8th All Ireland Pharmacy Healthcare Conference

Tuesday 17th October 2017

Ballymascanlon House Hotel

Dundalk

Conference Proceedings

Conference keynote address *Achieving Excellence in Pharmaceutical Care*

Professor Rose Marie Parr undertook her pharmacy undergraduate degree and postgraduate degrees at the School of Pharmacy at Strathclyde University Glasgow and her Doctorate in Education at Glasgow University. She has worked in hospital pharmacy in the 1980-1990s in various posts in Lanarkshire Health Board and Forth Valley Health Board areas.

In 1993 she became the Director of Postgraduate Pharmacy Education for Scotland known as SCPPE (or SKIPPY) to pharmacists. SCPPE had a remit for all postgraduate education for pharmacists in the NHS.

In April 2002 SCPPE was brought together with other professional educational groups into the special health Board, NHS Education for Scotland (NES) which has a remit for all NHS staff in Scotland. Rose Marie Parr was the Director of Pharmacy for NHS Education for Scotland.

Rose Marie is also past Chair of the Scottish Pharmacy Board of the Royal Pharmaceutical Society of Great Britain (RPSGB) and a designated Fellow of the RPSGB and a RPS Faculty Fellow.

Rose Marie currently holds honorary Professorships at both Scottish Schools of Pharmacy; Strathclyde University in Glasgow and Robert Gordon University in Aberdeen.

Rose Marie took up the post of Chief Pharmaceutical Officer for Scotland on June 1st 2015, and is the policy and professional lead for Pharmaceutical Care and the NHS Pharmaceutical services across Scotland.

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8th All Ireland Pharmacy Healthcare Conference

8.30 – 10.00	Coffee and registration
10.00 – 10.15	Welcome and Introduction
10.15 – 10.30	Opening address Dr Mark Timoney Chief Pharmaceutical Officer Department of Health, Northern Ireland
10.30 – 11.15	Keynote lecture: *Achieving Excellence in Pharmaceutical Care* Professor Rose Marie Parr Chief Pharmaceutical Officer Department of Health, Scotland
11.15 -11.45	Coffee and poster viewing
11.45 -13.15	Parallel sessions - Developing the pharmacy workforce - Medicines optimisation 1
13.15 - 14.00	LUNCH
14.00 – 14.45	Coffee and poster viewing
14.45 – 16.15	Parallel sessions - Research and policy into practice - Medicines optimisation 2
16.15 – 16.30	Closing remarks Kate Mulvenna Chief Pharmacist HSE, Ireland

Oral presentations: **Developing the pharmacy workforce**

Time: **11.45am – 1.15pm**

Location: **The Oak Room**

Chair: **Cathal Cadogan & Carole Parsons**

Author	**Title**
Lezley-Anne Hanna	Future pharmacists' perceptions about mental health conditions
Laura O'Loan	Does continuing professional development (CPD) influence pharmacists' professional practice?
Heather Bell	Foundation training for community pharmacy
Paul McCague	Design, implementation and evaluation of a novel teaching approach to a clinical pharmacokinetics course
Johanne Barry	Pharmacy and medicine students' views on an interprofessional simulated prescribing and dispensing activity
Roisin O'Hare	Impact of a modified Geriatric Medication Game® on pharmacy students' empathy toward older adults

Future pharmacists' perceptions about mental health conditions

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Introduction

There has been an increased emphasis on mental health awareness in recent years. While the severity of individual conditions varies, some are associated with significant morbidity and mortality. For example, depression is the most common disorder contributing to suicide.[1] This study aimed to ascertain future pharmacists' opinions on mental health conditions. It is an important area given that they will be advising patients about mental health in their capacity as a healthcare professional and it was anticipated that the findings would inform future course content.

Method

Following ethical approval and piloting**,** all final year Master of Pharmacy (MPharm) students at Queen's University Belfast (QUB) were invited to complete a paper-based questionnaire during a compulsory class. Section A (17 questions with multiple parts) was an adapted version of the 'Attitudes to Mental Illness' UK public opinion validated questionnaire, consisting of attitudinal statements measured using a Likert scale.[2] Section B (3 questions) gathered non-identifiable demographic data. Descriptive statistics were undertaken; Mann-Whitney *U* test and Chi-squared were used for gender comparisons with significance set at $p<0.05$ *a priori.*

Results

A response rate of 89.0% (97/109) was obtained; 40.2% males and 59.8% females. Most [80.4% (78/97)] considered mental illness to be like any other illness and 63.9% (62/97) underestimated the prevalence of mental health problems in the UK. Male respondents were more likely than female respondents to state that they would **not** want to live next door to someone who has been mentally ill ($p=0.007$). Encouragingly, 83.5% (81/97) 'strongly disagreed' or 'disagreed' that people with mental illness were a burden on society and 91.8% (89/97) agreed that increasing spending on mental health services was a waste of money. Only 56.7% (55/97) reported feeling confident discussing mental illnesses with patients and merely 36.1% (35/97) considered the MPharm training on mental health was satisfactory.

Conclusion

It is reassuring that pharmacy students held some appropriate views on mental health and the support required. However, it appears that more training is required at QUB to prepare these future pharmacists for their role within mental health care teams.

References

1. National Institute for Health and Care Excellence (NICE). Common mental health problems: identification and pathways to care (2011). https://www.nice.org.uk/guidance/cg123/chapter/Introduction (Accessed 08/04/2017).
2. Mind.org.uk. Survey shows greatest improvement in public attitudes to mental health in 20 years (2013). http://www.mind.org.uk/news-campaigns/news/survey-shows-greatest-improvement-in-public-attitudes-to-mental-health-in-20-years/#.WCHnpvmLSUk (Accessed 08/04/2017).

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Does continuing professional development (CPD) influence pharmacists' professional practice?

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Background

Continuing Professional Development (CPD) is mandatory for UK pharmacists. The stated purpose of CPD for healthcare professionals is to improve professional practice[1]; however evidence in the literature to demonstrate this is lacking. In this study, improved professional practice was represented by engagement in extended patient care activities.

Aim

To examine the influence of CPD activities on pharmacists' professional practice.

Methods

An online questionnaire was emailed to all pharmacists in Northern Ireland on 22 May 2015 (n = 2201). After two follow-ups there were 419 responses (19%).

Results

Data was analysed using SPSS version 21. Two multiple response sets were created: one for responses relating to CPD activities, and one for those relating to professional practices. Geometric coding was used to convert the multiple response data into categorical variables that were amenable to confirmatory statistical analysis[2]. Pharmacists who undertook solely unstructured learning had the highest incidence of engagement in semi-professional activities that can be performed by any member of the pharmacy team. 32% of these pharmacists engaged in some extended patient care activities. They started extended practice a mean of 11.6 years post-registration. Undertaking traditional structured continuing education courses, which separate theory from practice, did not confer any benefits over unstructured learning in terms of % engagement or time. Conversely, incorporating active participation in workplace practice activities into structured courses led to increased engagement in extended patient care activities and a reduction in time, and was thus considered to improve professional practice.

Conclusion

Pharmacists' CPD activities influenced their professional practice. Active participation in structured professional practices in the workplace improved engagement in extended patient care activities, whereas separating theory from practice did not.

References

1. Cole, M. Learning through reflective practice: a professional approach to effective continuing professional development among healthcare professionals. Research in Post-Compulsory Education 2000; 5(1): 23-38.
2. Acton, C., Miller, R., Maltby, J. and Fullerton, D. SPSS for Social Scientists. 2nd ed. England: Palgrave Macmillan; 2009.

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Foundation training for community pharmacy

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Background

Ten years ago, NICPLD introduced a foundation programme (FP) which is now national training policy for all newly qualified hospital pharmacists in N. Ireland. This practice-based rotational programme, which replaced a taught clinical diploma, is based on the competencies of the RPS Foundation Pharmacy Framework. Over two-years, pharmacists build a portfolio demonstrating their competence across all practice areas and are supported by a mentor and educational supervisor. Managers report that pharmacists completing the programme are more effective in translating their knowledge into clinical practice. Based on the success of hospital foundation training, NICPLD developed a work-based FP for community pharmacists.

Method

While the same competences were used for both sectors, a key consideration was the practicalities of supporting community pharmacists in developing competence in the workplace. Accordingly, a peripatetic mentor was employed nu NICPLD to provide workplace support and an E-portfolio was introduced to enable timely feedback and ongoing communication for this dispersed group of learners. Small group evening workshops took place on alternative months to facilitate ongoing communication. Elearning courses on mentoring and work-based training were also designed to support the development of staff within chains who may ultimately take on the mentoring role.

Results

Launched in November 2016, this type of learning was new to the group of eight community pharmacists. Given the lack of role-models when working as a sole practitioner and limited time to complete practice activities in the workplace, it became evident that mentor engagement, ongoing communication, group dynamic and peer support were vital for motivation and progress. What has also been surprising, is the degree of mentor support needed to enable foundation pharmacists to develop skills, such as design and implementation of practice audits and development of care.

Conclusion

Implementation of a work-based FP for community pharmacists is more challenging and resource intensive than for hospital counterparts. Early indications are that trainees value mentor support and feedback on their practice. Peer support networking is of particular value, by what traditionally has been an isolated profession.

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Design, implementation and evaluation of a novel teaching approach to a clinical pharmacokinetics course

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Introduction

Pharmacokinetics is a fundamental, scientific discipline which underpins therapeutics. It is embedded in the GPhC education outcomes[1] and is taught throughout the MPharm degree at QUB in a spiral manner[2]. Anecdotal evidence suggests students find this topic challenging and require additional support. An integrated, method of delivering pharmacokinetics was developed and delivered in 2015/16. This involved case-based learning and use of a flipped classroom approach. The aim of this study is to assess the new method of delivery.

Method

A questionnaire methodology was used to determine Level 3 (n=108) and Level 4 (n=120) student views on the teaching of pharmacokinetics. Level 4 students received the traditional didactic lecture style delivery, whilst the Level 3 students received the newly developed course. The questionnaire sought views on areas such as relevance of pharmacokinetics, usefulness of various teaching methods employed and student confidence in specific areas of pharmacokinetics. Additionally, examination data were analysed and peer-feedback sought.

Results

A total of 206 (91%) students completed questionnaires. Self-reported confidence was significantly higher (p<0.05) in issues pertaining to clinical pharmacokinetics for students taught *via* the new approach. In comparison to the previous academic year, an additional 74% of students undertook the pharmacokinetics examination question with the average mark increasing by 31%. Examination data together with staff and student feedback indicates the success of this new approach.

Conclusion

The new approach to teaching of clinical pharmacokinetics has resulted in improved student engagement, attainment and feedback in relation to clinical pharmacokinetics. Results of this project will further help inform teaching of this topic.

References

1. General Pharmaceutical Council. 2011; 'Future pharmacists: Standards for the initial education and training of pharmacists'.
2. Harden RM. *et al*. What is a spiral curriculum? Medical Teacher. 1999; 21:141.

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Pharmacy and medicine students' views on an interprofessional simulated prescribing and dispensing activity

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Introduction

Close collaboration between GPs and pharmacists is required to minimise relatively common medication and dispensing errors.[1] In December 2015, an investment of £2.6 million enabled recruitment of pharmacists to work in GP practices in Northern Ireland. Despite the need to work collaboratively, medical and pharmacy training is often unilateral.[2] An innovative interprofessional activity for 4th year medical and 3rd year pharmacy students was developed, aiming to develop the knowledge of their roles in prescribing, dispensing and patient education. Interprofessional student teams had to clinically assess, diagnose, prescribe and dispense medication(s) for a simulated patient (in a simulated general practice and pharmacy setting).

Method

4 focus groups of 6-8 medical and pharmacy students explored their attitudes towards the IPE activity. Questions posed aimed to explore the impact of and the students' attitudes about interprofessional simulated learning activity. The interviews were audio-recorded, transcribed and analysed iteratively using template analysis. Ethical approval for this study was obtained.

Results

Analysis of the data yielded 4 main themes: 1) Unlocking new learning experiences; 2) A shared understanding about patient centred care; 3) Professional skills; and 4) A journey of discovery, respect and stereotypes about professional roles. For many medical students, this was their first opportunity to appreciate the dispensing process and the continuous focus on patient safety came as a surprise. Pharmacy students praised the holistic approach medical students applied to their consultations.

> *"it's opened my eyes to how patient-centred the dispensing and counselling really is." (Female, Med FG2)*

> *"Something I thought was good was with our patient they weren't just asking about drug therapy. They gave other options. Our medical student suggested yoga and that sort of thing, lifestyle things that could help, something other than drugs." (Female, Pharm FG2)*

Conclusion

Students broadened their knowledge of each other's expertise in skills and clinical roles while working together and valued the opportunity to strengthen co-operations with their future colleagues with the shared goal of improving patient care.

References

1. International Pharmaceutical Federation. Interprofessional Education in a Pharmacy Context: Global Report. The Hague: International Pharmaceutical Federation; 2015.
2. Dornan T, Ashcroft D, Heathfield H Lewis P, Miles J, *et al.* An in-depth investigation into causes of prescribing errors by foundation trainees in relation to their medical education: EQUIP study. Manchester: General Medical Council; 2009.

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Impact of a modified Geriatric Medication Game® on pharmacy students' empathy toward older adults

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Introduction

It is estimated by 2040, nearly one in four people in the UK will be aged 65 or over[1] and receive 45% of prescriptions[2]. The Geriatric Medication Game® (mGMG) was developed to highlight the challenges experienced by elderly patients when managing their medication and was adapted by the research group to reflect practice in the UK including patient experiences in the NHS.

Objectives

Pre and post participation in the mGMG: 1. Determine the empathy of the first year MPharm cohort using the adapted Jefferson Empathy Scale; 2. Compare the attitudes of first year students towards the aging population.

Methods

An adapted Jefferson Scale of Empathy-Healthcare Profession Students (JSE-HPS) was used to measure the baseline empathy of the entire first year MPharm cohort. A representative sample of 16 students participated in the mGMG. JSE-HPS was repeated post participation. Participants attended pre and post mGMG focus groups. The transcripts were analysed via thematic analysis. This study required and received ethical approval.

Results

The first year baseline cohort (n=98) had a mean empathy score from JSE-HPS of 79.91/100 with post-mGMG participants (n=16) scoring 81.25. Four key themes were identified from the focus groups; 1. *Understanding the patient's perspective;* 2. *Access to healthcare;* 3. *Discrimination and* 4. *Impact on future practice*.

Conclusions

First year students (n=16) displayed an higher level of empathy post mGMG, however the baseline cohort indicated a higher level of empathy than expected for first year students[3]. Students entered the mGMG with pre-existing, self-determined, high levels of empathy and participation reinforced this suggesting that simulation may have value when used to reinforce understanding and to provide context for complex concepts.

References

1. National population projections for the UK, 2014-based: www.ons.gov.uk (accessed 15th June 2016).
2. Spinewine A et al. Appropriateness of use of medicines in elderly inpatients: qualitative study. *British Medical Journal*. 2005; 331: 935.
3. Hall M. Hanna L. Hanna A. McDevitt C. Empathy in UK pharmacy students: assessing differences by gender, level in the degree programme, part-time employment and medical status. *Pharmacy Education.* 2015; 15(1):241-247.

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Oral presentations: **Medicines optimisation 1**

Time: **11.45am – 1.15pm**

Location: **The Oak Room**

Chair: **Elaine Conyard & Glenda Fleming**

Author	**Title**
Alan Wilson	A pharmacist led biosimilar switching project
Miriam Coghlan	Drug-drug interactions of high prevalence in a real world Hepatitis C treatment setting. The impact on treatment and the implications for patient management
Cathy Harrison	Implementing medicines optimisation in Northern Ireland through an Innovation and Change Programme
Paul Dillon	Adherence trajectory models: assessing adherence to antihypertensive medication in older adults in a community pharmacy setting
Claire MGuinness	Impact of a new pharmacist led, follow up service for fracture clinic patients requiring venous thromboembolism prophylaxis
Susan O'Dwyer	Ambulatory blood pressure monitoring as a community pharmacy service

A pharmacist led biosimilar switching project

Wilson A
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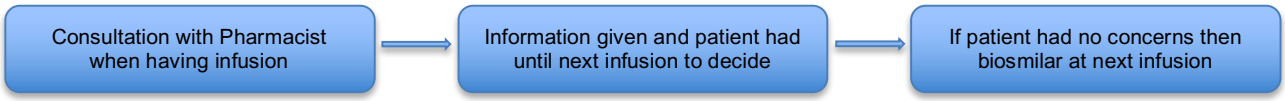
Introduction

New biosimilar agents are being approved that can deliver large financial savings for healthcare authorities. For a successful switch program, patients and prescribers should be able to make an informed decision on merits of switches in terms of their individual benefit-risk considerations. Switching between products should be carried out under supervision and monitoring. A pharmacist has the necessary background knowledge and expertise to deliver these savings. In September 2016, funding was secured for a specialist Gastroenterology pharmacist to lead on a biosimilar switching program for patients treated with Remicade® branded infliximab. The aim was to run a patient education program that would explain the reasons why the Trust would like to change brands, identify any patient concerns and allow patients to make an informed, consented decision to switch to the biosimilar brand of infliximab, Remsima®.

Methodology

A letter was designed by the clinical pharmacist explaining the new medication, the current clinical evidence and the financial benefits. A counselling session was also devised and tested over one week of patient appointments. Using the feedback the letter was revamped and counselling session was improved and switching commenced using the time table illustrated:



Results

228 patients were on Remicade® treatment. 2 patients were excluded due to being pregnant. Of the remaining 226, 218 agreed to change – this was 96% agreement compared to target of 90%. Infusions were kept at accelerated rates and there was no increased incidence of hypersensitivity. The vast majority of patients are satisfied with change (94%). The project delivered the 2016-17 efficiency target of £347,514 and is expected to meet the 2017-18 efficiency target of £737,759. The savings have funded a full-time specialist nurse as well as the specialist pharmacist.

Conclusion

Pharmacological knowledge, drug costing expertise, pharmacovigilance and patient counselling are the key skills required to manage a biosimiliar switch program.
This successful project illustrates that pharmacists can deliver on biosimilar switching programs and can negotiate directly with commissioners to secure funding for service improvements.

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Drug-drug interactions of high prevalence in a real world Hepatitis C treatment setting. The impact on treatment and the implications for patient management

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Background and aims
Knowledge of the prevalence and impact of potential drug-drug interactions (DDIs) with Hepatitis C (HCV) direct acting antiviral agents (DAAs) in real world cohorts is essential if treatment is to be safely up-scaled to a wider model of care. Medication reconciliation and DDI review processes form part of the Pre-Treatment Pharmacist Assessment (PTPA) in our unit. This pharmacist-led intervention tool employs a standardised DDI reference list. This study of PTPA use reports DDI prevalence, severity, management and risk factors in a real-world cohort.

Methods
Patients treated with all oral DAA-based HCV therapies at St. James's Hospital between December 2014 and September 2016 were included in this analysis of PTPA utility and outcomes. DDI assessments were classified into three descriptive categories and where a potential interaction was identified, a numerical significance rating (0-10) was applied. Six management recommendations are incorporated into the PTPA.

Results
A total of 300 patients were included in the PTPA review of whom 71% were male. Of these, 88% were on at least one medication at baseline (range 0-27). From 1,543 prescribed concomitant medicines, 477 potential DDIs were identified. Nearly three quarters (71%) of patients prescribed a concomitant medication were subject to a potential DDI. The odds of a potential DDI were found to be significantly associated with HIV co-infection (OR 4.43, 95%CI 2.21, 8.86), co-morbid cardiovascular disease (OR 3.5, 95%CI 1.74, 7.06), use of HCV protease inhibitors (OR 2.13, 95%CI 1.16, 3.92) and patient age (OR 1.94, 95%CI 1.21, 3.12). A rating of severe (significance rating >7) was applied to 13.8% of identified DDIs. Of these, 24 episodes affecting 7.3% of patients were deemed as having the potential to reduce DAA bioavailability, thus negatively impacting on HCV treatment outcome. The most commonly implicated medicines meriting a severe rating were anti-epileptic agents (41%) and proton pump inhibitors (36.6%). The most common DDI management recommendations provided were additional monitoring plans (36%) and cessation of the interacting co-medication (18.9%).

Conclusions
This analysis identified a high rate of clinically significant DDIs between DAAs and co-prescribed medications following the PTPA. Refinement of the PTPA process and its development into a validated complex intervention tool will ensure appropriate and quality driven pharmaceutical care of patients treated for HCV infection across all models of care.

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Implementing medicines optimisation in Northern Ireland through an Innovation and Change Programme

Harrison C, Department of Health, Northern Ireland

Introduction

In 2016 the Department of Health launched the Medicines Optimisation Quality Framework (MOQF)[1]. This was developed in response to the need to gain better patient outcomes from medicines and ensure effective use of healthcare resources, costing in excess of £550m annually. An Innovation and Change Programme was developed to drive implementation through the identification and scaling up of good practices related to medicines.

Methods

The format of the Innovation and Change Programme was informed by the three horizons model, first published in *The Alchemy of Growth* by Merhdad Baghai, Stephen Coley and David White in 1999. This model considers that innovation can be implemented across three overlapping time or horizon levels. The first horizon involves implementing activities that improve current practice, horizon two extends current competencies into new or related areas and horizon three involves innovations that will change the nature of practice. The Medicines Optimisation Innovation and Change Programme was designed to be active at all three horizon levels, employing both quality improvement and innovation approaches. To support the Programme a dedicated Medicines Optimisation Innovation Centre[2] provides expertise for the design, testing and evaluation of new roles, services and technologies.

Results

During 2017/18 the programme will involve activities that aim to:

- Support better adherence with prescribed medicines
- Support safer transitions of care
- Implement good practices for high risk patients and medicines
- Increase Adverse Drug Event reporting
- Improve polypharmacy management
- Optimise the use of medicines resources within the HSC
- Embed co-production and public and patient involvement
- Increase knowledge, capacity and skills in health literacy

Discussion

The implementation of the MOQF through an Innovation and Change Programme, supported by a dedicated Innovation Centre (MOIC), is supporting local and regional improvements in medicines use across Northern Ireland.

References

1. Department of Health, Northern Ireland, Medicines Optimisation Quality Framework. Match 2016. Available at: https://www.health-ni.gov.uk/sites/default/files/consultations/dhssps/medicines-optimisation-quality-framework.pdf
2. The Medicines Optimisation Innovation Centre. http://www.themoic.com

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Adherence trajectory models: assessing adherence to antihypertensive medication in older adults in a community pharmacy setting

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Introduction

Group Based Trajectory Modelling (GBTM) is a newer method to estimate adherence using pharmacy dispensing records which assigns individuals to groups according to their pattern of prescription refill over time. It appears a promising method to identify groups of patients likely to benefit from adherence interventions and may be suitable to use in a clinical setting as the information is presented in an intuitive graph[1]. We characterised adherence to antihypertensive medication in a cohort of older community dwelling adults with hypertension using dispensing data from community pharmacy and tested the predictive validity of the trajectory models with blood pressure.

Methods

Participants were recruited from 106 community pharmacies across the Republic of Ireland between March and May 2014, and were followed-up at 12 months. Adherence was estimated by applying GBTM to linked dispensing records for the 12 month follow-up period. Predictive validity was assessed through significant associations with blood pressure measured in the pharmacy at follow-up (2 seated measurements, 2 min apart on the same arm, per study protocol).

Results

Three distinct antihypertensive adherence trajectories were identified for the 12 month period; 52.8% had a high level of adherence, 40.7% has a consistently medium level of adherence while 6.5% had a low level of adherence which minimally decreased over time. However in adjusted linear regression models there was no significant association between trajectory groups and systolic/diastolic blood pressure.

Conclusion

Adherence trajectory models may be suitable for a community pharmacy setting to identify patients with adherence issues however the predictive validity with blood pressure was not demonstrated. This may reflect validity issues regarding the use of dispensing records to evaluate adherence and the method to measure blood pressure.

References

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Impact of a new pharmacist led, follow up service for fracture clinic patients requiring venous thromboembolism prophylaxis

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Objective

To assess the impact of a new, pharmacist led thromboprophylaxis follow up service for patients presenting to Emergency Department with a fracture requiring temporary lower limb immobilisation and who have one or more risk factors of venous thromboembolism.

Setting

The Fracture Clinic and Emergency Department at Craigavon Area Hospital, and Minor Injuries Unit in South Tyrone Hospital, Southern Health and Social Care Trust.

Main outcome measures

To follow up 100% of fracture clinic patients to ensure they had a sufficient amount of enoxaparin to last until their review at fracture clinic. To prescribe enoxaparin for patients who will not have enough to last until their fracture clinic review. Increase adherence with the prescribed thromboprophylaxis treatment.

Results

315 patients were identified as being as risk of a VTE due to a lower limb injury plus risk factors. 215 of these patients were able to be followed up. 153 of these patients required more enoxaparin before their Fracture clinic appointment. The fracture clinic pharmacists prescribed enoxaparin for 87 of these patients with a further 52 prescriptions written by the anticoagulant pharmacist.

Conclusion

This service improvement has shown that it is possible to effectively develop and implement a pharmacist led thromboprophylaxis follow up service for fracture clinic patients using a multidisciplinary approach. The results of this study show that a pharmacist led telephone follow up service was associated with a decrease in the number of fracture clinic patients who missed enoxaparin doses. Additionally the study showed an increase in adherence of patients with their prescribed enoxaparin treatment and improved outcomes with regards to VTE occurrence.

References

1. Silverstein MD *et al* (1998), Trends in the incidence of deep vein thrombosis and pulmonary embolism: a 25-year population-based study, Arch Intern Med. 158(6):585-93.
2. National Institute for Health and Clinical Excellence (2010) Venous thromboembolism: reducing the risk. CG92

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Ambulatory blood pressure monitoring as a community pharmacy service

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Introduction

Detection and management of raised blood pressure and atrial fibrillation are important factors in the prevention of stroke[1]. Both conditions are prevalent in the Irish population[2,3] with many cases undetected or untreated [1,2].

Aims

The primary aim of the research was to determine the prevalence of (1) hypertension and (2) pulse patterns potentially indicative of atrial fibrillation in a sample of patients attending community pharmacy for ambulatory blood pressure monitoring (ABPM).

Methods

This study is a cross-sectional observational study of patients availing of an ambulatory blood pressure monitoring service in a community pharmacy setting in Ireland. It was non-interventional in nature and drew on data routinely collected as part of the ABPM service in order to describe the profile of patients accessing the service and determine the prevalence of conditions the service is designed to detect within the sample of patients accessing the service.

Results

A total of 583 valid ABPM reports from consenting patients were analysed. Females accounted for 52.9% of the sample and the mean (± SD) age at presentation was 57.2 ± 13.32 years. Prevalence of hypertension in the sample was 64.3% (95% CI: 60.4-68.2) with prevalence higher in males ($\chi 2 = 19.50$, $p<0.0005$). In patients over the age of 50 the prevalence of irregular pulse patterns was 12.8% (95% CI: 10.1-15.5).

Discussion

This study shows that providing an ambulatory blood pressure monitoring service in community pharmacies is feasible and facilitates the detection of both hypertension and pulse patterns potentially indicative of atrial fibrillation.

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Oral presentations: **Research and policy into practice**

Time: **2.45pm – 4.15pm**

Location: **The Garden Room**

Chair: **Colin Adair & Laura Sahm**

Author	**Title**
Louise Brown	Opportunities and challenges of seven-day clinical pharmacy services
Sarah Clarke	Switching patterns from warfarin to non-vitamin K oral anticoagulants in Ireland
Mark McCullagh	Medication related finalised claims: a five year review
Tina Barrett	Influenza vaccination uptake in an Irish obstetric cohort
Joanne Gaskin	Harm reduction and cost avoidance in the ED through clinical pharmacist intervention
Rosemary Donnelly	Making insulin safer (MITS) in Northern Ireland hospitals

Opportunities and challenges of seven-day clinical pharmacy services

Brown L[1]
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Introduction

Mounting pressures in the delivery of emergency care meant Trusts in Northern Ireland received funding from the Health and Social Care Board (HSCB) to improve patient flow. A key priority was to embed pharmacy within main Emergency Departments (EDs) and the Royal Victoria Hospital (RVH) established a new seven-day clinical pharmacy service in line with NHS England recommendations.[1] Two pharmacists were required in ED 9am-5pm seven-days a week which represented a significant change in working patterns, leading to staff concerns regarding work-life balance. Members of the senior clinical pharmacy team were required to work collaboratively to identify a practical solution in order to provide the new service.

Method

Briefing meetings were conducted with the senior clinical pharmacy team to communicate a clear vision and highlight the importance of seven-day working including patient safety and reducing unwarranted variation in the quality of patient care. Different options for providing a seven-day rota were identified and positive and negative aspects of each model were considered.

Results

Three options were identified; four pharmacists employed to undertake ED role would work alternate weekends, volunteers to be sought from RVH clinical pharmacy team to support ED pharmacists and lastly, volunteers to be sought from wider clinical pharmacy team across all sites in the Trust to support ED pharmacists. The first option was dismissed as it was thought to be an unreasonable frequency of weekend working and didn't support a team approach. The second and third options were explored by requesting volunteers to work 1 weekend every 6 weeks (minimum 1 in 4). Volunteers from the RVH clinical team successfully established a 1 in 6 rota and participants agreed with their line manager when off duty would be taken (either week before/ after the weekend worked).

Conclusions and recommendations

A robust seven-day rota was established via a team approach and staff provided positive feedback in relation to the frequency of weekends and flexible off duty. Gaps due to sickness have been covered by staff volunteering for extra shifts. Volunteers from specialist clinical areas have refreshed their skills in emergency medicine and can provide specialist advice for specific patients groups admitted via ED (e.g. HIV, Palliative Care). This successful working model should be considered to inform future roll out of seven-day clinical pharmacy services.

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Switching patterns from warfarin to non-vitamin K oral anticoagulants in Ireland

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Introduction

Oral anticoagulants are indicated for a number of therapeutic indications, including stroke prevention in non-valvular atrial fibrillation (NVAF) and the prevention and treatment of venous thromboembolism (VTE).[1] For many years vitamin K antagonists (usually warfarin) were the only oral anticoagulants available to treat these conditions and to reduce stroke risk in atrial fibrillation (AF). The non-vitamin K oral anticoagulants (NOACs) were first licensed in Ireland for stroke prevention in non-valvular AF with the approval of dabigatran etexilate in 2011, rivaroxaban later that year, apixaban in 2013 and edoxaban in 2015.[2]

Aim

To estimate the rate of switching amongst users of warfarin to non-vitamin K oral anticoagulants (NOACs) in Ireland from 2012-2015 using the PCRS pharmacy claims database.

Methods

A retrospective cohort study of all users of warfarin (ATC B01AA03) identified from a pharmacy claims database was conducted. The study population included means tested individuals from the General Medical Services (GMS) scheme, which over-represents the elderly and female population. Those prescribed at least three items after the index warfarin dispensing were included. Individuals receiving NOACS (ATC B01AE07, B01AF02 or B01AX06) prior to warfarin were excluded. The rate of and factors predicting switching were determined using Cox proportional hazards regression. Adjusted hazard ratios for time to switching (HR) and 95% CI are presented.

Results

There were 61,627 patients who had received warfarin during the study period. The median time to follow-up was 2.5 years (IQR 1.0, 3.5). Of these 9,382 patients (15.2%) switched to at least one of the NOACs during the follow-up period, with most (92.9%) having just one switch. Most switched to rivaroxaban (51.6%), followed by dabigatran (31.5%) and the remaining to apixaban (16.6%). There was no significant difference in time to switch between males compared to females (HR=1.03, 95% CI 0.97, 1.06), however, there was a significant difference in those aged 65 years or older compared to less than 65 years who were significantly less likely to be switched (HR=0.93, 95% CI 0.88, 0.99).

Conclusion

A significant proportion of those on warfarin have already been switched to NOACS in Ireland. This has significant clinical and economic consequences and will need to be monitored to determine if this trend continues.

Medication related finalised claims: a five year review

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Introduction

The State Claims Agency (SCA) operates the Clinical Indemnity Scheme in Ireland. Indemnified organisations, including publicly funded healthcare organisations, have a statutory obligation to report adverse incidents to the SCA by logging these events on the National Incident Management System (NIMS), an end-to-end incident and claims management system. This study utilised the unique NIMS database to analyse five years of medication related finalised claims for the period 2011 to 2015 inclusive. Finalised claims are claims in which litigation has concluded and all financial settlements have been agreed (but not necessarily paid).

Aim

Using medication related finalised claims data on NIMS for the five year period, 2011 to 2015 inclusive, the primary aim of this study was to identify those medications, or groups of medications, which are more likely to lead to claims. The secondary aim was to determine the incident category, the stage of the medication use process involved and the clinical outcome in terms of the severity of the medication incident.

Methods

A report was generated on NIMS where the sub hazard type was 'Medication' and the claim finalised date was between 01 January 2011 and 31 December 2015. This identified 59 relevant claims over this five year period. Each individual physical file held by SCA was requested and analysed in turn. A data collection form was developed and relevant data was extracted and inputted into an Excel spreadsheet.

Results

Initial analysis reduced the number of claims for inclusion in the study to 40, of which 38 had been settled and two were lost by the plaintiff in court. Opioids (n=9) were the most frequently cited therapeutic group involved in these claims, followed by antibiotics (n=7) and local and general anaesthetics (n=7). Prescribing errors accounted for 18 (45%) claims and administration errors for 21 (52.5%) claims. Wrong dose (n=15; 37.5%) was the most frequently encountered incident category, followed by adverse effect (n=9; 22.5%) and wrong drug (n=5; 12.5%). The majority of the claims analysed had a severity rating of moderate (n=23; 57.5%), while 8 (20%) were rated major and 7 (17.5%) were rated extreme.

Conclusion

This study is the first in Ireland to focus on medication related finalised claims. This information will now be disseminated to publicly funded healthcare institutions in Ireland. It is hoped that this will allow these organisations to focus limited resources on those stages of the medication use process most likely to lead to a claim and to adopt targeted strategies to improve the safety of those medications identified as being particularly problematic.

Correspondence

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Influenza vaccination uptake in an Irish obstetric cohort

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Introduction

Influenza infection during pregnancy can lead to significant maternal morbidity and is a leading cause of maternal mortality [1]. Influenza vaccination during pregnancy has maternal benefits and confers protection for the infant in the first months of life. There are limited data on vaccination uptake and determinants of uptake in Irish obstetric populations. The objectives of this study were to determine: the uptake of influenza vaccination during pregnancy; the determinants of vaccination uptake; knowledge, attitudes and concerns of postnatal women surrounding vaccination during pregnancy; and the recommendations of healthcare workers. Pertussis vaccination uptake was also determined.

Methods

A standardised 24 item questionnaire was distributed to postnatal women between January and June 2016. Questions focused on maternal characteristics, vaccination status, sources of information, and reasons for receiving / declining the vaccine. The role of the healthcare professional in recommending and offering vaccination was addressed.

Results

330 surveys were disseminated, there was a 60% response rate. Of the 198 surveys, 109 (55.1%) respondents were vaccinated against Influenza and 64 (32.3%) against Pertussis. Women in the professional/manager/employer socioeconomic group were more likely to be vaccinated (aOR 3.4; 95% CI 1.11-10.42). There was a strong association between vaccination uptake and receiving information during pregnancy (aOR 12.8; 95% CI 2.65-62.5) and receiving the vaccine in a previous pregnancy (aOR 5.15; 95% CI 1.70-15.62). Unvaccinated women had concerns about the harm it may cause to their baby (53%; n=30) and concerns about side effects for themselves (55%; n=33).

Discussion

A key determinant of vaccination was provision of information and a recommendation to vaccinate by a healthcare professional. Uncertainty over the safety of the vaccine was evident. Consistent patient education by Pharmacists, General Practitioners, Midwives and Obstetricians to address safety concerns surrounding the risks of Influenza during pregnancy could increase the uptake of the vaccine.

References

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Harm reduction and cost avoidance in the ED through clinical pharmacist intervention

Joanne Gaskin, Our Lady of Lourdes Hospital, Drogheda.

Objectives: This study evaluated the type and frequency of a clinical pharmacist's interventions in the Emergency Department (ED) and their effect on preventable adverse drug events (ADEs) and their cost implications.

Setting: The study was set in the ED of a 339 bedded Acute General Teaching hospital in Ireland which serves a population of over 300,000. Annual ED attendances and admissions are 52,479 and 14,152 respectively.

Method: The study was a cross sectional, observational study of all clinical pharmacist interventions completed on lodged (or inpatient) adult (≥16 years old) prescriptions in the ED over 22 consecutive working days. The Pharmaceutical Care Network Europe 2010 Classification system for Drug Related Problems[1] and the National Coordinating Council for Medication Error Reporting and Prevention Index for Categorizing Medication Errors[2] were used to categorise intervention. Cost benefit analysis was also performed through the Nesbit Method[3] using probability scoring of patient drug harm in the absence of pharmacist intervention.

Key Findings: 92 patients required no ED pharmacist intervention and 169 patients required at least one intervention. 289 interventions were completed on 169 patients with a prescriber acceptance rate of 61.9%. The predominant intervention type was the omission of regular medication on admission (36%). 65.1% of ED pharmacist interventions were categorised as a potential ADE and 3.5% were categorised as actual ADEs by two ED consultants. In comparison, the ED pharmacist categorised 67% of interventions as a potential ADE and 11.4% as actual ADEs. A cost benefit of €20,876 and a cost benefit ratio of 3.76:1was associated with the ED pharmacist service through the avoidance of ADE costs in the study.

Conclusion: An ED clinical pharmacist service has demonstrated a positive impact on identification and reduction of preventable ADEs. This reduction in patient drug harm corresponds to cost avoidance in excess of three times the cost of the pharmacist service.

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3. Nesbit TW. Implementation and pharmacoeconomic analysis of a clinical staff pharmacist practice model. *American Journal of Health-System Pharmacy. 2001; 58(9).*
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Making insulin safer (MITS) in Northern Ireland hospitals

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Health & Social Care Board. Queens University Belfast.

Background

National Diabetes Inpatient Audit Reports, repeatedly detail a high percentage of management and prescription errors with insulin. These events increase patient risk and lengthen hospital stay. Foundation doctors (FDs), who undertake most prescribing, receive little support to fulfil this important role. Reports also show some in-patients would like to be more involved with their management and others would like to be less involved.

Aims: MITS aims to improve the experiences of in-patients prescribed insulin, the education of FDs who write most of their prescriptions, and the appropriateness of prescriptions. By reflectively debriefing FDs on insulin prescribing, events that they found educative, MITS aims to empower FDs to:

- Handle the inherent complexity and uncertainty of prescribing insulin
- Work well within multidisciplinary teams
- Respect patients' right to be involved in their own care
- Access and make good use of other HCPs and information sources

Methods: Phase 1 of MITS, which involves all 5 NI Hospital Trusts, ends in December 2017. It is based on a similar intervention for antibiotic prescribing, undertaken in Manchester (1).Evaluation methods from the discipline of Implementation Science will determine how key stakeholders (patients, FDs, pharmacists) respond to a behavioral intervention based on capability-opportunity-motivation theory.

Intervention: We will pilot an approach which provides FDs with educational resources and encourages them to act appropriately when confronted by complexity. A trained pharmacist, doctor, nurse or service user will help FDs make specific, written commitments to adopting safer prescribing behaviors.
FDs will be encouraged to involve in-patients in decisions about their insulin management. We will aim to involve patient groups, through DUK networks, in decisions about FD training.

Results & Conclusion: Early indications are that FDs are eager to receive support with their insulin prescribing decisions and that many in-patients, prescribed insulin, would like to be more involved in decisions about their management.

References

1. McLellan L[1], Dornan T[2], Newton P[3], Williams SD[4], Lewis P[5], Steinke D[5], Tully MP[5]. Pharmacist-led feedback workshops increase appropriate prescribing of antimicrobials. J Antimicrob Chemother. 2016 May;71(5):1415-25

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Oral presentations: **Medicines optimisation 2**

Time: **2.45pm – 4.15pm**

Location: **The Garden Room**

Chair: **Mamoon Aldeyab & Sheila Ryder**

Author	**Title**
Maria Kelly	A randomised controlled trial to assess the effectiveness of an educational intervention to increase parental fever knowledge
Ruth Miller	Developing a regional medicines optimisation model for older people in care homes: refinement and reproducibility
Aoife McGillicuddy	Optimising oral medicines for older adults: what role can pharmacists play?
Susan Patterson	Commissioning a medication adherence support service for older people: overcoming the challenges in community pharmacy
Frank Moriarty	The economic impact of potentially inappropriate prescribing and its adverse effects in older people: a Markov modelling study
Fiona O'Neill	Teaching medicines optimisation to pharmacy undergraduates

A randomised controlled trial to assess the effectiveness of an educational intervention to increase parental fever knowledge

Kelly M[1,2], McCarthy S[1,3], O'Sullivan R[4,5], Shiely F[2,6], McGillicuddy A[1], Sahm LJ[1,7]
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Introduction: Despite the existence of guidelines from national organisations, parental knowledge of fever and management of fever in children is incomplete (1). The aim of this study was to assess the effectiveness of an educational intervention to increase parental knowledge of fever.

Methods: A prospective, multi-centre, randomised, two-parallel arm, controlled trial with blinded outcome ascertainment was conducted. A convenience sample of parents presenting at purposively selected GP practices, urgent and emergency care treatment centres and pharmacies in Cork, Ireland were invited to participate. An information leaflet for use in the trial was designed based on two previous studies with parents. Parents in the control arm were asked to complete a short questionnaire at randomisation (time-point 1) and again two weeks after randomisation (time-point 2). Parents in the intervention arm were asked to read an information leaflet on fever and management of fever in children, complete a short questionnaire at randomisation (time-point 1) and again two weeks after randomisation (time-point 2).

Results: A total of 100 parents participated at time-point 1 of the study, with 50 participants in each arm. After time-point 2, 39 parents from the control group and 34 parents from the intervention group had been successfully contacted. A greater proportion of the intervention group (76%) than the control group (28%) selected the correct temperature to recognise fever (38^{O}C) at time-point 1. At time-point 2, 82.4% of the intervention group and 30.8% of the control group selected the correct temperature. When answers from the intervention and control groups were compared at both time points using simple logistic regression, participants in the intervention group were more likely to give the correct answer at both time points (initial questionnaire OR 8.143 CI 95% 3.325-19.943; after two weeks OR 10.5, CI 95% 3.448-31.972). Management practices were also positively influenced by the information leaflet (reduction in alternating between antipyretics and tepid sponging).

Conclusions: An educational intervention can improve parental knowledge of fever and correct management strategies. This study highlights the need for public health authorities to consider incorporating this leaflet into resources for parents.

References: 1 Kelly M, Sahm LJ, Shiely F, O'Sullivan R, McGillicuddy A, McCarthy S. Parental knowledge, attitudes and beliefs regarding fever in children: an interview study. BMC Public Health. 2016;16:540.

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Developing a regional medicines optimisation model for older people in care homes: refinement and reproducibility

Miller R[1,2], McKee H[3], Scullin C[2], Darcy C[1], Friel A[1], McCrory R[1], Parkhill S[1], McLister N[3], Nicholl J[3], Scott M[2,3].

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Introduction

In 2012, the Northern Health and Social Care Trust (NHSCT) implemented consultant pharmacist led trust outreach medicines optimisation clinics for care home patients; this service yielded a 14% drop in Emergency Department (ED) admissions together with improved appropriateness of prescribing and drug cost savings[1].

Aim

The aim of this work was to refine the care home model and reproduce it in another trust, thereby informing the potential regional roll out of this new pharmacy service.

Method

In August 2015 two older people specialist independent prescribing pharmacists were recruited into the NHSCT service under the mentorship of the consultant pharmacist. The Western Health and Social Care Trust (WHSCT) recruited two similar pharmacists who delivered the same model of care and also tested different GP communication models where interventions may be actioned via letter, teleconference or direct access into GP systems. Data were collected for patients seen over a 12-month period and followed up for 90 days post review completion.

Results

Appropriateness of prescribing improved [measured via the medication appropriateness index (MAI)[2]], with associated net drug cost savings of £147 to £180 per patient pa. Post medicines optimisation review healthcare resource usage is being evaluated and an economic model is being developed to quantify the impact of the pharmacy service on this.

Conclusion

A consultant pharmacist led medicines optimisation trust outreach service for care homes is reproducible with positive outcomes achievable when transferring the service into another geographical area.

References

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Optimising oral medicines for older adults: what role can pharmacists play?

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Introduction

Oral medicines may need to be modified (e.g. tablets crushed) for older adults to overcome swallowing difficulties or to administer tailored doses. Research in an Irish nursing home found that 35.1% of residents received modified medicines[1]. The aim of this study was to investigate nurses' views on modification and to identify potential roles for pharmacists in optimising oral medicine use for older adults.

Methods

Semi-structured, qualitative interviews were undertaken with nurses working in purposively selected acute and long-term care settings in the greater Cork region. The data were analysed thematically as per Braun and Clarke's methodology.

Results

Eighteen nurses participated in the interview study (83.3% female, median age (interquartile range) 38.0 years (19.5), mean interview duration (standard deviation) 16 minutes 29 seconds (6 minutes 21 seconds)). Pharmacists were seen to be the most knowledgeable members of the multidisciplinary team in relation to medicine modification and were the primary source of information for nurses. In general, nurses had extremely positive views of pharmacists. However, nurses did express a desire for greater pharmacist involvement including: pharmacist-led education, development of site specific resources and greater involvement in the multidisciplinary team. Nurses would also welcome more proactive assessment of patient's formulation requirements by pharmacists.

Conclusion

Pharmacists have an important and valued role in information provision about modifications and there is a desire amongst nurses for even greater pharmacist involvement in this area.

References

[1]Mc Gillicuddy A, Kelly M, Sweeney C, Carmichael A, Crean AM, Sahm LJ. Modification of oral dosage forms for the older adult: An Irish prevalence study. Int J Pharm. 2016;510(1):386-93.

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Commissioning a medication adherence support service for older people: overcoming the challenges in community pharmacy

Patterson SM[1] Johnston C[2], Gribben J[3]
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Introduction: Up to 50% older people do not adhere to their prescribed medicines, potentially leading to a reduction in expected clinical outcomes of therapy, a higher risk of avoidable medicine-related hospital admissions, and increased waste[1].

Aims: 1) To develop and test a mechanism to commission a medicines adherence support service from community pharmacy that provided wider patient access to services than a hospital-led service; 2) to test a medicines adherence assessment tool in the community setting; 3) to commission the supply of adherence solutions and 4) to provide a monitoring and follow up service.

Methods: A community pharmacy care pathway was developed in parallel with a hospital specialist pharmacy care pathway. Community pharmacies (CPs) from East Antrim and Lisburn Integrated Care Partnership areas were invited to participate in a pilot project. CPs were enrolled and trained to identify suitable patients, accept referrals and deliver a medicines adherence support service. Following pre-assessment preparation, patients were assessed at home or in the pharmacy by the CPs, medicines were reconciled and an accurate medicines list generated. CPs assessed barriers to medicines adherence and recommended solutions to address these using a previously tested solution grid. Referrals were made to the secondary care pathway for specialist pharmacist assessment or to other healthcare professionals as appropriate. New methodology was developed to reimburse CPs for the range of stock and personalised solutions supplied. Patients were followed up on a minimum of two occasions post assessment.

Results: Of 47 CPs enrolled in the pilot, 33 provided services to 179 patients for 12 months during 2014-2015. 52% assessments were carried out within the pharmacy and 41% at patients' own homes and took 34 minutes and 42 minutes respectively. On average, patients took 8.8 medicines daily. 151 adherence issues were identified; 86% were non-intentional and 14% intentional non-adherence. CPs provided 2.6 solutions per patient; 45% of all solutions provided were stock solutions and 65% were personalised solutions. Solutions included provision of a "stock" device e.g. reusable compliance aid/pill popper (45%), weekly pharmacy-filled monitored dosage system box (36%), monthly medicines list (29%), synchronisation of quantities(21%), ordering prescriptions(18%), specific education (17%), medicines delivery(14%), provision of information(13%). 69% follow ups took place in the pharmacy.

Conclusion: CPs were successfully commissioned to provide a medicines adherence support service. Care pathways supported patients having adherence issues in an individualised manner to improve adherence to medicines and optimise their medicines-taking, thus enabling them to remain independent at home.

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The economic impact of potentially inappropriate prescribing and its adverse effects in older people: a Markov modelling study

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Introduction

Potentially inappropriate prescribing (PIP), use of medications where the risks may outweigh the benefits, is prevalent in older people (≥65 years). Research on the economic impact of PIP has been limited.[1] This study aims to estimate the economic impact of three types of PIP, long-term use of non-steroidal anti-inflammatory drugs (NSAIDs), benzodiazepines, and proton pump inhibitors (PPIs) at maximal dose.

Method

Markov models were developed for each PIP, mapping out the principal adverse effects (e.g. falls/fractures for benzodiazepines). Models were populated with published estimates of adverse event rates, costs to the Irish healthcare system (in 2014 euro), and loss in quality of life associated with each adverse event. Models were run on a cohort of community-dwellers aged 65 years over 35 one-year cycles with discounting at 5% (as recommended by HIQA). The difference in cost and quality-adjusted life years (QALY) between each PIP and an appropriate non-PIP alternative were estimated, with 95% confidence intervals (CI). The models were then used to evaluate the cost effectiveness of medicines optimisation interventions to reduce these PIP criteria, using published estimates of intervention effectiveness.

Results

The largest incremental cost and effect was for long-term benzodiazepines compared to no pharmacotherapy (€3,470, 95% CI €2,434, €5,001; -0.07 QALYs, 95% CI -0.089, -0.047), followed by long-term maximal dose PPIs relative to maintenance dose PPIs (€989, 95% CI -€69, €2,127; -0.01 QALYs, 95% CI -0.029, 0.003), and long-term NSAIDs compared to paracetamol (€806, 95% CI €415, €1,346; -0.07 QALYs, 95% CI -0.131, -0.026). At the Irish willingness-to-pay threshold of €45,000/QALY, an intervention to optimise prescribing by reducing long-term NSAID use would be cost effective up to an intervention cost per person of €1,970. Medicines optimisation interventions for inappropriate benzodiazepines and PPIs would be cost effective up to €1,480 and €831 respectively.

Discussion

Potentially inappropriate benzodiazepine and NSAID use were associated with significantly higher costs and reduced QALYs. Medicines optimisation strategies can provide substantial cost savings and improve care quality in the Irish health system.

References

[1] Hill-Taylor B, et al. Application of the STOPP/START criteria: a systematic review of the prevalence of PIP in older adults, and evidence of clinical, humanistic and economic impact. J Clin Pharm Ther 2013; 38(5): 360–72.

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Teaching medicines optimisation to pharmacy undergraduates

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Northern Ireland Teacher Practitioner Pharmacist Network and [1]Northern HSC Trust, [2]Western HSC Trust, [3]Southern HSC Trust, [4]South Eastern HSC Trust.

Introduction

Medicines optimisation has been defined as "a patient-focused approach to getting the best from ... medicines"[1] and is endorsed by NICE[2] and DHSSPSNI[3]. In the academic year 2015-16, the Northern Ireland Teacher Practitioner Pharmacist Network (NITPPN) developed a Medicines Optimisation (MO) tool for teaching and assessment during the third year QUB pharmacy undergraduate hospital placement (n=107). The tool was based on the four guiding principles of MO[1]. The team delivered a pre-placement lecture, followed by a minute paper, and addressed any questions before the placement. Each student prepared at least four MO tools and submitted one for summative assessment. Students completed six-part Likert scale pre- and post-placement questionnaires on perceived ability to perform MO tasks.

Aim

To investigate student ability to perform medicines optimisation pre- and post-participation in a MO focused hospital experiential placement.

Method

The team:

- analysed minute papers for statements concerning MO
- collated clinical activities and interventions identified by students
- categorised therapeutic conditions discussed according to BNF chapters
- compared answers to pre- and post- placement questionnaires
- compared student performance in MO using MO tool assessment marks.

Results

94/107 students completed the minute paper (88%), with 13 MO-related questions. Students performed 434 clinical activities and interventions relating to conditions spread across BNF categories. Comparison of pre- and post-placement questionnaires showed a shift towards greater self-reported confidence in MO-related skills and abilities. Student performance was spread from 0-100%, mean score: 60%.

Conclusion

The Medicines Optimisation tool was a useful assessment method which allowed students to develop core transferable skills which could benefit future patients.

References

1. RPharmS (2013) Medicines Optimisation: Helping Patients Make the Most of Their Medicines. Available at: http://www.nhs.uk/aboutNHSChoices/professionals/healthandcareprofessionals/your-pages/Documents/rps-medicines-optimisation.pdf [Accessed 3/5/17]
2. Northern Ireland Medicines Optimisation Framework. Available at: https://www.health-ni.gov.uk/sites/default/files/consultations/dhssps/medicines-optimisation-quality-framework.pdf [Accessed 3/5/17]
3. NICE NG5 Medicines Optimisation: the safe and effective use of medicines to enable the best possible outcomes. Available At https://www.nice.org.uk/guidance/ng5 [Accessed 3/5/17]

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Poster presentations

The Garden Room

Times: 11.15 am – 11.45 am & 2.00 pm – 2.45 pm

Audit/evaluation of palliative care discharges from hospital trusts in Northern Ireland

Macmillan Palliative Care Service Improvement Pharmacists. Patrick McGovern, South Eastern Trust, Peter Armstrong, Belfast Trust, Anne McCord, Northern Trust, Pauline McCaffrey, Western Trust, Maureen Mullen, Southern Trust.

Introduction

Palliative care prescriptions are often complex and time-consuming for Pharmacy, involving controlled drugs and medicines by different routes of administration. While many medicines lend themselves well to 28-day and original pack dispensing this is not the case for medicines commonly used in palliative care such as opioids or injections for syringe pumps. The Pharmacy Working Group from the Transforming Your Palliative and End of Life Care (TYPEOLC) Initiative had considered a minimum of 7 days supply of all medicines for palliative care patients to be a reasonable amount for supply on discharge from hospitals in Northern Ireland.

Aims

To identify if there is a consistent approach to the number of days of medication supplied on discharge for palliative patients, in line with the recommendations from TYPEOLC, and to evaluate the workload of palliative discharges for Pharmacy with respect to amount and type of medicines prescribed and time taken to process.

Method

Retrospective audit and service evaluation capturing data on palliative care patients known to the hospital specialist palliative care teams and discharged from the five Trusts in Northern Ireland in November 2016. The Pharmacy computer system (JAC) and prescription tracking system (where available) were used to collect the data.

Results

Data was collected for 170 patients who were dispensed 1611 medicines on discharge (mean 9.5, range 1-26), including 1167 regular and 444 ‘as required’ medicines. Controlled drugs were dispensed to 66% (112/170) of patients and 16% (range per Trust 3-30%) of patients had a syringe driver. Although 92% of the 1072 regular ongoing medicines were dispensed with at least 7 days supply (range 81-99%), 34% of patients (58/170) received at least one medicine with less than this quantity (range per Trust 1-19%). Of the 89 occasions where less than 7 days of regular medication was supplied, 31% (28/89) involved a syringe driver medicine and 28% (25/89) regular paracetamol where a 4-day supply was common (18/25). For the 83 patients where information on dispensing times was available, 53% of the palliative discharges were processed within the Trust’s KPI of either 2 or 3 hours.

Conclusion

Palliative discharge prescriptions remain complex and time-consuming. Dispensing < 7 days’ on discharge may put pressure on patients/carers and community healthcare professionals to obtain further supply. There is wide variation in quantity supplied between Trusts and standardisation on pack sizes for paracetamol and regional pharmacy guidance on discharging palliative care patients may be warranted.

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Palliative care in the community; the views of Northern Ireland community pharmacists on palliative care

Macmillan Palliative Care Service Improvement Pharmacists. Peter Armstrong, Belfast Trust, Maureen Mullen, Southern Trust, Anne McCord, Northern Trust, Pauline McCaffrey, Western Trust, Patrick McGovern, South Eastern Trust.

Introduction

Community Pharmacy services are integral to palliative care with good symptom control and access to palliative medicines essential in the last months of life. The Macmillan Palliative Care Pharmacy Service Improvement Initiative is a community-facing project aiming to develop and promote palliative care pharmacy services in NI.

Aims

To collect exploratory baseline data on the views and experiences of community pharmacists in Northern Ireland on palliative care, using an online survey.

Method

Survey content was agreed by the regional multi-professional steering group for the initiative and comprised demographics, palliative care services provided, views on accessing medication, knowledge of the community pharmacy palliative care network (CPPCN) and educational needs. An online survey link was emailed to community pharmacists and the responses reviewed to identify common themes.

Results

Questionnaires were completed by 113 community pharmacists. Eighty-nine per cent (100/113) were aware of at least one palliative patient or carer using their pharmacy over the previous 12 months and 32% (36/113) reported more than 20 patients/carers. Common issues experienced with palliative care prescriptions were insufficient sufficient stock of medication to complete the order and incorrectly written prescriptions. Only 2% of pharmacists reported that they always received communication on palliative care patients' medication following discharge from hospital, but 100% would appreciate being provided with such information. Three-quarters of non-CPPCN pharmacists who responded were aware of the palliative pharmacy network but less than half had accessed it or were familiar with the medicines they stocked. Nearly all (96%) would appreciate updated information on the CCPCN and 95% were happy to contact one of the network pharmacies for supply or advice. Pharmacists indicated they had a good degree of confidence in dealing with palliative prescriptions although 97% of those who responded (wanted further palliative training and 96% requested more resources on palliative care.

Conclusion

Community pharmacists commonly encounter palliative care prescriptions although there are shared issues they experience including access to palliative medicines, lack of information after hospital discharge and awareness of the CPPCN. Pharmacists would also benefit from increased training and resources on palliative care. These results will guide a regional service improvement project.

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Informed consent to the supply of exempt medicinal products from a community pharmacy

Sadhbh Brangan, West Acre, Ashford, Co. Wicklow

Introduction

Informed consent by a patient to the supply of an exempt medicinal product from a community pharmacy presents a legal, ethical and moral dilemma for community pharmacists.

Aim

To investigate opinions/trends/performances pertaining to the above, an audit of prescriptions for exempt medicinal products was conducted, followed by a questionnaire circulated to community pharmacists.

Results

The results demonstrated a high volume of prescriptions for exempt medicinal products dispensed in community pharmacies and the variability of community pharmacists' attitudes and practices. Furthermore the results clearly highlighted the failure of a large cohort of pharmacists to document the consent process and engage in good medico-legal practice. In order to improve/ standardise the consent process, a protocol was developed.

Conclusion

The protocol facilitated documentation of the consent process, communication to the patient of the salient information in relation to the exempt medicinal product and ensured compliance with the community pharmacist's professional responsibilities. The protocol when implemented assisted in addressing this risk management (informed consent) issue in community pharmacies.

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The effect of pharmacist medication review clinics combined with cognitive behaviour therapy on patients' perception of pain and use of opioids and neuropathic painkillers

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Objective

To evaluate the impact of pharmacist medication review clinics combined with Cognitive Behaviour Therapy on patients' perception of chronic pain and use of opioid and neuropathic pain killers.

Design

Randomised controlled trial (parallel arm) of CBT pain management programme coupled with a pharmacist medication use review in the intervention arm and by treatment as usual followed by a pharmacist medication use review in the control arm.

Setting

An urban GP surgery serving 10,258 patients. Fourteen patients with chronic non-cancer pain and/or chronic neuropathic pain randomised into two groups of seven patients (control and intervention groups).

Main outcome measures

Statistical analysis of changes in Brief Pain Inventory (BPI), Pain Self Efficacy Questionnaire (PSEQ) and Depression, Anxiety and Stress Scale (DASS-21) scores before and after CBT 'pain awareness' course in the intervention group and before and after a period of six weeks in the control group.

Statistical analysis of changes in total daily morphine equivalent doses and in number of pain medications used.

Results

The use of a CBT counselling pain management programme reduced pain interference scores on the BPI tool and also reduced DASS-21 anxiety scores. There was no significant reduction in pain intensity, daily morphine equivalent doses or in the number of pain medications used by patients.

Conclusion

CBT can positively impact on pain interference in patients' lives and reduce group DASS-21 anxiety scores. A larger trial with a longer follow-up is needed to fully investigate the effect of pharmacist medication review and if there is persistence of positive pain interference and anxiety outcomes following CBT intervention.

Controlled drug reconciliation project (CDRP)

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Introduction

There are over 2000 medicines licensed as Controlled Drugs (CDs). Reports on drug misuse show that Schedule 3-5 CDs have become amongst the most widely abused drugs in NI. Such drugs also contribute to a significant proportion of all overdoses. Weaknesses in the lawful supply chain processes have been highlighted[5]. CDRP is a collaborative project between Health and Social Care Board (HSCB), the Department of Health Northern Ireland (DoH) and the Business Services Organisation (BSO). The project seeks to reconcile wholesaler supply of controlled drugs to corresponding dispensing claims from community pharmacies in NI.

Method

CDRP focussed on effective collaboration across various organisations and disciplines to enable the development of a CD reconciliation database in order to identify potential current, and deter future diversion. The database was constructed over a year and required expert IT, statistical and pharmaceutical expertise. CDRP has enhanced the monitoring of the supply chain and left a legacy of effective collaboration between IT, statisticians, investigators, community pharmacy representatives and pharmaceutical wholesalers, entirely unique across the UK

Results

CDRP database is supporting HSCB and DH in the discharge of their functions by providing a unique evidential basis to (a) Stop diversion/misuse; (b) Deter future unlawful activities; and (c) Support enforcement action through the courts and professional bodies where appropriate

Discussion

Professional representative bodies have been engaged to disseminate the findings of CDRP and to highlight the process as a deterrent. This has helped to allay fears, garner support, promote communication, trust and co-operation. There is widespread professional support for the process and ultimately this has led to increased protection of the public.

Conclusion

This project is the only one of its kind in UK with the National Controlled Drugs Group and Controlled Drugs Cross Border Group expressing keen interest and taking learning from the project and applying it in their work. It is anticipated learning from this process will become even more significant in the next years as the EU has passed the Falsified Medicines Directive which requires proof of provenance from manufacturer to consumer.

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[5] Young D. Jail for chemist who put £600,000 of prescription drugs on black market. Belfast Telegraph 2015 April 28

Investigation of pharmacists' attitudes towards how their degree developed the skills required to challenge a prescriber's decision.

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Introduction

The evolving role of the pharmacist has highlighted the importance of communication with other members of the multi-disciplinary team. Pharmacists need to demonstrate a consistent level of clinical and drug expertise and to build a trusting relationship with prescribers in particular as it is this group of health care professionals (HCPs) whom they are most likely to challenge[1].

Aims

- Assess pharmacist attitudes to how their degree helped them to interact with other HCPs
- Learn how other HCPs developed their communication skills
- Provide and implement suggestions to improve confidence in communication skills

Method

A questionnaire was prepared, piloted and completed by pharmacists, medical and nursing staff in the Northern Health and Social Care Trust.

Results

Questionnaires were completed by 37 pharmacists, 11 nurses and 4 doctors. Twenty-seven pharmacists stated that they had experienced conflict with other HCPs with 23 respondents stating that they had never received communication skills training at university. The majority (96%) felt that their confidence in communicating with other HCPs had improved since they were newly qualified, attributing this to experience and increased clinical knowledge. A range of methods were suggested to increase confidence; work shadowing and mentoring, attendance at ward rounds and multi-disciplinary meetings, workshops and inter-professional learning.

Discussion

Post-graduate communication skills training may increase the confidence and experience of pharmacists to appropriately challenge prescribing decisions. Poor communication can arise from a lack of understanding of the role of other HCPs and many respondents felt that inter-professional learning (IPE) is beneficial. Methods suggested by all HCPs to increase confidence and improve communication skills were used to deliver an interactive session to junior pharmacists.

References

1. Snyder M et al. Exploring successful community pharmacist-physician collaborative working relationships using mixed methods. Research in Social and Administrative Pharmacy 2010 Dec; 6(4): 307-323.

Joanne Brown, Antrim Area Hospital, joanne.brown@northerntrust.hscni.net, 02894 424000 Ext. 2150.

Introduction of a clinical induction checklist during an experiential hospital placement for third year pharmacy students.

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Introduction

Previous studies have highlighted the benefits of the provision of authentic practice experiences giving an enhanced perspective to therapeutic teaching and an increased value on patient care[1] and a dramatic reduction in failure rates of clinical tests[2]. In 2016, the NITPN developed a Clinical Pharmacy Induction Checklist and required all third year QUB and UU pharmacy students to complete this during their placement. Students participated in patient and healthcare professional interactions, kardex review as well as clinical check of a discharge prescriptions among others.

Aims

- Identify authentic pharmacist tasks that students completed during an experiential hospital placement.
- Determine student opinion of completing an induction checklist.

Method

The NITPN developed the clinical induction checklist. During the placement, TPs checked that the tutor had signed the activities and then categorised activities quantitatively into themes. Post-placement student evaluations were analysed to identify student opinions and experiences of completing the checklist.

Results

Checklists were completed by students (n=148) during their placement. The most common activities reported were; Pharmacy services (n=138), interaction with a healthcare profession (n=75) and a patient (n=42) and the least common was completing an incident form (n=3).

Conclusion

Pharmacy students completed a range of authentic pharmacy tasks related to a number of pharmacy education outcomes. Students were provided with real-life learning activities which cannot be easily replicated in the university setting from professional pharmacist role models. The use of a "Clinical Pharmacy Induction Checklist" for third year pharmacy students on placement was well received by students and has been incorporated into subsequent placements.

References

1. Sansom VE, Cox EA. Student pharmacists' perspective on actual vs. simulated pharmacy practice experiences. *Currents in Pharmacy Teaching and Learning*, 2013 (5):146-148.
2. Kamau C. Effects of experimental inductions for newly qualified doctors on competence at clinical procedures. *Clinical Medicine*, 2014(14); 3: 380-385.

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Introduction of a mobile dispensing unit (MDU) to facilitate near patient dispensing in the emergency department

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Introduction

The Emergency Department (ED) Pharmacy team were finalists & joint winners of a Dragons Den style trust competition to improve the safety quality & effectiveness (SQE) in the workplace by way of an innovative idea. The funding assisted the implementation of a sustainable near patient dispensing solution in the ED by covering the costs of purchasing an MDU.

Aim

To integrate an MDU into the ED Pharmacy team workflow.
To reduce the time taken to supply take home medications to ED patients' for prescriptions that were suitable to dispense via an MDU.

Results

- The estimated average time to complete prescriptions via the MDU is 15-20 minutes[1]
- Baseline data (Oct 15) average time for script turnaround in main dispensary 77 minutes [2]
- Between Jul 16 & April 17 ~1000 take home supplies were dispensed in ED using the MDU

[1] The estimated average time to complete prescriptions via the MDU includes clinical screen by a pharmacist, the dispensing process & a final check by a pharmacist.
[2] exclude factors such as portering time to pharmacy & for collection estimated at 5mins, clinical checks at ward level etc.

Conclusion

The introduction of a mobile dispensing unit has afforded a new time saving that has a direct impact on patient flow in ED. Cost avoidance through time savings could be calculated whether in reduced waits to book ambulances, nursing/doctor clinical care, or time on the ED eEMS system. A further benefit is a reduction on UHD dispensary workload, the ED Pharmacy team work 7 days per week (since December 2016) including hours outside those where prescriptions are accepted by the main dispensary. ED staff have praised the value of being able to turn around take home medication supplies in a timelier manner.

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Shared electronic patient record access for community pharmacists - is there a need and what are important considerations for the design, use and implementation?

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Introduction
A shared electronic patient record (SEPR), the Summary Care Record (SCR) is available in England, with community pharmacists (CP) access. In Ireland, a SEPR is under development. Thus, this research sought to (i) create an evidence-based conceptual framework to inform the development of SEPRs and (ii) Survey CPs in England and Ireland to describe their views on SEPRs, based on the conceptual framework, and generate recommendations to inform iterative development.

Research design/medthods
A literature review was conducted, basic thematic analysis was applied and a conceptual framework was developed to inform questionnaire design. CPs were surveyed in Ireland to assess readiness and willingness for SEPR access and in England to learn about their experience of SCR access and views on system implementation. The survey sampling frame was CPs in Ireland and England. Participants were recruited via email invitation and social media containing a hyperlink to the anonymous questionnaires. Ethics approval was granted. Data were analysed using descriptive statistics, and categorical responses were compared using Chi^2 test.

Results
The conceptual framework identified four themes to be addressed in SEPR development: need, design, use and implementation. There were 201 responses in Ireland and 57 in England. In Ireland, CPs identified the need for access to patient information about medication history (92%), allergies (92%), diagnoses (91%) and rationale for therapy changes (91%). The most prevalent expected barriers to accessing SEPRs for CPs in Ireland were workload burden (66%), fear of litigation (51%) and concerns about data security (48%). CPs in England reported that training on SCR was good or very good (59%) and the majority (71%) said it was tailored to their role. Access to information through SCRs was perceived to improve quality of care (92%), level of involvement in care (83%), service efficiency (69%) and job satisfaction (63%). Reported improvement in service efficiency was greater among frequent users (91%) than infrequent users (50%), $p<0.05$. Medication history information in SCRs was reported as being most useful. The speed of accessing SCRs was reported as average or worse by 82%, with the majority (72%) in favour of write-access being extended to users other than GPs. A greater proportion of CPs in Ireland than England indicated willingness to share information with other CPs (96%, $p<0.05$), hospital pharmacists (96% v's 84%, $p<0.05$) and hospital doctors (95% v's 86%, $p<0.05$).

Conclusion
SEPR design should consider the user interface and experience, content of the record and access security. There are many uses for CP access to SEPRs and initial improvements may be anticipated in efficiency of care and access to information out-of-hours. Implementation involves large-scale sociotechnical change and should be carefully planned, with consideration of training, evaluation and impact on role. Small sample size and self-select recruitment may have introduced sampling and extreme response biases.

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Standardising medicine prescription and administration records

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Background

Standardising NI medicines Kardexes would eliminate variation in those used across the region and support safe prescribing and administration practices. It would also help ease the transition to one NI electronic prescribing and administration system which is planned as part of the future roll-out of the NI Electronic Health Record.

Methodology

To develop and implement regional medicine Kardexes for adult acute care, paediatrics, maternity, longer stay facilities and out-patient settings. Regional Kardexes were developed following comparison of current trusts' Kardexes with the Academy of Medical Royal Colleges 'Attributes of a satisfactory in-patient medication administration record' and inclusion of tried and tested sections to improve safe prescribing and administration practices. The development of training material also provided opportunities to standardise safe prescribing and administration practices across NI. Staff user satisfaction surveys were undertaken for the adult and paediatric Kardexes 4 months post implementation.

Results

79% of respondents (n=415) said that the introduction of the adult and paediatric Kardexes was a smooth process. Responders (n=315) for the adult Kardex were strongly in favour of the inclusion of the VTE risk assessment (80%), the enoxaparin prompt (89%), the enoxaparin dosing guidance (83%), and space to record omitted doses (90%). For the adult and paediatric Kardexes 60% of respondents were similarly in favour of the inclusion of an antimicrobial section and 86% found it easy to use. The inclusion of an oxygen section was also positively received with the majority stating that they were happy with it, 60% and 80% for the adult and paediatric kardexes respectively.

Conclusion

We have demonstrated a successful system wide approach, which involved end users in the design and implementation of regional medicine Kardexes. Standardising the NI medicine Kardexes has led to an impetus for other prescribing and administration documents to be harmonised e.g. insulin s/c and IV charts and immediate discharge summaries.

References

1. Academy of Medical Royal Colleges in collaboration with the Royal Pharmaceutical Society and Royal College of Nursing report on standards for the design of hospital in-patient prescription charts. April 2011

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Evidence based introduction of biosimilar infliximab into use in St. Luke's Hospital

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Introduction

Biosimilar Infliximab (Remsima and Inflectra) has been authorised for use Crohn's Disease and Ulcerative Colitis in the European Union (EU) since June 2013. These use of these biosimilars has the potential to generate substantial savings for the hospital, however there are a number of concerns about their introduction into practice and the uptake has been relatively low nationally.

Aims

The aim of this project was to assess the concerns about the introduction of a biosimilar Infliximab into a general hospital setting, determine if the concerns could be addressed and to assess if it was appropriate to introduce the biosimilar into practice.

Methods

- The concerns were identified, including
    - Lack of clinical trial data in IBD, CD indications, extrapolation of data, risk of immunogenicity, infusion reactions, patient consent, whether to initiate new patients, whether to switch or substitute products, the basis for interchangability.
- An evidence based review examining these individual concerns was carried out.
- Each individual concern and the available evidence was discussed at the Hospital Drugs and Therapeutics Committee and multidisciplinary meetings (GI consultants, pharmacist and practice nurse) since August 2013.
- As concerns were addressed, a phased introduction of the biosimilar was adopted following the assessment of mounting evidence and guidance from international expert groups.
  (BSG, ECCO, CHMP, EMA, NICE, HPRA)

Results

An evidence based, phased introduction of Biosimilar Infliximab into St. Luke's Hospital has taken place since Oct 2014. Since then the recommendations of various international expert groups have been followed and our use of biosimilar infliximab has changed to match the developing consensus. To date Apr 2017, we have administered 985 vials of biosimilar infliximab to 31 patients (including treatment naive and switch patients) and have had no biosimilar related issues. The savings generated have allowed the number of patients receiving treatment to almost double at no extra drug acquisition cost.

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Antibiotic utilisation and expenditure in Ireland

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Introduction: Antimicrobial resistance (AMR) is an increasingly serious threat to global public health and the risks of the systematic misuse and over use of antibiotics has been widely acknowledged.[1] In Ireland antibiotic guidelines are overseen by the Healthcare-Associated Infection and Antimicrobial Resistance (HCAI/AMR) clinical programme.

Aim: To describe the utilisation of and expenditure on antibiotics on the General Medical Services (GMS) scheme in Ireland from 2012 to 2015 to inform future guidance and educational requirements on the use of antibiotics in Ireland.

Methods: Retrospective cross-sectional studies of antibiotic utilisation conducted using the HSE-PCRS national pharmacy claims database for the means tested GMS scheme from January 2012 to December 2015. The scheme over-represents elderly, female and younger aged population. Antimicrobial utilisation was reviewed as defined daily doses (DDDs) per 1000 eligible population per day (TID) and total ingredient costs. ATC code J01 was used and included all ages (<16, 16-44, 45-64 and 65+ years). Log-linear regression was used to examine changes over time.

Results: Total antibiotic items dispensed fell from 2,874,228 to 2,629,379 from 2012 to 2015 which was a reduction in the rate of items/1000 population from 1,550 to 1,487. The total costs fell from €17.93 million in 2012 to €16.19 million in 2015. Total DDDs/TID overall showed a slight increase from 34.03 to 35.39 ($p<0.001$). However, this increase was most prominent in the oldest age group (65+ years) where DDD/TID significantly increased from 50.20 to 56.94 between 2012 and 2015 ($p<0.001$), compared to younger aged populations (<16 years) which slightly decreased from 20.99 to 20.75 DDD/TID between 2012 and 2015 ($p<0.001$). Combinations of penicillins and beta-lactamase inhibitors were the most commonly prescribed antibiotic over the period analysed (8.26 DDD/TID in 2012 to 8.57 DDD/TID in 2015). Utilisation of extended spectrum penicillins increased slightly from 4.81 DDD/TID in 2012 to 5.07 DDD/TID in 2015 ($p<0.001$).

Conclusion: While the rate of prescribing items for antibiotics reduced over the 4 year study period there has been a slight year on year increase in the use of antibiotics when analysed as DDD/TID. Future initiatives should focus on antibiotic prescribing in the older population (65+ years) and on the over-use of combination penicillin and beta-lactamase inhibitors to reduce inappropriate antibiotic prescribing.

References: Antimicrobial resistance. World Health Organisation Fact sheet. September 2016. Available on www.who.int,

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Hepatitis C pre-treatment pharmacist assessment: the development process for a complex intervention tool

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Introduction

The skill base relating to the use of direct acting anti-virals (DAAs) to treat Hepatitis C (HCV) is confined to specialist centres in Ireland. There is a need for an expanded model of care to upscale treatment. Pharmacist interventions including medication reconciliation and drug-drug interaction review are key steps for optimum HCV treatment. A novel pre-treatment pharmacist assessment complex intervention tool (CIT) which is developed, validated, implemented and impact assessed has the potential to support devolvement of DAA therapy to secondary and primary care. No studies to date have considered use of a CIT to optimise HCV treatment uptake and outcomes across an expanded model of care.

Aim

To describe the design and development of a novel CIT for HCV patients treated with DAA-based therapy.

Methods

A process review of the pharmaceutical care pathway for HCV patients in a hospital clinic was undertaken. Pharmaceutical care tasks were described qualitatively, forming the basis for the CIT. A multidisciplinary group was formed to reach consensus on guiding principles for CIT design. The group periodically reviewed the CIT throughout its formative stages and provided feedback which was subsequently incorporated into revised versions.

Results

The research group provided feedback in seven rounds with a refined draft of the tool provided to the reviewers at each round, using any feedback received from the previous round of reviews. A total of 27 recommendations were received, with 19 new additions or changes to the tool proposed of which 17 were accepted. Four distinct CIT domains were identified and developed i.e. patient characteristics, medication reconciliation, proposed HCV treatment regimen review and drug-drug interactions recommendations.

Conclusion

The process of complex intervention tool development is dynamic. This study describes the initial phase of systematic CIT design. The project will now progress to CIT validation and pilot implementation.

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"There's no place like home": reducing paediatric discharge steps

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Introduction

It is widely acknowledged that the traditional system of using the hospital dispensary for completion of a patient's discharge prescription is a "time consuming and inefficient process"[1]. In Antrim Area Hospital, the majority of discharge prescriptions are completed at ward level. Ward level dispensing has helped to expedite the discharge process thus making beds available at an earlier stage. However this service has not yet been rolled out to the paediatric ward.

Aim

To determine the efficiency of dispensing paediatric discharges at dispensary vs ward level.

Method:

A data collection form was designed for use during a two-phase audit. During the first week of data collection, the turnaround time of dispensing discharges in the dispensary was collected. In the second week, the turnaround time of dispensing discharges at ward level on the paediatric ward was recorded. Medical, surgical and ENT prescriptions were included in the audit with similar patient numbers analysed in both data groups.

Results:

Information relating to 23 discharges was collected during week one at dispensary level. In week 2, 21 discharges were assessed. The average turnaround time was 94 minutes at dispensary level and 26 minutes at ward level.

Only 57% of discharges completed in the dispensary met the standard turnaround time of 60 minutes compared to 100% completed at ward level. Discharge prescription turnaround time was decreased by 72% when completed at ward level. All aspects of the discharge process are more efficient when completed at ward level.

Discussion

When discharges are completed at ward level standards are met 100% of the time, thus highlighting that a ward level dispensing service is necessary on the paediatric ward in Antrim Area Hospital. The time saving for ward dispensing could possibly be ameliorated if a designated technician was allocated to the paediatric pharmacy ward service. The audit also outlines areas that subsequently impact the discharge process: 1) the time it takes doctors to complete prescriptions; and 2) the time a patient is informed they are going home to being given their discharge medication.

References

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Development of a quality improvement training day for pharmacists in N Ireland

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Background

Quality Improvement (QI) methodology involves the application of a systematic approach, using specific techniques to improve the quality of processes. There are various tools used to improve quality, however in recent year's healthcare across the UK and Ireland has adopted the 'Model for Improvement' which was developed in partnership with the Institute of Healthcare Improvement (IHI) in the United States. QI has been endorsed by a number of DHSSPS papers and this abstract details the content of a one day training programme commissioned by the Northern Ireland Centre for Pharmacy Learning and Development (NICPLD).

Aims and objectives

The aim of the one day workshop was to introduce QI methodology to pharmacists (community and hospital based). This included:

- define quality improvement and the benefits of engaging in the quality improvement process
- identify and be able to use the model for improvement methodology in a quality improvement project
- describe the importance of measurement in quality improvement.

Methodology

The programme was developed by pharmacists from the Belfast and Western Trusts, who have completed the 'Safety & Quality Experience' programme and the Safety Forum cross border CAWT programme respectively. The QI in a day workshop provided the attendees with a background to QI and how it differs from research / audit, how human factors play a role in errors, what are the building blocks of the model for improvement (aim, driver diagrams, PDSA cycles and measurement) and how to apply these in practice, including practical sessions on the use of this toolkit to aid understanding of the methodology.

Results

Feedback was received following the initial workshop that took place on the 29th March 2017 and this will influence changes to the follow-up workshop in May 2017.

Conclusion

Following completion of the workshop it is hoped that pharmacists will have gained knowledge of the basic skills necessary to carry out a QI project.

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Safer lithium therapy, in Northern Ireland

NI Regional HSCB and Secondary Care Trusts
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Background

A multi-professional lithium working group consisting of representatives from primary and secondary care was established in Northern Ireland to develop a 'Lithium Care Pathway' to support the requirements of the 'NPSA Alert: Safer Lithium Therapy', this was to ensure:

- Patients are monitored according to NICE guidance
- Systems are in place to communicate test results and manage interactions
- Patients receive ongoing education and a record book to track relevant tests
- Monitoring is checked to ensure it is safe to issue/dispense prescriptions,

The care pathway consists of:

- Lithium Care Flowchart outlining three possible pathways patients may follow.
- Lithium Secondary Care Initiation and Monitoring Care Pathway
- Lithium Shared-Care Guideline outlining monitoring in line with NICE

The working group reconvened to review the regional care pathway in 2016/17. This abstract proposal will give an update to the pathway and also findings of the primary care lithium audit.

Aim

Prior to implementation of the new guidance it was often unclear to prescribers if patients on lithium were being monitored appropriately. The aim of the guidance is to improve systems for review and monitoring of patients on lithium.

Implementation

This required action by GPs and Trust Mental Health Teams fell into three main areas:

1. Following agreement between the Mental Health Team and GP, patients were allocated to one of the three review and monitoring care pathways.
2. GP practices and Trusts reconciled their lithium registers indicating each patient's allocated care pathway. Systems were then put in place to ensure patients were reviewed and monitored according to this pathway, monitoring occurred in line with the 'Secondary Care Initiation and Monitoring Care Pathway'/'Shared-Care Guideline' and monitoring results were communicated to GPs/Trusts accordingly.
3. NPSA Lithium Therapy Information Packs were provided to Trusts and GP practices with guidance on responsibilities for issuing to patients.

Follow-up and outcomes

Primary Care Audits have continued in 2014 and 2015, audit results and changes to the regional lithium care pathway will be detailed in the poster.

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Exploring the potential for a community pharmacy based breastfeeding support service – scope for bidirectional education?

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Introduction

The breastfeeding (BF) initiation period often spans the transition from hospital to home, and exclusive BF is recommended for the first 6 months of life. Therefore, there is potential for increased BF support in the community pharmacy setting, from the perspective of both health promotion and maternal and infant care.

Aim

The aim was to explore the capacity for BF support in community pharmacies, with a focus on knowledge gaps of both service users and providers.

Methods

Data was gathered using two separate surveys targeting a) community pharmacists (CP) and b) parents with experience of BF (stakeholder (SH) survey). This presentation is based on a subsection of the survey, focussing on an open question relating to identified barriers or obstacles to BF support in the community pharmacy setting. The community pharmacy survey also included questions on information resources used by respondents. Thematic analysis was undertaken on the data obtained from the free-text comments, using NVivo v11 for Windows (QSR International).

Results and discussion

56 community pharmacists responded, with 49-50 answering most questions. 181 parents with experience of breastfeeding responded to our SH survey. Themes from the SH survey reflecting perceived knowledge gaps in the CP setting included a lack of knowledge about a) medicines use/safety in the BF mother, b) breastfeeding practices and behaviours and c) medicines information resources used for medication use while BF. Only 1 of the CP respondents indicated that they used Lactmed®[1] as a resource for advice for medication use while BF, whereas several SH respondents were familiar with Lactmed® as a reliable resource. CPs were also seen as being overly cautious with respect to medicines use while BF. Several comments from the CP group expressed a desire for further training in BF to support BF patients.

Conclusions

A perceived barrier to community pharmacy support of BF mothers is the lack of knowledge of CPs around BF behaviours and BF medicines information resources. Conversely, the use of alternative medicines information resources by BF parents and the perception of an overly cautious CP approach, could result in misinterpretation of information and patient exposure to risk.

1. Lactmed: http://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm

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Prescriber acceptance rates of STOPP/START recommendations in hospitalised older adults: physician versus pharmacist

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Potentially inappropriate prescribing (PIP) in the multi-morbid elderly is a major healthcare problem. Explicit criteria such as Screening Tool of Older Persons' Prescriptions (STOPP) and Screening Tool to Alert to Right Treatment (START) are well recognised for identifying PIP instances, and the application of STOPP/START criteria has been shown to reduce adverse drug reactions (ADRs) in older people[1,2]. Two randomised controlled trials were conducted in the same hospital whereby a pharmacist and physician individually applied the STOPP/START criteria to older patients' medication lists at hospital admission and made recommendations to the attending teams[1,2]. All of the physician's recommendations were delivered in both oral and written forms. All of the pharmacist's recommendations were delivered in written form, and approximately one third communicated orally. Attending teams accepted 37.8% of the pharmacist's STOPP/START recommendations compared to 83.4% of the physician's STOPP/START recommendations.

Whilst the physician's intervention focused solely on STOPP/START recommendations, the pharmacist's intervention was multifaceted - other than the pharmacist's STOPP/START recommendations, the remainder addressed medicines reconciliation, renal dose adjustment, and other prescribing criteria issues. The physician's intervention resulted in a significantly greater absolute risk reduction in ADRs than the pharmacist's (9.3% vs 6.8%) in comparable intervention cohorts (360 patients vs 361 patients). The greater acceptance rate for the physician's recommendations may be attributed to having a narrower intervention focus, communicating all recommendations in both oral and written form, and the physician having an already recognised prescribing role within the hospital.

References:

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A review of topical non-steroidal anti-inflammatory drugs (NSAIDs) reimbursed in Ireland

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Objectives: Currently, twelve topical non-steroidal anti-inflammatory drugs (NSAIDs) are licensed and reimbursed on the General Medical Services (GMS) scheme in Ireland. Total expenditure on the GMS scheme from 2010 to 2015 varied from €7.5 to €8.5 million per annum. The aim of this study was to review the requirement for ongoing reimbursement of all topical NSAIDs on the GMS scheme, taking into consideration individual costs, utilisation, licensed indication and clinical evidence.

Methods: The pharmacy claims database for the GMS scheme which represents 60% of public drug expenditure in Ireland was analysed using JMP® 8 and Microsoft Excel®. The number of patients in receipt of a topical NSAID and the total expenditure on each preparation was reviewed from January 2010 to December 2015 inclusive. The licensed indication for each product was obtained from the Health Products Regulatory Authority (HPRA) and a review of the current available evidence was obtained from the online library database of articles and journals.

Results: The reimbursed price of topical NSAIDs range from €2.36 (Difene® 1% gel) to €26.12 (Difene® 4% spray gel) per 100g of preparation. Topical diclofenac 1% gel has the lowest reimbursed price per 100g (€2.36 to €3.60) and also has the good clinical evidence to support its use in acute and chronic musculoskeletal conditions. Other topical NSAIDs with good clinical evidence include ketoprofen and ibuprofen. This evidence does not include Difene® 4% spray gel which has a narrow and specific indication of 'mild to moderate pain following acute blunt trauma of the small and medium sized joints'. Difene® 4% spray gel has the highest cost at €26.12 per 100g and accounted for 42% of the €2.74 million expenditure on topical diclofenac on the GMS in 2015. Benzydamine 3% cream is the second most expensive topical NSAID per 100g reimbursed on the GMS however, there is a lack of robust clinical evidence to support its use. Etofenamate 5% gel is the third most expensive topical NSAID per 100g while having only a narrow licensed indication and weak clinical efficacy to support its use. It is also the most commonly prescribed topical NSAID and accounted for almost 40% of the €7.3 million spent on topical NSAIDs in 2015. Piroxicam and felbinac gel are also among the most expensive per 100g of the topical NSAIDs reimbursed. The evidence to support their use does not outweigh that of less expensive preparations of diclofenac, ibuprofen and ketoprofen.

Conclusion: In light of the available evidence the Medicines Management Programme (MMP) does not recommend the ongoing reimbursement of topical etofenamate 5% gel and benzydamine 3% cream on the GMS scheme. There is potential to save €3 million per annum if all patients on topical NSAIDs are changed to the lowest cost topical diclofenac 1% gel.

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An update on the utilisation of and expenditure on lidocaine 5% medicated plaster post health technology assessment (HTA)

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Introduction

Lidocaine 5% medicated plaster is licensed for the symptomatic relief of neuropathic pain associated with previous herpes zoster infection (post-herpetic neuralgia, PHN) in adults and is reimbursed on the community drug schemes in Ireland since January 2011. Observational analysis of the prescribing database by the Medicines Management Programme (MMP) identified an increasing trend in the expenditure of this medicine from €9.5 million in 2012 to €27.9 million in 2015. This resulted in the HSE commissioning the National Centre for Pharmacoeconomics (NCPE) to conduct a health technology assessment (HTA) in accordance with the Health Act 2013. The NCPE concluded that the cost-effectiveness of lidocaine 5% medicated plaster had not been demonstrated and estimated that only 5%-10% of the claims for this product were for the licensed indication of PHN. This resulted in a price reduction of 17.5% in March 2016. The aim of this study was to review the utilisation of and expenditure on lidocaine 5% medicated plaster following the HTA evaluation and price reduction from September 2015 to June 2016.

Method

The pharmacy claims database for the General Medical Services (GMS) and Drug Payment (DP) schemes was analysed using JMP® 8 and Microsoft Excel®. The total expenditure and number of patients in receipt of lidocaine 5% medicated plaster was reviewed from completion of the HTA report in Sept 2015 to June 2016 inclusive.

Result

The publication of the HTA evaluation by the NCPE in September 2015 did not result in a decrease in the volume of prescribing on the GMS and DP schemes. There was an increase of 3,182 patients in receipt of lidocaine 5% medicated plaster from September 2015 to June 2016. The introduction of a price reduction in March 2016 initially resulted in a decrease of €0.5 million/month, however subsequent trends are now showing increases in expenditure and total expenditure for 2016 is estimated to exceed €30 million.

Conclusion

Despite the publication of the HTA report and the introduction of a price reduction the volume of prescribing and expenditure on lidocaine 5% medicated plaster continues to increase. More work needs to be undertaken to ensure medicines are prescribed only for their licensed indications. The MMP in its role to promote safe, effective and cost-effective prescribing of medicines have made recommendations to the HSE to restrict the volume of inappropriate prescribing of lidocaine 5% medicated plaster. Given that only an estimated 5%-10% of patients receive this medicine for the licensed indication of PHN, there are potential savings of €25 million per annum if this product is prescribed appropriately.

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Review of specialised mental health clinical pharmacy service

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Introduction: Phoenix Pharmacy Department (PPD) provides hospital pharmacy services within Dublin North City and County Mental Health Services, including to the Phoenix Care Centre (PCC), St. Joseph's Intellectual Disability Services, Programme for the Homeless, and PDD has the largest clozapine dispensing service in Ireland. The number of clinical pharmacists in the department increased in March 2016 providing an opportunity for service review and expansion to improve quality and safety of patient care.

Aims: The aim was to identify areas for improvement within current service, including horizon scanning and phased roll out of service developments.

Method:LEAN process (e.g. 5 Why's)[1] was used to map and analyse all clinical processes concentrating on:

- Current clinical pharmacy process and record keeping
- Assessment of pharmacy staff training needs
- Hospital multidisciplinary teams (MDTs) meeting timetables
- Hospital units/consultants and service users currently not receiving direct clinical input.

- Areas for potential change identified, prioritised and introduced.

Results

- Designed a tool to capture clinical pharmacist interventions.
- Developed and implemented a clinical pharmacy service SOP (Standard Operating Procedure) ensuring an auditable, standardised service.
- Pharmacists attended specific training events (eg. College of Mental Health Pharmacy Conference UK).
- MDTs meetings (100%) in PCC now fully attended (male and female intensive care units, rehabilitation units and high support homeless hostel service).
- Pharmacist integrated into Programme for the Homeless service (joined MDT, providing medicines optimisation, facilitating medicines education groups).
- Pharmacist-led medicines education sessions were commenced in both the in-patient and out-patient settings.

Conclusion: Service review allowed complete clinical pharmacy cover of all areas within PCC, in order to improve quality and safety of patient care. Future work is planned to assess actual outcomes on patient care and impact on MDT, as well as to roll out clinical services to St. Joseph's Intellectual Disability Services.

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Collaborative pharmaceutical care at Tallaght Hospital (PACT) - development of competency training and validation programme

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Introduction

The benefits, delivery and rollout of our PACT service have been described[1]. Key elements of the service are alignment with clinical speciality, prioritisation of patients according to clinical needs and collaborative prescribing. The extra responsibility and judgement required to deliver PACT led an empiric entry level for a PACT pharmacist of 3 years post-registration clinical pharmacy experience and a postgraduate (PG) qualification in hospital or clinical pharmacy.

Aim/objectives

To describe the development of a competency training and validation programme for a PACT trainee pharmacist.

Methodology

A PACT trainee programme comprising clinical induction, experiential learning, post-graduate qualification and validations was developed. Several iterations of the programme were trialled from December 2014 to date.

Results

Clinical Induction: Our competency based programme was revised and training period extended. Experiential learning: Pre- PACT, pharmacists delivered ward-based service as single operators. Post-PACT, PACT-trainee pharmacists work in a team with a PACT pharmacist. A PACT-trainee competency programme was introduced for basic grade pharmacists with specified tools e.g. GLF competency, MRCF, mini-CEX and evidence to be collated over 3 years. Post-graduate (PG) qualifications: Pre-PACT, many pharmacists elected to undertake PG Hospital/Clinical Pharmacy Programmes. Post-PACT, this is a requirement. Validations: Specified validations in all stages of PACT service delivery were introduced e.g. 15 competent Medication Reconciliations in PACT model.

Conclusion

A PACT-trainee competency and validation programme has been trialled. Strategies and evaluation to maximise benefit and streamline delivery of training are ongoing.

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Sharing the cardiology triple therapy plan

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Introduction

Cardiovascular patients with an indication for triple therapy with anticoagulant and dual antiplatelet therapy pose patient safety concerns about bleeding risk. Tallaght Hospital Medicines Guide 2016-17 recommendations[1] to safely manage triple therapy are based on consensus European Society of Cardiology guidelines and include avoid Prasugrel or Ticagrelor; target INR of 2-2.5 for warfarin; lower licensed doses of DOACs; gastric protection; limit duration (typically 6 weeks).

Aim

To develop a methodology to share the complex cardiology triple therapy plan with the patient and multiple heath care professionals in the hospital and the community.

Methodology

Over the period Jan 2016 to date, multiple meetings were taken with hospital stakeholders including pharmacy, cardiology consultants and NCHDs, cardiology in- and out-patient nursing staff. Challenges with triple therapy planning and the communication of the plan were identified. A triple therapy template was piloted from June 2016 to support communication with the patient and health care professionals. The template was improved based on stake-holder feedback.

Results

Challenges with triple therapy identified included the evolving nature of practice guidelines and uncertainty whether reducing oral anticoagulant dose is a valid approach; ensuring the time point for review of triple therapy to a single antiplatelet and anticoagulant is known by all and will be acted on; ensuring reduced anticoagulant doses are appropriately upped again at review;

A triple therapy template was developed to share the agreed plan with all stakeholders and includes label 1 for the Medical Notes to convey the agreed plan to all in-hospital medical, nursing and pharmacy staff, label 2 for the patient, which is attached to an anticoagulant alert card and specific electronic prescribing (TEAMS) instructions so that the discharge letter and prescription clearly convey the plan to the GP and community pharmacist.

Conclusion

Collaboration between medical, nursing and pharmacy staff has been key in identifying the risks and enhancing medication safety in cardiovascular triple therapy patients.

References

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The effect of gaps in antihypertensive medication adherence on falls risk in older adults: a prospective cohort study

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Introduction

There is an on-going debate as to whether antihypertensive medications are associated with an increased falls risk in older adults, with recent observational studies reporting conflicting findings [1, 2]. However few studies examining this association have assessed medication adherence. Patients with poor adherence may be exposed to an increased fall risk due to blood pressure fluctuations. We investigated the relationship between poor adherence to antihypertensive medication and falls in older (>65 years) community dwelling antihypertensive users.

Methods

Participants (n=1564) were recruited from 106 community pharmacies in the Republic of Ireland between March and May 2014 and completed structured telephone interviews at baseline and 12 months. Interviews were linked to dispensing records for the previous 12 months. To assess the longitudinal association between adherence to antihypertensive medication and falls, adherence was estimated as the number of five day gaps in medication supply from linked dispensing records for the 12 months prior to the baseline interview, and falls during follow-up were assessed via questionnaire at 12 month interview..

Results

In adjusted regression models, poor adherence to antihypertensive medication was associated with an increased risk of falls (aRR 1.11, 95% CI 1.03-1.19, p=0.005), injurious falls (aRR 1.19, 95% CI 1.06-1.33, p=0.003) and a greater number of falls (aIRR 1.15, 95% CI 1.04-1.27, p=0.006) during follow-up (n=1084).

Conclusion

Gaps in antihypertensive medication adherence were associated with an increased risk of falling during follow-up. These results may explain conflicting findings of previous studies[1,2]. Further research examining the timing of falls in relation to gaps in adherence are required.

References

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DOACS: Getting it right!

Introduction

Prescription of DOACs as a form of anticoagulation has increased significantly over last 5 years. Substantial risk is associated with their use. Careful prescribing is recommended taking into account age, weight and renal function. Co-prescribing with other antithrombotics has led to potential and actual serious harm for patients. Introduction of education and a checklist aims to improve this. This project was carried out in collaboration between the Belfast Health and Social Care Trust and Western Health and Social Care Trust.

Method

Retrospective baseline audit of DOAC prescribing over 3 months, followed by implementation of several improvement measures (including use of a bespoke anti-thrombotic page in the regional medicine kardex) with continuous data collection during this time. Staff and User feedback collected and analysed.

Results

Baseline safety compliance for DOAC prescribing was 50% in BHSCT Stroke Unit. Following several interventions including joint working with the Western Health and Social Care trust, this improved to 100%.

Conclusion

Targeted education and use of a checklist improves the safety of DOAC prescribing. This is further enhanced by use of a dedicated antithrombotic page in the kardex and should be considered regionally.

Evaluation of biosimilar insulin use: perception and experience (INSPIRE)

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Background

Abasaglar; the first biosimilar insulin glargine was launched in the UK in September 2015. This insulin has been shown not to have any clinically significant differences from insulin glargine in terms of quality, safety and efficacy (1).Future diabetes management will undoubtedly see an expansion in the availability of biosimilar insulins. Patient & clinical staff perspectives on the use of these insulins will be an important determinant of the success or failure of this exciting development in diabetes care.

Aims

The evaluation sought to;

1. explore the South Eastern Health & Social Care Trust diabetes team's perceptions of prescribing Abasaglar.
2. determine if clinical staff have concerns or reservations about prescribing biosimilar insulins.
3. explore if patients prescribed biosimilar glargine (Abasaglar) experience any differences to those prescribed conventional insulin glargine (Lantus).

Methods

Clinical staffs were made aware of the rationale for the service evaluation. They were invited to consider prescribing Abasaglar for patients according to NICE guidelines (2). Questionnaires were circulated at baseline and 9 months.

Perspectives assessed; staff insight, viewpoint, and attitudes to prescribing biosimilar insulin. The questionnaire also aimed to determine if there were any barriers to choosing to prescribe biosimilar insulin. Comparison of patients experiences between those starting on basal and biosimilar glargine was also evaluated.

Results & conclusion

The findings of this service evaluation are still ongoing. Early indications are that both diabetes management within the SEH&SCT and patient care is not effected when Abasaglar is prescribed for patient with Type 2 Diabetes.

References

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The diabetes team acknowledge support of the R&D department at SEH&SCT.

Safety and cost-effectiveness of switching from a Vitamin K antagonist to a DOAC

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Objective

The aim of this study is to assess the safety and cost effectiveness of switching treatment from a vitamin k antagonist to a DOAC, in those patients who have poor anticoagulant control on warfarin or have a preference to switch treatment.

Methods

The DAWN Anticoagulant Management system, the oral anticoagulant computer-dosage system used in the Southern Trust, was used to identify those patients with poor anticoagulant control on warfarin for stroke prevention in AF. Patients were reviewed and those who were suitable for treatment with a DOAC identified. Additional patients who were poorly controlled on warfarin for VTE treatment/prevention, or who requested to switch to a DOAC were included in the study.

Patients were switched appropriately and followed up via phone call one month and three months after switching. Cardiovascular and bleeding events occurring within this time were recorded.

Results

31 patients were switched from warfarin to a DOAC as part of this study. 30 patients were still taking their initial DOAC medication within three months of switching; one patient was switched to an alternative DOAC due to adverse effects. No cardiovascular or major bleeding events were recorded within 3 months of switching therapy. Two patients (6.45%) reported minor bleeding events within the follow-up period. Cost analysis found that warfarin, with bimonthly INR monitoring, remained a less costly treatment with an average cost of £19.73 and £39.44 per month, for warfarin patients attending the hospital anticoagulant clinic and for patients managed via district nursing respectively. Monthly cost of DOAC treatment ranged from £50.40 with rivaroxaban, to £65.90 with the reduced dose of apixaban.

Conclusion

Switching patients from a vitamin k antagonist to a DOAC is safe and effective, if patients are switched appropriately, with no reports of cardiovascular or major bleeding events at 3 months follow-up.

Warfarin with bimonthly INR monitoring is currently less expensive than DOAC treatment, however does not account for increased convenience for patients or potentially improved health outcomes that DOACs could offer.

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Digitising clinical service records in community pharmacy

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Introduction

Currently clinical pharmacy service consultation records are recorded on paper-based forms which need to be designed, printed and delivered to each pharmacy store for use. Paper records have been criticised for their limited accessibility, their "*general incompleteness*" with studies demonstrating that information from paper-based records can be vague, illegible, ambiguous and hard to extract.[1, 2] Some of the potential benefits of digitising clinical service records in community pharmacy include: improved data quality and patient safety, increased efficiencies and productivity and the ability to mine data for research purposes.[3]

Aims

To investigate the potential benefits of digitising clinical service record forms in community pharmacy as well as exploring potential implementation challenges.

Methods

The research methods included a comprehensive literature review and an analysis of a sample of paper-based records to describe the type of data that is captured currently. Semi-structured interviews with relevant stakeholders were also conducted to gain their views and insights on digitising clinical pharmacy service records.

Results

The research demonstrated that there is a vast amount of valuable data 'locked in" however the results also revealed significant amounts of incomplete patient records. Results from both the literature and the interviews revealed many potentially benefits but equally many challenges for digitising clinical service records. The main challenges found were resistance to change, cost, integration and interoperability.

Discussion

It was concluded that moving from a paper-based consultation recording system to an electronic system has many potential benefits in terms of accuracy of records, electronic data capture, timely patient insights and rich datasets for research which can highlight the benefit of community pharmacy services. To successfully implement digital records, challenges such as resistance to change must be appropriately addressed.

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Development of a continued accreditation process for pharmacy continuing education programmes to support CPD in Ireland

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Background

The Irish Institute of Pharmacy (IIOP) was established by the Pharmaceutical Society of Ireland (PSI) to oversee a CPD system including the recognition and approval of CPD programmes and courses for pharmacists. The aim of the accreditation process is to ensure that CPD programmes are of a consistently high quality, in accordance with the PSI accreditation standards, relevant legislation and other relevant criteria. As part of the process, the Accreditation Review Team specifies a duration for accreditation of the programme to a maximum of three years.

Purpose

Many of the training programmes are reaching the end of the duration of their accreditation so it was necessary to explore methods for ensuring continuity of access to training programmes while ensuring that the quality was maintained in line with training needs of pharmacists.

Methods

A process for the accreditation of CPD Programmes was approved by the PSI in 2014. This was used as the basis for developing a continued accreditation process that would ensure continuity of service without sacrificing quality of content. The PSI generic interim accreditation standards also informed the creation of a policy for submission to the PSI for approval.

Results

The process document for the accreditation of CPD programmes was amended to include a new section on continued accreditation. This was approved by the PSI in January 2017, and an amended application form was created for the continued accreditation process.

Conclusion

The continued accreditation process ensures that the IIOP can continue to provide access to training programmes for pharmacists while maintaining a consistently high level of quality.

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NOAC counselling on discharge, a checklist

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Introduction

Anticoagulants are a high-risk medicine, being one of the classes of medicines most frequently identified as causing preventable harm and admission to hospital[1]. It is therefore recognised that patients prescribed anticoagulants should receive verbal and written information at the start of therapy, at hospital discharge and when necessary throughout the course of their treatment[2]. A BHSCT checklist to assist the counselling of patients on discharge was available for warfarin but none existed for a Novel Oral Anticoagulant (NOAC).

Objectives

To design and produce a NOAC counselling checklist that can be utilised to counsel patients in order to ensure all aspects of medicine management are covered and the risk of an adverse effect reduced.

Method

A literature search was undertaken to examine whether NOAC counselling information existed. A draft checklist for pharmacist use was designed based on the information from other NHS sites, the manufacturers counselling information and drug specific PILs/SPC's. This checklist was circulated to the BHSCT Clinical Pharmacy Teams for comment, with then amended where appropriate. Before a concluding review, the final draft was trialled on a ward to ensure it was sufficiently patient focused. Following this review, authorisation for use by clinical pharmacists was granted. The checklist was also circulated to the BSCHT Lead Haematologist for comment and for potential implementation for use by medical colleagues.

Results

Feedback from pharmacists who have used this checklist has indicated introduction has resulted in substantial benefit to the counselling process and thus to their patients, with belief that risk has been reduced and medicine treatment optimised.
A survey of patients also indicated positive reception with comments, including "very informative", "will help me take my tablets better", and "most useful".

Discussion

To date clinical pharmacists have used this checklist as a working document enabling them to counsel patients effectively with benefits to both the pharmacist and patients. It is hoped that rollout for use by all professionals, either as a standalone document or part of a NOAC policy, will follow.

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Peripatetic pharmacist ward based clinical check of discharge prescriptions

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Introduction

The aim of a pharmacists' clinical check is to ensure the safety and effectiveness of medicines for a patient[1]. Given current resources, some wards on the Mater site, receive no ward-based pharmacist clinical service but do receive pharmacy support on discharge from dispensary pharmacists, who professionally check prescriptions.

Objective

To determine whether the introduction of a mobile clinical checking pharmacist (released from the dispensary) would benefit patients, pharmacy and the ward via measurement of a number of key performance indicators; time, cost and prescribing.

Method

An initial pilot was undertaken to determine and then to clarify any issues that may occur during the service evaluation with a literature search also being performed to examine whether any additional areas/criteria should be included. A full service evaluation was then undertaken, over 11 days. The clinical check being undertaken as per dispensary guidance with the additional use of the Kardex. A proviso was made that if it was felt to be in interests of patient safety other information would also then be used e.g. patient's medical notes.

Results

Results via measurement of time, cost and prescribing indicated multiple benefits from a peripatetic pharmacist undertaking a ward based clinical check:

1. Increase in patient safety resulted as 105 interventions were made (av. 2 per prescription) with results showing an additional 50% of interventions occurring due to the location of the check i.e. ward and Kardex/notes use. Four interventions were felt to be of moderate or major nature
2. Overall time for prescription completion decreased from 90 to 59 minutes with this figure including travel time to ward.
3. Increase in the percentage of prescriptions completed within dispensary target time occurred, giving potential for quicker bed turnaround from 81% to 98%
4. 45% reduction in need to contact medical team thus releasing prescriber time
5. Cost benefits also resulted, with an average saving of £12 per prescription

Discussion

Where resources are limited using a pharmacist to peripatetic clinical check discharge prescriptions is of great multifactorial benefit. The project provides evidence for using pharmacists to assist discharge on those wards not normally covered by a ward based clinical pharmacist.

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Utilisation of sodium valproate in women of childbearing potential

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Introduction

A review by the European Medicines Agency (EMA) in 2014 highlighted that children exposed in utero to sodium valproate (VPA) were at a high risk of serious developmental disorders (in up to 30-40% of cases) and/or congenital malformations (approximately 10% of cases). This risk led to strengthened restrictions on the use of VPA in women and girls; VPA should not be used in female children, female adolescents, women of childbearing potential (WCBP) and pregnant women unless alternative treatments are ineffective or not tolerated. The Health Products Regulatory Authority (HPRA) communicated this review to prescribers in Dec 2014.

Objectives

To monitor the utilisation of sodium VPA in WCBP using the pharmacy claims data available through the HSE-Primary Care Reimbursement Services (PCRS) and to evaluate the impact of the risk minimisation measures on VPA prescribing in WCBP in Ireland pre and post December 2014.

Method

The HSE-PCRS claims data were analysed to assess the number and rate (per 1000 pop) of women aged 16-44 years dispensed VPA-containing medicines under the General Medical Services (GMS), Drug Payment (DP) and Long Term Illness (LTI) schemes in Ireland from Jan 2014 to Aug 2016. Segmented regression analysis of trends pre and post Dec 2014 were performed assuming a Poisson model.

Results

The number of women (aged 16-44 years) dispensed sodium VPA decreased from 1,993 in Jan 2014 to 1,676 in Aug 2016 on all schemes combined. The rate per 1000 women significantly decreased from 2.05 to 1.76 over this time ($p<0.01$) but no significant differential trend from Jan 2015 onwards. There were 317 fewer women in receipt of sodium VPA in Aug 2016 compared to Jan 2014. The number of women dispensed sodium VPA on the GMS scheme decreased from 1,533 to 975 in this time period with an increase from 399 to 660 in the number of women dispensed sodium VPA on the LTI scheme, possibly due to changes in co-payment.

Conclusions

The prescribing of sodium VPA in WCBP has been decreasing since January 2014, although no significant difference in this trend following the HPRA communication of this safety message. The HSE-Medicines Management Programme will continue to monitor prescribing of sodium VPA in WCBP as it becomes available to assess if prescribers are aware of the risks. The EMA's Pharmacovigilance Risk Assessment Committee (PRAC) initiated a new review examining the use of VPA containing medicines in women or girls who are pregnant or of childbearing potential in March 2017 due to concerns in some countries regarding the effectiveness of measures introduced following the 2014 review.

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English language ability and academic performance of international pharmacy students

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Introduction

International students make up a growing percentage of the undergraduate and postgraduate university population, with many not having English as a first language. Pharmacy students' ability to adequately communicate in English is fundamental to both their studies and future careers. Indeed, recent legislation has been introduced to ensure pharmacists practising in the UK have the requisite knowledge of English.[1]

Methods

All international pharmacy undergraduate students at QUB were invited to participate in an electronic questionnaire (14 questions over 3 sections). Section A had one initial filter question (only non-native English speakers [NNES] were allowed to continue); remaining questions related to demographic information. Section B contained 5 questions from the English Language Acculturation Scale,[2] while Section C questions related to English language ability (ELA) and academic performance. In order to analyse student grades, random numeric IDs were generated for each student; grades for each student were linked anonymously to their response. Descriptive statistics were generated and t-tests used to compare student grades, with significance set *a priori* at $p \leq 0.05$.

Results

The response rate for the questionnaire was 68.5% (76/111); almost 80% (61/76) of respondents were NNES. Of the NNES respondents, 70.5% (43/61) were female and 29.5% (18/61) were male. When students were asked to rate their ELA, in terms of reading, writing, speaking and listening ability, on a scale of 1 to 5 (where 1 is "poor" and 5 is "very good"), reading and listening attained mean scores of 3.7 each, whereas speaking and writing achieved means of 3.5 and 3.3, respectively. Furthermore, 32.8% strongly agreed or agreed that they thought their ELA resulted in them achieving lower marks in assessments. Significant differences were found between home and NNES student grades, with NNES students generally being outperformed by home students.

Conclusion

NNES students have difficulty in expressing their knowledge and thoughts in written assessments and in those involving spoken English. Further support or increased entrance standards may be necessary to ensure international students are successful in their academic and future professional practice.

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Future pharmacists' use of, and attitudes towards, cognitive enhancers

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Introduction

Cognitive enhancers (CEs) are used to improve cognitive function in otherwise healthy individuals who do not have cognitive impairment.[1] This research aimed to establish future pharmacists' use of, and attitudes towards, CEs. It is important given that these students are being trained to be experts in the safe and effective use of medicines. Personal use of CEs may imply that future pharmacists are not taking appropriate responsibility for their working practices[2], or respecting others.[2] Conversely, CE-use could be appropriate when patient safety would otherwise be compromised (such as working long hours in a busy pharmacy).

Method

Following ethical approval and piloting**,** all first (n=112) and final year (n=109) Master of Pharmacy (MPharm) students at Queen's University Belfast (QUB) were invited to complete a paper-based questionnaire during a compulsory class. The questionnaire, developed from the wider literature, contained 10 questions (with multiple parts). Section A related to personal use of CEs, Section B focussed on attitudes towards CEs in relation to safety and professionalism and Section C collected non-identifiable demographic data. Descriptive statistics were undertaken; non-parametric tests were used for year comparisons with significance set at $p<0.05$.

Results

A response rate of 89.3% was obtained for Level 1 and 89.0% for Level 4 students. Over half (52.3%) of respondents reported using CEs (most common was caffeine and least common were methylphenidate and modafinil). Reasons centred on meeting deadlines and preventing tiredness. Level 4 students were more likely to consider that over-the-counter CEs had side-effects [70.1% (Level 4) versus 45% (Level 1); p=0.001]. Additionally, 42.4% of respondents thought that using pharmaceutical CEs (over-the-counter or prescription-only medicines) for the purpose of improving grades breached the Students' Code of Conduct. Similarly, 44.9% deemed that using them to improve patient safety in practice breached the pharmacist's professional code.

Conclusion

While CE use among future pharmacists seems quite high, it is reassuring that prescription-only medicines are not really being used for this unlicensed purpose. Level 1 students appear to be naïve about safety issues of some CEs. There is some evidence suggesting that CE use is viewed as unethical; qualitative research could explore this further in relation to student versus healthcare professional use.

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Impact of pharmacist screening of discharge prescriptions for older patients in an Irish teaching hospital.

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Aim: The study evaluated the type, frequency and clinical significance of drug related problems on hospital discharge prescriptions for patients ≥65 years, as well as evaluating the impact of clinical pharmacist screening in the reduction of these errors.

Setting: The study was set in Our Lady of Lourdes Hospital, a 339-bed acute general teaching hospital in Ireland which serves a population of over 300 000 and is managed by the Health Service Executive (HSE)[1].

Method: The study was a cross sectional observational study of all clinical pharmacist interventions, completed on discharge prescriptions for patients ≥65 years, in 3 different ward areas, over a 30 day period. A self-designed data collection form was used to record data on identified drug related problems, and the National Coordinating Council for Medication Error Reporting and Prevention Medication Error Index (NCC MERP)[2] was used to categorise these problems by potential to cause Adverse Drug Events (ADEs). Categorisation of drug related problems was undertaken by a multidisciplinary panel consisting of a consultant geriatrician and senior clinical pharmacist.

Key Findings: One hundred and sixty-seven discharge prescriptions involving 1579 medications were screened by clinical pharmacists during the study, with 91.62% (*n*=153) of prescriptions requiring at least 1 intervention. One thousand and seven interventions were completed, with an average of 6 interventions made per prescription, 91.46% (*n*=964) of these interventions were actioned prior to patient discharge. The most frequent type of intervention was the addition of indications for new medications (26.61%, *n*=268), followed by documentation of medication changes during inpatient stay (18.87%, *n*=190). 10.9% (*n*=110) of all interventions involved omission of a medication. 13.9% (*n*=140) of interventions were categorised as a preventing potential ADEs and 3.48% (*n*=35) as preventing actual ADEs.

Conclusions: Pharmacist screening of discharge prescriptions can improve prescription accuracy, contributing significantly to patient safety by the significant reduction of potential and actual ADEs.

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Effectiveness of a focused debate on the development of ethical reasoning skills in the professional formation of pharmacy technician students

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Introduction

Healthcare ethics education has become a basic requirement for any training programme for health professionals, and should cover the different stages of undergraduate, postgraduate and continuing education.[1] On examining the role of our pharmacy technician course in relation to the professional formation of pharmacy technicians the issue of ethics was identified as an area for development. Numerous ways for incorporating ethics lessons into courses have been reported, and include class discussions, dedicated lectures, shared personal reflections, and debates.[2] In-class debates involve peer-learning and can provide an excellent opportunity for active learning and support oral communication skills and critical thinking in students.[3] When introducing ethics into our course we decided to implement a cross curricular intervention in the form of a debate on an ethical dilemma with a view to establishing if such an intervention improved student ethical reasoning skills.

Evaluation and Assessment

When evaluating our intervention we used a mixture of qualitative and quantitative methods. These included analysis of before and after five- minute papers, a sentiment survey, thematic analysis of student reflective writing and a qualitative questionnaire by an independent observer.

Conclusion

Based on the results obtained from the variety of methods used it was concluded that an ethical debate was an effective means of exploring ethics with pharmacy technician students. This is consistent with previous research.[4-6]

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Minding more than just medicines: fostering positive attitudes to safeguarding mental health among pharmacy students

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Introduction

According to the Northern Ireland Health Survey 2015/16, 19% of individuals show signs of a possible mental health problem .[1] It is reported that within Russell Group institutions, more than 43,000 students had counselling in the academic year 2014-15.[2] At the School of Pharmacy at Queen's, high value is assigned to safeguarding the health and well-being of every student. It is recognised that all university students are at risk of having mental health issues. The aim of this project was to become proactive in supporting the mental health and well-being of the students, as well as creating a School environment where mental health issues can be openly discussed and addressed.

Project Description

The primary objective was to provide Mental Health First Aid (MHFA) training to 19 students and 1 academic in the School of Pharmacy. This 12 hours of training was provided by the charity AWARE and resulted in each trained student receiving the recognised MHFA qualification. Participants learnt the signs and symptoms of mental health problems and the help shown by research to be effective. They can use a framework for communication to offer and provide initial help, and guide a person towards appropriate treatments and other supportive help.

A secondary objective of this project was to raise awareness of mental health amongst all of our students and staff. The aim was to reduce stigma often associated with mental health issues and to foster openness around the subject. This agenda is student-led and includes provision of intensive and specific support to student peers when stressful events such as examinations or times of known high work intensity are approaching. Information on available support is displayed in prominent locations and is also emailed to all students.

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OSCEs and CRAs: Mapping competency and professionalism in the pharmacy undergraduate degree course (MPharm).

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Introduction

The General Pharmaceutical Council (GPhC) requires that pharmacy students develop professional performance and adopt the characteristics of a qualified pharmacist as set out in relevant codes of practice.[1] However, evaluation of student competence and professionalism poses challenges and they are difficult to assess.[2] The school has gradually introduced Objective Structured Clinical Examinations (OSCE) assessments into Levels 2 to 4 of the programme and Criterion Referenced Assessments (CRAs) into Levels 1 and 2, with a view to assessing students within a clinical context.

Aims

- To explore the opinions of pharmacy undergraduates on the teaching and assessment of professionalism within the pharmacy (MPharm) degree course.
- To compare student performance in OSCEs and CRAs with performance in assessments of other modules.

Methods

This is a mixed methods study where opinion of students, both past and present, on the teaching and assessment of professionalism will be sought via focus group interview. The study will also analyse the performance of all level 4 (*n*=113) students in CRAs, OSCEs, practice modules and placements for evidence of consistent performance in assessments where professionalism is evaluated.

Proposed evaluation

Focus group interviews will take place in January 2017 and interview data will be recorded and analysed for themes using NVivo qualitative data analysis software. Numerical data i.e. assessment scores will be analysed and compared using SPSS statistical software.

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Improving the safe use of direct oral anticoagulants (DOACs) in hospital

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Introduction

DOACs have perceived benefits compared to Vitamin K anticoagulants (VKA) such as lack of routine anticoagulant monitoring and less major bleeds. In 2013 incident reports started to emerge within SET highlighting lack of staff recognition of the newly introduced DOACs as potent anticoagulants. Co-prescription and administration of DOACs with other anticoagulants and / or anti-platelet agents where this is not intended was also noted– exposing the patient to the risk of bleeding and potential harm.

Intervention

A Direct Oral Anticoagulant (DOAC) prescription chart was developed and tested to improve the safe prescription and administration of DOACs . This chart incorporated safety features such as warnings regarding co-prescription with other anticoagulants / anti-platelets and a prescriber checklist.

The chart was initially piloted in one ward, and the format and content were repeatedly tested and amended before spread to other areas. Ward staff were also given education on DOACs and updated on recent incidents. The rationale for the new DOAC chart in preventing patient harm was emphasized. Staff feedback informed the design and content of the chart.

Results

Inappropriate co-prescription of DOACs with other anticoagulants / anti-platelets fell in the areas using the chart. This was despite a background of increased usage of this group of medicines throughout the Trust. 92% of staff surveyed felt that the chart made the prescription and administration of DOACs in hospital safer.

Conclusions

Testing and careful design of prescription charts can promote safe prescribing of high risk medicines and prevent patient harm.

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The use of communication huddles to improve quality and safety in an aseptic dispensing unit

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Introduction

In 2013 the Pharmacy Aseptic Unit decided to implement communication huddles as a strand of the department's quality improvement plan. A huddle is a brief meeting (5-10 mins) of a team delivered at the same time every day to enhance co-ordination and increase efficiency and productivity.

A 'safety huddle' for ICU nurses in the Ulster hospital had recently illustrated the beneficial effect of huddles with respect to sharing information with staff and demonstrated measured improvements in staff satisfaction regarding communication within the clinical team.

Method

Before any intervention, a baseline survey to assess staff attitudes with respect to team communication was undertaken in July 2014. This survey demonstrated that 70% of staff believed that communication could be improved.

Liaison with ICU colleagues informed the methodology for the project and communication huddles commenced within the Aseptic Unit in August 2014.

Results

A second staff survey to evaluate staff satisfaction was undertaken in October 2015, 14 months after the baseline survey.

Staff satisfaction rating with communication improved from 3.8 to 4.5
(1=not satisfied at all, 5=extremely satisfied)

Staff belief that they were kept abreast of all relevant changes in practice and quality & safety rose from 4.1 to 4.7 (1=not aware at all of changes, 5=aware of all changes).

92 % of staff felt that the introduction of a huddle had improved communication.

Conclusion

Inclusive daily huddles focusing on quality and safety topics increases staff satisfaction with communication within teams.

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Community pharmacy medication adherence assessments of older people

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Introduction

Non-adherence to medication by older people is close to 50%, leading to poorer outcomes of therapy, more risk of medicine-related problems, and increased waste[1].

Aims

1) To test a community pharmacy medicines adherence assessment tool; 2) to identify factors for non-adherence; 3) to implement solutions to aid adherence; 4) to determine if the level of need for assistance predicts the solution required.

Methods

A Community Pharmacy Medicines Adherence Assessment Form (CPMAAF) was developed. Answers to 11 questions were graded according to patients' ability to manage their medicines. Total scores were calculated; higher scores indicated a greater level of need for assistance. Questions centred on 3 areas: Access, Day to day management and Clinical & Patient Attitude. Solutions for issues identified were implemented. Follow-up determined if solutions remained appropriate and effective.

Results

Adherence was assessed in 179 patients. Issues identified included cognitive factors (45%), dexterity (41%), problems ordering medicines (25%) and ADRs/side effects (24%). Solutions ranged from education, assistance with ordering/collecting items, provision of stock items e.g., pill poppers, to monthly medication lists or a weekly pharmacy-filled monitored dosage system (MDS). Increasing patient age correlated with the provision of more complex solutions. Solutions varied depending on who had requested the assessment; requests from healthcare professionals or patients' families most often resulted in an MDS. 33 of 41 (80%) patients with the highest total assessment scores received an MDS, indicating that MDS were provided to patients with the greatest need for medicines adherence support. However, there was a considerable variation in scores for patients receiving all types of solutions.

Conclusion

The tool identified reasons for non-adherence. Patients who had higher assessment generally received more sophisticated solutions, but not consistently so, as individual patient circumstances had to be considered in all cases.

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Introduction of a mental health medicines education service

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Introduction: Phoenix Pharmacy Department (PPD) provides hospital pharmacy services within Dublin North City and County Mental Health Services, including to the Phoenix Care Centre (PCC). Clinical pharmacists attend weekly multidisciplinary team (MDT) meetings, carrying out medicine reconciliation and optimisation. PPD recognise that mental health (MH) service users (SUs) often do not seek out or fully engage with services, and MH stigma has discriminated against SUs and created barriers to adequate treatment[1,2,3]. PPD identified an opportunity to enhance engagement and quality of care by introducing a medicines education service (MES).

Aims: The aim of MES is to empower SUs recovery and self-care by expanding medicines-related knowledge and improving health literacy.

Method:

- Identified SUs who would benefit from MES. Inclusion criteria considered:
  - In-patients: MDT identified medicines-related needs and discharge planning
  - Out-patients: all patients attending the Recovery Hub (community rehabilitation centre)[4] and all patients attending the Eolas[5] programme.
- Design a MES based on population needs assessment and deliver MES to patients on wards, and those attending the Recovery Hub and Eolas programme.

Results:

During 2016, PCC SU's (100%) were offered MES; 53% have availed of the pre-discharge MES and 87% have availed of MES following MDT- identified issues. In the Recovery Hub, 7 MES sessions delivered last year (32 attendees). As part of the Eolas programme 5 MES sessions completed last year: 3 family/carer sessions (22 attendees), 2 SU sessions (20 attendees). Feedback was positive and encouraging, and recurring themes included increased understanding, knowledge and confidence regarding medicines. Feedback shows that the information gained by SUs and family members helps empower and engage all attendees, thus promoting self-care, sustained recovery and improving health literacy. Updating and amendment of MES has been driven by analysis of SUs feedback.

Conclusion: Evidence-based medicines information is now routinely provided to SUs, both on demand, and proactively, by clinical pharmacists. Clinical pharmacists, as medicines experts, are ideally placed to deliver this important service to improve the overall quality of care.

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Improving the safety of magnesium sulfate infusions in maternity patients

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The Background

A Failure Modes Effect Analysis (FMEA) of the use of magnesium sulfate ($MgSO_4$) injection was undertaken in 2013, led by the Northern Ireland (NI) Medicines Governance Team, in an attempt to understand the risks with injectable magnesium sulfate. One of the recommendations from the FMEA was that "Pre-prepared magnesium sulfate infusions should be procured and used wherever possible".

The Intervention

An existing Regional Maternity Safety Group was approached for their support and input into aspects of the product presentation, for example; concentration, final volume, labelling. A ready-made syringe of 5g $MgSO_4$ in 50ml sodium chloride 0.9% was agreed, which was a significant change from using 25g $MgSO_4$ in 250ml NaCl 0.9%. This would mean 5 syringes over the 24hr period of infusion, however the benefits of a lower $MgSO_4$ per syringe was accepted as being safer in the potential event of incorrect infusion rate incidents. A commercially available $MgSO_4$ infusion in a syringe presentation was sourced and piloted in the maternity units in 3 of the 5 Trusts in NI (now in all 5 Trusts). A new chart was developed and introduced into the pilot sites to support the safe monitoring of patients when receiving $MgSO_4$ infusions. A feedback form was circulated to capture user acceptance of the new product.

The Results

The effects of the change were measured through analysis of the feedback forms plus the number of medication incidents relating to incorrect preparation of magnesium sulfate infusions in maternity units. Whilst the number of incident reports prior to the pilot were low, none were reported during the pilot. Feedback was very positive with all 3 pilot Trusts and requests to procure a pre-prepared loading dose syringe of 4g/20ml followed, demonstrating an acceptance of pre-prepared magnesium sulfate as a safer approach among users.

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Impact of pharmacist independent prescribers during the post take ward round in the emergency department

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Introduction

Pharmacist Independent Prescribers (PIP) used Health and Social Care funding to pump prime a project where PIPs attended the medical post take ward round (PTWR) in the Emergency Department (ED).

Aim

To measure the impact of PIP interventions during the PTWR in terms of number and type, significance using the Eadon scale[1] and potential cost avoidance using ScHARR[2]. These patients were also triaged according to pharmaceutical need and the numbers assigned into each triage category were recorded.

Results

Over 50 PTWRs were attended and 393 patients reviewed. The pharmacist was able to intervene 354 times and recommend further interventions for medical staff. Of all interventions the most frequent was medicines added to kardex. The majority of PIP interventions were at Grade 4, the intervention being significant and resulting in an improvement in the standard of care. Cost avoidance from all interventions ranged from £33,980 - £73,200. This meant there was a £3 - £7 return per £1 invested. 390 patients were triaged, the majority into red and amber category.

Conclusion

PIP participation on the PTWR was hugely beneficial from a harm and cost avoidance perspective. Participation in the PTWR allowed the pharmacist to quickly categorise the patient for further pharmaceutical care. Feedback from medical staff confirmed the value of PIP participation. Further work is being completed on triaging of patients in the South Eastern HSCTrust.

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A blended approach to training pharmacist prescribers

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Background

In 2003 legislation was introduced in the UK to allow other health professions to prescribe medicines. As the postgraduate centre for pharmacy in Northern Ireland we were asked by the Department of Health to initiate training of pharmacist prescribers as soon as the new legislation came into force. To ensure business continuity and because pharmacists are dispersed across Northern Ireland, we adopted a blended approach, in which most of the course was delivered online, with some face-to-face elements, and a period of in-practice training. This was the first course of its type to be accredited by the UK Pharmacy Regulators.

Programme structure

The programme, which is at Postgraduate Certificate level, comprises six modules. Each module has its own timetable, learning content, resources, exercises and final assessment. The programme is underpinned by a bespoke virtual learning environment (VLE), which supports discussion forums, online assessment/tutor feedback, ongoing communication and evaluation. Extensive use is made of simulated clinical records and video consultations and, most recently, an online portfolio was introduced to support in-practice training. Students upload assignments, which are assessed by module coordinators who post scores and feedback to each student's account. Course administrators monitor student's progress and update learning content.

Underpinning workforce development

The course has been running since 2003 and, to date, almost 500 pharmacists from all regions and areas of practice across Northern Ireland have trained, or are currently training as prescribers. This programme has become standard practice for training all hospital pharmacists with a clinical role in Northern Ireland and underpins the recently announced Department of Health policy to increase capacity in primary care using pharmacists. Pharmacists are encouraged to train as generalist prescribers to differentiate them from their nursing counterparts, who tend to prescribe in a narrow therapeutic area. This is particularly useful for pharmacists involved in medical admissions and discharge planning. However, clinical pharmacists already established in a speciality, tend to train as prescribers in their area, but may expand upon their parameters of prescribing once qualified.

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Building the Community-Pharmacy Partnership

Kathy Martin*, on behalf of the Community Development and Health Network (CDHN)*

Introduction

Building the Community-Pharmacy Partnership (BCPP) is a unique initiative which brings together community pharmacists and communities to improve lives, health and well-being and tackle inequalities. Funding is available to enable a community/voluntary sector organisation and a community pharmacist to co-design and co-produce a project which uses tacit knowledge and assets to address local health issues. There is a robust evaluation system; projects engage a broad range of groups around very diverse topics but they all work to the same model which allows aggregation of evaluative data at programme level. The programme is funded by the Health and Social Care Board (HSCB) and managed by the Community Development and Health Network (CDHN).

BCPP Programme Model

The programme has a co-production model with three core elements: asset based community development; partnership working and action across the social determinants. It is the interplay between these elements which maximises the opportunity to utilise and develop local skills, knowledge and experience; improve local peoples' understanding of health issues; increase pharmacists' awareness of the context and conditions of people's lives and encourage engagement in local communities to create connections and improve health and well-being.

Impact

CDHN measure the impact of each individual project using a series of monitoring and evaluation tools. The data is then aggregated and analysed to show the impact of the programme regionally in relation to three strategic aims.

1. Perceived improvements in health and ability to take action on factors that influence health
2. Change in the use and understanding of pharmacy and health services
3. Improved accessibility and responsiveness regarding engagement in local services, particularly more disadvantaged groups.

Dissemination

To create the evidence base CDHN compile and provide individualised reports for each project and use the aggregated data to produce an impact report and card at programme level for funders and publicity. The evidence is shared at strategic level to influence policy and service development and shared with other organisations in Ireland and UK as examples of good practice / innovation in pharmacy.

Conclusion

BCPP is an ongoing funding programme so there are several opportunities each year for pharmacist to get involved. CDHN encourages participation in the programme; supports the development innovative ideas; shares impact data widely and engages with others in the pharmacy community.

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In use assessment of the effectiveness of disinfectant wipes for use in the pharmacy aseptic unit

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Introduction

Disinfectant impregnated wipes are widely used in aseptic preparation services both to remove microbial contamination as part of routine cleaning and for transfer of items into the workzone. Sterile alcohol wipes have always been the wipe of choice and there is a range of these marketed for use in controlled environments where aseptic preparation takes place. It is now a requirement specified by the MHRA[1] that a sporicidal disinfection stage is used as part of transfer process so alternatives will have to be considered. Wipes impregnated with Hydrogen peroxide or Sodium Hypochlorite are now available for this.These will have to be tested and validated to make sure they are equally effective against the normal environmental microorganisms and even spore formers. The objective of this is to develop and use simple microbiological test methods to assess how effective these would be for using as a surface disinfectant in the aseptic unit.

Aim

The aim of this work is to assess how effective 2 new types of disinfectant wipes are at decontaminating surfaces in the aseptic unit by comparing them with sterile alcohol wipes. This will be carried out in a controlled setting in the laboratory and in a setting more representative of how they would be used routinely.

Methods

The activity against regularly encountered microorganisms was tested by sampling from a grid marked out on a surface in an unclassified area using contact plates. This compared how clean the surface was when it was wiped using the new wipes, sterile alcohol wipes and not wiped.
The activity against spore forming bacteria was also tested by inoculating a surface with Geobacillus stearothomophilus and sampling similarly with sterile swabs.
The activity during routine use was assessed by sampling surface of items that would be transferred into the critical zone in the aseptic unit before and after wiping.

Results

All wipes displayed similar activity against routine environmental microorganisms in the laboratory and routine in use setting .Their activity against specifically spore forming microorganisms was not as easy to show.

Conclusions

The chlorine impregnated wipes or the hydrogen peroxide impregnated wipes could be considered suitable for use in the aseptic unit as a disinfectant wipe against routinely encountered environmental microorganisms.

References

MHRA Q&As for Specials Manufacturers 2015

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New medicines service pilot

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Introduction

A New Medicine Service (NMS) was introduced in the UK in 2011, to provide support for people who have been newly prescribed a medicine for certain long-term conditions or therapies (asthma, COPD, Type 2 diabetes, hypertension, antiplatelet/anticoagulant therapy, and chronic pain). It consists of a structured intervention at initiation of therapy with follow-up in the short term to improve medicines adherence and increase effective medicine taking. Following on from the success of this service in the UK, where patient adherence and quality of Life measures improved, and cost savings to the NHS were also seen, the Irish Pharmacy Union(IPU) decided to carry out a smaller pilot of the NMS in Ireland.

Aims

The aim of the IPU New Medicines Service pilot were to explore the operation of the NMS, in particular the complexity and nature of resulting consultations in terms of patient engagement, age range, advice-giving and support, and determine acceptability to stakeholders, reasons for success or lack of success and feasibility within the service delivery environment.

Methods

- Pharmacists were invited to enrol on the pilot and 3 training days were provided, with 82 pharmacists attending these sessions.
- A cloud based data collection tool for the pilot was designed and implemented
- 400 patients were recruited onto the NMS pilot and all required data recorded via the cloud based data collection tool
- The success of the pilot will be determined via several adherence measures as well as a survey for pharmacists taking part in the NMS pilot, to determine stakeholder acceptability and service feasibility.

Results

It is anticipated that improvements in patient adherence will be seen, following the NMS intervention. It is anticipated that all stakeholders will find the service easy to implement and deliver in their practice.

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Appropriateness of IV co-amoxiclav and IV piperacillin-tazobactam prescribing and adherence to IV to oral switch policy in Antrim Area Hospital

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Background

Antimicrobial stewardship is important in preventing antimicrobial resistance due to over-prescribing of broad-spectrum antimicrobials. Antimicrobial resistance has been identified by the World Health Organisation as a serious threat to human health and wellbeing[1]. NHSCT have developed an empirical antimicrobial policy which must be adhered to in order reduce this risk. IV co-amoxiclav and piperacillin-tazobactam were audited as they are recommended on the policy for several indications[2].

Aim

To determine if IV co-amoxiclav and IV piperacillin-tazobactam are being prescribed appropriately and if IV to oral switch policy is being adhered to.

Method

Patients on a surgical ward and a respiratory ward who were being prescribed IV co-amoxiclav and piperacillin-tazobactam were identified over a period of one week in November 2016. The patients were then followed-up through admission until discharge or until antibiotic therapy stopped. Two patients were lost to follow-up.

Results

A total of 25 patients were identified as receiving IV co-amoxiclav or piperacillin-tazobactam during the study period. Two patients were lost to follow-up. Of the remaining patients, IV piperacillin-tazobactam was prescribed to 78% (18/23) and 22% prescribed co-amoxiclav. At least one missed or late dose was administered to 17% (4/23) of patients. This figure however could be higher as nursing staff report that there is no place the Kardex to sign that doses are given later. Overall, 78% of all patients assessed had appropriate IV antimicrobial prescribed and were either switched to a resonable oral treatment or continued on IV treatment appropriately. Where initial prescription of IV piperacillin-tazobactam and co-amoxiclav was appropriate, adherence to IV to oral switch policy was 86% (18/21).

Conclusion

Further Antimicrobial Stewardship would be benefical in ensuring improvements in prescribing and appropriate follow-up of these patients. Improvements in adherence to policy would have resulted if a more appropriate antibiotic choice was made or antibiotics stopped when patient deemed non-infective. Future audits will be required to ensure follow-up of IV broad spectrum antimicrobials has improved.

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Audit of post- discharge blood tests requested by doctors and pharmacists on immediate discharge summaries (IDS) in Antrim Hospital

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Introduction

Clinical pharmacists at Antrim Area Hospital, Band 7 and above are authorised by the Trust Protocol[1] to prepare the medication section (part 2) of the Immediate Discharge Summary (IDS) following successful completion of an accreditation process. Junior doctors prepare the clinical narrative part of the letter (part 1). The purpose of this audit was to review blood tests requested by medical and pharmacy staff on the IDS, assess appropriateness and audit the number of requested blood tests that have been carried out by the GP.

Method

A total of 200 patients discharged from medical wards in Antrim Area Hospital between 02/05/16 to 15/05/16 were selected using Patient Centre. Their IDS was screened for blood test requests. If requested, the reason for the request and timescale was documented in the data collection form. The IDS was not screened for lack of request, for example if a patient should have had a follow up blood test but it was not asked for.

Standards

For this audit the standards below were agreed with the pharmacy management team:
- 95% of requested bloods on discharge should be carried out by the GP.
- 90% should be carried out within the time frame requested.

Results

- 68% of the blood tests requested on discharge were carried out by the GP.
- 53% of the bloods were carried out within the time frame requested.

Discussion

Current practice did not meet standards set for this audit. Some of the problems identified include the GP not receiving the IDS and thus not carrying out the request, or the patient being readmitted before enough time had elapsed. In some cases, the GP did not feel the patient should be discharged until the tests were all carried out and it was unclear why the test was not carried out in a number of patients. Further work to improve these figures is ongoing with guidance for pharmacists and medical staff being developed in consultation with GPs.

References

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2. GAIN Guidelines. Regional Immediate discharge documentation for patients being discharged from secondary into primary care. June 2011.

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The impact of a pharmacist independent prescriber on the discharge processes at the weekend in an acute hospital

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Introduction

Clinical pharmacists at Antrim Area Hospital, Band 7 and above are authorised by the Trust Protocol[1] to prepare the medication section (part 2) of the Immediate Discharge Summary (IDS) following successful completion of an accreditation process. Junior doctors prepare the clinical narrative part of the letter (part 1). This is in place in all medical wards in Antrim Area Hospital between Monday and Friday and was shown to decrease the time taken for completion of the discharge process[2]. In addition, the process results in a more accurate discharge prescription, therefore reducing the risk of errors[3].

Method

Pharmacists who had completed the accreditation process to transcribe medications from the inpatient kardex to the IDS collected the time taken to complete the patient's part 2. Other pharmacists collected the time to clinically check and prepare the medications after it was written by a doctor. This occurred for 9 weekends between October 2015 and December 2015 in the medical wards in Antrim Area Hospital.

Results

The time to complete a discharge prescription from start to finish when medical staff have prepared the discharge letter including medications was 38 minutes. The time to complete part 2 of the IDS when a prescribing pharmacist has written the medication section of the letter was 42 minutes. This was evaluated and found not to be statistically significant. (p= 0.269) The time difference was the exact time that was previously found by an in-house study to be saved on medical staff time by having a prescribing pharmacist complete the medication section.

Discussion

Overall the time taken to complete a discharge when written by a prescribing pharmacist compared to a clinical check by a pharmacist is the same. The benefit is the release of medical staff time to review other patients.

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Curricular integration in pharmacy technician education

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Introduction

The education of pharmacy technician students traditionally involves foundational science modules such as chemistry, biology, microbiology and physiology, and pharmaceutical science modules such as pharmaceutical formulation and pharmacology and therapeutics, alongside clinical science subjects such as pharmacy practice. Ensuring that students understand the relevance of the various science subjects to pharmacy practice is a constant challenge for pharmacy educators. They must clearly demonstrate this relevance through their course as most students may not necessarily do this instinctively (Guile & Ahmed, 2011). This body of research explores how curricular integration is being progressed and develops a pedagogical intervention for improving integrative thinking.

Methods

Action research was used to identify the issue, develop a plan of action, implement the plan, collect data, review the action through consideration of the data; and identify further opportunities for improvement as cited by Weller (2015).

Results and conclusion

Overall the results from the cross-curricular teaching intervention showed that the students solved real-life pharmacy case-based scenarios in an integrated manner thereby demonstrating the effectiveness of the case study methodology. This is in line with Francis et al (2015) and Stewart, Buckner and Wildfong (2011) who promote the use of case studies to integrate science and pharmacy practice.

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Potentially inappropriate prescribing of proton pump inhibitors – a qualitative review

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Introduction

Proton pump inhibitors (PPIs) are potent gastric acid suppressants, indicated for a range of gastric disorders. Concerns about potentially inappropriate PPI prescribing resultant cost implications and potential serious adverse effects - increased risk of fracture, Clostridium difficile infection and hypomagnesaemia continue to be discussed.

Aims

To explore the context and reasons for potentially inappropriate prescribing (PIP) of PPIs in the Medicine of the Elderly Directorate (MedEl) in St.James's hospital.

Methods

An online survey was issued to 23 MedEl doctors. Topics included: PPI indications and associated doses/duration of treatment, PPI risks and prescribing practices.

Results

Response rate was 52% (12 respondents). 80% considered PPIs to have a high safety rating of 4 or 5, out of 5. Recognised adverse effects were, hypomagnesaemia (83%), *Clostridium difficile* infection (67%) and increased fracture risk (58%). Knowledge of possible drug interactions was low, except for clopidogrel (92%). Documentation of indication for newly prescribed PPIs on discharge was 25%, but duration of therapy was higher (58%), particularly if noted on oesophago-gastro-duodenoscopy (OGD) report.

Conclusions

PPIs were perceived as safe, but knowledge of recommended durations of treatment, awareness of potential adverse effects and drug-drug interactions were poor. Review of PPI prescriptions was infrequent and admission was preferred time for review. Documentation of indication for newly prescribed PPI on discharge was poor, although documentation of duration was higher. Education and modification of reports are possible interventions.

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Evaluation of the use of Writemed® software by a junior doctor to prepare the medication section of the immediate discharge summary (IDS)

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Introduction

Pharmacists use Writemed® software when undertaking medicines reconciliation at admission and discharge to prepare the admission report, discharge report and patient information sheet. The discharge report is transferred into the Immediate Discharge Summary (IDS) by the Pharmacist at discharge. When the Junior doctor prepares the IDS, the medication section has to be manually typed. There is no drug dictionary available which frequently means errors and omissions are identified by the Clinical Pharmacist at the time of the clinical check of the IDS. This delays hospital discharge while the medication section of the IDS is amended.

Method

A Junior Doctor working in the Elderly Acute Unit (EAU) was identified for this Innovation & Quality Improvement Initiative (IQI). The Junior Doctor was trained how to use the software and asked to complete a data collection form for the 3 week study period. The medication section of the IDS was prepared without using the software for the baseline week and Writemed® was used for the 2 intervention weeks. The Clinical Pharmacists working on EAU also completed a data collection form during the 3 week period to determine number of changes required to be made to the medication section of the IDS and time taken for the amendments to be made. The Pharmacists and Junior Doctor completed a satisfaction questionnaire.

Results

There were 11 IDSs evaluated during the baseline and intervention weeks. There were similar number of medicines on the IDS during both weeks studied. The mean length of hospital stay was longer during the intervention week (7.3 days) compared with baseline week (3.5 days). The number of changes required to be made to the medication section reduced from 77% of IDSs in baseline week to 45% in study week. The mean number of changes required per IDS reduced from 3.7 to 0.7. The total time to complete the medication section reduced by a mean of 6 minutes when the Doctor used Writemed®. Both the Doctor and Pharmacists gave very positive feedback on the satisfaction questionnaire when Writemed® was used.

Conclusion

This IQI has shown significant benefits both in terms of Doctor/Pharmacist satisfaction, reduction in time required to complete the medication section of the IDS and reduced numbers of errors/omissions. Ultimately this will result in faster discharge of patients, better patient flow throughout the hospital and freeing up Doctor and Pharmacist time. There were no disadvantages noted and it is hoped this initiative can be rolled out to other wards.

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An audit reviewing the quality and standard of discharges written outside of pharmacy hours

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Background

Under current systems, Pharmacy service hours in Causeway Hospital (NHSCT), are Monday to Friday 9am to 5pm. During pharmacy opening hours, patient discharges are checked by the pharmacy team. Outside of theses hours, there is limited pharmacy input.

Aim

The aim of this audit was to explore the value of extending the clinical pharmacy service to cover weekends.

Method

A selection of Immediate Discharge Summaries (IDS) carried out over the weekends in February 2016, were audited. The total number of IDSs assessed by a clinical pharmacist was n=29, of these 24 were medical patients and the remaining 5 were surgical patients. The pharmacist retrospectively clinically reviewed the IDS to identify potential medication issues and collected data with regards to potential errors on a bespoke data collection form. Potential errors were graded using a scale of High, Medium and Low risk to the patient. Data collected was independently validated by a medical consultant and a senior clinical pharmacist.

Results

Of the 29 records audited 75% contained potential medication errors. Of these, 24% were assessed as being low risk, 24% were considered high risk and the remainder (52%) were assessed as medium risk by the clinical pharmacist. In general, the medical consultant and senior clinical pharmacist agreed with grading (84% and 91% agreement respectively)

Conclusion

The results have indicated that there is a potential for medications errors on discharge prescriptions outside of pharmacy hours. It should be noted that a limitation of this audit is that it was conducted retrospectively – it is therefore impossible to determine if the potential error had been an intentional decision made for sound clinical reasons. The results of this audit have been presented to the Trust management to help secure funding to extend pharmacy to working hours over weekends in order to facilitate discharges and improve the patient safety.

Benefits of pharmacy input on an elective surgical ward in Antrim Area Hospital

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Introduction

This study was conducted on a 20 bedded elective surgery unit with no dedicated clinical pharmacy service. During the study a clinical pharmacist was allocated to provide a comprehensive clinical pharmacy service to patients.

Aim

During the study the pharmacist will aim to:

- Improve patient safety by completing drug histories and medicines reconciliations
- Enhance patient care, intervening with treatment where appropriate and identifying near misses
- Provide specialised training for nurses and other medical staff on high-risk medications
- Clinically check discharge prescriptions, thereby reducing discharge waiting times, hospital pressures and improving patient flow.

Method

During the four-week period, the pharmacist recorded the number of medicines reconciliations completed, interventions made to patient care, near misses identified, discharges completed, improvement in discharge waiting times, counselling provided to patients and medication training provided to other health care professionals. Data was collected on a bespoke data collection form.

Results

A total of 189 medicines reconciliations were completed during the project. These included elderly patients, patients on high risk medications and patients prescribed more than ten regular medicines. The pharmacist completed 113 grade 4 or above medication interventions, preventing patient harm or potential death. Several incident reports were documented during the pilot due to omission of critical medicines including clozapine, warfarin, insulin and sodium valproate. A total of 68 discharges were completed, of which 32% required pharmacist amendments. The average discharge waiting time was approximately 26 minutes during the study period, a reduction of 73% from previous waiting times.

Discussion

The benefit of pharmacy input on the ward was significant over the four-week period. This was reflected in the reduced discharge waiting times, number of medicines reconciliations and treatment interventions -neither of which were routinely carried out prior to the project. Reduction in discharge waiting times illustrated improved patient turnover. Patient safety was also enhanced during the study and obvious improvements on staffing pressures. This pilot has been successful in resourcing funding for a full-time pharmacist based on the elective ward in Antrim Hospital.

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A regional model for medicines optimisation in older people in the intermediate care setting; refinement and reproducibility

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Background

In 2012 the Western Health and Social Care Trust (WHSCT) introduced a consultant pharmacist led case management medicines optimisation service for older people admitted into intermediate care (IC). Results demonstrated improvement in appropriateness of drugs prescribed together with drug cost savings and cost avoidance due to subsequent reduced healthcare resource usage[1].

Aim

The aim was to refine the IC model and test for reproducibility in another trust to inform the Department of Health on potential rollout across Northern Ireland.

Method

The main refinement involved the 'origin of admission' which may include: Acute care; Rapid Access Clinics; Older People Assessment Liaison Services; or GP requests for a step-up bed. Two specialist pharmacists were employed under the mentorship of a consultant pharmacist, one based in the WHSCT and the second based in the Northern Health and Social Care Trust (NHSCT) where the service was to be rolled out. These pharmacists delivered the refined IC case management medicines optimisation model to approximately 40 patients per month per trust.

Results

The WHSCT reported results on patients (aged 82.1 ± 7.2 years, n=210) seen over six months whilst the NHSCT reported data on patients reviewed over a 12 month period (aged 82.1± 7.8 years, n=322). In both trusts, there was a significant improvement in the appropriateness of prescribing with estimated drug cost savings of £205 - £229 per patient pa. Cost avoidance via application of the ScHARR model[2] to clinical interventions made by the pharmacists was in the range of £260k - 543k.

Conclusion

Results infer the refined model is both reproducible and transferable and can therefore be integrated into existing pharmacy services in other trusts.

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Medicines optimisation case management clinics for COPD Patients in the GP setting; reproducibility and evaluation

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Introduction and Objectives

In 2014 the Western Health and Social Care Trust (WHSCT) Northern sector established specialist respiratory pharmacist case management and medicines optimisation clinics for COPD patients delivered in the GP setting. These yielded significant clinical and economic benefits for patients and the healthcare system[1].

Aim

To introduce the clinics in a new geographical setting (Southern sector, WHSCT) so as to establish the reproducibility of this model and inform potential further roll out.

Method

Clinics were established across several GP practices with patients selected from the COPD Quality and Outcomes Framework (QOF) and via referral from GPs and practice nurses. Each appointment (30 minutes) focused on COPD symptoms, medicines optimisation and adherence together with education, sign-posting and referral to other services. Patients were followed up via telephone 30 days later.

Results

Clinics were held with 240 patients (aged 40-98 years). The pharmacist made 3.1±1.6 clinical interventions per patient (Range = 1 to 8); all interventions were Eadon grade ≥4 indicating significant improvement in standard of patient care. At follow-up, the main outcomes were: appropriateness of antibiotic prescribing in line with current guidelines increased from 84.7% to 91.7% at 30 day review; adherence to taking COPD medicines and appropriateness of COPD prescribing (measured using the Medication Appropriateness Index) improved by a statistically significant figure; and COPD symptoms assessed using mMRC and CAT scores at baseline and at 30 days both improved by a highly statistically significant figure in reviewed patients. The average net drug cost saving was £43.54 per patient pa.

Conclusion

Evaluation of specialist pharmacist led clinics for COPD patients demonstrated this model of care to be reproducible, delivering positive benefit to patients in terms of their treatment and symptom control with associated healthcare cost savings.

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Medicines optimisation in older people services in care homes and intermediate care: an independent evaluation

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Introduction

The Western Health and Social care Trust (WHSCT) and the Northern Health and Social Care Trust (NHSCT) have developed two consultant pharmacist-led medicines optimisation in older people (MOOP) case management models of care in the intermediate care and care home settings. These two models were refined and reproduced in each of the two trusts during 2015/16. The older people charity 'Age NI' has developed a unique programme where older people are recruited and trained in facilitation, listening skills, and report delivery. Once trained, facilitators are able to carry out bespoke, facilitated sessions with older people on key issues including health and social care.

Aims

The aims were to: gain insight into the patient experience; add value to ongoing evaluations being carried out by the MOOP project team; and reflect the patient journey in the process of medicines optimisation.

Project timeline

A project initiation meeting was held in January 2016 with service users (patients, carers and staff) interviewed using an agreed semi-structured template by Age NI peer facilitators in Feb/March 2016. A final report was then issued in May 2016.

Report highlights

The Age NI final report highlighted the importance of person centred care, and the impact of it on the individual. Each respondent spoke very positively about their personal interaction with the pharmacist, and how this made them feel. The pharmacist spent time talking to people, getting to know them and their families/carers creating an excellent basis on which to open up dialogue and discussion about medication and health. Accessibility to a pharmacist created a profound sense of reassurance for carers. Having a consultant pharmacist led pharmacy team on hand to look at individual medicine requirements ensured more time for the nursing teams to focus on caring for older people in both settings.

Conclusion

Age NI made several recommendations including: *'Age NI supports the person centred approach demonstrated by the consultant pharmacist led pharmacy teams in the medicines optimisation project, and believes this to be a fundamental aspect in the delivery of excellent care to older people. The role of the specialist pharmacist in care homes and community hospitals should be adequately funded and provided in healthcare settings throughout Northern Ireland.'*

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Specialist pharmacist case management and medicines optimisation for COPD patients in the acute setting

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Introduction and objectives

The Western Health and Social Care Trust (WHSCT) has delivered specialist respiratory pharmacist led clinics for COPD patients in GP practices since 2014. In September 2016 the project team implemented the same case management medicines optimisation service for COPD patients admitted to acute care in the South West Acute Hospital (SWAH).

Aim

To evaluate a medicines optimisation case management service for COPD patients admitted to the SWAH who may/may not be under respiratory consultant care.

Method

Referrals were made by the respiratory consultants, clinical pharmacists and nurses or identified through routine review of new admissions. After confirming medical history and medications taken, the review focused on COPD symptoms, medicines optimisation and adherence together with education and referral to other services. Patients were followed up, with consent, via telephone approximately 30 days later.

Results

The pharmacist reviewed 107 patients (aged 36 to 93 years) with 69 patients (64.5%) experiencing a COPD related admission. Forty-four patients (41.1%) were directly under the care of a respiratory consultant. The pharmacist made 4.1±2.3 clinical interventions per patient. Telephone review was conducted on average 32 days later (n=105). The main outcomes were: appropriateness of prescribing and adherence to COPD medicines improved to a statistically significant level; there was a significant improvement in mMRC and CAT score between baseline and 30 day review; and an average drug cost saving of £86.64 per patient per annum.

Conclusion

Medicines optimisation and case management by a specialist pharmacist yields clinical and economic benefit. The need for more patients to be under respiratory consultant care with full access to COPD services needs to be explored further.

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'Less is more' – reducing pill burden in the haemodialysis unit

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Introduction

As part of a Safety, Quality and Patient Experience (SQE) project based within the South Eastern Health and Social Care Trust it was identified that a significant number of the haemodialysis population had a high pill burden each day (range 5-49) which required large volumes of fluid to aid swallowing them. This in turn contributes towards a greater interdialytic weight gain.

Aim

To reduce pill burden by 10% in 50% of patients receiving haemodialysis by November 2016, through a process of medicines optimisation primarily using the STOPP/START criteria[1].

Methodology

Optimisation of medicines through medication review was carried out in January 2016 in a population size of 96. This involved discussion between the Multidisciplinary Team and the patient. A further 24 patients were reviewed in November 2016 with the STOPP/START criteria being included in the medicines optimisation process. Finally, financial saving was calculated from pill reduction annually per unit and per patient from both medication optimisation exercises.

Results

Pill burden was reduced by 10% in 60% of patients with a total number of 251 daily doses being stopped. This equated to an annual cost saving of £24276 and an average annual cost saving per patient of £202.30.

Conclusion

Through the process of a patient and stakeholder shared medicines optimisation process it has been possible to significantly reduce pill burden and improve chronic disease management in the haemodialysis population alongside significant cost benefits.

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The development of a medicines governance training folder for pharmacy technicians in the Belfast Trust

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Background

Currently in the Belfast Trust there is no training available to pharmacy technicians and student pharmacy technicians on medicines governance. This highlighted the need for a training programme on medicines safety for technical staff to be developed. The aim of this training is to improve the technicians' knowledge on medication-related patient safety and on the processes in BHSCT to ensure the safe use of medicines.

Aims and objectives

To develop and evaluate the effectiveness of a medicines governance training folder for pharmacy technicians working in the BHSCT.

Methodology

An electronic training folder was developed by members of the BHSCT medicines governance team. The training for technicians was developed in the same electronic format as to what is currently available for pharmacists in the Trust. Content was tailored to cover material relevant to pharmacy technicians. Following development, the folder was piloted and feedback received from one senior pharmacy technician and four student pharmacy technicians.

Results

Feedback from all the participants was positive, with all stating that the learning was 'very relevant' to their practice and that the training had provided them with a 'substantial increase' in their knowledge of medication safety.

Conclusion

The development of the medicines governance training folder has provided a new resource to pharmacy technicians in the area of medication and patient safety where previously there was none available. Based on feedback, the training material was well received and on-going implementation of the training should provide an important resource to new pharmacy technicians in the BHSCT.

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Pharmacist led oral health management of bisphosphonate patients in primary care

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Introduction: Bisphosphonate patients should; maintain good oral health; attend dental checks prior to commencement of, and at regular intervals during treatment and be monitored for oral health symptoms in order to prevent osteonecrosis of the jaw[1,2]. Anecdotal evidence from the dentist and doctor in our area suggests that patients are not adhering to this advice.

Aims: To Identify if patients on long-term oral bisphosphonates (at least 6 months of therapy) were advised to and attended the dentist for a dental check prior to commencing therapy. Investigate whether these patients maintain good oral health. Determine if patients have experienced adverse oral health whilst taking bisphosphonates. Based on the findings, develop an education poster relating to oral health management for this patient group

Methods: Anonymous paper-based questionnaires were conducted over 10-weeks at the point of dispensing (participation was voluntary). Only patients receiving long-term oral bisphosphonates were targeted.

Results: 70 patients completed the questionnaire: 70% were 66 years or older and 85% female. Patients were prescribed alendronic acid, ibandronic acid or risedronate sodium. 2.8% were taking bisphosphonates longer than the recommended 10 years. Only 20% of participants recalled being advised to attend the dentist prior to commencing bisphosphonates, of these 86% received a dental check. Oral health problems included dentures (14%) and teeth falling out (4%). One suspected case of osteonecrosis was identified.

Discussion: Patients were largely non-adherent and unaware of oral health guidelines surrounding bisphosphonate use. A multi-disciplinary approach is needed regarding patient education. Pharmacists are in an ideal position to reiterate advice at the point of dispensing. A patient education poster for this patient group has been developed highlighting the importance of regular dental checks and identifying oral health symptoms. This is displayed in the doctor and dental practices and the pharmacy.

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Assessing the baseline knowledge of the teicoplanin prescribing and monitoring policy in a large teaching hospital

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Introduction

Teicoplanin is a glycopeptide antibiotic used in the treatment of complicated infections caused by Gram positive organisms including MRSA and is particularly useful in patients who are allergic to penicillin. It has a long half-life and requires loading doses when commencing treatment as well as on-going therapeutic drug monitoring (TDM) to ensure therapeutic efficacy. It is sometimes poorly managed in clinical practice which may lead to therapeutic failure; assessing the local clinical teams' baseline knowledge level of the prescribing and monitoring policy may provide an insight into how this can be improved.

Method

A five-minute survey consisting of 10 multiple choice questions was produced and members of the clinical teams were asked to complete them anonymously over one week in March 2017. A total of 116 surveys were returned and analysed against the teicoplanin prescribing and monitoring guidelines issued by the Trust[1].

Results

A total of 58 doctors, 21 pharmacists and 37 nurses participated in the survey. 93% (108/116) of the participants were aware of the need for TDM for teicoplanin but only 45% (52/116) knew when this should take place once a patient had been commenced on treatment. 34% (40/116) of participants were not aware of the correct weight based dosing and 33% (19/58) of all doctors who participated were not aware of the correct timing of loading doses. 51% (19/37) of nurses who participated thought it was necessary to withhold further doses whilst awaiting TDM results. Only 19% (22/116) of participants answered all the questions concerning teicoplanin correctly.

Conclusions and recommendations

Although there seemed to be sufficient awareness of the need for TDM for teicoplanin (93%), there was some confusion over the reasoning (71%), timing (45%) and target levels to be achieved (56%), perhaps pointing to a degree of confusion with other antibiotics requiring TDM. There has also been a recent change in the dose recommendation for teicoplanin[2] but the Trust guidelines have yet to be updated to reflect this. Consideration should be given to developing a comprehensive training plan on the prescribing and monitoring of teicoplanin[2] for doctors, nurses and pharmacists in conjunction with the local Antimicrobial Team (resource dependent).

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The effect of a prescriber training intervention on the prevalence of prescribing errors found in an electronic prescribing system

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Introduction

Electronic prescribing systems are being increasingly implemented in healthcare settings internationally.[1] The available literature strongly advocates the importance of training for users of electronic prescribing systems to ensure their safe and effective use.[2] However, there is a lack of evidence to demonstrate the effect that ongoing training has on the use and impact of these systems.

Aims

In order to strengthen the case for staff training resources for electronic prescribing systems, this study was carried out to investigate the effect of a training intervention on the prevalence of prescribing errors found in an outpatient electronic prescribing system currently in use.

Methods

Prescription audits were carried out before and after the delivery of a classroom-based training intervention. The audits were used to measure and analyse the effect of the intervention on prescribing errors found in the electronic prescribing system. A questionnaire and clinician observations were carried out with prescribers. The pre-intervention audit results, questionnaire, and clinician observations were used to inform the prescriber training intervention.

Results

The prevalence of prescribing errors was significantly reduced, following the delivery of the training intervention. Significantly more medications prescribed during the pre-intervention audit contained one or more errors when compared with the post-intervention audit (28.6% versus 9.2%, $p < 0.05$). Most errors found were deemed to be system-related errors.

Conclusion

The study demonstrates the positive impact that ongoing training can have on users' interactions with an electronic prescribing system. The study stands to inform those managing electronic prescribing projects that, despite initial training, errors can still occur in the system and must be addressed. This study supports the need to provide adequate training resources for users of electronic prescribing systems, and to plan for training interventions to be delivered as part of ongoing system maintenance.

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Evaluation of clinical pharmacist interventions in surgical patients in an Irish teaching hospital

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Objectives: This study evaluated the types and frequency of a clinical pharmacist's interventions in surgical patients, the severity of risks associated with the drug-related problems (DRPs) and prescribers' adherence to local guidelines.

Setting: The study was set in two surgical wards of a 339 bedded Acute General teaching hospital in Ireland.

Method: The study was a prospective, uncontrolled, observational study of all clinical pharmacists' interventions undertaken in adult surgical in-patients (≥ 18 years) in two of the surgical wards over a period of 25 consecutive working half-days. The Pharmaceutical Care Network Europe (PCNE) Classification Scheme for Drug-Related Problems V 7.0 and the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) Index were used to classify the DRPs and categorise the severity of risks respectively by an expert panel. Prescribers' adherence to hospital guidelines was also assessed using local guidelines.

Key Findings: A total of 122 surgical in-patients were reviewed by the clinical pharmacist. Seventy-one patients required at least one intervention. A total of 152 interventions were completed on 71 patients with a prescriber acceptance rate of 75%. The intervention with highest frequency was the omission of regular medication on admission or discharge (24.3%). Two-thirds of the clinical pharmacist interventions (68%) were categorised as a potential ADE by two surgeons. In comparison, 79% were categorised by the clinical pharmacist as a potential ADE. Two surgeons categorised 3% of the interventions as an actual ADE and in comparison 2% of the interventions were categorised as an actual ADE by the clinical pharmacist. The diabetic GKI and perioperative prescribing were complied with 100%. The clinical pharmacist undertook interventions on 11% and 18% of the VTE and antimicrobial prescribing respectively due to non-compliance with the local guidelines.

Conclusion: A clinical pharmacist service in surgical patients has demonstrated a positive impact on patient safety through the identification and prevention of potential and actual adverse drug events.

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Cost-effectiveness analysis comparison of a physician-implemented, medication screening tool in older hospitalised patients in Ireland

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Objectives: In 2011/2012, a single-blind, cluster randomised controlled trial (RCT) was conducted in a tertiary, referral Irish hospital to evaluate the screening tool of older person's prescriptions (STOPP) and screening tool to alert right treatment (START) criteria compared to usual hospital care.[1] This intervention demonstrated positive outcomes in terms of reduction of adverse drug reactions (ADRs). The aim of this study is to compare the cost-effectiveness of the physician-implemented STOPP/START criteria to unselected, older hospitalised patients in 2011/2012 with the cost-effectiveness of this intervention if applied within the Irish hospital setting using the most currently available (2015) healthcare costs (CAHC).

Methods: Cost-effectiveness analysis (CE) alongside conventional outcome analysis in a cluster RCT. The screening tool was applied to medicines of intervention arm patients (n= 360); control arm patients (n= 372) received usual hospital care. Two CE were conducted using 2011/2012 costs and CAHC. Incremental cost-effectiveness was examined in terms of costs to the healthcare system and an outcome measure of ADRs during an inpatient hospital stay. Uncertainty in the analysis was explored using a cost-effectiveness acceptability curve (CEAC).

Results: On average, the intervention arm was more costly but was also more effective for both CE. The associated incremental cost-effectiveness ratios (ICER) per ADR averted were €5,358 and €5,469 for the 2011/2012 and 2015 CE respectively. The probability of the intervention being cost-effective in 2011/2012 at threshold values of €0, €10,000 and €20,000 was 0.236, 0.680 and 0.926 respectively. The probability of the intervention being cost-effective using CAHC at threshold values of €0, €10,000 and €20,000 was 0.236, 0.672 and 0.921 respectively.

Conclusions: Despite intervention implementation being slightly more costly using CAHC, such accompanying ADR reductions may possibly result in satisfactory savings and greater patient outcomes. Healthcare policy makers should consider the adoption of STOPP/START criteria in routine hospital care.

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Portglenone Wellbeing Group – 16 week emotional & physical wellbeing programme

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Background/Purpose

Lifestyle choices made by patients affect their emotional and physical wellbeing contributing significantly to the growing major health concern of mental health issues; as well as the increasing incidence of long-term conditions such as Type 2 Diabetes & Cardiovascular disease. Bannside Pharmacy in conjunction with Portglenone Enterprise Group received funding from the Community Development Health Network via the Building the Community Pharmacy Partnership Programme to run a 16-week wellbeing programme for 15 participants, from Sept 2016-Jan 2017.

Aim/objective

To empower participants in identifying, understanding and addressing the causes of emotional and physical ill health in a sustainable way, focusing on better stress management, social interaction, food choices and increased enjoyable physical activity.

Methods

The 1st half of the weekly session was interactive with flip charts used to encourage group participation. Personalised goals and targets were set weekly by participants and discussed at the beginning of the following session. The 2nd half of the session involved physical activity such as Yoga, Chi me or a walk. Pharmacy staff (2 pharmacists & ACT) delivered sessions on OTC and prescription medicines (with focus on drugs more liable to misuse), complementary medicines and treatments and nutrition. Diabetes Risk Assessment, Blood Pressure, Blood Glucose, Weight, Waist & BMI measurements were recorded at the start & end. 4 members were referred to their GP for further assessment based on readings.

We also linked with: Dr Becky Houghton Consultant Clinical Psychologist, Clinical Lead for Clinical Health Psychology Service Northern Health & Social Care Trust for stress management sessions (including mindfulness) and to carry out Depression, Anxiety and Stress clinical assessments at the beginning & end (DASS21). Other partners were the Portglenone Community Choir, Men's Shed, People Plus (A Good Night's Sleep using a CBT Approach).

Results and conclusions

Pharmacy evaluation forms reported a high level of participant satisfaction with the programme which was also reflected by high attendance throughout. DASS21 scores showed clinical improvements in: 4 participants (27%) for depression, 3 (20%) for anxiety and 1 (7%) for stress - at a time of year when mood is known to deteriorate. One participant's depression had worsened. Dr Houghton arranged a follow up assessment after 3 months with 7 members whose scores were still elevated at the end of the programme. BMI had dropped in 7 members (47%) increased in 4 (27%) and was unchanged in 4. More focus on weight loss may have improved the physical health outcomes further.

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Improving medication safety in theatres

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Background

Administration of IV medicines is recognised as a high risk activity.[1] Anaesthetists have highlighted concerns about the risk of errors when IVs are prepared and administered in theatre.

Aims and objectives

To improve the safety of IV medicines in theatre.

Methodology

In two Trusts, theatre alerts are issued highlighting supply of substitute IV medicines with changes in packaging and labelling. In addition to these alerts, theatre IV medicines are risk assessed for error potential during contracting; where possible, emergency list IV medicines are purchased as ready made preparations to minimise preparation in theatre. This latter development is also being taken forward regionally.

Results

The alerts have been issued to lead anaesthetists and lead theatre nurses in two Trusts for information and cascade to their staff. A formal evaluation of the theatre alerts has been conducted in one Trust. It has shown that 57% of staff agreed that the alerts were relevant to their everyday practice.

Conclusion

Introduction of a simple system to highlight changes in IV medicines has addressed a deficit in information regarding IV medicines used in theatres. These alerts have been well received by senior and frontline staff. In addition to this, there is scope to develop and standardise ready made emergency list IV medicines for use in theatre.

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Irish pharmacy students' experiences of the degree, and their views of mindfulness in pharmacy education: a qualitative study

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Introduction

Undergraduate healthcare students encounter significant stress due to the demands of their professional education. Pharmacy students demonstrate higher stress levels than the general population, regardless of year of study. This can be linked to subsequent stress as a healthcare practitioner, leading to depression and burnout, and impacting upon patient care. Mindfulness, defined *as "paying attention in a particular way, on purpose, non-judgmentally, to the present moment"*[1] is a brain-training technique that changes how one relates to stress, and may be a suitable way to teach pharmacy students stress management and self-care[2]. The aim of this qualitative study was to explore Irish pharmacy students' current experiences of the pharmacy degree, and their attitudes towards the potential introduction of mindfulness techniques to their curriculum.

Methods

Undergraduate pharmacy students from the five Schools of Pharmacy (SOPs) in Ireland were invited to take part in focus groups between February and November 2016. Recruitment occurred via email, sent by gatekeepers within each of the pharmacy schools. FGs were audio recorded, anonymized and transcribed by the researcher (MOD). Transcripts were analysed using the Braun and Clarke method of thematic analysis (3), and coded in QSR International NVivo Qualitative Data Analysis Software Version 11. Local ethics approval was obtained

Results

Twenty pharmacy students (60% female) representing all years of study from three of the five SOPs participated across five focus groups. The four key themes that emerged were (a) so much to do, so little time (b) we're smart people, we want to do well (c) learning by doing, and (d) mindfulness as a coping tool

Conclusions

The findings of this study support the hypothesis that students experience stress and would welcome mindfulness-based interventions as a management option. In particular, the emphasis that mindfulness places on experiential learning will be well received by students. Challenges that may be encountered include: already busy timetables; and poor engagement if no formal recognition is available. This could be addressed through integration of such a course into an existing module.

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Optimising thrombroprophylaxis

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Background

10% of hospital deaths[1] and 0.4% of hospital admissions[2] are attributed to venous thromboembolism (VTE). Hospital acquired VTE is the most common preventable cause of in-patient death, 70% are preventable by assessing the patient's risk of VTE, risk of bleeding and choosing appropriate prophylaxis[3].

Objective

To achieve risk assessment completion and appropriate thromboprophylaxis in 100% of adult medical patients within 24 hours of admission by 1st May 2017.

Method

A retrospective study was conducted using the Model for improvement tool. Measurements were taken continuously twice weekly using small sample sizes (n=12) on two different sites. Phase 1 measurements addressed appropriateness of thromboprophylaxis at 24 hours. PSDA cycles were used to improve existing thromboprophylaxis risk assessment. The risk assessment was introduced to medical teams and incorporated into the drug kardex. Phase 2 measurement involved completion of the risk assessment and appropriateness of thromboprophylaxis.

Results

Phase 1, the percentage median appropriate thromboprophylaxis before the introduction of the risk assessment was 85%. Phase 2 – n= 306. The percentage median for the completion of the risk assessment was found to be 36%. The percentage median appropriate thromboprophylaxis rose to a median of 91% during the measurement period however it dropped to 83% at the point of reporting. Inappropriate thromboprophylaxis was found in 14.4% of patients (52.3% under-prophylaxis: indicated not prescribed; 20.5% over-prophylaxis: not indicated, prescribed; 22.8% wrong dose for weight; 4.4% wrong dose for renal function).

Conclusion

Hospital acquired VTE is the most common preventable cause of in-patient death. The introduction of a thromboprophylaxis risk assessment demonstrated an increase in the appropriate prescribing the thromboprophylaxis however this increase was not sustained. Of the inappropriate prescribing under-prophylaxis was found to be highest. The risk of hospital acquired VTE was found not to have reduced and remains an area for improvement. Producing a risk assessment does not automatically ensure an improvement in appropriate prescribing rather a change in culture and awareness is also needed to reduce VTE associated death.

Exploring pharmacists' perspectives on involvement in a peer support network

James O'Hagan, Karen Sheehan, Rebecca Porter, Sonya Saenz Saralegui, Frank Moriarty, Mary E. Collins, Ben Meehan, Catriona Bradley.

Background

In 2013, a Pharmacist Peer Support Network was established by the Irish Institute of Pharmacy. This group of pharmacists was to act as a conduit for communication between the IIOP and the pharmacy profession during the implementation of a new continuing professional development (CPD) system within Irish Pharmacy.

Purpose

To understand the experiences and perspectives of those pharmacists who were appointed to the Peer Support Network.

Methods

Two focus group were held in March 2017, each involving ten peer support pharmacists. The groups were facilitated by external facilitators. Transcripts of the discussions were analysed and main themes identified.

Results

The pharmacists involved in the focus groups expressed positive views about their experiences as Peer Support Pharmacists. They identified some areas for improvement, including recruitment process and communications. All indicated their desire to remain part of the group and continue the work in supporting the evolution of the CPD system.

Conclusion

Feedback suggests that the Peer Support Network has been successful as mechanism of disseminating information and supporting pharmacists through the implementation of the new CPD structure. Understanding the perspectives of those involved in the network will help shape how the network is developed to support pharmacists reach their professional potentials.

Exploring students' understanding of medicines optimisation and their ability to optimise medicines

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Introduction

One of the core skills of the modern clinical pharmacist, regardless of their practice setting, is the skill of medicines reconciliation and optimisation. Polypharmacy is becoming increasingly common, in the past decade, the average number of items prescribed in Northern Ireland is 21.6 (2015) compared with 16 items in 2005. Medicines Optimisation helps to ensure appropriate polypharmacy to balance harm, benefit as well as patient acceptability and choice, ensuring that an explicit decision on the drug to use has been made with the patient[1].

Aims

- To explore third and fourth year undergraduate MPharm student understanding of the concept of Medicines Optimisation
- To determine their ability to identify interventions in patient scenarios where they could apply their skills of Medicines Optimisation.

Methods

This is a mixed methods study with students invited to provide their views in both a questionnaire and focus groups. All third and fourth year students were invited to complete a questionnaire in January 2017. All third and fourth year students were invited to participate in a focus group in February 2017 once initial analysis of the questionnaire was complete.

Proposed evaluation

All data will be collated and analysed using SPSS statistical software. Non-parametric tests will be used, as appropriate, to test for association between responses (e.g. Kruskall-Wallis and Chi-squared). Sub-analyses will be completed by program level and gender.

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Implementation of theatre specific controlled drug registers in Musgrave Park Hospital, Belfast Health and Social Care Trust

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Introduction

Reducing harm from controlled drugs is a component of the Belfast Health and Social Care Trust's Quality Improvement Plan. An objective of the quality improvement plan was to implement theatre specific controlled drug (CD) registers in theatre and critical care areas. The theatre-CD register records the three components of the controlled drug journey in the theatre environment, i.e. the supply of a controlled drug by nurse/ODP to anaesthetist, the administration of drug by anaesthetist and disposal of drug by anaesthetist and witness. These detailed records provide assurance of a safe and robust audit trail of controlled drugs in theatre and critical care areas.

Aim

A project was undertaken in Musgrave Park Hospital theatres to implement theatre-CD registers, as part of the, "Safety Quality Belfast" Quality Improvement program, which would aim to improve compliance with trust quarterly controlled drugs audits.

Method

Using Quality Improvement methodology a series of "Plan, Do, Study, Act" (PDSA) Cycles were completed. The theatre CD registers were introduced into two theatres and staff training provided. Review of the CD registers for documentation errors was completed and feedback provided at the department audit meeting. Subsequently the remaining seven theatres transferred to the theatre CD registers.

Results

The CD registers were audited at two weekly intervals against controlled drug audit record keeping standards with results presented on a run chart to correlate changes in practice linked to PDSA cycles.

Discussion

Analysis of data identified issues pertaining to the documentation of disposal of controlled drugs. Further PDSA cycles are planned to target this issue to ensure future compliance with controlled drugs audits.

Conclusion

Implementation of theatre CD registers has increased awareness of controlled drug policy, and record keeping requirements in the theatre environment.

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Medicines reconciliation in the clinical assessment unit (CAU) Royal Victoria Hospital, Belfast Health and Social Care Trust

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Introduction

Medicines reconciliation is the process of identifying an accurate list of a person's current medicines and comparing them with the current list in use, recognising any discrepancies and documenting any changes, thereby resulting in a complete list of medicines, accurately communicated.[1]

Aim

The project aimed to improve medicines reconciliation processes in CAU by medical staff. The medication section of the CAU admission pack is often incomplete, frequently endorsed with; "see kardex" or "see ECR" (Electronic Care Record). Incomplete information on admission increases the risk of medication errors from inaccurate kardexes.

Method

"Plan, Do Study Act" cycles, were undertaken to change admission processes within CAU, these included; one-to-one briefings with medical staff on the trust medicines reconciliation policy and the creation of tool guide on using ECR for admissions.

Results

One member of medical staff tested the tool guide and all of the medical team used the ECR form for admissions. Use of completed ECR medicine reconciliations form were audited weekly with results presented to senior medical staff.

Conclusions

Use of the tool guide and ECR to engage with patients on admission results in an improved medicine reconciliation process.

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Impact of a pharmacy-led screening service for Group A β-haemolytic streptococci, on general practitioner visits and antibiotic consumption: Protocol for a non-randomized controlled study

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Background: Up to 75% of cases of pharyngitis are inappropriately prescribed antibiotics (1). In those with a bacterial infection, one strain should be treated with antibiotics, Group A β-haemolytic Streptococci (GABHS)(1). The Centor Criteria, a clinical prediction rule, is recommended by UK and Irish General Practitioner guidelines for use in primary care(2-4). The Infectious Diseases Society of America recommends the use of RADT in combination with the Centor Criteria, to improve antibiotic prescribing(3).

Aims: The aim of this study is to evaluate the effectiveness of a community pharmacy intervention, involving the Centor Criteria and Rapid Antigen Detection Testing (RADT) on General Practitioner (GP) visits and antibiotic prescribing.

Method: A pilot non-randomised controlled, parallel trial of adults aged ≥ 18 years, presenting to one of 20 community pharmacies in Ireland with an uncomplicated sore throat. Patients presenting to pharmacy with a sore throat lasting between 3 and 10 days, with no reported symptom improvement will be invited to participate in the study. Those in the intervention group will undergo evaluation of the Centor Criteria and if necessary RADT, by the pharmacist. Those in the control group will receive usual care from their pharmacy team. Those with a Centor score of 1 or more will be included in the study. All patients will be followed up at 7 days to determine GP visits and antibiotic consumption.

Results: Recruitment is ongoing. To date, 127 participants have been recruited, 74.8% female and 25.2% male, with ranging from 19 years to 78 years old and average age 35.4 years. Results expected August 2017.

Discussion: This study will determine the feasibility of delivering a pharmacy-led pharyngitis intervention in the community pharmacy setting, and will determine the impact of this intervention on GP visits for pharyngitis and antibiotic prescribing.

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Drug interactions detected using electronic care records - 2017 update

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Introduction

In 2014 the pharmacy team completed an interaction screen of all HIV patients on a boosted antiretroviral (ARV) regimen using recently launched NIECR. We concluded that there was a need for primary and secondary care teams to screen and manage drug-drug interactions (DDI) and for patients to remind practitioners about the important of this. 56 patients in 2014 needed urgent clinical intervention.

Method

In 2014 we reviewed all patients on a boosted ARV regimen for DDI, we continued this work with all patients, and this year we reviewed our interaction screening database, to assess the following:

1. Documentation of an interaction screen
2. How many patients were issued medication by their GP
3. Of these, what percentage interacted?
4. Are serious Drug-drug interactions (DDI) still an issue?

Results

- There were 1093 unique patient records, 887 (81.2%) have a recorded H&C number and interaction screen.
- 468/887 patients (52.8%) are prescribed medication by their GP with no or no significant interactions.
- 235/887 patients (26.5%) are prescribed medication by their GP where an interaction is identified by the MDT and managed accordingly either by the clinic or in conjunction with the GP and patient.
- 122/887 patients (13.8%) do not obtain any medication from their GP.
- 30/887 patients (3.4%) had documentation which was incomplete
- 15/887 (1.7%) were not on any ARV's
- 9/887 patients (1%) had opted out of NIECR
- 8/887 patients (0.9%) key demographics did not match which prevents NIECR verification.
- No patients required an immediate clinical intervention compared to 17.6% of patients in our 2014 review.

Conclusion

The number of patients prescribed medications by their GP has increased from 45% in our 2014 report compared to 79.3% in this review. There was a significant improvement in the latest review of interactions and no patients were identified with serious interactions. A medicines reconciliation and interaction screen before initiating/switching treatment and prior to a clinic review has enabled our cohort to avoid clinically significant DDI.

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Developing a new model of pharmacy experiential learning – a paradigm shift in pharmacy education

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Introduction

In 2010, the Pharmaceutical Society of Ireland published a review of pharmacy education[1]. One important recommendation from this report was to replace the traditional 4+1 model (4-year bachelor's degree + 1-year in-service practical training) of pre-registration pharmacy education with a 5-year fully integrated programme. SI No. 377 of 2014[2] legislated for the introduction of this new programme.

Approach

The three Schools of Pharmacy in the Republic of Ireland formed a unique collaboration to support the delivery of this new model of pharmacy education. APPEL (Affiliation for Pharmacy Practice Experiential Learning) now oversees the experiential learning placements of the integrated pharmacy programmes of University College Cork, the Royal College of Surgeons in Ireland and Trinity College Dublin.

Outcome

APPEL is introducing a paradigm shift in experiential pharmacy education. A learner-centric placement model supports students to undertake placements in a breadth of practice settings. Placements take place throughout the student journey and range from two-week to eight-month placements. The legislation requires that this training has a "university character". Students undertake structured learning while on placements, designed to support them to develop the required competencies over the five-year programme. Days and hours of placement attendance reflect the university character of the programme.

Conclusion

This model of experiential education represents substantial change for students, pharmacy schools and the pharmacy profession. It is intended that it will support the development of graduates that are equipped for the needs of contemporary and future practice.

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Development of a modular approach to support new legislation for the administration of medicines in an emergency situation in Ireland, using a hybrid of face-to-face and online training programmes

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Background

The Irish Institute of Pharmacy (IIOP) is responsible for the recognition and approval of CPD programmes for pharmacists. New legislation allowed pharmacists, who have completed the required training, to supply and administer medicines in an emergency situation. The IIOP was responsible for providing access to CPD programmes in order that the training requirements could be met.

Purpose

The IIOP, in conjunction with the PSI, sought to develop a modular system of training to enable pharmacists to acquire the necessary skills and knowledge to administer medicines in an emergency situation.

Methods

The development of a modular approach to training included:

- Identification of training providers through public procurement process
- Facilitation of accreditation of training programmes
- Delivery of training programmes through the IIOP online learning platform
- Ongoing evaluation of the accredited training programmes.

Results

A modular approach was developed and implemented. This modular approach is comprised of foundation courses, which deal with the skills and knowledge required for different routes of administration, and medicine specific courses. Courses that require the acquisition of a new skill (e.g. parenteral administration) are delivered as a face-to-face course. Courses that cover information on a particular emergency medicine are delivered in an online format. The modular approach comprises six courses or building blocks, all of which have been accredited by the IIOP and are available for pharmacists to undertake.

Conclusion

A modular approach to training requirements facilitated the successful implementation of new legislation for the administration of medicines in an emergency situation in Ireland.

Healthmail: secure clinical email for healthcare providers

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Introduction

Healthmail is a secure clinical email system provided by the Office of Chief Information Officer (OoCIO) in the HSE. The initial implementation of Healthmail, which went live in November 2014, was for GPs and their support staff, allowing communication of patient identifiable clinical information with clinicians in primary and secondary care. The service is being extended to all primary healthcare providers and, in preparation for the Health Information and Patient Safety Bill, the IPU is working with eHealth Ireland to implement Healthmail in community pharmacy.

The new service, which will replace faxes and some phone calls, aims to bring primary care communications into the 21st century, promoting healthcare that is up to date, effective and consistent. In the interest of patient safety, pharmacy may use Healthmail to communicate patient information and treatment with GPs, Primary Care Teams, Community Intervention Teams, consultants and pharmacists in secondary care, ensuring the right information is going to the right recipient in a secure and timely process.

Poster

A poster will present the technical infrastructure of the service and example use cases, with statistics on adoption and usage.

References

https://www.healthmail.ie/

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Community pharmacists' interventions on hospital discharge prescriptions

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Background and aim
The transition of patients from secondary to primary care is a vulnerable time. Medication reconciliation challenges, suboptimal communication and prescribing errors may lead to drug related problems (DRPs), in addition to legal, ethical and administrative problems with hospital discharge prescriptions. The purpose of this study was to explore the frequency, nature and outcome of community pharmacists' interventions on discharge prescriptions.

Methods
Sixty community pharmacies nationwide were invited to participate in the study, which was approved by the Research Ethics Committee of the School of Pharmacy and Pharmaceutical Sciences at Trinity College Dublin. Participants were asked to complete two questionnaires for ten consecutive hospital discharge prescriptions presented at their pharmacies: The first recorded, for each prescription, whether or not the pharmacist needed to intervene to address an issue with the prescription. The second questionnaire (only completed for prescriptions requiring intervention) captured details of any interventions. Data were coded and analysed in SPSS v. 23.

Results
42/60 (70%) of the pharmacies participated, providing data on 303 discharge prescriptions, of which 102 (34%) required an intervention. DRPs were responsible for 87% of interventions with dosage queries being the single largest category. The remaining 23% of interventions stemmed from legal, administrative and ethical issues. 52% of all interventions were made with the hospital prescriber him/herself.
The greatest proportion (37%) of interventions took 11-30 minutes of active engagement by the community pharmacist to resolve. However, the total time that elapsed from initiation of the intervention to resolution of the issue varied widely, with as many as 15% of cases still not being resolved 8 hours after the initial intervention.
The most common outcomes were confirmation of the discharge prescription regimen (26% of cases) and a change in dosage of a medication on the discharge prescription (21%). In 38% of interventions the community pharmacist made a medication related suggestion to the prescriber, all of which were accepted. As might be expected, the most common impact on patients was a longer wait for their medications (65% of interventions); in 44% of cases where an intervention was made, it necessitated an additional visit to the pharmacy by the patient or their carer.

Conclusion
Community pharmacists must frequently intervene to resolve problems with hospital discharge prescriptions. As Ireland moves towards electronic exchange of prescriptions and health information, it will be important to include mechanisms for clear communication of changes to patients' medication regimens (indicating discontinued medications as well as those currently prescribed), safeguards to prevent issue of prescriptions that do not fulfil legal or administrative requirements, and timely access to relevant information for community pharmacists.

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Evaluation of a pharmacist led discharge service

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Introduction

Pharmacists in St. Luke's Hospital in Kilkenny provide a medications reconciliation service on admission and discharge with communication of information at admission to hospital based Doctors and the patients' GPs and community pharmacists immediately prior to discharge, via Pharmacist prepared discharge prescriptions.

Aims

The aim of this project is to evaluate the pharmacist led discharge service, via measurement of the quality of information provided at discharge, acceptability to all stakeholders and patients, and analysis of all processes and their impact on pharmacy activities.

Methods

- An audit tool will be developed using the HIQA National Standard for Patient discharge information to compare patients that receive pharmacist led discharge service against standard care to determine compliance with the HIQA standards for discharge prescriptions.[1]
- The compliance to HIQA standards for ePrescriptions and paper prescriptions will also be compared.
- A survey for stakeholders will determine their satisfaction with the service.

Results

It is anticipated that prescriptions written by pharmacists will have a higher standard of compliance with HIQA standards than standard service. It is anticipated that all stakeholders will be satisfied with the service.

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Impact assessment of pharmacist independent prescribers (pips) writing discharge and medication advice letters through the introduction of a pip led discharge service

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Introduction

Traditionally once a patient has been identified for discharge, during a ward round, it is the responsibility of the junior doctor to prepare the discharge and medication advice letter. This letter can then be clinically checked by a pharmacist and any errors identified and amended before being sent to pharmacy for dispensing. The most significant delay has been identified as the time taken from when the patient is told they are fit to go home to the time when the discharge letter is ready to be checked by a pharmacist[1]. This delay may be due to the multiple conflicting demands on junior doctors. Studies[2,3] have also shown that the incidence of prescribing errors is lower for PIPs (0.3%) in comparison to junior doctors (8.4%). This study aims to determine if expanding the traditional pharmacist role further by allowing PIPs to prepare discharge letters, could speed up the discharge process and reduce the incidence of errors.

Method

The service evaluation will be carried out on wards 11 and 12, Gastrointestinal Medicine (GI) wards, in the Ulster Hospital over a two-month period. Both PIPs identified to prepare the discharge letters have completed the Advanced Practice Development (APD) programme and are considered to be experienced in the field of GI medicine. The PIPs will undergo a training programme on discharge summary preparation. Data will be collected to measure the impact of PIP led discharge to compare with standard discharge process at present. Clinical interventions performed on medically written letters will be compared to those written by PIPs.

Results

Data is being collected currently and preliminary results should be available by the the time of the conference.

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Compliance with OLCHC institutional guideline for treatment of bronchiolitis in 2015/2016

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Background
Recent conclusive evidence has suggested that, contrary to previous limited evidence, there is no benefit to the use of 3% hypertonic saline in the treatment of bronchiolitis in infants. This led to a change in the OLCHC clinical guideline during the 2015/2016 bronchiolitis season. We hypothesised that the use of hypertonic saline in OLCHC was preventing the use of other un-necessary treatments and that inappropriate prescribing would increase following the advice not to give hypertonic saline.

Method
Data on medical treatments and hospital outcomes were prospectively collected on all infants in the 2015/2016 season both before and after the change in guideline. Details of all medicines prescribed on the patients Medication Record particularly bronchodilators, antimicrobials and inhaled agents were collected. Patient demographics were collected from medical notes. Results were analysed using chi square and Mann Whitney in Excel® and Stata®.

Results
128 children (86 before, 42 after the change in guideline) were recruited to the study. Baseline demographics were similar except for a higher proportion of children with RSV in the pre-group. Overall guideline compliance was achieved by 2 infants pre, and 3 infants post guideline change (4%). The use of hypertonic saline decreased significantly after the change in guideline but did not cease (90% pre, 71% post $p<0.01$). Bronchodilators were used in one in 4 infants and antibiotics in one in 3 infants, and there was no significant difference in these rates before or after the change in guidelines.

Conclusion
Overall guideline compliance in children with bronchiolitis is poor. Hypertonic saline use decreased when the guideline changed but a significant portion of children before and after the guideline change received bronchodilators and antibiotics. It appears that it remains difficult to 'do nothing' for bronchiolitis, however poor clinical practice remains and education of clinical staff is necessary in this regard.

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Using a group information session to optimise PPIs in patients with dyspepsia or GORD

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Introduction

Our Practice has a high usage of PPIs that we wanted to address by reducing long-term use[1]. In addition to the potential cost savings, there is increasing evidence that long term use of PPIs can cause ADRs[2]. We wanted to reduce inappropriate PPI usage in the Practice by ensuring PPIs are not continued beyond therapeutic need using a patient-centred approach. We decided to test an alternative model of care by inviting patients to participate in a group information session and hypothesised that the group setting may be of benefit particularly when discussing symptoms and self-help. We aimed to test this approach with a small group of patients initially before refining and transferring to other therapeutic areas as appropriate.

Method

A search was undertaken for patients prescribed PPIs followed by review to identify those potentially suitable for self-management, step-down and stopping. Exclusions such as nursing home resident and co-prescription of a NSAID were applied. 19 patients were sent a letter inviting them to attend a group information session. At the group information session, patients were encouraged to ask questions, discuss symptoms and management options. Each patient was provided with an information leaflet and a patient satisfaction form and then followed up by telephone.

Results

Seven patients attended. All agreed they had learnt something new, understood better how their medicines worked, understood the risks and benefits of PPIs and would recommend an education session (on this or other topic) to other patients. After 2 weeks, daily PPI usage had reduced from 220 mg to 130 mg.

Conclusions

Patients liked the group approach and preferred it to usual care. Usual care to reduce PPI usage is ad hoc review in the Practice or sending a letter advising the patient to reduce their PPI. In this small sample of patients the methodology was acceptable and effective and is in line with the NI Medicines Optimisation Model[3] in particular the expectation that patient's will be involved in decisions about their medicines, be encouraged to ask questions about their treatment and be open about stopping medication. We will continue to evaluate and refine our methodology with future patients and anticipate transferring this methodology to other medicines.

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Pharmacist-led multidisciplinary medication safety program in the acute medical admissions unit

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Introduction

Medication errors are a significant cause of harm to patients in secondary care[1].Risks associated with medication administration, omission and prescribing can lead to errors and serious outcomes for the patient [2-4].

Aims

- To raise awareness of unsafe practice that could predispose patients to harm.
- To work collaboratively with nursing and medical staff and focus on specific issues.
- To make effective improvements in patient safety.

Method

By utilising a multidisciplinary approach, the program was developed by collating both qualitative and quantitative data. The derived information highlighted mitigating factors that were causing incidents and near misses, and the program was designed and adapted for each discipline.

Results

The program is now part of mandatory training provided to the nurses in the medical admissions unit. A consultant is monitoring on-going practice and promoting safer medicines management in partnership with the clinical pharmacist and nursing team.

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Hospital pharmacy and the pharmaceutical industry collaborate to reduce waste of biologic medicine

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Background: Musgrave Park Hospital (MPH) is a regional specialist centre for rheumatology in Northern Ireland. Over 1300 patients are on subcutaneous biologic treatment for inflammatory diseases. The hospital pharmacy department dispenses all biologic drugs for outpatients. These drugs are delivered by a homecare agency to patients' homes. If these drugs have been stored in a patient's home and are no longer needed by the patient, the drugs cannot be recycled and have to be destroyed. On average biologic drugs cost around £9500 per patient per year compared with around £450 per year for conventional therapy. In order to reduce waste of these valuable treatments MPH Pharmacy and the ABPI Immunology Therapy Group collaborated in a partnership project to design a patient letter to educate patients about potential wastage.

Objectives: To develop a patient letter that encourages patients to prevent biologic drug waste. To audit re-useable returned biologic drug and the number of 'faulty' pre-filled pen devices returned to pharmacy before and after introduction of the patient letter. Audit against the following criterion: Patients should be engaged to help prevent unnecessary biologic drug wastage

Method: During the data collection period April 2013 to March 2014 (data collection 1) the details of all subcutaneous biologic drugs returned to pharmacy was recorded. Drugs could be recycled if the cold chain had been maintained and drug had not been accepted into patients' homes. Also the number of 'faulty' devices returned to pharmacy was recorded. During this period, the author and ABPI Immunology Group collaborated on a biologic waste information letter for patients. The letter sought to engage patients as equal partners in reducing waste. The letter highlights to patients the high cost of biologic drugs, gives advice on when to refuse delivery, how to prevent biologic drug waste and when to contact the homecare delivery service. MPH pharmacy began to distribute the letter in March 2014. Re-audit was undertaken between April 2014 and March 2015 (data collection 2).

Results: The cost of drugs recycled increased from £82,538 (data collection 1) to £140,788 (data collection 2). The number of 'faulty' pens returned increased from 13 to 21.

Conclusions: Patients can help to reduce drug waste if engaged to do so by refusing delivery of drug when drug is not needed and by returning 'faulty' pens so that these can be processed for credit. A limitation of the study is that we have assumed the letter has led to a change in patient behaviour. However, we can identify that in May 2015 that 5 out of 74 failed deliveries were because 'patient refused delivery'. This would imply that the letter has led to behaviour change. We plan to develop the project further in 2015 using other initiatives to engage patients to reduce biologic waste and to also extend the initiative to other areas in the Trust. Such initiatives are encouraged by the emerging government Medicines Optimisation Strategy.

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Use of Healthmail for the electronic transfer of discharge prescriptions to GPs and community pharmacists

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Introduction

Part of the pharmacist led medications reconciliation service in St. Luke's Hospital in Kilkenny is the communication of prescription information to the patients' GPs and community pharmacists immediately prior to discharge. Healthmail, the secure clinical email service provided by the Office of Chief Information Officer (OoCIO) in the HSE, allows health care providers to send and receive clinical patient information in a secure manner. The initial implementation of Healthmail was for general practitioners (GPs) and their support staff. Healthmail is configured to be easy to use and has been shown to improve electronic communication for the benefit of patients and clinicians.

Aims

The aim of this pilot project was to assess if use of the secure Healthmail service to GPs and Community Pharmacists was would facilitate improved communication and efficient use of pharmacy resources.

Methods

- 20 community pharmacists in the Carlow Kilkenny area were recruited to the pilot in April 2016.
- They were invited to register with Healthmail and attend an education session on the Healthmail service.
- PDF copies of Discharge prescriptions prepared by pharmacists were then communicated to these pharmacies using the Healthmail system.
- After 6 months the community pharmacists where surveyed to assess user satisfaction, and identify all scenarios where Healthmail was being used in their practice.

Results

Community pharmacists felt the service had improved communication and workflow, as clear, legible prescriptions were received quickly in a secure manner. Several pharmacists were also using the system to communicate patient issues with their local GP colleagues, clarify PCRS queries, or contact hospital based medics or pharmacists. All requested expansion of the Healthmail service to all community pharmacists. As a result, the Irish Pharmacy Union (IPU), in a joint collaboration with eHealth Ireland, launched the Healthmail service in March 2017 for all community pharmacists.