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Library Current Awareness Bulletin: Pharmacy – February 2022

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Alerts/Guidance

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

Commissioning recommendations for the national procurement of direct acting oral anticoagulants (DOACs)
NHS England, 19 Jan 2022

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

NICE Guidance and Advice List – Latest Updates

Point of care testing in community pharmacies: Guidance for commissioners and community pharmacies delivering NHS services
General Pharmaceutical Council & NHS England, 1 Jan 2022

Specialist Pharmacy Service – Latest Updates

Vaccination Information

COVID-19 vaccination programme
NHS England

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

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.]

Challenging barriers for pharmacists with disabilities
Royal Pharmaceutical Society, 19 Jan 2022

It's All Greek to Me: SARS-CoV-2 Variants, Vaccines and Antivirals
Penny Ward et al for Faculty of Pharmaceutical Medicine, 23 Dec 2021

Kickstart scheme in community pharmacy: one year on
InPharmacy (National Pharmacy Association), 20 Dec 2021

New Chief Pharmacist appointed for England
NHS England, 7 Jan 2022

N-Nitrosamines: What are they? Where they do arise in pharmaceuticals how concerned should we be?
Andrew Teasdale for Faculty of Pharmaceutical Medicine, 21 Dec 2021

NPA responds to doubling of community pharmacist vacancy rate
InPharmacy (National Pharmacy Association), 21 Jan 2022

Pharmacies adopt government scheme to help domestic abuse victims
Home Office, 14 Jan 2022

Pharmacies to refer adults living with obesity to weight management programme
Saskia Hicking for National Health Executive, 24 Jan 2022

Revalidation requirements until May 2022
General Pharmaceutical Council, 22 Dec 2021
[Pharmacists and pharmacy technicians due to submit their revalidation records on or before 31 May 2022, will only need to submit a reflective account when they renew their registration.]

Community Pharmacy

General practitioners' experiences with, views of, and attitudes towards, general practice-based pharmacists: a cross-sectional survey.
Hasan I., Ameerah S., Barry H.E., and Hughes C.M.
BMC Family Practice, vol. 23(1) pp. 1-12.
January 2022
[**Background**: There is limited United Kingdom (UK) literature on general practice-based pharmacists' (PBPs') role evolution and few studies have explored general practitioners' (GPs') experiences on pharmacist integration into general practice. Therefore, this study aimed to investigate GPs' experiences with, views of, and attitudes towards PBPs in Northern Ireland (NI). **Methods**: A paper-based self-administered questionnaire comprising four sections was mailed in 2019 to 329 general practices across NI and was completed by one GP in every practice who had most contact with the PBP. Descriptive analyses were used and responses to open-ended questions were analysed thematically. **Results**: The response rate was 61.7% (203/329). There was at least one PBP per general practice. All GPs had face-to-face meetings with PBPs, with three-quarters (78.7%, n = 159) meeting with the PBP more than once a week. Approximately two-thirds of GPs (62.4%, n = 126) reported that PBPs were qualified as independent prescribers, and 76.2% of these (n = 96/126) indicated that prescribers were currently prescribing for patients. The majority of GPs reported that PBPs always/very often had the required clinical skills (83.6%, n = 162) and knowledge (87.0%, n = 167) to provide safe and effective care for patients. However, 31.1% (n = 61) stated that PBPs only sometimes had the confidence to make clinical decisions. The majority of GPs (> 85%) displayed largely positive attitudes towards collaboration with PBPs. Most GPs agreed/strongly agreed that PBPs will have a positive impact on patient outcomes (95.0%, n = 192) and can provide a better link between general practices and community pharmacists (96.1%, n = 194). However, 24.8% of GPs (n = 50) were unclear if the PBP role moved community pharmacists to the periphery of the primary care team. An evaluation of the free-text comments indicated that GPs were in favour of more PBP sessions and full-time posts. **Conclusion**: Most GPs had positive views of, and attitudes towards, PBPs. The findings may have implications for future developments in order to extend integration of PBPs within general practice, including the enhancement of training in clinical skills and decision-making. Exploring PBPs', community pharmacists' and patients' views of this role in general practice is required to corroborate study findings.]

Predicting dispensing errors in community pharmacies: An application of the Systematic Human Error Reduction and Prediction Approach (SHERPA).
Ashour A., Phipps D.L., and Ashcroft D.M.
PloS One, vol. 17(1)
January 2022
[**Introduction**: The objective of this study was to use a prospective error analysis method to examine the process of dispensing medication in community pharmacy settings and identify remedial solutions to avoid potential errors, categorising them as strong, intermediate, or weak based on an established patient safety action hierarchy tool. **Method**: Focus group discussions and non-participant observations were undertaken to develop a Hierarchical Task Analysis (HTA), and subsequent focus group discussions applied the Systematic Human Error Reduction and Prediction Approach (SHERPA) focusing on the task of dispensing medication in community pharmacies. Remedial measures identified through the SHERPA analysis were then categorised as strong, intermediate, or weak based on the Veteran Affairs National Centre for Patient Safety action hierarchy. Non-participant observations were conducted at 3 pharmacies, totalling 12 hours, based in England. Additionally, 7 community pharmacists, with experience ranging from 8 to 38 years, participated in a total of 4 focus groups, each lasting between 57 to 85 minutes, with one focus group discussing the HTA and three applying SHERPA. A HTA was produced consisting of 10 sub-tasks, with further levels of sub-tasks within each of them. **Results**: Overall, 88 potential errors were identified, with a total of 35 remedial solutions proposed to avoid these errors in practice. Sixteen (46%) of these remedial measures were categorised as weak, 14 (40%) as intermediate and 5 (14%) as strong according to the Veteran Affairs National Centre for Patient Safety action hierarchy. Sub-tasks with the most potential errors were identified, which included 'producing medication labels' and 'final checking of medicines'. The most common type of error determined from the SHERPA analysis related to omitting a check during the dispensing process which accounted for 19 potential errors. **Discussion**: This work applies both HTA and SHERPA for the first time to the task of dispensing medication in community pharmacies, detailing the complexity of the task and highlighting potential errors and remedial measures specific to this task. Future research should examine the effectiveness of the proposed remedial solutions to improve patient safety.]

Using communities of practice as a lens for exploring experiential pharmacy learning in general practice: Are communities of practice the way forward in changing the training culture in pharmacy?
Hindi A.M.K., Willis S.C., and Schafheutle E.I.
BMC Medical Education, vol. 22 (1)
January 2022
[**Background:** Currently, there is little experiential learning in general practice (GP) during UK undergraduate and postgraduate pharmacy education and training. **Aim:** To apply educational theories to explore pharmacy stakeholders' perceptions of placements in general practice and contribute to the development of a model of experiential learning for pharmacy. **Methods:** Qualitative, semi-structured interviews, conducted as part of two studies exploring experiential learning in general practice, with learners and their GP based supervisors. Interviews explored experiences of learning and practice, and what aided or hindered this. An abductive approach to analysis combined inductive coding with deductive, theory-driven interpretation using Lave and Wenger's concept of "Communities of Practice". **Results:** Forty-four interviews were conducted, with learners and placement supervisors. Participants valued placements for providing authentic patient-facing learning experiences in the workplace, facilitated through legitimate peripheral participation by supervisors and supported by the use of pre- and de-briefing. Learners benefitted from support from their supervisor(s) and other staff during their day-to-day learning (informal learning), whilst also having protected time with their supervisors to discuss learning needs or go through workplace-based assessments (formal learning). Lack of clarity regarding which and how competencies should be assessed / demonstrated in general practice challenged monitoring progress from peripheral to full participation. Findings suggest that GP placements provide opportunities for learning about the patient journey between care settings; to work effectively with multidisciplinary teams; and consolidation and application of consultation / communication skills learning. **Conclusions:** The learning culture of GP supports learners' development, providing time and opportunities for meaningful and authentic workplace learning, with healthcare professionals acting as supervisors and mentors. These findings can usefully inform implementation of meaningful learning opportunities in primary and secondary care for those involved in pharmacy education and training.]

Hospital Pharmacy

Feasibility of the MELD score as a screening tool for pharmacists to identify patients with impaired hepatic function at hospital admission.
Golla K., Mannell H., Benesic A., Dreischulte T., Grill E., Strobach D.
Journal of Clinical Pharmacy and Therapeutics
January 2022
[**What Is Known and Objective:** Hepatic impairment (HI) is a known risk factor for drug safety. The MELD score (Model-for-endstage-liver-disease), calculated from serum creatinine, bilirubin and International Normalized Ratio (INR), is a promising screening tool corresponding to Child-Pugh Score (CPS) for drug adjustment. We tested the feasibility of MELD as an automatic screening tool accounting for correct calculation, interfering factors (IF) and detection of patients corresponding to CPS-B/C potentially requiring drug adjustment. **Methods:** We retrospectively calculated MELD for a 3-month cohort of surgical patients and assessed need for adjustment of MELD parameters to standard values. IF for INR (oral anticoagulants) and serum creatinine (renal insufficiency (RI; eGFR<60ml/min/1.73m^2); as well as drugs elevating creatinine levels (DECL)) and the number of patients with MELD scores corresponding to CPS-B/C were analysed. For MELD ≥7.5, liver and bile diagnoses were recorded. **Results and Discussion:** Of 1183 patients, MELD was calculable for 761 (64%; median 7.5, range 6.4-36.8). Parameters had to be adjusted for 690 (91%) patients. IF of parameters were RI in 172 (23%), INR-elevating drugs in 105 (14%) and DECL in 33 (4%) patients. Of 335 (44%) patients with MELD ≥7.5, 122 (36%) had documented liver or bile diagnoses. MELD 10-<15 (corresponding to CPS-B) was found for 105 (14%), MELD ≥15 (corresponding to CPS-C) for 66 (9%) of the 761 patients with a calculated MELD. Referred to all patients, drug adjustments due to possible HI were recommendable for 14% of patients with suspected CPS-B/C. **What Is New and Conclusion:** MELD is a feasible screening tool for HI as a risk factor for drug safety at hospital admission when appropriately considering correct parameter adjustment and RI and INR-elevating drugs as IF. Further evaluation of sensitivity and specificity is needed.]

Impact of hospital pharmacist-delivered individualised pharmaceutical service intervention on clinical and patient-reported outcomes in patients with hypertension: a randomised controlled trial.
Paudel N., Shrestha S., Marasine N.R., Khanal P., Aryal S., Erku D., and Poudel A.
European Journal of Hospital Pharmacy
January 2022
[**Objectives:** Patients with hypertension in Nepal are often known to have poor medication adherence and quality of life. This randomised controlled trial aimed to evaluate the impact of a hospital pharmacist-delivered individualised pharmaceutical service (P-DIPS) intervention on blood pressure, medication adherence and health-related quality of life (HRQoL) among patients with hypertension in a hospital setting in Nepal. **Methods:** In an open trial, 56 adult patients with hypertension who had been receiving antihypertensive medication for ≥6 months were randomly allocated to a control group (n=28) which received the usual care and an intervention group (n=28) which received a P-DIPS along with the usual care. The difference in blood pressure, medication adherence and HRQoL between the two groups at baseline, 2 and 4 months was compared using the Mann-Whitney U test, independent t-test or χ^2 tests. **Results:** Participants were mostly ≥40 years (86%) and female (57%). There were no significant differences in the baseline characteristics between the control (C) and intervention (I) groups. At 2 months, the two groups had a significant improvement in the median (IQR) Morisky-Green-Levine (MGL) Medication Adherence Score (I=1 (2) vs C=2 (2); p<0.001) and the median (IQR) mental component of HRQoL (I=43.6 (9.5) vs C=37.5 (8.6); p=0.013). At 4 months, there were significant differences in the median (IQR) values of all the outcome measures between the groups (systolic blood pressure: I=125 (10) mmHg vs C=130 (15) mmHg, p=0.008; diastolic blood pressure: 80 (14) mmHg vs 90 (10) mmHg, p=0.012; MGL score: I=1 (1) vs C=2 (1), p<0.001; physical component of HRQoL: 45.0 (9.0) vs 40.3 (8.2), p=0.046; and mental component of HRQoL: 47.1 (11.1) vs 38.8 (8.5), p=0.003). **Conclusions:** The findings suggest that a P-DIPS intervention in the hospital setting of Nepal has a significant potential to improve blood pressure, medication adherence and HRQoL in patients with hypertension.]

Improving the aseptic transfer procedures in hospital pharmacies part C: evaluation and redesign of the transfer process.
Boom F.A., Le Brun P.P.H., Boehringer S., Kosterink J.G.W., and Touw D.J
European Journal of Hospital Pharmacy, vol. 29(1), pp. 12-17.
January 2022
[**Objectives:** To transfer sterile medical devices (SMD), infusion bags (IB), ampoules (A), injection vials (V) and infusion bottles (B) into a laminar airflow cabinet (LAF) or safety cabinet (SC) with a surface bioburden as low as possible. **Methods:** Surface bioburden of the outer layer of SMD, IB, A, V and B was determined by contact plates. Surface bioburden determination of critical spots on A, V and B (ampoule necks and stoppers) was determined by high-recovery swabs and contact plates. Particle emission from white cardboard boxes was determined by a particle counter. **Results:** The chances of a contaminated outer layer of SMD is negligible as long as they stay in their original boxes. The outer layer of double-packed IB can contain a considerable number of micro-organisms. As found in previous studies, the surface bioburden of A, V and B is low as long as they stay in their original cardboard boxes. Particle emission from white boxes is low. The necessity of a final disinfection step inside LAF/SC of critical sspots of A, V and B cannot be proven. SmallSMD, ampoules and injection vials can be transferred into the background areain their original white boxes. Other materials have to be unpacked in front ofthe lock while the operator wear disposable gloves. Disinfection of the outerlayer of IB, before transfer trough the lock, is advised. Tohave materials with a low chance of contamination in LAF/SC, transfer bypresentation for SMD and IB and using a sterile tray for disinfected materialsis an effective procedure. Wiping of ampoule necks and stoppers inside LAF/SC isadvised based on risk assessment.Small SMD, ampoules and injection vials can be transferred into the background areain their original white boxes. Other materials have to be unpacked in front ofthe lock while the operator wear disposable gloves. Disinfection of the outerlayer of IB, before transfer trough the lock, is advised. **Conclusion:** When SMD, ampoules, injection vials and infusion bottles stay in their original boxes as long as possible, the aseptic transfer and the disinfection procedure can be maintained effectively and efficiently.]

Pharmacist led homeless outreach engagement and non-medical independent prescribing (Rx) (PHOENIx) intervention for people experiencing homelessness: a non- randomised feasibility study.
Lowrie R., Stock K., Lucey S., Knapp M., Williamson A., Montgomery M., Lombard C., Maguire D., Allan R. et al
International Journal for Equity in Health, vol. 20(1)
December 2021

[**Background**: Homelessness and associated mortality and multimorbidity rates are increasing. Systematic reviews have demonstrated a lack of complex interventions that decrease unscheduled emergency health services utilisation or increase scheduled care. Better evidence is needed to inform policy responses. We examined the feasibility of a complex intervention (PHOENIx: Pharmacist led Homeless Outreach Engagement Nonmedical Independent prescribing (Rx)) to inform a subsequent pilot randomised controlled trial (RCT). **Method(s)**: Non-randomised trial with Usual Care (UC) comparator group set in Greater Glasgow and Clyde Health Board, Scotland. Participants were adult inpatients experiencing homelessness in a city centre Glasgow hospital, referred to the PHOENIx team at the point of hospital discharge, from 19th March 2018 until 6th April 2019. The follow up period for each patient started on the day the patient was first seen (Intervention group) or first referred (UC), until 24th August 2019, the censor date for all patients. All patients were offered and agreed to receive serial consultations with the PHOENIx team (NHS Pharmacist prescriber working with Simon Community Scotland (third sector homeless charity worker)). Patients who could not be reached by the PHOENIx team were allocated to the UC group. The PHOENIx intervention included assessment of physical/mental health, addictions, housing, benefits and social activities followed by pharmacist prescribing with referral to other health service specialities as necessary. All participants received primary (including specialist homelessness health service based general practitioner care, mental health and addictions services) and secondary care. Main outcome measures were rates of: recruitment; retention; uptake of the intervention; and completeness of collected data, from recruitment to censor date. **Result(s)**: Twenty four patients were offered and agreed to participate; 12 were reached and received the intervention as planned with a median 7.5 consultations (IQR3.0-14.2) per patient. The pharmacist prescribed a median of 2 new (IQR0.3-3.8) and 2 repeat (1.3-7.0) prescriptions per patient; 10(83%) received support for benefits, housing or advocacy. Twelve patients were not subsequently contactable after leaving hospital, despite agreeing to participate, and were assigned to UC. Two patients in the UC group died of drug/alcohol overdose during follow up; no patients in the Intervention group died. All 24 patients were retained in the intervention or UC group until death or censor date and all patient records were accessible at follow up: 11(92%) visited ED in both groups, with 11(92%) hospitalisations in intervention group, 9(75%) UC. Eight (67%) intervention group patients and 3(25%) UC patients attended scheduled out patient appointments.]

Medication Adherence

Initial evaluation of a brief pharmacy-led intervention to modify beliefs about medicines and facilitate adherence among patients hospitalised with acute coronary syndrome.
Crawshaw J., Weinman J., McRobbie D., and Auyeung V.
European Journal of Hospital Pharmacy, vol. 29 (1), pp. 18-25.
January 2022
[**Objectives**: Medication non-adherence is common among patients with acute coronary syndrome (ACS) and is associated with poor clinical outcomes. To date, pharmacists have been underutilised in the delivery of adherence interventions. Across two studies, we assessed the feasibility, acceptability and effectiveness of a novel pharmacy-led intervention for patients hospitalised with ACS. **Methods**: The theory-based intervention was comprised of two personalised sessions addressing perceptual (negative/erroneous treatment beliefs) and practical (suboptimal action planning) barriers to adherence. Study 1: A single-arm, feasibility and acceptability study was conducted to determine proof-of-concept. Pre-post-comparisons using the Beliefs about Medicines Questionnaire-Specific (BMQ-S) were made. Study 2: A non-randomised controlled before-after pilot study was conducted with the intervention delivered by a team of clinical pharmacists. Follow-up data were collected at 6 and 12 weeks post-discharge. Primary outcome measures included the BMQ-S and the Medication Adherence Report Scale 5. **Results**: Study 1: 15 patients received the intervention and reported higher BMQ-S necessity scores post-intervention. The intervention was deemed highly acceptable to patients; therefore, further testing was sought. Study 2: A total of 56 patients were recruited: control (n=29) versus treatment (n=27). At 6-week follow-up, the treatment group had higher BMQ-S necessity scores (M=21.8, SD=3.1) compared with control (M=19.8, SD=2.7; p=0.045), although this effect was not maintained at 12 weeks. No differences were reported in the other outcome measures. **Conclusions**: Although the intervention was acceptable to patients, poor fidelity in delivery raises questions about its feasibility in practice. Furthermore, there was some impact on patients' beliefs about medications but no effect on adherence. These findings demonstrate the importance of conducting feasibility and acceptability studies when developing adherence innovations in clinical care. Future studies should consider enhancing the training process to ameliorate fidelity issues.]

Medication Reconciliation

An Integrated Model to Improve Medication Reconciliation in Oncology: Prospective Interventional Study
Passardi A., Serra P., Donati C., Fiori F., Prati S., Vespignani R., Taglioni G., Farfaneti Ghetti P., Martinelli G. et al
Journal of Medical Internet Research, vol. 23(12)
December 2021
[**Background:** Accurate medication reconciliation reduces the risk of drug incompatibilities and adverse events that can occur during transitions in care. Community pharmacies (CPs) are a crucial part of the health care system and could be involved in collecting essential information on conventional and supplementary drugs used at home. **Objective:** The aim of this paper was to establish an alliance between our cancer institute, Istituto Romagnolo per lo Studio dei Tumori (IRST), and CPs, the latter entrusted with the completion of a pharmacological recognition survey. We also aimed to integrate the national information technology (IT) platform of CPs with the electronic medical records of IRST. **Methods:** Cancer patients undergoing antiblastic treatments were invited to select a CP taking part in the study and to complete the pharmacological recognition step. The information collected by the pharmacist was sent to the electronic medical records of IRST through the new IT platform, after which the oncologist performed the reconciliation process. **Results:** A total of 66 CPs completed surveys for 134 patients. An average of 5.9 drugs per patient was used at home, with 12 or more used in the most advanced age groups. Moreover, 60% (80/134) of the patients used nonconventional products or critical foods. Some potential interactions between nonconventional medications and cancer treatments were reported. **Conclusions:** In the PROF-1 (Progetto di Rete in Oncologia con le Farmacie di comunita della Romagna) study, an alliance was created between our cancer center and CPs to improve medication reconciliation, and a new integrated IT platform was validated.]

Medication Safety

Medication-related interventions to improve medication safety and patient outcomes on transition from adult intensive care settings: a systematic review and meta-analysis.
Bourne R.S., Jennings J.K., Panagioti M., Hodkinson A., Sutton A., and Ashcroft D.M.
BMJ Quality & Safety
January 2022
[**Background**: Patients recovering from an episode in an intensive care unit (ICU) frequently experience medication errors on transition to the hospital ward. Structured handover recommendations often underestimate the challenges and complexity of ICU patient transitions. For adult ICU patients transitioning to a hospital ward, it is currently unclear what interventions reduce the risks of medication errors.The aims were to examine the impact of medication-related interventions on medication and patient outcomes on transition from adult ICU settings and identify barriers and facilitators to implementation. **Methods**: The systematic review protocol was preregistered on PROSPERO. Six electronic databases were searched until October 2020 for controlled and uncontrolled study designs that reported medication-related (ie, de-prescribing; medication errors) or patient-related outcomes (ie, mortality; length of stay). Risk of bias (RoB) assessment used V.2.0 and ROBINS-I Cochrane tools. Where feasible, random-effects meta-analysis was used for pooling the OR across studies. The quality of evidence was assessed by Grading of Recommendations, Assessment, Development and Evaluations. **Results**: Seventeen studies were eligible, 15 (88%) were uncontrolled before-after studies. The intervention components included education of staff (n=8 studies), medication review (n=7), guidelines (n=6), electronic transfer/handover tool or letter (n=4) and medicines reconciliation (n=4). Overall, pooled analysis of all interventions reduced risk of inappropriate medication continuation at ICU discharge (OR=0.45 (95% CI 0.31 to 0.63), I 2 =55%, n=9) and hospital discharge (OR=0.39 (95% CI 0.2 to 0.76), I 2 =75%, n=9). Multicomponent interventions, based on education of staff and guidelines, demonstrated no significant difference in inappropriate medication continuation at the ICU discharge point (OR 0.5 (95% CI 0.22 to 1.11), I 2 =62%, n=4), but were very effective in increasing de-prescribing outcomes on hospital discharge (OR 0.26 (95% CI 0.13 to 0.55), I 2 =67%, n=6)). Facilitators to intervention delivery included ICU clinical pharmacist availability and participation in multiprofessional ward rounds, while barriers included increased workload associated with the discharge intervention process. **Conclusions**: Multicomponent interventions based on education of staff and guidelines were effective at achieving almost four times more de-prescribing of inappropriate medication by the time of patient hospital discharge. Based on the findings, practice and policy recommendations are made and guidance is provided on the need for, and design of theory informed interventions in this area, including the requirement for process and economic evaluations.]

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