., Watson M.C.
European Journal of Hospital Pharmacy, vol. 29(1)
March 2022
[**Objectives**: Antibiotic stewardship programmes (ASPs) are needed at every hospital as they can improve antibiotic use and address antibiotic resistance. Pharmacists are key agents and specialists in these programmes. This study explored antibiotic pharmacists' perceptions of factors that influence the implementation and sustainability of hospital-based ASPs. **Methods**: Semistructured interviews were conducted with hospital antibiotic pharmacists face-to-face or by telephone. NVivo V.12 software was used to collate and organise the data grouped within codes. Thematic analysis was undertaken using inductive and deductive approaches to produce overarching themes.
Results: Thirteen pharmacists from 13 hospitals were interviewed. Four main themes were identified: (1) 'organisational culture' which highlighted the importance of strong local clinical leadership to help achieve organisational buy-in and address resistance among physicians or clinical hierarchies; (2) 'national influences' including networks, guidance and incentive schemes which were considered to be a driver to bring about changes across organisation; (3) 'continuous monitoring with feedback ASP data, preferably through direct communication' to demonstrate the impact of the programmes which then facilitated ongoing support from local leadership and improved engagement across organisation; and (4) 'resources' which indicated the need of information technology and dedicated personnel with protected time to support ASP activities. **Conclusions**: Interventions and strategies should operate at different levels; individual, team, organisational and national-to help implement and sustain ASPs in hospital. This is also the first study to identify and highlight the importance of national initiatives in contributing to the implementation and sustainability of hospital-based ASPs.]

Medication Reconciliation

Clinical and economic impact of medication reconciliation by designated ward pharmacists in a hospitalist-managed acute medical unit.
Park B., Baek A., Kim Y., Suh Y., Lee J., Lee E., Lee J.Y., Lee E., Lee J., Park H.S., Kim E.S., Lim Y., Kim N.H., Ohn J.H. et al
Research in Social & Administrative Pharmacy, vol. 18(4) pp. 2683-2690
April 2022
[**Background**: Minimizing unintended medication errors after admission is a common goal for clinical pharmacists and hospitalists. **Objective**: We assessed the clinical and economic impact of a medication reconciliation service in a model of designated ward pharmacists working in a hospitalist-managed acute medical unit as part of a multidisciplinary team. **Methods**: In this retrospective observational study, we compared pharmacist intervention records before and after the implementation of a medication reconciliation service by designated pharmacists. The frequency and type of intervention were assessed and their clinical impact was estimated according to the length of hospital stay and 30-day readmission rate. A cost analysis was performed using the average hourly salary of a pharmacist, cost of interventions (time spent on interventions), and cost avoidance (avoided costs generated by interventions). **Results**: After the implementation of the medication reconciliation service, the frequency of pharmacist interventions increased from 3.9% to 22.1% ($p < 0.001$). Intervention types were also more diverse than those before the implementation. The most common interventions included identifying medication discrepancies between pre-admission and hospitalization (22.7%) and potentially inappropriate medication use in the elderly (13.1%). The median length of hospital stay decreased from 9.6 to 8.9 days ($p = 0.024$); the 30-day readmission rate declined significantly from 7.8% to 4.8% ($p = 0.046$). Over two-thirds of interventions accepted by hospitalists were considered clinically significant or greater in severity. The cost difference between avoided cost and cost of interventions was 9838.58 USD in total or 1967.72 USD per month. **Conclusions**: The implementation of a designated pharmacist-led medication reconciliation service had a positive clinical and economic impact in our hospitalist unit.]

Inpatient pharmacists using a readmission risk model in supporting discharge medication reconciliation to reduce unplanned hospital readmissions: a quality improvement intervention
Gallagher D., Greenland M., Lindquist D., Sadolf L., Scully C., Knutsen K., Zhao C., Goldstein B.A., and Burgess L.
BMJ Open Quality, vol. 11(1)
March 2022
[**Introduction**: Reducing unplanned hospital readmissions is an important priority for all hospitals and health systems. Hospital discharge can be complicated by discrepancies in the medication reconciliation and/or prescribing processes. Clinical pharmacist involvement in the medication reconciliation process at discharge can help prevent these discrepancies and possibly reduce unplanned hospital readmissions. **Methods**: We report the results of our quality improvement intervention at Duke University Hospital, in which pharmacists were involved in the discharge medication reconciliation process on select high-risk general medicine patients over 2 years (2018-2020). Pharmacists performed traditional discharge medication reconciliation which included a review of medications for clinical appropriateness and affordability. A total of 1569 patients were identified as high risk for hospital readmission using the Epic readmission risk model and had a clinical pharmacist review the discharge medication reconciliation. **Results**: This intervention was associated with a significantly lower 7-day readmission rate in patients who scored high risk for readmission and received pharmacist support in discharge medication reconciliation versus those patients who did not receive pharmacist support (5.8% vs 7.6%). There was no effect on readmission rates of 14 or 30 days. The clinical pharmacists had at least one intervention on 67% of patients reviewed and averaged 1.75 interventions per patient. **Conclusion**: This quality improvement study showed that having clinical pharmacists intervene in the discharge medication reconciliation process in patients identified as high risk for readmission is associated with lower unplanned readmission rates at 7 days. The interventions by pharmacists were significant and well received by ordering providers. This study highlights the important role of a clinical pharmacist in the discharge medication reconciliation process.]

Staff Wellbeing

"I'm at breaking point"; Exploring pharmacists' resilience, coping and burnout during the COVID-19 pandemic.
Langran C., Mantzourani E., Hughes L., Hall K., and Willis S.
Exploratory Research in Clinical and Social Pharmacy, vol. 5
March 2022

[**Background**: There is a lack of evidence on how the multimodal dynamic process of resilience has impacted personal adaptation of frontline healthcare professionals, working under extreme pressure during the COVID-19 global pandemic. **Objectives**: To explore resilience, burnout and wellbeing for UK pharmacists in patient-facing roles, including individual and organisational factors that align to the ABC-X theoretical model of the dynamic process of resilience. **Methods**: A non-experimental pragmatist research design was adopted, with a cross-sectional online survey distributed via social media and professional networks between June and July 2020. Quantitative data aligned to a positivist research paradigm was collected using validated scores, to statistically analyse wellbeing, burnout and resilience. Qualitative textual data, consistent with an interpretivist research paradigm, were analysed following an inductive thematic approach. **Results**: A total of 199 surveys from pharmacists working within community, hospital and GP sectors were analysed. Wellbeing scores were strongly correlated to resilience scores. Wellbeing and resilience scores were both inversely correlated with burnout scores. Two-thirds of participants were classified as high-risk within the burnout scales. Key stressors were highlighted by participants, who described how individual resources and perceptions shaped their experience, which overall contributed to their burnout. Organisations that supported pharmacists embraced change and quickly adopted new ways of working, such as teleconsultations, flexible and remote working, redesign of workflow, alongside clear guidance. However, there was also reported frustration at lack of, slow or conflicting guidance from employers. **Conclusions**: This study adds to the growing evidence base for how individuals are affected by adverse events in a dynamic environment, alongside the role that employers can play in supporting individual and organisational resilience. It provides an opportunity to learn from pharmacists' responses to the COVID-19 pandemic, and a call to action for healthcare organisations to rebuild and invest resources into sustained support for staff wellbeing.]

Airedale NHS Library

www.educationairedale.co.uk/library

✉ anhsft.library@nhs.net

☎ 01535 294412

Airedale General Hospital – Location B11

This bulletin is available online from the library website and contains links to the listed articles.