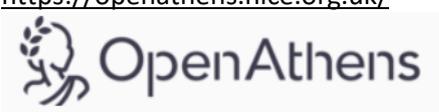# Library Current Awareness Bulletin: Pharmacy – March/April 2021

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.

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

Alerts

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

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

Guidance

NICE Guidance and Advice List – Latest Updates

Specialist Pharmacy Service – Latest Updates

Vaccination Information

COVID-19 vaccination programme
NHS England

Vaccination information from other organisations
NHS England

News

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

[Celebration of women in pharmacy](#)
Royal Pharmaceutical Society
March 2021
[Includes links to a new online exhibition from the RPS Museum, which tells the fascinating stories of women who helped create the profession we know today, as well as blogs and podcasts.]

[Foundation training year 2021/22](#)
General Pharmaceutical Council
March 2021
[The foundation training year will replace the current pre-registration training year from July 2021. These changes are part of the implementation of the new standards for the initial education and training of pharmacists published in January 2021.]

[GPhC to evaluate the impact of COVID-19 on provisionally registered pharmacists and pre-registration trainees](#)
General Pharmaceutical Council
March 2021
[The General Pharmaceutical Council has commissioned Keele University to research the impact of the COVID-19 pandemic on provisionally-registered pharmacists and pre-registration trainees.]

[Inclusive pharmacy practice will help us harness and appreciate more the benefits of our diversity](#)
NHS Blog, Dr Keith Ridge
March 2021
[Provides details of a Joint National Plan for Inclusive Pharmacy Practice. The plan sets out actions for pharmacy professional leaders and their teams at all levels and in all care settings to consider, including developing their understanding of the benefits of diverse teams and culturally competent healthcare service delivery; and ensuring the voices of colleagues from Black, Asian and Minority Ethnic backgrounds are fairly represented and equally heard in decision-making forums.]

[Tackling the challenges of nanomedicines: are we ready?](#)
American Journal of Health-System Pharmacy
February 2021
[This review provides an overview of the proceedings of the symposium "Tackling the Challenges of Nanomedicines: Are We ready?" organized by the International Pharmaceutical Federation (FIP) Hospital Pharmacy Section and Non-Biological Complex Drugs (NBCDs) Working Group at the 2019 FIP World Congress of Pharmacy and Pharmaceutical Sciences.]

Community Pharmacy

[Effectiveness of a medication adherence management intervention in a community pharmacy setting: a cluster randomised controlled trial.](#)
Torres-Robles A., Benrimoj S.I., Gastelurrutia M.A., Martinez-Martinez F., Peiro T., Perez-Escamilla, B. et al
BMJ Quality & Safety
March 2021
[**Background**: Non-adherence to medications continues to be a burden worldwide, with significant negative consequences. Community pharmacist interventions seem to be effective at improving medication adherence. However, more evidence is needed regarding their impact on disease-specific outcomes. The aim was to evaluate the impact of a community pharmacist-led adherence management intervention on adherence and clinical outcomes in patients with hypertension, asthma and chronic obstructive pulmonary disease (COPD). **Methods**: A 6-month cluster randomised controlled trial was conducted in Spanish community pharmacies. Patients suffering from hypertension, asthma and COPD were recruited. Patients in the intervention group received a medication adherence

management intervention and the control group received usual care. The intervention was based on theoretical frameworks for changing patient behaviour. Medication adherence, disease-specific outcomes (Asthma Control Questionnaire (ACQ) scores, Clinical COPD Questionnaire (CCQ) scores and blood pressure levels) and disease control were evaluated. A multilevel regression model was used to analyse the data. **Results**: Ninety-eight pharmacies and 1186 patients were recruited, with 1038 patients completing the study. Patients receiving the intervention had an OR of 5.12 (95% CI 3.20 to 8.20, p<0.05) of being adherent after the 6 months. At the end of the study, patients in the intervention group had lower diastolic blood pressure levels (mean difference (MD) -2.88, 95% CI -5.33 to -0.43, p=0.02), lower CCQ scores (MD -0.50, 95% CI -0.82 to -0.18, p<0.05) and lower ACQ scores (MD -0.28, 95% CI -0.56 to 0.00, p<0.05) when compared with the control group. **Conclusions**: A community pharmacist-led medication adherence intervention was effective at improving medication adherence and clinical outcomes in patients suffering from hypertension, asthma and COPD. Future research should explore the implementation of these interventions in routine practice.]

[Evaluation of patients' knowledge about oral anticoagulant medicines and use of alert cards by community pharmacists](#).
Jani Y.H., Hirani B., and Livingstone C.
International Journal of Clinical Pharmacy, vol. 43 (1) pp. 203-211
February 2021
[**Background**: Anticoagulants continue to pose high risk of harm to patients despite the discovery of novel direct-acting oral anticoagulant agents that require less monitoring than warfarin. **Objective**: To evaluate patients' knowledge about their oral anticoagulants and the potential role for community pharmacists in optimising safety. **Setting**: Community pharmacies in England. **Methods**: An online survey-based evaluation conducted over a 5-month period to ascertain patients' knowledge, use of anticoagulant alert cards, compliance with national monitoring requirements for warfarin, and frequency and nature of community pharmacist involvement in optimisation. Differences between patients on direct-acting oral anticoagulant agents and warfarin were assessed using Chi squared tests. Main outcome measure Patients' knowledge and use of anticoagulant alert cards. **Results** :A total of 1515 pharmacies participated. Of 22,624 patients, 97% knew that they were taking anticoagulants; 20% had alert cards with them at time of dispensing; 17% had no card and 10% refuted their usefulness. Patients on warfarin were more aware of interactions with over-the-counter or herbal medicines than those on direct-acting oral anticoagulant agents. Of the patients on warfarin, 82% confirmed monitoring in the previous 12 weeks in accordance with national standards, with the international normalised ratio value known for 76%. Pharmacists intervened in a fifth of the patients to issue an alert card, contact the general practitioner for a change in the prescription or due to interacting medicines. **Conclusion**: Patients had reasonable knowledge of their anticoagulation therapy, but areas for improvement were identified. Community pharmacists are well placed to optimise the safe use of anticoagulants.]

[Integration of a Virtual Dispensing Simulator "MyDispense" in an Experiential Education Program to Prepare Students for Community Introductory Pharmacy Practice Experience](#).
Johnson A.E., Barrack J., Fitzgerald, J.M., Sobieraj D.M., Holle L.M.
Pharmacy, vol. 9(1)
February 2021
[**Background**: Technology is increasingly used to enhance pharmacy education. We sought to evaluate student learning and preparedness for community introductory pharmacy practice experiences (IPPEs) after implementation of "MyDispense" into experiential education. **Methods**: Both first-year pharmacy students and assigned community IPPE preceptors were eligible. Students were stratified based on previous community pharmacy experience (< or ≥ 50 h), then randomized to complete MyDispense exercises before IPPE (group A) or after 24-32 h of IPPE (group B). We evaluated preceptors' assessment of student readiness using a 6-item Likert scale survey and students' readiness and opinion of MyDispense using an anonymous 9-item survey. Descriptive statistics were used to characterize data. The Mann-Whitney U test was used to compare groups and a p-value < 0.05 was considered statistically significant. **Results**: Of 177 eligible students, 155 were randomized and 56 completed study. Group A included 32 students; 56.3% had prior community practice experience. Group B included 24 students; 50% had prior community practice experience. Forty-eight preceptors were enrolled. Students who completed exercises before rotation received higher

preceptor scores for patient counseling of self-care and of medications ($p < 0.05$ for both). Students self-assessed their counseling skills lower than all other skills; 30.4% and 42.9% of students felt mostly or always prepared to counsel for self-care and medications, respectively. Students found MyDispense straightforward, realistic, and appreciated the ability to practice in a safe, electronic, community pharmacy, patient-care environment. **Conclusion**: Simulation-based software, such as MyDispense, can enhance learner understanding of the prescription fill and counseling process in a community pharmacy practice setting.]

[Mind the gap: Examining work-as-imagined and work-as-done when dispensing medication in the community pharmacy setting](#).
Ashour A., Ashcroft D.M, and Phipps, D.L.
Applied Ergonomics, vol. 93
May 2021
[Reducing errors within a healthcare setting remains high on the patient safety research agenda. More consistent performance has been sought by increased development of standardised operating procedures, but they are not always adhered to in practice. Previous studies have identified that a difference exists between the way a task is imagined to be completed, based on standardised protocols and procedures, and how the task is actually completed in reality. This study explores one area of healthcare, community pharmacy, and more specifically the task of dispensing medicines from prescriptions, to identify the gap between how dispensing is imagined to be completed through standardised operating procedures, and how it is actually completed in practice, by using Hierarchical Task Analysis as a framework. Document analysis of standardised operating procedures in 3 community pharmacies was used to produce 3 task analyses, which were compared with 3 task analyses produced from data collected through non-participant observations of the same 3 community pharmacies. Deviations between the two forms of task analyses were presented to community pharmacists in focus group discussions and it was found staff may deviate from standardised protocols because of various reasons, including: efficiency; availability of resources; thoroughness; and delegating safeguards. Potential implications for the work system include the benefit of greater collaboration between procedure writers and frontline workers, and the introduction of more flexible procedures, that allow the risks of any adaptions to be clearly realised. Further work must establish whether pharmacists recognise the safety implications of these gaps between work as imagined, and work as done, and initiatives should be established to ensure patient safety is not compromised due to these differences.]

[Patient and public perception and experience of community pharmacy services post-discharge in the UK: a rapid review and qualitative study](#).
Khayyat, Sarah; Walters, Philippa; Whittlesea, Cate; Nazar, Hamde
BMJ Open, vol. 11(3)
March 2021
[**Objectives**: To investigate the perception and experience of patients and the public (PP) about community pharmacy (CP) services and other primary care services after hospital discharge back home. **Design and setting**: A rapid review and qualitative study exploring PP perceptions of primary care, focusing on CP services in the UK. **Methods**: A mixed-methods approach was adopted including a rapid review undertaken between 24 April and 8 May 2019 across four databases (MEDLINE, EMBASE, PsycINFO and CINAHL). Semistructured interviews were then conducted investigating for shifts in current PP perception, but also nuanced opinion pertaining to CP services. A convenience sampling technique was used through two online PP groups for recruitment. Thematic framework analysis was applied to interview transcripts. **Participants**: Any consenting adults ≥18 years old were invited regardless of their medical condition, and whether they had used post-discharge services or not. **Results**: Twenty-five studies met the inclusion criteria. Patients were generally supportive and satisfied with primary care services. However, some barriers to the use of these services included: resource limitations; poor communication between healthcare providers or between patient and healthcare providers; and patients' lack of awareness of available services. From the 11 interviewees, there was a lack of awareness of CP post-discharge services. Nevertheless, there was general appreciation of the benefit of CP services to patients, professionals and wider healthcare system. Potential barriers to uptake and use included: accessibility, resource availability, lack of awareness, and privacy and confidentiality issues related to information-sharing. Several participants felt the uptake of such services should be

improved. **Conclusion**: There was alignment between the review and qualitative study about high patient acceptance, appreciation and satisfaction with primary care services post-discharge. Barriers to the use of CP post-discharge services identified from interviews resonated with the existing literature; this is despite developments in pharmacy practice in recent times towards clinical and public health services.]

[Quality improvement in community pharmacy: a qualitative investigation of the impact of a postgraduate quality improvement educational module on pharmacists understanding and practice](#).
Latif A., Gulzar N., Gohil S., Ansong T.
The International Journal of Pharmacy Practice, vol. 29 (1) pp. 84-89
February 2021
[**Objective**: Quality improvement (QI) is increasingly featuring in the United Kingdom (UK) National Health Service (NHS) agenda to promote safety, effectiveness and patient experience. However, the use of QI techniques by healthcare professionals appears limited and constrained with only isolated examples of good practice. This study explores QI within the pharmacy context. Focusing on the community pharmacy 'Healthy Living Pharmacy scheme', this study aims to explore changes in QI understanding resulting from a postgraduate QI educational intervention. **Methods**: Four focus groups were held involving 13 community pharmacists enrolled onto a newly developed postgraduate QI educational module. Two focus groups were held before and two after the module's completion. Knowledge of QI and practical applications following the learning was explored. **Key Findings**: Three themes emerged: pharmacists' motivation for learning about QI, conceptual understanding and translation into practice. Pharmacists expressed positive views about learning new skills but expressed logistical concerns about how they would accommodate the extra learning. Prior knowledge of QI was found to be lacking and its application in practice ineffectual. Following completion of the QI module, significant improvements in comprehension and application were seen. Pharmacists considered it too soon to make an assessment on patient outcomes as their improvements required time to effectively embed changes in practice. **Conclusions**: Quality improvement forms an important part of the NHS quality and safety agenda; however, community pharmacists may not currently have adequate knowledge of QI principles. The postgraduate educational intervention showed promising results in pharmacist's knowledge, organisational culture and application in practice.]

[Systematic review of pragmatic randomised control trials assessing the effectiveness of professional pharmacy services in community pharmacies](#).
Varas-Doval R., Saéz-Benito L., Gastelurrutia M.A., Benrimoj S.I., Garcia-Cardenas V., Martinez-Martínez F.
BMC Health Services Research, vol. 21(1) p. 156
February 2021
[**Background**: Implementation of Professional Pharmacy Services (PPSs) requires a demonstration of the service's impact (efficacy) and its effectiveness. Several systematic reviews and randomised controlled trials (RCT) have shown the efficacy of PPSs in patient's outcomes in community pharmacy. There is, however, a need to determine the level of evidence on the effectiveness of PPSs in daily practice by means of pragmatic trials. To identify and analyse pragmatic RCTs that measure the effectiveness of PPSs in clinical, economic and humanistic outcomes in the community pharmacy setting. **Methods**: A systematic search was undertaken in MEDLINE, EMBASE, the Cochrane Library and SCIELO. The search was performed on January 31, 2020. Papers were assessed against the following inclusion criteria (1) The intervention could be defined as a PPS; (2) Undertaken in a community pharmacy setting; (3) Was an original paper; (4) Reported quantitative measures of at least one health outcome indicator (ECHO model); (5) The design was considered as a pragmatic RCT, that is, it fulfilled 3 predefined attributes. External validity was analyzed with PRECIS- 2 tool. **Results**: The search strategy retrieved 1,587 papers. A total of 12 pragmatic RCTs assessing 5 different types of PPSs were included. Nine out of the 12 papers showed positive statistically significant differences in one or more of the primary outcomes (clinical, economic or humanistic) that could be associated with the following PPS: Smoking cessation, Dispensing/Adherence service, Independent prescribing and MTM. No paper reported on cost-effectiveness outcomes. **Conclusions**: There is limited available evidence on the effectiveness of community-based PPS. Pragmatic RCTs to evaluate clinical, humanistic and economic outcomes of PPS are needed.]

[The role of non-technical skills in community pharmacy practice: an exploratory review of the literature](#).
Ashour A., Phipps D.L., Ashcroft D.M.
The International Journal of Pharmacy Practice
February 2021

[**Background**: Non-technical skills (NTS) are the cognitive and social skills that complement technical skills in safe and efficient practice, and include leadership, teamwork, task management, decision-making and situation awareness. Other areas within healthcare have heavily invested in producing taxonomies to aid training and assessment of NTS within their disciplines, and have found them to be essential for improving patient safety. In pharmacy, no validated taxonomy has been produced, nor has the existing literature been appraised to aid the future development of a validated taxonomy. **Objective(S)** To examine the literature on NTS within a community pharmacy setting and establish the research conducted thus far on each NTS and how they are applied by community pharmacists. **Methods**: A literature search of six electronic databases (EMBASE, PsychINFO, Medline, SCOPUS, CINAHL Plus and HMIC) using the generic list of NTS identified in previous studies. Only empirical studies were included. Examples of behaviours or skills were extracted and categorised within each NTS. **Key Findings**: Seventeen studies were identified that contained one or more examples of NTS specific to community pharmacy practice. Altogether, 16 elements were extracted. Four elements were identified within leadership and task management. A further three were identified within situation awareness and decision-making, and a final two within teamwork and communication. **Conclusion**: A framework consisting of the skills and how they're applied has been presented which describe the NTS required by community pharmacists from the published literature. This framework can provide a foundation for further investigation into NTS use within pharmacy practice.]

[Understanding the impact of a new pharmacy sore throat test and treat service on patient experience: A survey study](#)
Mantzourani E., Cannings-John R., Evans A., Ahmed H., Meudell A., Hill I., Williams E., Way C., Hood K. et al
Research in social & administrative pharmacy, vol. 17(5) pp. 969-977
May 2021

[**Background**: A pilot of the first NHS funded Sore Throat Test and Treat (STTT) service in the United Kingdom began in selected community pharmacies in Wales in November 2018. The aim of this research was to explore whether a pharmacist delivering consultation for sore throat that included clinical scoring and point-of-care testing was acceptable to patients and how this might influence future health-seeking behaviour. **Methods**: A non-experimental design was employed using a survey research tool including a mix of closed and open questions. The patient experience survey was distributed to all patients who had completed a consultation between November 2018 and May 2019. Data from completed surveys were entered in Jisc Online Surveys® and exported to Excel® for descriptive statistics. Free-text comments were analysed using content and inductive thematic analysis. **Results**: A total of 510 surveys were received (n = 2,839 total consultations, response rate 18%). Overall, 501 patients (98%) were satisfied with the service. Patients' confidence in managing their condition and service satisfaction was not dependent on having been supplied antibiotics. After the service, 504 patients (99%) stated that they would return to the pharmacy for subsequent sore throat symptoms. Three themes were constructed after inductive analysis of free-text comments (n = 242): convenience and accessibility; professionalism of pharmacy team; and perceived value of the service. **Conclusions**: Results confirmed high levels of patient satisfaction with the new service, its delivery and the choice of options offered for sore throat symptom management. Whilst this research can only discuss patients' reported future behaviour, the patient-reported stated intentions signify a potential shift in health-seeking behaviour towards a pharmacist-led service. This has important implications in supporting the long-term plan of the governments in Wales and England to redirect management of uncomplicated conditions from GPs to pharmacies.]

Hospital Pharmacy

[A practitioner behaviour change intervention for deprescribing in the hospital setting](#).
Scott S., May H., Patel M., Wright D.J., Bhattacharya D.
Age and Ageing, vol. 50(2) pp. 581-586
February 2021

[**Background**: Hospital deprescribing trials have demonstrated marginal increases in deprescribing activity that are not sustained beyond the trial period. The hospital deprescribing implementation framework (hDIF) links barriers and enablers of deprescribing in hospital with 44 potential intervention components. This study aimed to support geriatricians and pharmacists to select and characterise hDIF components according to affordability, practicability,

effectiveness, acceptability, safety and equity (APEASE) to design a deprescribing intervention in the English hospital setting. **Methods**: we convened a modified Nominal Group Technique with a panel of nine geriatricians and pharmacists representing five English hospitals. Panel members selected and characterised intervention components from the hDIF based on the APEASE criteria. We set a consensus threshold of 80% agreement per APEASE criterion in order for the intervention component to be included. **Results**: the panel selected five intervention components supporting engagement with deprescribing: an organisational action plan to prioritise deprescribing, two training activities to address pharmacists' beliefs about negative deprescribing consequences, restructuring pharmacists' working patterns to facilitate their contribution to deprescribing decisions, and sharing experiences of successfully engaging patients/family in deprescribing conversations to support others to do the same. A sixth component was selected to sustain engagement with deprescribing through measuring and sharing deprescribing activity achieved between teams. **Conclusions**: deprescribing interventions targeting geriatricians' and pharmacists' behaviour in the English hospital context should include the six characterised components. A component to sustain deprescribing activity is a notable omission from previously reported deprescribing interventions and may explain their failure to maintain efficacy beyond the short-term trial period.]

Adopting a systems thinking approach to investigate the implementation and provision of a pharmacist-led post-discharge domiciliary medicines review service.
Nazar H. and Nazar Z.
Research in social & administrative pharmacy, vol. 17(4) pp. 808-815
April 2021
[**Background**: Intervention planners need to be sufficiently cognisant of the health system landscape to facilitate embedding, adoption and diffusion of new services. Pharmacist-led transfer of care initiatives from hospital to community have been developed to address a health system flaw: patient hospital readmissions. A hospital in England partnered with a chain of community pharmacies establishing a domiciliary pharmacist medicines use review service (DMRS) for discharged patients to reduce hospital readmissions. **Objectives**: We adopt a systems thinking approach to understand the adoption and diffusion of the service by investigating the perceptions of hospital and community pharmacy staff. The experience of a role swap between these settings is investigated to probe further system factors influencing service provision. **Methods**: Semi-structured interviews informed by a conceptual model for the diffusion, dissemination and implementation of innovations, were conducted with hospital and community pharmacy staff between Oct-Dec 2016. Interviews were audio-recorded with consent, transcribed verbatim and a combination of inductive and deductive thematic analysis was used. **Results**: Four each of hospital and community pharmacy staff were interviewed and four hospital staff were interviewed after the role swap. Staff indicated barriers and facilitators thematically related to organisational and individual-level components of a conceptual model about service diffusion and implementation. The role swap appeared to address the lack of a feedback loop, which was limiting engagement of hospital staff. The role swap led to improved trust and shared goals between the healthcare sectors and increased appreciation and self-efficacy of the hospital staff role. **Conclusions**: A systems thinking lens offered the opportunity to investigate the wider healthcare system within which the DMRS was being provided. The role swap aligned to the principles of participatory design of an intervention to facilitate successful adoption and diffusion and contribute to more insightful evaluation about the process and context of service implementation.]

Analysis of clinical pharmacist interventions in the COVID-19 units of a French university hospital.
Perez M., Masse M., Deldicque A., Beuscart J., Baptiste D-G., Pascal D., Jacques F., Stéphanie M., Elodie O. et al
European journal of hospital pharmacy : science and practice
March 2021
[**Objectives**: The objectives were to compare clinical pharmacist interventions between two care groups: COVID-19-positive and COVID-19-negative patients, and to identify drugs that require particular attention, especially those involved in COVID-19 management. **Methods**: A prospective cohort study was conducted on patients with positive and negative COVID-19 statuses admitted to Lille University Hospital over 1 month. Pharmaceutical analysis instigated interventions to rectify drug-related errors. For each pharmaceutical intervention (PI), the anatomical therapeutic chemical classification of the drug and the outcome of such an intervention were specified. **Results**: The study included 438 patients. Prescription analysis led to 188 PIs performed on 118 patients (64 COVID-19-positive patients and 54 COVID-19-negative patients). Most drug-related problems were incorrect dosage representing 36.7% (69/188) of all interventions: 27.9% (29/104) for the COVID-19-positive group and 47.6% (40/84) for the COVID-19-negative group. The most frequent PI in 34% (64/188) of cases was terminating a drug: 27.9% (29/104) for the

COVID-19-positive group and 47.6% (40/84) for the COVID-19-negative group. The main drug classes involved were antithrombotic agents (20.7%, 39/188), antibacterials for systemic use (13.8%, 26/188) and drugs for gastric acid-related disorders (6.4%, 12/188). Study population was limited to a single centre over 1 month. **Conclusion**: No difference in PI was noted between the two groups. The presence of pharmacists led to a reduction in drug-related prescription problems, especially for antithrombotic and antibacterial drugs for both groups. Clinical pharmacy commitment in such a pandemic is therefore important.]

Pharmacy professionals' views regarding the future of NHS patient medicines helpline services: a multimethod qualitative study.
Williams M., Jordan A., Scott J., Jones M.D.
BMC Health Services Research, vol. 21 (no. 1)
February 2021
[**Background**: Patient medicines helpline services (PMHS) have been established at some National Health Service (NHS) hospitals, to provide patients with post-discharge medicines-related support. However, findings suggest that many PMHS are provided sub-optimally due to a lack of resources. This study sought to examine pharmacy professionals' perceptions of the future of PMHS. **Methods**: Participants comprised pharmacy professionals from NHS Trusts in England that provided a PMHS. Invitations to participate in a qualitative survey and then an interview were sent to pharmacy services at all NHS Trusts that provided a PMHS. This resulted in 100 survey participants and 34 interview participants. Data were analysed using Braun and Clarke's inductive reflexive thematic analysis. **Results**: Two themes were generated: Enhancing value for service users and improving efficiency. Enhancing value for service users identifies pharmacy professionals' suggestions for improving the value of PMHS for service users. These include providing access methods extending beyond the telephone, and providing patients/carers with post-discharge follow-up calls from a pharmacist to offer medicines-related support. Improving efficiency identifies that, in the future, and in line with NHS plans for efficiency and shared resources, PMHS may become centralised or provided by community pharmacies. Centralised services were considered to likely have more resources available to provide a patient medicines information service compared to hospital pharmacies. However, such a change was perceived to only increase efficiency if patient information can be shared between relevant healthcare settings. **Conclusions**: PMHS are perceived by pharmacy professionals as likely to become centralised in the future (i.e., provided regionally/nationally). However, such change is dependent upon the sharing of patients' information between hospitals and the centralised hub/s or pharmacies. To enhance the value of PMHS for service users, providers should consider establishing other methods of access, such as email and video consultation. Considering the uncertainty around the future of PMHS, research should establish the best way to support all patients and carers regarding medicines following hospital discharge.]

Medication Safety

'It's all about patient safety': an ethnographic study of how pharmacy staff construct medicines safety in the context of polypharmacy.
Fudge N. and Swinglehurst D.
BMJ Open, vol. 11(2)
February 2021
[**Objective**: As polypharmacy increases, so does the complexity of prescribing, dispensing and consuming medicines. Medication safety is typically framed as the avoidance of harm, achievable through adherence to policies, guidelines and operational standards. Automation, robotics and technologies are positioned as key players in the elimination of medication error in the face of escalating demand, despite limited research illuminating how these innovations are taken up, used and adapted in practice. We explore how 'safety' is constructed and accomplished in community pharmacies in the context of polypharmacy. **Design and setting**: In-depth ethnographic case study across four community pharmacies in England (December 2017-July 2019). Data collection entailed 140 hours participant observation and 19 in-depth interviews. Practice theory informed the analysis. **Participants**: 33 pharmacy staff (counter staff, technicians, dispensers, pharmacists). **Results**: In their working practices related to polypharmacy, staff used the term 'safety' in explanations of why and how they were doing things in particular ways. We present three interlinked analytic themes within an overarching narrative of care: caring for the technology; caring for each other; and caring for the patient. Our study revealed a paradox: polypharmacy was visible, pervasive and productive of numerous routines, but rarely discussed as a safety concern per se. Safety meant ensuring medicines were

dispensed as prescribed, and correcting errors pertaining to individual drugs through the clinical check. Pharmacy staff did not actively challenge polypharmacy, even when the volume of medicines dispensed might indicate 'high risk' polypharmacy, locating the responsibility for polypharmacy with prescribing clinicians. **Conclusion**: 'Safety' in the performance of practices relating to polypharmacy was not a fixed, defined notion, but an ongoing, collaborative accomplishment, emerging within an organisational narrative of 'care'. Despite meticulous attention to 'safety', carefully guarded professional boundaries meant that addressing polypharmacy per se in the context of community pharmacy was beyond reach.]

Application of Failure Mode and Effect Analysis (FMEA) to improve medication safety: a systematic review.
Anjalee J.A.L, Rutter V., Samaranayake N.R.
Postgraduate Medical Journal, vol. 97(1145) pp. 168-174
March 2021
[Medication safety is a phenomenon of interest in most healthcare settings worldwide. Failure Mode and Effect Analysis (FMEA) is a prospective method to identify failures. We systematically reviewed the application of FMEA in improving medication safety in the medication use process. Electronic databases were searched using keywords ((failure mode and effect analysis) AND (pharmacy OR hospital)). Articles that fulfilled prespecified inclusion criteria were selected and were then screened independently by two researchers. Studies fulfilling the inclusion criteria and cited in articles selected for the study were also included. Selected articles were then analysed according to specified objectives. Among 27,706 articles obtained initially, only 29 matched the inclusion criteria. After adding four cited articles, a total of 33 articles were analysed. FMEA was used to analyse both existing systems and new policies before implementing. All participants of FMEA reported that this process was an effective group activity to identify errors in the system, although time-consuming and subjective.]

Interventions to decrease the incidence of dispensing errors in hospital pharmacy: a systematic review and meta-analysis
Poole S.G., Kwong E., Mok B., Mulqueeny B., Yi M., Percival M.A., Marsom E.N., Duncan C., Graudins L.V.
Journal of Pharmacy Practice and Research, vol. 51(1) pp. 7-21
February 2021
[**Background**: Dispensing errors have the potential to cause significant patient harm. Strategies shown to improve the safety of medication dispensing have been widely published, however, there is an absence of literature comprehensively assessing the outcomes of these strategies. **Aim(s)**: To evaluate the effectiveness of interventions designed to decrease the rate of dispensing errors in hospital pharmacy dispensaries. **Method(s)**: A systematic review and meta-analysis of the peer reviewed literature were conducted. Medline, Embase, CENTRAL and CINAHL were searched to identify comparative studies that evaluated interventions designed to reduce the rate of dispensing errors in hospital pharmacy dispensaries. Data were extracted from eligible studies using a standardised data collection tool. Quality assessment was conducted using the Scottish Intercollegiate Guidelines Network Checklist-3. Meta-analysis was performed using a random effects model and presented as risk ratios (RR), with corresponding 95% confidence intervals (CI). **Result(s)**: Eleven studies were eligible for inclusion. Interventions included implementation of dispensing technologies, accredited technicians performing prescription verification, and addressing look-alike medications. Five studies detected dispensing errors during final verification (prevented or near-miss dispensing errors); five studies identified unprevented dispensing errors; one study evaluated both. There was a statistically significant reduction in the pooled rate of dispensing errors from 0.080% in the control group to 0.043% in the intervention group (rate difference 0.037%, 95% CI 0.033-0.042%). Meta-analysis demonstrated a 34% reduction in the risk of prevented dispensing errors (RR 0.66, 95% CI 0.46-0.93) and 68% reduction in the risk of unprevented dispensing errors (RR 0.32, 95% CI 0.24-0.43). **Conclusion(s)**: This is the first systematic review and meta-analysis of the impact of dispensing errors interventions. The results indicate that the implementation of the most effective interventions, such as appropriately trained staff and using technology, results in reductions in dispensing error rates.]

The pharmacist informatician: providing an innovative model of care during the COVID-19 crisis
Falconer N., Monaghan C., Snoswell C.L.
The International Journal of Pharmacy Practice, vol. 29(2) pp. 152-156
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[**Objectives**: The global coronavirus pandemic has expedited digitisation in every industry, especially healthcare, and has highlighted the potential for informatics pharmacists to provide valuable input into crisis management. Informatics pharmacists can combine their clinical and information technology skills to help provide essential patient safety services related to medication management, procurement and analytics. The objective of this study was to determine the key opportunities for a pharmacist informatician to improve patient care and outcomes during the COVID-19 pandemic. **Methods**: Fourteen expert informatics professionals involved in the provision of digital health in Queensland, Australia, were invited to participate in a brief semistructured interview. Transcripts were manually coded, through iterative readings of the text to identify participant responses related to opportunities for a pharmacist informatician to assist during COVID-19. Inductive thematic analysis as described by Braun and Clarke, was used to identify groups of text related to the provision of digital health, informatics and change of practice during a pandemic. The relevant codes were then grouped into themes to help answer the research question. **Key Findings**: Twelve experts agreed to participate, they included nine informatics pharmacists and three digital health experts from hospital and community. Two key themes and 13 codes related to enabling safer and more efficient workflow and use of data analytics to optimise care were identified. The first theme related to 'social distancing without compromising care' for example, by using the electronic capabilities of digital hospitals and telehealth services. The second theme related to the use of real-time data streaming to optimise patient flow and timely medication procurement and management. Examples of quotes from transcripts were used to provide context and answer the research question. **Conclusions**: The experts interviewed identified areas where informatics pharmacists have the potential to assist with maintaining high quality patient care during this pandemic, and in future disasters. Improving awareness, training, and the integration about informatics roles as a result of this global pandemic will likely assist with future patient management in the event of future disasters.]