Programme

09.30 Registration and refreshments

10.00 Welcome to the PDS & UKMi Forward View

**Plenary Session 1: Introducing new drugs into practice - national approaches to local implementation**

Chair: Helen Davis, *Director, North West Medicines Information Centre*

10.05 How are local decision-making process and formulary management changing?

- **England - Regional Medicines Optimisation Committees**
  - Sue Dickinson

- **Scotland - SMC**
  - Roy Foot, *member of the New Drugs Committee at SMC*

- **Wales - AWMSG**
  - Karen Samuels, *All Wales Therapeutics and Toxicology Centre*

- **N Ireland**
  - Emma Quinn, *Northern Ireland Formulary lead*

11.05 Question & answer session

11.15 Comfort break

**Plenary 2: Clinical update for answering DOACs and lactation enquiries**

Chair: Rachel Brown, *Clinical Lead Pharmacist, Oxford Health NHS Foundation Trust*

11.30 DOACs: Practicalities & Cases from the Anticoagulation Clinic

- Terry Dowling, *Specialist Pharmacist, Guys & St Thomas’s NHS Trust*

12.00 Drugs in lactation - what to consider

- Sarah Fenner, *Acting co-Director West Midlands MI Centre*
  - Laura Kearney, *Principal Regional MI pharmacist, Trent MI centre*

12.30 Question & answer session

12.40 Lunch, posters and exhibition

**Plenary 3: Medicines Safety**

Chair: Alana Adams, *Principal Pharmacist-Medicines Information, University Hospital of Wales*

14.10 Medicines safety - the work of an MSO.

- David Gerrett, *Patient Safety lead Pharmacist, NHS Improvement*

14.40 How can MI and the MSO work together?

- Patrick O’Sullivan, *Lead MI & Medication Safety Officer, Imperial College*

14.55 Question & answer session

15.10 Comfort break

**Plenary 4: Introducing new technologies**

Chair: Steve Haigh, *Pharmacist-Medicines Information, Sherwood Forest Hospital*

15.15 Medical apps - When do they need a CE mark and what does this mean?

- Valerie Field, *Head of Devices software/apps, MHRA*

15.45 Smart pump technology - practical considerations for implementation

- Kathryn Phillips, *MI pharmacist North West MI*

16.10 Question & answer session

**Prize giving and closure**

Sue Dickinson, *Director of Pharmacy, Regional Drug & Therapeutics Centre, Newcastle*

16.20 Presentation of the 2017 Peter Golightly Award for MI Excellence

16.25 2017 UKMI PDS poster award

16.30 Seminar closing comments
Dear Delegate
Welcome to the West Midlands, the MacDonald Burlington Hotel and the 43rd UKMi Practice Development Seminar. We have put together a professional programme that reflects current pharmacy-wide and MI specific topics of interest to inform and inspire you.
We are heavily indebted again this year to Micromedex / Truven Health for their sponsorship of the Seminar, which has made the event possible, and our professional partners who continue to support us. The exhibition contains a number of posters from your peers for your professional perusal. With your active participation we hope this will make the event the professional and social success it has been for many years.
As usual we are very appreciative of the work the organising committee has undertaken and to the UKMi members and external speakers who are contributing to make this event a success.
All the organisers hope you have an enjoyable and professionally rewarding seminar. We look forward to meeting you during the day.

Vanessa Chapman
on behalf of UKMi PDS Organising Committee
Seminar Organising Committee
Vanessa Chapman – Local Organiser & Programme Co-ordinator
Trent Medicines Information Centre, University Hospitals of Leicester

Sarah Cavanagh – Posters
East Anglia Medicines Information Centre, Ipswich Hospital

Helen Davis
North West Medicines Information Centre, Liverpool

Sue Dickinson
Regional Drug & Therapeutics Centre, Newcastle

David Erskine
London & South East Medicines Information, Guy’s and St Thomas’ NHS Foundation trust

Fiona Woods
Welsh Medicines Information Centre, University Hospital of Wales, Cardiff

Seminar Administration Team
Clare Thompson – Local Organiser
Trent Medicines Information Centre, University Hospitals of Leicester

Sandra Wharton
London Medicines Information Centre, Northwick Park & St Mark’s Hospital NHS Trust
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Poster presentations past winners
Practice Research Posters

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2. Saja A Alnahar, Infliximab Biosimilar Acceptance by Local Formularies in Great Britain
3. Nicola Greenhalgh, Analysis of Pregnancy queries to a mental health medicines information service
4. Sarah Cavanagh, Information on Medicines for All: Improving the availability of information for prescribers and users of medicines worldwide
5. Eimear Maguire, What information do healthcare professionals require about new medicines?
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7. Simon Wills, Impact of Medicines Learning Portal
8. Mavin Patel, An investigation into the benefits to practice for Healthcare Professionals using the Medicines Information enquiry answering service
9. Amar Abbas, Attitudes of Non-medical Nurse Prescribers towards Reporting Adverse Drug Reactions via the Yellow Card Scheme – an Exploratory Study
10. Mark Cheeseman, On-call pharmacists’ perceptions of the provision of out-of-hours medicines advice using semi-structured interviews

Practice Development Posters

11. Maxine Goldsbrough, Medicines Information Training – How can we improve the training we provide?
12. Marianne Eve, Evaluation of the SMiLE Program for Pharmacy Staff in an Acute Trust
13. Ebraheem Junaid, An audit to measure awareness of specialist pharmacy service (SPS) and medicines learning portal (MLP) websites within a tertiary NHS teaching hospital
14. Sigrun Gundi, 3 Years of KAMPI – Promoting Medicines Information in German Hospital Pharmacies
15. Lynne Sharpe, Assessment on the introduction of a standard paragraph in MiDatabank on administration of medication mixed in food
16. Emily Turner, A Regional Collaboration on Pre-registration Training
17. Yasmin Al-Din, Three-in-One: widening the range of pre-registration projects through an educational intervention
18. Dave Abbott, What do we do? Characterising the Leeds Medicines Advice Service
19. Rosie Fletcher, Can we work collaboratively in Medicines Information? A 6 month trial of Carter recommended collaborative working between Worcestershire Acute Trust Medicines Information Department and Wye Valley Trust Medicines Information Department
20. Junie Gupta, Collaborative Medicines Information Service Project Between Two Trusts
21. Angelica Steward, The Impact of a Pharmacy Technician at a Medicines Information Centre
22. Beth Joynes, Clinical Queries being Managed by Pharmacy Staff Outside of the Medicines Information Department
23. Christine Randall, Non-Medical Prescriber experiences of training and competence to report Adverse Drug Reactions to the Yellow Card Scheme.
25. Maxine Goldsbrough, Adverse Drug Reaction Reporting – A Patient Centred Focus
26. Rachael Jones, The UHS Medicines Helpline survey 2017
27. Matt Williams, Operating a patient medicines helpline. Comparing current practice in England to national standards
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Opening session

Welcome to the West Midlands
Sue Dickinson, UKMi Executive Chairperson and Director of Pharmacy Regional Drug & Therapeutics Centre, Newcastle

Biography
Sue has been Director of Pharmacy at the Regional Drug and Therapeutics Centre (RDTC) in Newcastle for more than ten years having worked at the centre since 2000. She has a broad spectrum of professional experience gained in community pharmacy (large multiples and small independents), GP practice work, hospital pharmacy and bespoke prescribing analysis and support. The RDTC aims to promote the safe, economical and effective use of medicines within the NHS across its stakeholder organisations, delivering a broad range of services for healthcare professionals including regional level Medicines Information.

UKMi – where next?
Key recent developments and a look ahead to the next 12 months
Plenary session 1 – Introducing new drugs into practice – national approaches to local implementation
Chair: Helen Davis, Director, North West Medicines Information Centre

Biography
Helen has been the Director of the NWMI unit since 2014, previously assistant director. She is the UKMi horizon scanning lead and responsible for leading delivery of Prescribing Outlook and the SPS new medicines section. Helen also sits on the High Cost Drugs Steering Group that decides which drugs will be tariff excluded and she is the current co-chair of the UKPharmaScan user group.
How are local decision-making process and formulary management changing?

England – Regional Medicines Optimisation Committees

Speaker: Sue Dickinson, UKMi Executive Chairperson and Director of Pharmacy
Regional Drug & Therapeutics Centre, Newcastle

Biography
Sue has been Director of Pharmacy at the Regional Drug and Therapeutics Centre (RDTC) in Newcastle for more than ten years having worked at the centre since 2000. She has a broad spectrum of professional experience gained in community pharmacy (large multiples and small independents), GP practice work, hospital pharmacy and bespoke prescribing analysis and support. The RDTC aims to promote the safe, economical and effective use of medicines within the NHS across its stakeholder organisations, delivering a broad range of services for healthcare professionals including regional level Medicines Information.

Abstract
To follow
Scotland – SMC - A perspective from Scotland  
Speaker: Roy Foot, member of the New Drugs Committee at SMC

Biography
With a background of hospital clinical pharmacy, Roy has experience in working in several NHS Trusts and Health Boards across the UK. Since 2005, he has led on the development and management of the NHS Greater Glasgow and Clyde Medicines Formulary which covers the needs of a population of 1.2 million. Roy has been a member of the New Drugs Committee of the Scottish Medicines Consortium (SMC) since 2010 and was appointed Co-Vice Chair of the New Drugs Committee of SMC in August this year.

Abstract
Scotland has been at the forefront of rapid health technology appraisal for around 15 years since the formation of the Scottish Medicines Consortium (SMC) and its processes are highly regarded around the world. However, the landscape for the management of medicines in the NHS in Scotland is constantly shifting. In light of this, this presentation will briefly explore the current challenges facing the SMC and future developments relating to local decision making in Scotland and medicine formularies.
Biography
Karen trained at UWIST Cardiff and has enjoyed a varied career starting in community, then moving into hospital pharmacy where she specialised as a medicine information pharmacist and managed a district centre for over ten years. During this time she was an initial member of the Welsh Prescribing Support Project which was the forerunner for much of the primary care activities currently taking place today in Wales. She set up processes to provide advice to GPs, run INR and repeat medication clinics. Karen is an advocate of evidence based medicine and has an unhealthy interest in health economics and multidisciplinary working which led to her involvement with the All Wales Therapeutics & Toxicology Centre where she has worked for the last 15 years. She is currently Head of the Patient Access to Medicines Service and serves on a number of UK committees. Although a reluctant traveller, Karen strongly believes in the sharing good practice for the benefit of patients.

Abstract
Principle of ‘Once for Wales’ in Practice
With just over 3 million people in Wales, turning the latest buzz words ‘Once for Wales’ into a reality, thereby enabling patients equitable access to clinical and cost-effective medicines wherever they live (within Wales), is not only gaining momentum but becoming embedded in every day practice.

National initiatives including Health Technology Appraisal, the One Wales Interim Commissioning process and Individual patient funding request (IPFR) process have underpinned this principle.

The All Wales Therapeutics Toxicology Centre is at the heart of these initiatives and strives to make sure they complement each other. AWTT encourages industry and patient engagement and co-ordinates medicines access processes.

Improved networking using IT solutions such as SPIRA, SHARE have all helped improve local Health Board formulary processes and assist with planning and implementation.

The introduction of the New Treatment Fund has put the spotlight on medicines access; Wales has embraced this as an opportunity to improve implementation of positive HTA advice to ensure that patients get timely access to new clinically effective and cost-effective medicines.
Northern Ireland
Speaker: Emma Quinn, Northern Ireland Formulary Lead

Biography
Emma Quinn is the Pharmacy Information Co-ordinator for the Health and Social Care Board (HSCB) in Northern Ireland. One of her key responsibilities is the development and review of the Northern Ireland Formulary. Her background is predominantly in primary care prescribing. Previous roles include HSCB Prescribing Adviser and working as a Practice Based Pharmacist running cardiovascular clinics.

Abstract
The presentation will provide an overview of the Northern Ireland Formulary and the Northern Ireland Managed Entry Process for new medicines. The Northern Ireland Managed Entry Process for new medicines was introduced in 2014, with the aim of ensuring timely and equitable access to those medicines for which there is an evidence base. The aim of the Northern Ireland Formulary is to promote safe, clinically effective and cost-effective prescribing of medicines. The Formulary provides guidance on first and second line drug choices to cover the majority of prescribing choices in Northern Ireland. It is intended to be used across both primary and secondary care sectors in Northern Ireland to ensure consistency and continuity of supply.
Biography

Rachel is the Clinical Lead Pharmacist for Oxford Health NHS Foundation Trust. She has worked in mental health for 14 years and became a credentialed member of the College of Mental Health Pharmacy in 2009. Rachel runs the Trust’s Medicines Information Service, is responsible for formulary development, and is the lead pharmacist for the Children and Young People’s Directorate. She has specialised in child and adolescent mental health and works closely with the multidisciplinary team on the adolescent inpatient unit in Oxford. Her career in medicines information began in 1999 in East London where she managed the MI service for Newham General Hospital followed in 2000 by a principal pharmacist position at the London Regional MI Service at Northwick Park Hospital.
Biography
Graduating from the University of Brighton in 2009 I joined and progressed at Southend University Hospital NHS FT through a variety of roles, including clinical trials, cardiology, stroke medicine, oncology, haematology and anticoagulation. In 2014 I developed and delivered a pilot service in anticoagulation to review patients anticoagulated with warfarin but with labile INRs for consideration of alternative strategies, including DOACs, from which audit and patient satisfaction data gained the service recognition at the Quality in Care Anticoagulation Awards (2015). In 2016 I joined Guy’s & St. Thomas’ to deliver a newly commissioned service, primarily aimed at AF patients, that would give patient access to and choice of all available oral anticoagulants.

Abstract
The application of DOACs to the general licensed population is well documented with high quality RCTs in AF and VTE totalling over 100,000 patients, and over a million patients in practice-based registry analyses worldwide. Despite this, there are still many scenarios encountered in every day practice where the optimal anticoagulation strategy is unclear, lacking in evidence or requires consideration of a multitude of factors, complicating the decision process.

The aim of this presentation is to cover some of these scenarios, such as patients with concomitant indications for other antithrombotic therapy, adverse reactions/events following anticoagulant treatment, and the role of DOAC plasma level testing, for example, in clinically significant drug interactions, reduced clearance or altered absorption. In doing so, we will discuss what current evidence & guidance is available to inform the decision-making process, and how this is implemented in practice with case examples from the anticoagulation clinic at GSTT.
Drugs in lactation – what to consider

Speaker: Sarah Fenner, Acting co-Director West Midlands MI Centre  
Laura Kearney, Principal Regional MI Pharmacist, Trent MI Centre

Biography

Sarah Fenner – Sarah is Acting Co-Director of West Midlands Medicines Information Service, where she has worked since 2005. She has worked in medicines information for the majority of her career, previously working for the Trent Medicines Information Service in Leicester and in Leeds. As Trent and West Midlands Medicines Information Services work together to jointly provide the UK Drugs in Lactation Advisory Service (UKDILAS) Sarah has extensive experience in dealing with complex lactation enquiries, and is one of the Clinical Leads for UKDILAS, working to further develop and promote the services provided.

Laura Kearney – Laura is Regional Principal Medicines Information Pharmacist for the Trent and Leicestershire Regional Medicines Information Centre. She is also one of the Clinical Leads for the UK Drugs in Lactation Advisory Service. She has been working in Medicines Information for 9 years. Previous to this, Laura held various positions at the British National Formulary. She also started her career as a clinical pharmacist at St Mary’s Hospital in London.

Abstract

This presentation will cover general principles that should be considered when dealing with drugs in lactation and will include:

- Recent statistics for breast feeding in the UK
- Benefits of breast feeding
- Physiology of lactation and human breast milk
- Principles behind making a risk assessment
- Neonates and premature infants – issues & risks
- Processing drugs in breast milk enquiries
- Strategies to minimise risk

Information on the UK Drugs in Lactation Service
Plenary session 3 – Medicines Safety
Chair: Alana Adams, Principal Pharmacist-Medicines Information, University Hospital of Wales

Biography
Alana registered as a pharmacist in 1995 after graduating from the Welsh School of Pharmacy. She has been in her current post as Principal Pharmacist at the Welsh Medicines Information Centre since May 2016. She is responsible for the operational delivery and quality of the Cardiff and Vale Medicines Information and Advice Service which incorporates Patient Safety and Pharmacovigilance in its remit.
Medicines Safety – the work of an MSO
Speaker: David Gerrett, Patient Safety Lead Pharmacist, NHS Improvement

Biography
David Gerrett gained a pharmacy degree in Queensland Australia and worked in community pharmacy for several years as a manager before moving in 1981 to the UK. After a clinical residency and working as a Staff Pharmacist in mental health, aseptic dispensing (TPN) and ward pharmacy, he gained a Masters in Hospital Pharmacy and moved to Derby in the Midlands. After working as a specialist pharmacist in Health Education and Substance abuse he gained a Doctorate and moved to the University of Derby where he specialised in educational applications of computing and multimedia, becoming the head of e-learning and gaining a postgraduate qualification in computing. Returning to pharmacy, he worked for seven years as Head of Pharmacy and Professor of Pharmacy Practice leading the team at the University of Derby then moved to Sheffield Hallam as Professor of Pharmacy and Hull Universities where he developed infrastructures and curricula for Schools of Pharmacy. For seven years he was an accreditor for the RPSGB now the General Pharmaceutical Council. Since early 2009 he has worked as the Senior Pharmacist in patient safety at the NPSA, NHS Commission Board (NHS England) and since 1st April 2016 at NHS Improvement. He has been directly involved in more than 25 of the 65 NHS Alerts/Rapid Response Reports/signals and guidance for medication safety from these Organisations.

Abstract
Not available prior to seminar
Medicines Safety – How can MI and the MSO work together?
Speaker: Patrick O’Sullivan, Lead MI & Medication Safety Officer, Imperial College

Biography
Patrick is Medicines Information Manager and Medication Safety Officer within the Medicines Advisory and Governance Service at Imperial College Healthcare NHS Trust. He also practises clinical pharmacy in Medicine for the Elderly. He has wide experience of Medicines Information and clinical pharmacy, both in the UK and overseas. He is passionate about managing risk in healthcare and has published research in related areas including prescribing errors and adverse drug reactions.

Abstract
This presentation will profile the role of a Medication Safety Officer working with a busy Medicines Information Service, and detail how the role interacts with other pharmacy advisory and governance staff and trust governance teams. As well as highlighting the benefits and challenges of this interactive and embedded approach, the case will be made for Medicines Information Services as a crucial safety net for medicines use and a source of early warning data on problems that may be arising.
Plenary session 4 – Introducing new technologies
Chair: Steve Haigh, Pharmacist, Sherwood Forest Hospital

Biography
Steve has been in Medicines Information at Sherwood Forest Hospitals for 20 years following 5 years at Nottingham Hospitals where he completed an MSc in Pharmacoeconomics. His start in MI coincided with the advent of networked computers on the wards. This opened up the new possibility for electronic disseminating of formulary information and he invented the world’s first database driven electronic hospital formulary* which eventually developed into NetFormulary. He also realised the intranet could host the myriad of paper based drug guidelines which he had written and collected over the years. Being an Excel nerd, a particular interest is interactive tools which help doctors and nurses dose and administer the more complicated drugs.
*Probably not true, but until proven otherwise, I’m claiming it!
Medical apps – when do they need a CE mark and what does this mean?

Speaker: Valerie Field, Interim Group Leader, Devices, MHRA

Biography
Valerie Field qualified as a Diagnostic Radiographer in Nottingham and held many clinical and managerial posts in the National Health Service before working in the private healthcare sector as a national manager for a large hospital group. Following this Valerie held posts with the then National Care Standards Commission and the Health Care Commission before joining the Medicines and Healthcare Products Regulatory Agency [MHRA] in 2004.

Valerie has experience in medical devices, clinical practice, procurement and contracts, risk management and systems auditing as well as general management.

Valerie has held a range of roles at MHRA including as Interim Group Manager for both the Device Safety & Surveillance and Device Regulatory groups and is currently the Head of Devices Software/Apps, a new post, looking at regulation and strategy in the fast evolving and developing area for software, apps and algorithms that are medical devices.

She has strong interests in risk, and staff development & education. She was a member of the programme board on the National Information Board’s [NIB] ‘Personalised Health and Care 2020’ framework group looking at Healthcare apps.

In 2014 she coordinated and input to the production of the first MHRA ‘Guidance on medical device stand-alone software (including apps)’ and again in August 2016 oversaw the publication of the new updated interactive version of the guidance, a first of its type for MHRA.’

Abstract
To follow
Smart pump technology – practical considerations for implementation
Speaker: Kathryn Phillips, MI Pharmacist North West MI

Biography
Kathryn Phillips - Kathryn has had a number of different roles within the clinical pharmacy profession being one of the country’s first Theatre Pharmacists and an influential member of the UKCPA’s Surgery and Theatres Group. In 2006 she joined the UKMI network as the Medicines Information and Formulary Pharmacist at Southport & Ormskirk NHS Trust. Whilst in this role she developed an active interest in patient safety. She wrote and set up the drug libraries and developed training packages for SMART Infusion pumps. She currently works at the North West Medicines Information Centre.

Abstract
Despite ‘drug error reduction software’ (DERS) being available in the UK since 2005, and NPSA 20 recommending dose checking software in ‘smart’ infusion pumps, many Acute Trusts do not appear to have installed or use this software on their infusion devices. Some Acute Trusts have incorporated elements of DERS on critical care units, for example, displaying drug infusion name on the liquid crystal displays, but not on general wards. This presentation explains SMART pump technology and highlights where MI Pharmacists should be involved in the process of implementation and what difficulties were encountered when setting them up at Southport and Leeds.
Poster Presentations

Best posters prize
Prizes for the two best posters will be awarded at the closing session after Plenary 4.

Previous winners of the best poster prizes:

2016
Alana Adams
What do patients know about Yellow cards?

David Abbott
Providing Medicines Information Skills Training to Community Pharmacy Staff.

2015
Aoidín Cook and Sophie Rawthore
*Exploring the practice of healthcare professionals who review and prescribe medication in pregnancy.*

Sue Smith and Fiona Marshall
*How the Medicines Information (MI) Service can increase adverse drug reaction (ADR) reporting*

2014
Diane Bramley, Brinda Lavingia, John Weinman
*Impact of the advice from the Medicines Information Patient Helpline on medication adherence*

Matthew Jones and Pym Pettitt
*The use of Outcome data monitoring in the quality assurance of MI services.*

2013
Hayley Johnson and Nancy Kane
*A side Effect of Social Media*

Melinda Cuthbert
*Does a Patient Medicines Information Line Improve patient Safety and Outcomes?*
Poster 1

Suspected Adverse Drug Reactions (ADRs) in Patients Attending Two Acute Medical Assessment Units (MAUs)

Alana Adams, Welsh Medicines Information Centre, Alison Thomas, Yellow Card Centre Wales, Dianne Burnett, Hywel Dda University Health Board.

Focal points
- Between 8.3% and 24% of admissions to the units were suspected to be caused by ADRs or that the ADRs contributed to those admissions.

Introduction
ADRs are a major cause of morbidity and mortality and a leading cause of hospital admission\(^1\). Recent studies based on a review of medical records in the UK and other countries have reported that the prevalence of hospital admissions caused by ADRs ranges from 2.3 to 21.2% and that a substantial proportion of these ADRs are preventable\(^2\). Earlier studies quoted rates of 2.3-7.9%\(^3\-4\). Patients with ADRs are found to require longer hospital stays than those who did not adding to the burden of escalating costs on the NHS\(^1\).

Method
Admissions to the MAUs at the University Hospital of Wales (UHW), Cardiff and Withybush General Hospital (WGH), Haverfordwest were reviewed over a 4 week period in April 2017 (Monday to Friday). Pharmacists and doctors working regularly on the units identified the patients who were experiencing a suspected ADR on admission.

Results
The majority of the reactions at UHW were GI bleeds (n=8), falls (n=11), AKI (n=10). At WGH the highest incidence were falls (n=15), infections (n=12), bleeds (n=5) and AKI (n=5). The medicines suspected of causing the majority of the reactions were anticoagulants and antihypertensives. All the ADRs were reported retrospectively to the Medicines and Healthcare Regulatory Agency (MHRA) via the Yellow Card (YC) Scheme.

<table>
<thead>
<tr>
<th>Total number of patients admitted</th>
<th>Suspected reactions</th>
<th>Suspected reactions causing admission</th>
<th>Suspected reactions contributing to admission</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>UHW (n=483)</td>
<td>40</td>
<td>8.3</td>
<td>15</td>
</tr>
<tr>
<td>WGH (n=258)</td>
<td>64</td>
<td>24</td>
<td>36</td>
</tr>
</tbody>
</table>

Discussion
The finding that 8.3% of patients had an ADR which caused or contributed to an admission at UHW is consistent with prior data. The considerably higher figure reported at WGH may have been due to several factors, including the possibility that there may be a lack of consistency regarding the definition (or interpretation of the definition) of an ADR between the two sites or, there may be a greater awareness of ADRs at WGH. The incidence of suspected ADRs warrants further study in particular within primary care to ascertain whether these admissions could be prevented.

References
Poster 2

Infliximab Biosimilar Acceptance by Local Formularies in Great Britain.

Justin Waring, Centre for Health Innovation, Leadership & Learning, Nottingham University Business School, Jubilee Campus, University of Nottingham.

Rachel A Elliott, Division of Population Health, Health Services Research and Primary Care, School of Health Sciences, Faculty of Biology, Medicine and Health, The University of Manchester

Saja A. Alnahar, Division of Pharmacy Practice and Policy, School of Pharmacy, University of Nottingham

Introduction

Biosimilar medicines (BSPs) are non-identical but similar copies of off-patent biological medicines (reference biologics). Being licensed through an abbreviated pathway by the European Medicines Agency (EMA) has created some concerns regarding BSPs safety and efficacy. To overcome these concerns, the EMA encourages vigorous pharmacovigilance activities. Accordingly, the Medicines and Healthcare products Regulatory Agency (MHRA) advises prescribers to prescribe and to report adverse drug reactions of biological medicines including BSPs using brand name. In England, during 2014-2015, infliximab cost the National Health Service (NHS) £159,575,400, which puts it fourth in term of cost. In Feb 2015 the first BSP infliximab was made available in the UK, by offering price reduction; BSPs could help in minimising the cost of biological therapy. Since the launch of BSP infliximab in the UK, there have been many initiatives to promote BSPs utilisation in new patients and in some cases to switch patients already receiving reference infliximab to a BSP brand. Being in the market for almost 16 months, it is expected that infliximab BSPs will not achieve a significant market share or to be widely recognised by local formularies. However, as formularies are supposed to be periodically and frequently updated, it is expected that the listing approach was changed from molecular name-based to brand name-based. This study aimed to assess uptake of biosimilar infliximab by local formularies in Great Britain. The deployment of local formularies can act as proxy for the overall utilisation of BSPs infliximab in comparison to the reference product. It also aimed to explore local formularies compliance to the MHRA recommendation on brand prescribing of biological medicines including BSPs.

Method

During April and June 2016 websites of Acute Trusts in England and Health Boards in Scotland and Wales were searched for the most recent publicly available formulary list. Formularies were assessed for (i) listing or not listing infliximab reference and biosimilar product, (ii) listing approach; brand name-based or molecular name-based listing and (iii) provision, or not, of clear prescription restrictions in terms of prescriber and/or settings, primary or secondary. Data was logged and descriptively analysed using Excel® 2013.

Results

A total of 149 local formularies were retrieved: 132 in England, 10 in Scotland and 7 in Wales. Infliximab was listed in 143 formularies; 68 formularies listed infliximab by brand name, out of which 53 listed BSPs brands. In total 30 formularies listed BSPs infliximab in preference to the reference, especially for initiating new patients. 102 formularies had clear restrictions in prescribing infliximab.

Discussion

Results suggest that local formularies recognised BSPs infliximab and incorporated it in routine medical practice. However, brand name-based listing was sub-optimal, this needs to improved, especially as more BSPs are being produced and marketed. Although infliximab BSPs was brand of choice for new patients, in some cases, established patients will stay on the reference product. This can be related to the fact that the EMA does not make any recommendation regarding switching between the reference and the biosimilars products.
Focal Points

- Callers with pregnancy related questions to our MI service do not report exposures to medicines in pregnancy to UKTIS.
- Calls to our MI service for patients who are already pregnant involve less medicines than for patients who are planning a pregnancy.

Introduction

The Trusts medicines information (MI) service answers queries from health care professionals and patients across the Trust often on complex medicines queries. The service deals with questions about the safety and choice of medication in pregnancy from all services but predominantly from mental health services. Data on the use of combinations of medicines in pregnancy can be difficult to find, resulting in information from individual medicines being extrapolated with limited understanding of any additional effects the combinations may cause. It is therefore important to understand the complexities of queries involving pregnancy and ensure reporting of pregnancies to the United Kingdom Teratology Information Service (UKTIS) national database.

Aims and Objectives

The study aimed to ascertain how many pregnancy queries are reported to UKTIS and identify whether callers are referred to UKTIS and to identify any trends in queries received to MI.

Method

UKTIS were contacted to provide data on queries received from our Trust. Queries entered into MiDatabank either key-worded or assigned to the category pregnancy over the period of April 2014- March 2016 were identified and data relating to the query were captured and analysed.

Results

71 calls to the MI service were identified and analysed involving 123 medicines. On average enquiries involved an average of 1.8 medicines however patients who were pregnant were more likely to be taking more medicines than calls asking for advice in people planning a pregnancy (2.2 vs. 1.2). 62.5% patients who were pregnant were taking 2 or more medicines. The most common medicines involved in the queries were sertraline (9), venlafaxine (8), quetiapine (7) olanzapine (7), and fluoxetine (7). Most calls were asking for advice on safety of current treatment (35%) or on pre-pregnancy planning (25%). Of the high risk medicines in pregnancy there was one call about sodium valproate in a patient who was not pregnant, and two calls involved carbamazepine, (1 in pregnancy, 1 pre-pregnancy) no calls were made for lithium. Only 5 calls to UKTIS relating to our Trust were identified and no data from any of these calls was provided to UKTIS for follow up. Only 6 of the calls received were referred to UKTIS.

Discussion and Conclusion

Rates of unintended pregnancy are higher in mental health patients therefore ensuring that their medicine choice involves consideration of their potential risk of pregnancy is paramount. This study shows that there is under-reporting of medicines use in pregnancies to UKTIS from our Trust. There is a very limited evidence base to help review the risks of multiple medicines in pregnancy. Reporting exposures to medicines in pregnancy helps the evidence base to grow however this study shows that we are not encouraging reporting in the majority of cases. A strategy is needed to improve reporting of all exposures to UKTIS. The results also show that calls to the MI service involving patients planning a pregnancy are less likely to involve multiple medicines than those involving patients who had discovered they were pregnant. The main limitation of this study is that only calls to the MI service were included and the results may not be representative of all patients.
Poster 4

Information on Medicines for All: Improving the availability of information for prescribers and users of medicines worldwide

S. Cavanagh, East Anglia Medicines Information, C. Rodrigues, University of Amsterdam, M. Brewster Rye Medical Centre, and N. Pakenham-Walsh, Healthcare Information for All.

Focal Points
- The HIFA (Healthcare Information for All) Project on Information for Prescribers and Users of Medicines, is leading the HIFA community towards the realisation of accessible and reliable Information on Medicines for All.
- A literature review and facilitated global discussion has increased awareness and helped build a case for advocacy in this area.
- A multi-stakeholder meeting is planned for early 2018 to address the question ‘How can we better meet the information needs of prescribers and users of medicines in low and middle-income countries?’

Introduction
Globally, many prescribers receive most of their prescribing information from the pharmaceutical industry, and in many countries this is the only information they receive.1 Users of medicines have even less information, and often none at all: medicines are dispensed without packaging or the information is in a language they cannot understand. Both prescribers and users of medicines need access to free, independent, reliable, understandable information about medicines. The availability of such relevant, reliable information is a prerequisite for the delivery of effective care. Lack of, or biased, information may lead to the misuse, overuse or underuse of medicines. Inappropriate use especially of antibiotics is increasingly recognised as a threat to global health. Therefore, HIFAs shared vision and goal is ‘a world where every prescriber and user of medicines will have access to independent, reliable, understandable information on the full range of commonly prescribed medicines and will know where to find it’.

Method
The HIFA Working Group on Information for Prescribers and Users of Medicines (PUM) is a group of volunteers who promote discussion on the HIFA forums on the information needs of PUMs, and how these needs can be more effectively addressed. This international multidisciplinary group of health professionals, social scientists, publishers, information professionals, researchers and others, also meets regularly (via Skype) to discuss other actions and steps to better address HIFAs goal. A scoping review of the literature was undertaken and papers assessed according to six themes. 1. The information sources used for prescribing in Low and Middle Income Countries (LMICs); 2. Information sources for consumers in LMICs; 3. How medicines information is accessed in LMICs; 4. The consequences of prescribing with either no information or biased/inaccurate information; 5. The benefits / usefulness of different sources of information on medicines and 6. Practical aspects of compiling a drug formulary. These themes were then further discussed on the HIFA forums and the information collated.

Results
Of over 1,300 citations found, fewer than 50 were relevant to the six themes addressed. This led us to the first finding that the evidence base for this area is very limited. The varied findings have promoted discussion and provided additional published and unpublished literature and anecdotes which has further guided our work.

Discussion
The HIFA PUM working group continues to harness insights and perspectives from HIFA members. These together with relevant literature are integrated into the HIFA Voices database. 2 This group leads advocacy efforts to improve the availability and use of information on medicines. Given the very limited evidence base and the huge importance of the subject it is pleasing that our proposal to hold a multi-stakeholder meeting in 2018 is being discussed further with the BMA, WHO and others.

References
2. HIFA Voices http://www.hifa.org/about-hifa/hifa-voices-database
**Poster 5**

What information do healthcare professionals require about new medicines?

Eimear Maguire, Helen Davis, Joanne McEntee, North West Medicines Information Centre, Liverpool. Dr Peter Penson, Liverpool John Moores University.

**Focal Points**
- This study aimed to understand what information about new medicines is needed by staff working for, or providing information to, the NHS.
- Of 305 responses, 88% sought information on new medicines as part of their job.
- Cost, comparative efficacy and pharmacology are required most frequently; this information is used for budgeting and to answer questions about new medicines.
- Research findings will facilitate future development of UKMi outputs.

**Introduction**
There is limited research on the information needs of healthcare professionals with regard to new medicines. This study aimed to understand what information about new medicines is required by healthcare professionals, so that UKMi outputs can be tailored to better meet the horizon scanning and new medicines needs of the wider NHS.

**Method**
Data were collected using a web-based questionnaire hosted on Bristol Online Software. The questionnaire was distributed to the 5,452 registrants of NDO and also via UKMi networks. Data were collected for a four week period and subsequently analysed using the Framework Method and advanced functionality on Bristol Online Software.

**Results**
305 questionnaires were completed: 76% of respondents were pharmacists, 7% doctors, 6% pharmacy technicians, 4% nurses, 3% information scientists, 4% “other” professions, and 1% not stated. 88% of respondents sought information on new medicines as part of their job role. Information is required by some users at all-time points in a medicine’s development, including more than 24 months before market launch. Information on new medicines is required to proactively inform others about the anticipated availability of new medicines (17%), predicting budgetary impact (16%) and reactively responding to questions about new medicines (16%). 30% had missing information needs. Cost was the most frequently mentioned item of information considered difficult to find by these respondents (38%), followed by comparative efficacy with other treatments (20%), and pharmacological/pharmacokinetic information (15%). 57% of respondents have used the SPS website, the majority of which are pharmacists (75%). 92 comments on the SPS website were received; website usability was cited as an issue in 28% of comments, as was loss of the “report” function that was previously available on NDO (7%).

**Discussion**
Information is required at all stages of medicine development, 24 months prior to launch in some cases; information should therefore be published on SPS New Medicines as soon as it becomes available, especially when related to cost or commissioning. End users require comparative data, pharmacology, physical product information (e.g. pack size), access information (e.g. wholesaler exclusivity) and adverse drug reaction data. Launch dates and patent expiries were cited as difficult to find; these are already published on SPS, however, users must register with the website to view this information. The registration requirement needs to be made clearer to users. The SPS website should be developed to allow report generation. For launched medicines, links to the SPC and BNF monograph would improve efficiency for users. The availability, functions and uses of the SPS website should be promoted to non-pharmacy professions.
SMiLE (Structured Medicines Information Learning Exercise) – our response to Carter
Sarah Cavanagh, Marianne Eve, Natasha Gearing, Tim Meadows, Abigail Scott, Monika Sznura.
East Anglia Medicines Information Service, The Ipswich Hospital NHS Trust

Focal Points
- This service evaluation aimed to look at the MI skills of the pharmacy staff in an acute trust.
- Most pharmacy staff demonstrated a lack of knowledge of the MI resources.
- MI developed a training package to demonstrate commonly used MI resources.
- Staff have been trained using this package which has contributed to up skilling the workforce and improving efficiency of the clinical service.

Introduction
Over the last 5 years, the number of level 1 (simple) enquiries received from pharmacy staff of The Ipswich Hospital NHS Trust has risen by 9.8%. Categorisation of an enquiry depends on the MI pharmacist finalising the enquiry. However, pharmacists and pharmacy technicians should and do answer simple questions including those involving administration of medicines, cold chain failures and stability of medicines in compliance aids.

The primary aim of this service evaluation was to identify the level of MI training and knowledge of key electronic MI resources amongst pharmacy staff. The electronic resources were: BNF, eMC, SPS, MHRA, Medusa, NEWT, and MiDatabank. The secondary aim was to develop training to up skill the pharmacy staff and improve efficiency of the clinical service. By gaining confidence in answering enquiries and knowing where to look, the pharmacy staff can spend more time on patient-facing medicines optimisation activities, as suggested in the Carter report.

Method
A questionnaire was developed on Survey Monkey® and a link distributed to all pharmacy staff via the hospital e-mail server. A paper copy of the questionnaire was also available for those pharmacy staff without the regular access to a computer. All collected responses were anonymous.

Results
64 (53.3%) responded: pharmacists (32.8%), pre-registration pharmacists (4.7%), technicians (35.9%), student technicians (4.7%), and assistant technical officers (21.9%). 32.8% of responders never had MI training. The BNF was the resource most responders (98.4%) were familiar with whilst the half of responders (51.6%) never heard of the SPS website. The majority of responders (90.6%) wanted to attend MI training.

Discussion
The results from the questionnaire demonstrated the need for structured MI training, designed for all members of the pharmacy staff.

The SMiLE (Structured Medicines Information Learning Exercise) training, a 30-minute PowerPoint presentation and facilitated small group discussion, was designed to demonstrate the resources included in the questionnaire. Each presentation was preceded by a quiz evaluating the participants’ level of the MI resources necessary to answer 5 simple enquiries. The quiz was repeated at the end of the presentation to evaluate learning.

This training is on-going and the results will be presented at a later time. It is hoped by up skilling the workforce in this way we will help achieve the aim set in the Carter report.

References
Impact of the Medicines Learning Portal

Angela Badiani and Simon Wills, Southampton Medicines Advice Service, University Hospital Southampton NHS FT, Southampton General Hospital

Focal Points
- The aim of this study was to assess the impact of the Medicines Learning Portal on the clinical decision-making skills of pre-registration and foundation pharmacists, and to prioritise content for future development.
- The Medicines Learning Portal improves the clinical decision making skills of learners and saves tutors' time.
- The Medicines Learning Portal helps pharmacists care for patients and is rated highly by users.

Introduction
The Medicines Learning Portal is a new website that helps hospital pre-registration and foundation pharmacists develop their clinical decision-making skills. It provides knowledge about medicines and covers basic principles of medicines safety, describes the questions to ask when problem-solving, recommends sources of information, guides pharmacists on how to apply their professional judgement and gives advice on communication techniques for delivering expert advice. The site is free to use it has now received over 250,000 visits.

The aim of this study was to assess the impact of the Medicines Learning Portal on the clinical decision-making skills of pre-registration and foundation pharmacists, and to prioritise content for future development. The specific objectives were to:
- Assess awareness of the Medicines Learning Portal and describe the user profile
- Assess the relative importance to practice of the current, and proposed future content
- Measure user satisfaction with the design of the website (navigation, appearance)
- Assess the impact of the site on the clinical decision-making skills of learners and upon patient care

Method
Survey of learners and tutors using an electronic questionnaire distributed through NHS pharmacy networks, the questionnaire was also available on the Medicines Learning Portal home page.

Results
310 responses were received. Clinical pharmacists were the most well represented group (n=110, 35.5%), followed by pre-registration pharmacists (n=81, 26.6%). Nearly three quarters of respondents (n=229, 73.9%) had used the site, either as a learner (n=140, 45.2%), or a tutor (n=73, 23.5%) or both (n=16, 5.2%). Of the 278 respondents that rated their top 3 core Clinical Topics, 70.5% (n=196) thought that ‘drug interactions’ was important to practice, followed by ‘renal disease’ (n=149, 54.0%) and ‘administration of medicines’ (n=131, 47.1%). For the specialist clinical topics, the subject of ‘antibiotics’ was rated as the most important to practice (n=179, 63.4%), followed jointly by ‘palliative care’ and ‘mental health’ (n=127, 45.7%), and then ‘pain’ (n=123, 44.2%). Two hundred respondents rated the impact of the site on helping pharmacists learn about medicines. 83.0% (n=166) thought that the website helped pharmacists care for patients. Most tutors and managers thought that the site saved teaching time (85.0%, n=85). On a 6-point Likert scale where 1 was poor and 6 was excellent, nearly half of the respondents rated the site overall in supporting training as 5 (49.5%, n=99) and over a quarter as 6 (28.5%, n=57).

Discussion
The Medicines Learning Portal helps pre-registration and foundation pharmacists care for patients. It helps them to apply their knowledge and skills with confidence to make clinical decisions about medicines. It saves tutors time and is rated highly by users of the site. The development of future content will be guided by the results of this study, antibiotics being a priority topic.
An investigation into the benefits to practice for Healthcare Professionals using the Medicines Information enquiry answering service

David Erskine and Bridget Rankin¹ London & SE Medicines Information, Guy’s Hospital, Mavin Patel and Rita Shah², King’s College London, Department of Pharmacy and Forensic Science

Focal Points
- This service evaluation demonstrated that the MI team are an integral part of the pharmacy service delivering the medicines optimisation agenda.
- Over 90% of pharmacy staff agree that MI contributes to decisions that affect patient safety and care.
- Pharmacy staff identified that using the service saved them time.
- Pharmacy staff acknowledged the value of their MI training in decision making.

Introduction
Following publication of “The Carter Report” [1], NHS Trusts are reviewing each part of the pharmacy service and making recommendations for service transformation to improve efficiency and patient outcomes. The Medicines Information service, based at Guy’s Hospital responds to over 4000 enquiries each year including 25% from hospital pharmacy staff. Previous research has shown that the service has a positive impact on patient care [1], but we do not have any measures of the efficiency of the service in terms of time saved for pharmacy staff and their views on how the service contributes to medicines optimisation [3].

Aims of the study
To investigate if there are specific benefits to practice for pharmacists using the enquiry answering service to directly support medicines optimisation.
To investigate if any benefits to pharmacists can be quantified in terms of efficiency and opportunity costs in time released for other patient facing activity.
To survey pharmacist’s views on the relevance of MI training in supporting them in their patient facing activities.

Method
An observational study was conducted to scope how pharmacists respond to information needs on the wards and in the clinics. Themes were identified which were used to design a questionnaire. After piloting the survey was sent to all pharmacy staff working in two large hospital trusts. The questions covered a range of topics on submitting enquiries, contribution to medicines optimisation, time saved by enquirer and relevance of any prior MI training. The survey was sent out via Survey Monkey and results were analysed using Excel.

Results & Discussion
There were 100 responses from a range of grades of pharmacy staff across sites. 93% of responders believed that the response to their enquiry helped them improve patient care and 92% believed that the service had a positive impact on patient safety. 77% responded that using the MI service meant that they had more time to spend with patients with times estimated between 1-4 hours to more than 5 days over a 12 month period. 93% of responders believed that their training in MI helped them develop problem solving skills. Although a minority, there were responders who expressed concerns over the timeliness of their response, ease of access, and the ability of junior MI staff to understand the complexity of the enquiry. There was some variation in the responses from pharmacists working in hospitals with an MI service versus those with an ‘off site’ MI service with a higher use observed in the former.

References
Attitudes of Non-medical Nurse Prescribers towards Reporting Adverse Drug Reactions via the Yellow Card Scheme – an Exploratory Study

Ammar Abbas¹ Medicines Information, Countess of Chester Hospital, Dr Rachel Mullen² School of Pharmacy and Biomolecular sciences, Liverpool John Moores University

Focal Points

- Non-medical prescribing is an evolving and expanding discipline and Non-medical Nurse Prescribers (Nurse NMPs) form the largest sub-group of these professionals (1). Reporting of Adverse Drug Reactions (ADRs) by this group is poor and more research is needed to know why.
- The aims were to ascertain the level of awareness of Nurse NMPs at CoCH about the Yellow Card Scheme (YCS), explore their attitudes towards pharmacovigilance and identify related training needs and barriers to improve ADR reporting rates.
- Participants were aware of the YCS as a scheme but were not competent in using it because of gaps in knowledge about who can or should report ADRs, ADR reporting criteria and the available reporting methods. Identifying ADRs, inefficient systems and absence of reminders were the main barriers to ADR reporting.
- Improvement of ADR reporting activity amongst Nurse NMPs requires a multi-disciplinary approach incorporating the use of team champions, publicity campaigns, more efficient use of technology to enhance the reporting experience, periodical tailored training, feedback to reporters and more intensive focus within NMP training programs.

Introduction

Under-reporting of ADRs is a global public health concern and is a major limitation of spontaneous reporting systems. The YCS is the principal system for reporting ADRs in the UK. Only 6 –10 % of serious ADRs are reported through the YCS and under-reporting of ADRs by healthcare professionals is a key contributing factor. (1) ADR reporting by nurses including non-medical nurse prescribers (Nurse NMPs) at CoCH is currently poor. Research was undertaken by the Medicines Information Pharmacist leading on ADR reporting in the trust to explore the reasons and suggest solutions.

Method

The first phase was qualitative. Semi-structured interviews were conducted with a purposive sample of 11 nurse NMPs from different specialities recruited by e-mail invitation. Participants who had an opportunity to attend a recent Yellow Card Centre North West (YCCNW) pharmacovigilance training session were asked about their views on content. The findings were analysed thematically using NVIVO 11 software until thematic saturation was reached. The second phase was quantitative and aimed to observe whether pharmacovigilance training offered would improve ADR reporting by Nurse-NMPs at CoCH.

Results & Discussion

Participants were aware of the YCS as a scheme but were not competent in using it because of gaps in knowledge about who can or should report ADRs, ADR reporting criteria and the available reporting methods. Indifference towards ADR reporting was recorded and the reasons listed were lack of feedback to reporters and misconceptions that the process is time consuming without ultimately making a difference to patient care. Some participants assumed that certainty must be established before ADRs are reported. These factors are modifiable through education. Practical barriers to ADR reporting were the difficulty in identifying ADRs partly as a result of narrow personal formularies, absence of reminders and the inefficiency of reporting systems in facilitating reporting at convenient times. YCCNW training material was found to meet training needs. Nonetheless, the impact of training was limited in magnitude and duration.

Conclusions

Improvement of ADR reporting activity requires a multi-disciplinary approach incorporating the use of team champions, publicity campaigns, more efficient use of technology to enhance the reporting experience, periodical tailored training and feedback to reporters. Non-medical training programs need significant review of their pharmacovigilance content.

References

Poster 10

‘On-call pharmacists’ perceptions of the provision of out-of-hours medicines advice using semi-structured interviews

Mark Cheeseman, University of Wolverhampton, Paul Rutter, University of Central Lancashire

Focal Point
- Ascertained perceptions of on-call pharmacists toward providing medicines advice to doctors and nurses at times when the pharmacy department was closed.
- Two major themes were identified: the types of enquiry generated between nurses and doctors were similar; and, specific barriers associated with providing the service in an out-of-hours OOH situation were identified.
- Hospital pharmacy services should review the availability and accessibility of information to healthcare professionals and on-call pharmacists when providing OOH services.

Introduction
An on-call pharmacy service for medicines advice is almost universally provided in English hospital trusts with nurses and junior doctors the most frequent users1. It is not known how on-call pharmacists perceive the current pharmacy OOH services, in particular the provision of medicines advice. The aim of this study was to ascertain perceptions of on-call pharmacists toward providing medicines advice to doctors and nurses during times when the pharmacy department was closed.

Method
Twelve Chief Pharmacists from the East of England consented for their on-call pharmacist staff to be contacted (n=106) to participate in the study. All pharmacists were initially contacted via email to ask if they wanted to take part in a face-to-face semi-structured interview. The interview schedule consisted of open questions that asked their views on: advice needs of doctors and nurses OOH; handling of advice calls; barriers (if any); changes needed (if any); impact of 7 day working; documentation of advice calls; and, training specific to medicines advice. Each interview audio recording was transcribed into Microsoft Word and sent to the interviewee for verification. Interview transcripts were imported and initially coded/themed (Framework Method) using NVivo 10. Ethics approval was granted by the Faculty of Education, Health and Wellbeing Ethics Sub-Committee Board (Health Professions, Psychology & Social Care), University of Wolverhampton.

Results
Thirty pharmacists agreed to be interviewed, although only 8 interviews were finally conducted as no new themes were generated at this point and authors agreed that data saturation had been reached. Two major themes were identified. Firstly, the types of enquiry generated between nurses and doctors were similar. Medication themes included administration; advice on safety to miss dose(s); dosage; safety check; therapeutic drug monitoring; and, compatibility of parenteral medication. Interestingly, on-call pharmacists identified that when contacted to supply medication, this inadvertently lead to a need for medicines advice. Secondly, specific barriers associated with providing the service in an OOH situation were identified. On-call pharmacists were less likely to know details of the patient and could less readily access information sources including the patient’s notes/chart/results. This resulted in the on-call pharmacist relying on the information provided by the caller rather than accessing information themselves as they would during normal ‘office’ hours. On-call pharmacists also spoke of their (lack of) knowledge and experience that hindered their ability to handle queries, for which they might have referred to the medicines information service in normal working hours.

Discussion
On-call pharmacists perceived the types of medicines advice questions asked by nurses or doctors OOH to be similar in nature. Specific barriers associated with providing an on-call pharmacy service were identified. Hospital pharmacy services should review the availability and accessibility of information to healthcare professionals and on-call pharmacists when providing OOH services. Whilst these initial findings are of interest, this study was limited to a small number of pharmacists from a relatively small area.

References
Poster 11

Medicines Information Training – How can we improve the training we provide?
Maxine Goldsbrough, RDTC Newcastle upon Tyne

Focal Points
- To update and standardise the MI training given at the RDTC Newcastle
- Four specialist training programme workbooks were developed
- Positive feedback was given from both the trainees and the trainers
- A good grounding in MI will improve practice when pre-registration pharmacists become registered – benefit may be seen in all sectors

Introduction
Training is an essential part of the “Clinical Governance Framework”, which, if done well can help to continuously improve the quality of NHS services. The Regional Drug and Therapeutics Centre (RDTC) in Newcastle Upon Tyne is active in education and training, with a particular focus on the safe and effective utilisation of medicines, management of poisoning, prevention of adverse drug reactions and the appropriate use of medicines during pregnancy.

With the discontinuation of the UKMi workbook and lack of updates to the 2009/10 version of the UKMi Pre-reg training template it was noted that there was an absence of structure in MI training within the RDTC.

Method
Using the UKMi training pack as a starting point and drawing on previous knowledge and experience, several training programme workbooks were produced, each tailored to specific trainee groups (Senior MI pharmacists, Specialist Medical Information Scientists, Junior Pharmacists & Pre-registration Pharmacists).

Draft workbooks were used for the 2016/17 cohort of trainees, with evaluation forms being completed at the end of the training period.

Results
The pre-reg / junior pharmacist workbooks were designed to guide trainees through the specialist area of MI, looking at service delivery, the technologies used, key resources and legal and ethical aspects of the provision of information. Enabling them to develop key enquiry answering skills, and improve their knowledge and confidence. Senior pharmacist and specialist scientists workbooks, build on the basic concepts tackled in the pre-reg workbook and concentrate on honing these skills.

Feedback given was used to create final working documents, which are now approved and will be in use for the 2017/18 cohort and onwards.

Discussion
- Standardised training programmes will improve the overall experience for trainees and trainers alike.
- Pre-reg pharmacists retain the workbook which can be used as evidence to prove competence in performance standards relevant to MI.

References
1. Royal Pharmaceutical Society, Clinical Governance Quick Reference Guide, 
2. RDCT Website, http://rdtc.nhs.uk/services, accessed 5th June 2017
3. UKMI Website, Workforce Development / Workbook & Tutors Guide, 
Evaluation of the SMiLE Program for Pharmacy Staff in an Acute Trust
Sarah Cavanagh, Marianne Eve, Natasha Gearing, Tim Meadows, Abigail Scott, Monika Sznura, East Anglia Medicines Information Service, The Ipswich Hospital NHS Trust

Focal Points
- This service evaluation aimed to assess the usefulness of the SMiLE training
- All grades of pharmacy staff trained showed improved knowledge of MI resources.
- Qualitative feedback indicated that the training was likely to lead to a change in practice and staff more likely to use key MI resources themselves.
- On-going evaluation will help guide and develop this training and we hope to use behavioural science to change behaviour and up skill the pharmacy workforce and improve efficiency and efficacy of the clinical service.

Introduction
A Medicines Information (MI) skills needs assessment was conducted to assess the knowledge and experience of commonly used electronic medicines information resources. The results confirmed a need for training of all levels of staff and the SMiLE training program was developed. Our aim was to introduce all staff to the MI resources they need to answer more simple enquiries at ward level and to give them the confidence to do this. This goes hand in hand with the Hospital Pharmacy Transformation Plan and the need over the next few years to free up more time for directly patient facing medicines optimisation activities.

Method
The 30 minute SMiLE training is delivered on a rolling basis, one session a week (different days and times to suit the service needs). It was also added into the induction program for new members of staff. Training was preceded by an anonymised quiz, evaluating participants’ level of knowledge of the MI resources needed to answer 5 simple enquiries. The quiz was repeated at the end of the presentation, again anonymised results were collected.

Results
SMiLE training was delivered to 47% members of the pharmacy team in the first 3 months of the program. 23 pharmacists, 22 pharmacy technicians, 11 pharmacy assistants/others. The mean score out of 5 in the pre-course assessment was 3.6 and post training rose to 4.9. We were not able to differentiate between staff groups as the quiz was anonymised. Qualitative feedback was sought via email and a short focus group. Feedback was positive and staff felt this training had increased their confidence to answer certain types of MI enquiries on the ward and in other clinical areas.

Discussion
The evaluation of the 30-minute SMiLE training was positive and has guided development of future training. Whilst increased knowledge was demonstrated in the classroom, further evaluation will be needed to ensure these skills are retained and used on the wards and in the dispensary. It is hoped the next phase may incorporate behavioural science and in particular the COM-B model.

References
1. Poster SMiLE (Structured Medicines Information Learning Exercise) – our response to Carter? Monika Sznura 2017
3. www.behaviourchangewheel.com
An audit to measure awareness of specialist pharmacy service (SPS) and medicines learning portal (MLP) websites within a tertiary NHS teaching hospital

Hamzah Farhad and Ebraheem Junaid, Cambridge University Hospitals NHS Foundation Trust

Introduction

The SPS and MLP are relatively new websites; therefore it’s important to make sure that all pharmacy professionals within the Trust are aware that these resources are available. This information was circulated via e-mail. In order to begin to assess the usefulness of these resources measuring awareness and usage will help direct any future dissemination efforts. The objectives are to measure the awareness of the SPS/MLP websites, how often pharmacy staff uses the SPS and MLP websites and any general opinions about the websites.

Method

Audit standards:
- 100% awareness of MLP website amongst Pharmacists and pre-registration pharmacists.
- 100% awareness of SPS website amongst all pharmacy staff.

Data was collected in the form of an electronic survey (hosted via Survey Monkey).

Results

SPS website n= 57. Percentage of sample with previous awareness of website = 35.09%.
MLP website n=29. Percentage of sample with previous awareness of website = 34.48%.

Discussion

Approximately a third of each cohort was aware of the available electronic resources. This is significantly less than our standards; therefore, the requirement for promotion of these resources is very apparent.

Options for disseminating this information may include;
- Email notifications and updates. This can be done as a simple e-mail or circulated as part of a newsletter, e.g. via CUH daily.
- Organise short meetings over a one week period for pharmacy staff updating them on the current electronic resources available to them.

The aim is to encourage staff to use these resources, in particular SPS, before contacting MI for further advice or information. The audit will be repeated after 12 months.

References

3 Years of KAMPI – Promoting Medicines Information in German Hospital Pharmacies

Andrea Obermeier\(^1\)*, Anne-Christine Gruber\(^1\), KAMPI – c/o Munich Municipal Hospital Group, Hospital Pharmacy. Carolin Schuhmacher\(^2\), Catharina Kern\(^2\), Christiane Querbach\(^2\), Claudia Mildner\(^2\), Cornelia Vetter-Kerkhoff\(^2\), Dorothea Strobach\(^2\), Monika Guggemoos\(^2\), Sigrun Gundl\(^2\), Steffen Amann\(^2\), Medicines Information (MI) - working group, German Society of Hospital Pharmacists (ADKA e.V.)

Focal Points
- KAMPI (Hospital pharmacists provide medical and pharmaceutical information) was established to enhance and improve existing medicines information services in German hospital pharmacies (HP).
- KAMPI usage and KAMPI user satisfaction 2014-2017 were analysed.
- KAMPI increases use of the ADKA-MI documentation Tool (ADKA-MIDT)

Introduction
Since 2004 the internet-based ADKA-MIDT is available to HP. MI-centres are historically not established in most of German HP [1], especially not in small ones. To enhance and improve existing MI-services, the ADKA MI-working group established KAMPI with a part-time pharmacist in 04/2014. KAMPI provides a free-of-charge-service to ADKA-members. Complex and non-urgent enquiries (concerning e.g. patient groups or drug shortages) can be submitted via email. KAMPI-answers are processed according to ADKA practice guidelines on MI in HP updated 2014 [2]. Answers are provided also on the sharing-level and therefore available to all users of ADKA-MIDT. Additionally KAMPI creates permanently updated summary tables on key topics shared in the download section of ADKA-MIDT. Another objective is to support the users of KAMPI in MI-skills.

The aim of the evaluation was to analyse KAMPI usage, KAMPI user satisfaction and number of ADKA-MIDT-licences.

Methods
Using the statistics module of ADKA-MIDT all enquiries from 05/2014 to 04/2017 answered by KAMPI were analysed (category, original enquirer, processing time of enquiries and size of enquiring pharmacy). A questionnaire was sent to each enquirer. Completed questionnaires were analysed. User rating range was one to five (one as best rating). Secondary effects of KAMPI were evaluated based on the number of ADKA-MIDT-licences and the number of answers on the Sharing-level of ADKA-MIDT.

Results
Since implementation the number of complex enquiries to KAMPI (237 total) increased each year (2014: 38; 2015: 67; 2016: 105). The sharing-level of ADKA-MIDT grew from 52 to 483 answers. 68 (29%) of the enquiries were asked by physicians in the first place. Main categories were choice of drugs, side effects or administration. 63 (35%) of total 182 medium-sized HP in Germany (with 4-10 pharmacists) used KAMPI. Mean processing time was 8.8 hours per enquiry. Mean user rating was 1.5, especially regarding professional quality, comprehensibility, amount of information and benefit for daily practice. Since KAMPI was established the number of ADKA-MIDT licences showed an obvious increase (04/2014: 139; 03/2017: 217 in Germany, Austria, and Switzerland).

Discussion
KAMPI is well accepted and receives positive user feedback. By responding to current issues and publishing answered enquiries on the sharing-level, all users of ADKA-MIDT may have a benefit in sparing time resources comparable to the Q&A-section on www.sps.nhs.uk. The increasing number of ADKA-MIDT licences shows that KAMPI raised interest in MI-activities in German-speaking HP.

References
Assessment on the introduction of a standard paragraph in MiDatabank on administration on medication mixed in food

Sally Binyon, Karen Harkness, Claire James, Lynne Sharpe, Julie Sinclair, Tayside Medicines Information, Ninewells Hospital, Dundee

Focal Points

- Assessment of enquiries on medicines mixed in food answered before and after introduction of a standard paragraph in the Special Field function of MiDatabank.
- The standard paragraph is used by all grades of MI staff improving the quality of answers and providing increased relevant detail. The biggest improvement is evident with non-permanent MI staff.
- Introduction of standard paragraphs is a useful tool to assist in providing additional detail to answers for all levels of MI staff.

Introduction

Medicines information enquiries on administration of medicines mixed in food requires additional information on good practice to be provided. Responses should include advising to give the medicine in a small amount of food/drink (at room temperature) to ensure full dose is consumed and that the manipulation would make this method of administration out-with the market authorisation.1,2,3

This information is most likely to be omitted if answered without the use of a past enquiry, or by inexperienced MI staff. The development of a standard paragraph containing this information was considered to be a useful timesaving option that could potentially increase the quality of responses.

Method

A search of enquiries that provided advice on administration of medication mixed in food/drinks was collated. Key-words used were drug-food interaction, food, swallowing, dysphagia and covert administration. The inclusion of the additional good practice points in the answers was assessed and a comparison made with enquiries completed before and after the introduction of the standard paragraph. Other information collected included the medication concerned, response time and whether it was a permanent or non-permanent member of MI staff who completed the enquiry.

Results

164 enquiries on administration in food were assessed, 122 before the introduction of the standard paragraph and 42 afterwards. Detailed information on administration was included in the answer in 69/122 (57%) enquiries which increased to 32/42 (76%) after the standard paragraph was available for use. Nine of the 10 enquiries that did not include the additional information after the standard paragraph was introduced were in relation to non-covert drug administration. Information on licensing increased from 85/122 (70%) to 42/42 (100%). If non-permanent staff completed the enquiry, administration information increased from 16/44 (36%) to 6/10 (60%) and licensing advice increased from 21/44 (52%) to 10/10 (100%). Mirtazapine was the most frequently enquired about medicine followed by haloperidol and lorazepam.

Discussion

The availability of a standard paragraph is used by all grades of MI staff and can increase the quality of the answer. Non-permanent members of the MI team gain most benefit. A change to the title of the standard paragraph to “administration in food/drinks” rather than “covert drug administration” may encourage wider use especially in non-covert enquiries. Further standard paragraphs have been developed and highlighted to all new staff. Next steps include the development of an information poster with good practice points.

References

**Poster 16**

**A Regional Collaboration on Pre-registration Training**

Emily Turner, The Leeds Medicines Advice Service, Leeds Teaching Hospitals NHS Trust on behalf of the Yorkshire Regional Medicines Information Collaboration

**Focal Points**
- We developed a regional level pre-registration training session
- We found this led to a reduction in 1:1 time needed with each trainee to develop competence after regional training
- Trainees felt more prepared to start their MI rotation and able to start live work sooner
- We have used the feedback from this year to develop a better programme and appeal for a longer session in the coming year

**Introduction**
The Yorkshire region trained 71 pre-registration trainee pharmacists in 2016-2017. Training was identified by our collaboration as an area that could be revised to reduce repetitive working and increase collaborative working. The objective of providing a regional MI training session was to reduce the training burden on individual training sites and increase the competence and productivity of pre-registration trainee pharmacists.

**Method**
The Yorkshire region collaborated to produce a half-day regional teaching session for pre-registration trainee pharmacists. Trainees were sent pre-work to ensure they had a good knowledge of the available resources and get them thinking about background questioning. The session covered search strategies, background questioning and an introduction to critical appraisal. The session was taught using minimal didactic sessions and problem based learning.

**Results**
83.3% of pre-registration trainee pharmacists who had their MI training after the session said that the session enhanced their MI rotation.

Trainees found the section on resources most useful as it allowed them to enter their MI rotation with a good baseline knowledge.

76.92% of pre-registration trainee pharmacists who had their MI training before the session said that the session would have been useful before their MI rotation. These students felt that they would have been more prepared for their rotation.

There was an average reduction of 5 hours 1:1 time per trainee spent on resources and 8 hours 1:1 time per trainee spent on background questioning by the MI centres surveyed. From the 71 trainees in the region (based on how many trainees each centre had on rotation at one time) this was an estimated time saving of >800 hours by providing this session.

**Next step**
Feedback from trainees and MI centres recommended covering the following in future sessions (highlighted are the areas we have included for the sessions to take place in 2017):
- Role plays
- Full practice questions
- More detail on critical appraisal calculations
- How to write an answer
- Resources kept at regional centres but not local centres
- Literature searching
- How to use MiDatabank

Following feedback we have been able to secure a full day session for the coming year.
Three-in-One: widening the range of pre-registration projects through an educational intervention

Cristina Coelho¹, Yasmin Al-Din¹, Medicines Information, NHS Greater Glasgow and Clyde. Lesley Dunbar², Pharmacy Education and Training, NHS Greater Glasgow and Clyde. Lorna Rankine³, Clinical Governance, NHS Greater Glasgow and Clyde. Sarah McDonald⁴, Prescribing Development and Education, NHS Ayrshire and Arran

Introduction
The Medicines Information Team, NHS Greater Glasgow and Clyde, leads on a range of teaching activities including an educational session to support project work undertaken by West of Scotland pre-registration pharmacists who are expected to undertake projects with a clear service development component identified within their departments. In 2015, the General Pharmaceutical Council modified their performance standards allowing pre-registration projects to take a quality improvement approach instead of being solely focused on audit. This led the Clinical Effectiveness pharmacists within Medicines Information to collaborate with pharmacy teams across West of Scotland to engage in teaching practice development. In 2016, the educational session was changed and teaching aligned with the new performance standards. Our aim is to evaluate, through participant feedback, the effectiveness of the new teaching method and to ensure the high quality standard attained in previous years is maintained.

Method
The teaching session was re-designed to give pre-registration pharmacists an introduction into three quality improvement methods commonly used in healthcare: clinical audit, model for improvement and research. Following an overall introduction, participants were divided into three small groups. Each group received a combination of short lectures and workshops using real-life examples of projects employing each type of methodology. The teaching was constructively aligned with the learning outcomes and the assessment method “Does” as described by Millar’s pyramid. Feedback was sought on two occasions: at the end of the session and on completion of the project.

Results
Twenty-six participants attended the session and provided feedback at the end. 88% of participants felt the teaching completely met their objectives and 12% reported that their objectives were mostly met. 85% of participants thought the session was relevant and 15% reported it to be mostly relevant. The participants found the session “useful”, ”enjoyed the interactive workshops” and liked how “the session was not just focused on one method but three”. The overall quality of the session, compared to the previous year, was reported to be very good by 85% vs. 87% and good by 15% vs. 13% of participants in 2016 and 2015 respectively.

Twenty-four participants provided feedback on completion of their project. 33% felt the teaching completely met their objectives and 46% reported that their objectives were mostly met. 46% thought the session was relevant and 38% reported it to be mostly relevant. The overall quality of the session was reported to be very good by 42% and good by 42% of participants. 75% of participants reported that the teaching improved their understanding of each individual topic taught and they were able to apply the concepts covered in the session to their projects. 79% of participants indicated that they would recommend the session to others prior to undertaking their project.

Conclusion
Overall, the re-designed educational session was well received and quality maintained. Following the delivery of the session, all participants agreed that the session met their objectives, was relevant and of high quality. This view was maintained by the majority of participants on completion of their projects. Feedback received reveals areas for improvement. New interventions could include the establishment of links with experts in each of the methods covered to provide tailored project support throughout the year, the setup of an electronic forum to promote peer discussion and an electronic pre-registration project library to collate completed projects for future reference.

References
What do we do? Characterising the Leeds Medicines Advice Service

Dave Abbott, Leeds Medicines Advice Service, Leeds Teaching Hospital NHS Trust

Focal Point

1) A different way of characterising the Leeds Medicines Advice Service has been attempted.
2) Based on this preliminary data, the majority of the query answering service is patient focussed, with a meaningful proportion delivered directly to patients.
3) More data is needed to draw firm conclusions, but the method used appears to have the potential to provide suitable data to enable characterisation of our service.

Introduction

Following recent discussions about the nature of the work undertaken within MI services, and the need to embed Medicines Optimisation principles into practice, we have attempted to characterise the current query answering aspects of the Leeds Medicines Advice Service. To try to collect information not captured in MiDatabank, a different method of data collection was trialled.

Method

For one day, all staff answering queries in the Leeds Medicines Advice Service were asked to record their activities every 15 minutes. Colleagues working on the wards were asked to do similar to gain comparable data. This was then reviewed by a small number of pharmacy colleagues in an attempt to classify the type of activity undertaken.

Results

On the day sampled, 10% of activity within the query answering service was delivered directly to patients, with a further 55% of activity being patient specific, but delivered via another healthcare professional. Another 21% of activity was for the benefit of a cohort of patients but with no specific patient involved, and 14% was not related directly to patient care.

When asked whether the activities were ‘clinical pharmacy’, there were large differences between reviewers, with the 4 reviewers classifying 46%, 39%, 61% and 95% of Medicines Advice activities as ‘clinical pharmacy’, compared to 40%, 40%, 37% and 87% of ward activities respectively.

Two reviewers were additionally asked to attempt to identify if the activity occurred in a Medicines Advice or ward setting. They correctly identified the setting 66% of the time.

Discussion

There are significant limitations to this investigation, as only one day of activity was recorded, and only the query answering aspect of the service was considered. However, if this data is representative, the majority of the query answering activity undertaken by the Leeds Medicines Advice Service is patient specific, with a meaningful proportion being delivered directly to patients. Although a definition of ‘clinical pharmacy’ was provided to the reviewers, there appears to have been large differences in how this was interpreted. Despite this, each reviewer judged similar proportions of Medicines Advice and ward activities to be ‘clinical pharmacy’. This, along with the 34% of activity for which reviewers were unable to identify the setting, suggests that there may be significant cross-over in the types of activities pharmacy staff working in Medicines Advice and on wards undertake.

To be confident in any conclusions it would be necessary to collect more data. However, this initial analysis helps to better understand our service and suggests a potential way to further characterise the service going forward.
Can we work collaboratively in Medicines Information? A 6 month trial of Carter recommended collaborative working between Worcestershire Acute Trust Medicines Information Department and Wye Valley Trust Medicines Information Department

Rosie Fletcher, Medicines Information, Worcestershire Royal Hospital, Worcester. Jo Howe, Medicines Information, Hereford County Hospital

Abstract

The Carter Report\(^1\) has recommended reviewing the provision of all local infrastructure services, which could be delivered collaboratively with another trust or through a third party provider. An opportunity arose for us to put into practice the Carter Report recommendation by initiating cross trust collaborative working following the retirement of the medicines information (MI) pharmacist based at Hereford County Hospital. It was proposed that the lead MI pharmacist at the Worcestershire Royal Hospital would support the lead MI technician at the Hereford County Hospital for a six month trial period (mid-February to mid-August 2017) in their provision of an MI service to the Wye Valley Trust.

- An agreement was reached on the cost of the band 8a MI pharmacist at Worcester to support the work at Hereford, including a weekly afternoon visit.
- A triage system for enquiries received by Hereford MI, based on UKMI guidance\(^2\), was introduced to ensure all enquiries were dealt with and supervised appropriately either on site or by referral to the MI pharmacist at Worcester.
- The service was reviewed after 3 months to confirm that the cost of the service was as expected, and to gauge, using feedback from the participants; how well the service was running and what lessons had been learnt.
- The service will be reviewed again at 6 months to see the impact at both sites using enquiry figures (including levels), user survey results, and participant feedback.
- The discussion will include an analysis of the workload figures and participant feedback. It will look at how well the collaboration went and how the MI service provision at either trust was affected. It will look at the problems encountered and how the service could be improved.
- The results of the pilot will be used to decide if this service development will be continued between the trusts; what further work needs to be done, and whether the lessons learned will help other trusts with collaborative working in medicines information.

References

**Poster 20**

**Collaborative Medicines Information Service Project between Two Trusts**
Nicola Bryan and **Junie Gupta**, Medicines Information Service, Northampton General Hospital

**Focal Points**
- Project to consolidate Medicines Information Services between Northampton General Hospital (NGH) and Kettering General Hospital (KGH)
- Service scoping and other factors to be considered
- Measuring performance and outcomes of the consolidated service.

**Introduction**
Medicines Information (MI) services were provided at both Trusts; NGH and KGH Hospitals. This included providing advice to patients and healthcare professionals on the use of medicines, either in response to enquiries or as bulletins/guidelines, providing expert advice and management of hospital formulary processes, staff training particularly relating to effective use of clinical information resources, maintenance of MI resources and supporting medicines safety agenda.

National and local drivers e.g. Carter report, Sustainability and Transformation plan encourage collaboration to improve efficiency of service provision. NGH and KGH Pharmacy teams worked to identify areas for partnership working. MI was identified as an area where increased collaboration would be beneficial, and allow the KGH MI pharmacist to take on other roles.  

**Objective:** To consolidate the MI enquiry answering service at NGH, initially for a 2 year period with a view to long-term extension if successful.

**Scoping the Service**
In scope are; MI enquiries (including development of an enquiry referral pathway) and KGH staff training in basic MI skills. The referral pathway includes how appropriate calls are referred to NGH MI, how they are dealt with and recorded, when and how to ensure robust communication between NGH MI and KGH clinical pharmacy staff. MI training is provided to pre-registration pharmacists and basic MI training to band 6 pharmacists.

Out of scope are; simple MI enquiries which KGH clinical pharmacy staff are competent to answer, Formulary work, out of hours service, MI resource maintenance (including on call resources) and formal MI training.

Other considerations made were potential workload and staffing. An extra staff member has been recruited. Also IT and Information Governance implications were considered such as accessing KGH intranet guidelines and using NGH guidelines to answer KGH enquiries.

A service specification and SLA were produced.

**Performance Indicators**
Enquiry numbers, enquiries answered on time, user satisfaction survey results, type and complexity of enquiries referred to NGH compared with those answered at KGH and regular review meetings between NGH and KGH.

**Progress so far**
The new collaborative service has been successfully running since February 2017. The model used here is considered appropriate for our Trusts based on local services, practices and existing relationships between departments. Future developments may be considered e.g. around further MI training for KGH staff.

**References**
The Impact of a Pharmacy Technician at a Medicines Information Centre
Angelica Steward and Esther Wong, Medicines Information Centre, Chelsea and Westminster NHS Foundation Trust, London

Focal Points
1) To evaluate the impact of a pharmacy technician at a medicines information centre
2) Looking at data pre and post completion of UKMI accredited MI technician scheme
3) Workload increased following completion of accreditation scheme

Introduction
UKMi offers a training scheme aimed at Pharmacy Technicians who wish to become a UKMi accredited MI Technician. A service comparison was conducted pre and post completion of UKMi accreditation for MI technicians to assess the impact an accredited Technician had on the service.

Method
Data was collected via MiDatabank and the reporter function was used to extract information. Data was collected between January to March 2016 (pre completion of UKMi technician accreditation) and January to March 2017 (post completion of UKMi technician accreditation). Enquiries were individually analysed assessing workload of MI technician, time spent and types of categories.

Results
During the audited period, from January to March 2016, the MI technician completed 39 enquiries from a total number of 151 enquiries (25% of workload) and spent a total number of 187.2 hours. Four category types of enquiries were observed: 133.9 hours for interaction, 21.8 hours for fridge/stability, 16 hours for formulation and 15.5 hours for adverse effects.
From January to March 2017, the MI technician completed 69 enquiries from a total number of 186 enquiries (37% of workload) and spent a total number of 378.7 hours. Five category types of enquiries were observed: 169.7 hours for interaction, 141 hours for adverse effects, 30.3 hours for availability, 24.9 hours for fridge/stability and 12.8 hours for formulation.

Discussion
The results show that the accredited MI technician was able to research/complete more enquiries than prior to accreditation. Prior to accreditation the MI technician had very little experience within the MI setting and thus undertaking the accreditation training programme it can be seen that her experience had developed, her range of enquiries had broadened and that a 10% rise in workload was seen. This is an impact to the whole MI service as this allows other members of the small team (one other MI pharmacist) to carry out other directorate/clinical duties required.

Conclusions and Recommendations
The service comparison shows that the MI technician is a valued member of the team contributing to the workload. The recommendation from this is to accredit the MI technician in more enquiry categories.
The UKMi accreditation scheme is well structured and allows development for the pharmacy technician to have an opportunity of furthering their career in a more specialised area of pharmacy.
Clinical Queries being Managed by Pharmacy Staff Outside of the Medicines Information Department
Beth Joynes, Pre-Registration Pharmacist and Sarah Boulger, Medicines Information Pharmacist, Pennine Acute Hospitals NHS Trust.

Introduction
There is currently no system in place for recording of clinical queries managed by pharmacy staff outside of the MI department; therefore it is not possible to ensure the quality of information or advice given at ward level. Within Pennine Acute Hospitals Trust (PAT) there is a medicines information department based physically at North Manchester General Hospital (NMGH) and the Royal Oldham Hospital (TROH) between 9am-5pm Monday-Friday. The service is also provided to Fairfield General Hospital (FGH) and Rochdale Infirmary (RI) despite there being no physical MI presence at these sites. This audit was carried out at NMGH. At NMGH all pharmacists have a basic MI induction and have access to passwords for MI resources, however may not have undertaken an MI rotation. A voluntary one hour resource training session was run in June 2016.

Aims / Objectives
The aim of the audit is to determine if the medicines information department can provide more support to ward based pharmacists and technicians with clinical queries.

The key objectives of the audit are to identify:
- If pharmacists are using appropriate references to manage queries
- How long queries are taking to manage at ward level
- The common themes of queries being asked at a ward level
- Why enquiries are not being referred to MI

Methodology
Data collection: Following a pilot study, the audit ran from 14th–18th November 2016 and all pharmacists and pharmacy technicians based at ward level were included, which totalled 28 people. Pharmacists and technicians were expected to complete forms for each clinical query received during the audit week.

Analysing data: The queries were grouped into categories and average time spent per query was calculated. The resources used were then assessed for appropriateness with the supervision of the MI manager.

Discussion
A total of 43 queries were reported. All queries recorded were within a pharmacist’s competency to manage and those that were received by technicians were referred to a pharmacist where appropriate. The greatest percentage of queries received were related to dose. Resources for researching a dose include the BNF via Medicines Complete and Trust formularies which are accessible Trust wide.

100% of queries were deemed to have been answered using appropriate reference sources. Several queries were dealt with using the pharmacists own knowledge and no other reference source, this reinforces the need for continuing professional development and ensuring that own knowledge is up to date at all times. All the queries recorded took under 15 minutes to complete, queries taking this long are appropriate to be managed at a ward level, however queries taking longer than this would be expected to be referred to MI.

The reason for not referring to MI in many cases was that it was not thought necessary due to simplicity or access to appropriate resources.

Recommendations:
- Continue with the current level of MI training provided as this is resulting in acceptable knowledge by staff as to how to manage clinical queries appropriately and when to refer. Run regular training on appropriate use of resources.
- Pharmacists and technicians should keep up to date with current trust guidelines and policies as well as national guidelines and carry out 9 pieces of CPD evidence per year in accordance with the GPhC regulations.
- A further audit should be carried out in the future on a Trust wide level to assess the appropriateness of clinical query management at other sites which do not all have access to the same resources as those with a physical MI service.
Non-Medical Prescriber experiences of training and competence to report Adverse Drug Reactions to the Yellow Card Scheme
Justine Howard, Christine Randall and Andrew Thompson, Yellow Card Centre North West, North West Medicines Information Centre and University of Liverpool

Focal Points
- We explored Non-Medical Prescriber (NMP) confidence in identifying and reporting ADRs, their prescribing habits and engagement with the YCS and their desire for future training in the identification and reporting of ADRs.
- There was a significant association between confidence in identifying ADRs and the number of Yellow Cards submitted.
- Training appears to give NMPs confidence in reporting ADRs but translation of theoretical knowledge into practical skills in identifying ADRs, and subsequently reporting them, is an important focus of future training.

Introduction
UK epidemiological data suggest that Adverse Drug Reactions (ADRs) are responsible for significant healthcare utilisation and account for 6.5% of hospital admissions. The Yellow Card Scheme (YCS), alongside data from clinical trials and pharmacovigilance studies, is the cornerstone of pharmacovigilance in the UK. The scheme relies on spontaneous reports by patients and healthcare professionals, many of whom have a professional responsibility to report suspected ADRs. NMPs, introduced to allow patients quicker access to the medicines without compromising patient safety, are often well placed to identify ADRs. It is therefore important that NMPs receive appropriate initial and subsequent training on the identification and reporting of ADRs. The aim of this study was to gain an understanding of NMP confidence in identifying and reporting ADRs, explore NMP prescribing habits and engagement with the YCS and investigate the desire of NMPs for future training in the identification and reporting of ADRs.

Methods
An online questionnaire was developed by members of Liverpool Health Partners Yellow Card Working Group and Yellow Card Centre North West to address these aims. A link to the questionnaire was circulated via local and regional NMP Leads in the North West of England. The flow of the questionnaire was dependent upon the responses provided.

Results
570 responses were available for analysis. The majority of responders were nurses (68.1%) or community practitioners (21.1%). Less than half (38.4%) reported submitting a Yellow Card to the YCS, and of these the majority had submitted five or fewer; 28 responders reported making more than five submissions. Being professionally qualified for more years, and receiving additional training support about the YCS were associated with an increased likelihood of submitting to the YCS. There was a positive linear relationship between confidence in identifying ADRs and likelihood of reporting to the YCS and a significant, but not linear, association between confidence and the number of Yellow Cards submitted (P<0.0005). The most common reason given (n=261) for never having reported to the YCS was “I have never seen an adverse drug reaction”.

Discussion
NMPs have an important role in drug safety and need to be encouraged to engage with formal pharmacovigilance systems such as the YCS. Training appears to give NMPs confidence to identify ADRs, but this is at odds with the observation that many reported never having seen an ADR. Strategies that facilitate translation of theoretical knowledge about ADRs into reporting need to be developed. It is recognised that a single approach is unlikely to find universal approval, and setting-specific strategies might need to be implemented. Extra support from senior colleagues, formal feedback from the YCS and additional training in pharmacovigilance are areas to be considered.
The Chester Experience - The impact of an intervention to improve Adverse Drug Reactions reporting in a district general hospital

Ammar Abbas, Medicines Information Centre, Countess of Chester Hospital NHS Foundation Trust. Callum Addinell & Aimee Barry, School of Pharmacy and Biomolecular sciences, Liverpool John Moores University.

Focal Points

- The aim is to illustrate the methods used to improve Adverse Drug Reactions (ADRs) reporting at the Countess of Chester Hospital (CoCH).
- A 22 fold increase in total reporting in comparison to baseline was observed; with most significant effects seen within pharmacy where individual reporting targets were set and monitored.
- Data collected on ADRs submitted over a five year period were analysed and multiple trends were identified including reporting rates by different health professionals, most common ADRs and most common offending drugs.
- Improvement of ADR reporting activity requires a multi-disciplinary approach including education and publicity campaigns but equally importantly setting targets, monitoring and feeding back to reporters on a periodic basis.

Introduction

Under-reporting of ADRs is a global public health concern and is a major limitation of spontaneous reporting systems. The Yellow Card Scheme (YCS) is the UK's principal system for reporting ADRs. Only 6 –10 % of serious ADRs are reported through the YCS. Under-reporting of ADRs by healthcare professionals is a key problem. It is estimated that 6.5% of all acute hospital admissions in the UK are related to an ADR. Baseline ADR reporting rate at the Countess of Chester Hospital (CoCH), a 600 beds district general hospital in England was negligible in 2012 - 2013 but improved dramatically after implementing a plan in January 2014.

Method

A target of 5 ADR reports / week was set by the pharmacy team. Teams initially focused on admission areas and medical specialities (rheumatology, gastroenterology and haematology) where drugs of special interest to the Medicines & Healthcare Products Regulatory Agency (MHRA) (biologics, biosimilars and novel oral anticoagulants) are used. An individual monthly reporting target of a minimum of 1 ADR report per pharmacist was set. A campaign to highlight ADRs at ward rounds and train pharmacists, doctors and non-medical nurse prescribers in pharmacovigilance was implemented. Reporting performance was received from the MHRA via the Yellow Card Centre North West (YCCNW) who oversees reporting from 31 acute and community trusts and produces annual league tables.

Results and Discussion

A 22 fold increase in total reporting in comparison to baseline was observed over a period of 5 years. Most significant effects were observed within pharmacy where individual reporting targets were set and monitored. This highlights the importance of performance monitoring. ADR reporting is currently being considered for review within professional revalidation by various professional bodies and this may help improve reporting which in turn helps early identification, prevention and prompt management and ultimately enhances patient safety. Over the last 5 years, running to March 2017, a total of 1082 reports were submitted, 27% of which involved drugs associated with a CSM warning in the BNF and 25% were considered severe. Only 2% of submitted ADR reports involved a drug under the intensive monitoring (▼) list highlighting the need for focused pharmacovigilance training. CoCH is currently the highest reporting trust out of 31 acute and community trusts in the North West.

References

Poster 25

Adverse Drug Reaction Reporting - A Patient Centred Focus
Umair Hamid, Maxine Goldsbrough, RDTC Newcastle upon Tyne

Focal Points
- Lack of awareness is one reason patients do not report ADRs\(^3\)
- To provide educational talks on ADRs and the MHRA Yellow Card Scheme to a patient group
- Positive feedback was given by all attendees
- Future sessions planned will focus on patient perspectives on promoting the scheme and practical experiences gained during the reporting process.

Introduction
Adverse drug reactions (ADRs) are thought to contribute to 197,000 deaths a year across Europe.\(^1\) Patient reporting is one means of collecting information on ADRs. Reasons for lack of patient reporting include, lack of awareness that patients can report, difficulty in using reporting systems, confusion around who to report ADRs to and how, and lack of feedback from previously reported ADRs amongst others\(^3\)

Method
Patients attended an educational talk on ADRs and the MHRA Yellow Card Scheme. ADRs were defined; their significance in healthcare was explained, along with the history and role of the Yellow Card Scheme, methods of reporting, what to report and how to report. Patients were then provided with a short questionnaire asking the following:
- Did you find the presentation useful? – Yes/No
- Do you understand the role of the Yellow Card Scheme? – Yes/No
- Do you understand how and when to submit a Yellow Card? – Yes/No
- Any other comments/suggestions

Results
A total of 21 patients completed the questionnaire. All patients replied yes to the first 3 questions. Comments / suggestions included “Very interesting talk & informative” and “Posters in Chemists”, suggesting a need for promoting the scheme more in community pharmacy.

Discussion
The talk was well received, however the data gathered had limited practical value, further development of the questionnaire would provide more useful data to aid future planning.

Future sessions could focus on; patient perspectives on promoting the scheme and practical experiences gained during the reporting process.

References
The UHS Medicines Helpline survey 2017

Angela Badiani & Rachael Jones, Southampton Medicines Advice Service, University Hospital Southampton NHS Foundation Trust.

Focal Points

- The aim of this project was to establish a process to routinely capture patient and carer feedback after they have used the UHS Medicines Helpline.
- The survey process has been effective: patients and carers find the UHS Medicines Helpline helpful and would use the service again. They are reassured and are able to start taking their medicines correctly upon discharge.
- Future work will examine methods to increase the questionnaire response rate, and alternative ways to engage patients and their carers in the ongoing development of the Helpline.

Introduction

The University Hospital Southampton (UHS) Medicines Helpline was established in December 2011 and has helped more than 4500 patients since it was launched.

The aim of this project was to establish a process to routinely capture patient and carer feedback after they have used the UHS Medicines Helpline. This is to help improve the service and is in line with the UKMI national standards on medicines helplines. The specific objectives were to:

- Develop and evaluate a process for routinely capturing feedback from callers to the UHS Medicines Helpline
- Measure patients’ and carers’ satisfaction with the Medicines Helpline
- Assess the impact of the Medicines Helpline and establish what patients and carers would have done if the service did not exist

Method

Survey of patients and carers who called the UHS Medicines Helpline using a paper questionnaire. The questionnaire was based upon a previously published tool1. Postal paper questionnaires were chosen over an electronic format due to the demographic of the Helpline callers, and as their postal addresses are more readily available. Initially 5 questionnaires were sent each month but this increased to 8 each month, part way through the study as the number of calls to the Medicines Helpline increased, in line with the UKMi User Survey Guidance.

Results

72 surveys were issued over the 12-month period starting June 2016. 50% (n=36) of questionnaires were returned. 100% (n=36) of respondents found the advice helpful and indicated that they would call the Medicines Helpline again. On a 6-point Likert scale where 1 was poor and 6 was excellent, 100% (n=36) of respondents scored the UHS Medicines Helpline either a 5 (25%, n=9) or 6 (75%, n=27). Of the 32 patients who shared what happened to them after calling the service, 59% (n=19) of patients felt reassured about their medicines or illness and 87.5% (n=28) of patients were able to start taking their medication. Of the 28 respondents that answered an optional open question, 68% (n=19) of patients indicated that if the Helpline did not exist they either would have contacted their community pharmacy, GP or the discharging ward.

Discussion

The survey process has been effective: patients and their carers value the UHS Medicines Helpline service. It reassures patients and enables them to start taking their medicines. They trust and follow the advice given and have their medication-related problems resolved. The Helpline also acts to prevent GP visits or consultations with other healthcare professionals; access to the relevant patient information may sometimes be limited for these practitioners. Going forward further work will look at increasing the response rate, maybe by rationalising the number of questions asked using an expert patient group. The questionnaire and survey process could be used to develop a UK-wide standard for hospitals running medicines helplines.

References


Abbie Jordan, Jenny Scott, Matt Williams, Matthew Jones, Department of Pharmacy & Pharmacology, University of Bath.

Focal Points

- The primary aim of this study was to compare current practice to national standards in the operation of patient medicines helplines at NHS Trusts in England.
- The greatest discrepancy between current practice and national standards concerns the promotion of helplines.
- Future research could examine whether changing current practice to meet all of the promotional standards increases the number of helpline calls.

Introduction

Patient medicines helplines appear to be an underused service. The primary aim of this study was to compare current practice to national standards for operating patient medicines helplines. The standards pertaining to the ‘satisfactory’ level of access, availability, and promotion of helplines were studied, since these seem most likely related to service use. Research questions: (1) What proportion of NHS Trusts provide patients with a medicines helpline? (2) Do NHS Trusts meet national standards for operating a helpline? (3) What do pharmacists consider to be the benefits of helplines?

Method

Two online surveys were developed. Survey 1 was to be completed by pharmacy teams at all acute, mental health, specialist, and community NHS Trusts in England (n = 227; Aim: to answer Research Questions 1-3). Survey 2 was to be completed by Chief Pharmacists at those NHS Trusts which operate helplines, as established from Survey 1 (Aim: to answer Research Question 3). Data were analysed using SPSS.

Results

Response: 89% of Trusts completed Survey 1. The remaining 11% answered whether they operate a helpline. 53% of Trusts which operate a helpline completed Survey 2. Research Question 1: 52% of NHS Trusts provide patients with access to a helpline (67% acute; 29% mental health; 18% community; 41% specialist). Research Question 2: 54% of NHS Trusts met all of the standards for a satisfactory level of helpline access. 86% of NHS Trusts met all of the standards for a satisfactory level of helpline availability. 3% of NHS Trusts met all of the standards for a satisfactory level of helpline promotion. Research Question 3: Major perceived benefits were: avoiding patient harm, identifying errors, improving medication adherence, supporting patient discharge, providing assurance that patients can access professional help from home, improving the patient experience, and optimising medicines.

Discussion

64% of acute and specialist NHS Trusts provide their patients with access to a helpline, which is the same proportion found by the Healthcare Commission in 2007. The greatest discrepancy between current practice and the national standards is regarding the promotion of helplines. The majority of Trusts did not meet all satisfactory standards for the promotion of helplines as a result of not seeking patients’ opinions as to how helplines should be promoted. Future research could examine whether changing current practice to meet all standards pertaining to the promotion of helplines increases the number of calls.

References

Poster 28

Can answers to Medicines Information enquiries be obtained from Internet Search Engines?

Sue Smith, Charlotte Aitchison, Medicines Information Department, Aintree University Hospital, Liverpool

Focal points

- An audit was carried out to assess the difference in answers obtained through MI enquiries completed with access to all available MI resources, compared to those found using the search engine Google.
- Only 16% of basic enquiries could be answered fully and correctly using Google, the remainder of enquiries either could not be answered or could only be partially answered. The most concerning result was that 18% of enquiries were incorrectly answered by Google.
- Internet search engines such as Google are familiar to most healthcare professionals and frequently answer questions on a wide range of everyday topics, however caution needs to be employed when retrieving medical information from them.

Introduction

Following a report by Lord Carter on the operational productivity and performance in English NHS acute hospitals, all hospital pharmacy services are being reviewed. In the report Lord Carter describes Medicines Information (MI) as “a back-office function” and as a result this service will be reviewed as part of hospital pharmacy transformation plans (HPTPs). This review could potentially lead to reduced access to MI services in the future, resulting in health care professionals sourcing their own information.

At Aintree University Hospital, the MI department are increasingly aware that internet searches are the first port of call for enquirers. The MI department have also encountered prescribing errors directly caused by information obtained from the internet. Without adequate training in medicines information resources and retrieval it is thought most likely that healthcare professionals will look for this information in places that they are most familiar with e.g. internet search engines.

Method

All enquiries (92) submitted to Medicines Information in January 2017 were selected for this audit; all enquiry levels were included. For each enquiry the search engine Google was used to see if an answer could be found. The search was limited to five minutes, using key words from the enquirer’s question, and using only resources found on the first page of the Google search. The parameters for this search were set to replicate the environment of a healthcare professional searching for an answer under pressure on a busy ward.

The information obtained from Google was then compared to the original MI answer.

Results

| Google could not provide an answer to the enquiry | 50% |
| Google partially answered the enquiry | 16% |
| Google incorrectly answered the enquiry | 18% |
| Google correctly answered the enquiry | 16% |

Discussion

It is possible to answer a small number of basic MI enquiries using Google. However if reputable good quality sites do not appear on the first results page, finding them often requires prior knowledge of their existence and/or strategic use of keywords to find them. It also requires the enquirer to use professional judgement and scrutiny to assess a site’s reputability.

In 66% of enquiries, no information was found, or retrieval of partial information only. This could increase the risk of patient harm if the enquirer does not then seek further advice or search other reputable resources.

In 18% of enquiries incorrect information was found on Google which could have directly led to patient harm. Incorrect answers are often due to poor quality resources being used. For example out of date documents and non-reputable websites written by non-experts.

In contrast to this, MI services can provide answers to enquiries of all complexities using multiple reputable evidence based resources and professional judgement to give tailored answers.
Access to MI services in England could be significantly reduced in the future and it is therefore important to highlight the risks associated with healthcare professionals sourcing their own information without adequate on-going MI training and access to reputable resources.

References

**Poster 29**

**UK Drugs in Lactation Advisory Service: Pilot study to assess outcome and impact**
Laura Kearney and Sarah Fenner, UK Drugs in Lactation Advisory Service, Trent and West Midlands Regional Medicines Information Centres

**Focal Points**
- To obtain end user’s views of UKDILAS using a survey, and to quantify outcome using the UKMi Impact Rating Scales.
- Overall rating of the service was given 5.73 (out of 6). The UKMi Impact Rating Scale for Patient Care and Outcome was 2.09 (average).
- UKDILAS has shown a positive impact on the management of patients and users are very satisfied with the service received.
- To roll out the pilot survey to the other UKDILAS site and to routinely monitor the Service in this way.

**Introduction**
To pilot a survey to establish user’s opinions regarding various aspects of the UK Drugs in Lactation Advisory Service, and to initiate gathering Patient Outcome and Safety data using the UKMi Impact Rating scales.

**Method**
57 enquiries were completed by the UKDILAS service at Trent Regional Medicines Information Centre between April and May 2017; 45 enquiries were suitable for analysis. Enquirers were sent a survey to gain opinion on various aspects of the Service, and any known patient outcome. Additionally, the same enquiry set was analysed using the UKMi Impact Rating Scales for Patient Care and Outcome, and Medicines Safety. Statistics from MiDatabank were also analysed.

**Results**
A survey response rate of 49% was obtained, with an overwhelming positive opinion: an overall score of 5.73 (out of 6) was given. 100% of respondents said the reply answered their question and contributed to management of the patient. 100% of respondents also said they would use the Service again. 27.3% of respondents said they had contacted the Service since this was their first-line resource. Other reasons for contacting the UKDILAS included: available resources not sufficient, reassurance, and complex patients.

Despite targeted questioning, the actual outcome for the patient was only given in 7 cases (15.6%), which will have affected the Impact Rating Scores. Nevertheless, an Impact Rating Score for Patient Care and Outcome averaged 2.09; and for Patient Safety averaged 1.91.

From MiDatabank statistics, 60% of enquiries received were answered within 4 hours. 66.7% were classed as level 2, and 31.1% were classed as Level 3. The service was contacted from a range of healthcare professionals from around the UK (57.8% being Pharmacists, of which 20% were calling from another MI Centre).

**Discussion**
UKDILAS is a quick, responsive service used by a range of healthcare professionals from around the UK. From those surveyed, the Service is held in high regard. The survey has identified that the advice given contributes to patient management. This has been further quantified using the UKMi Impact Rating Scale, which has shown a positive impact on Patient Care and Outcome, and Medicines Safety. Disappointingly, only 7 respondents were able to provide the actual outcome for the patient. UKDILAS therefore need to explore better ways in obtaining this data.

This is the first time UKDILAS enquiries have been analysed using the UKMi Impact Rating Scales. It is anticipated that this base line survey will be reviewed and rolled out to the other UKDILAS site, and this, along with the UKMi Impact Rating Scales, will now form a regular part of our own internal monitoring.
Vancomycin – Simpler and better with an ‘auto-prescription’

Steve Haigh. Medicines Information Centre, Sherwood Forest Hospitals, Mansfield, Nottinghamshire.

Abstract

Doctors find vancomycin a tricky drug to dose correctly
- A loading dose is needed to get levels up quickly, and this is based on body size.
- Maintenance doses are renal function dependent.
- The level you aim for is dependent on the infection being treated.

Historically our hospital guideline was similar to the BNF and advised to give 1g bd, unless over 65 years, in which case 1g od. Due to no loading dose, it took a while to get to steady state, and the levels were only in range 49% of the time, with very low levels (<5mg/l) 12% of the time and very high levels (>25mg/l) 2% of the time.

In 2013 the first step to improvement was to use a loading and maintenance dose regime recommended in a paper by Thomson1. This new guideline improved the “results in range” (10-20mg/L) from 49% to 60%.

The next step was to automate the prescribing using an Excel based calculator. The doctor enters the patient’s details; it automatically calculates the recommended doses and prints out the prescription. This improved “results in range” to 67%. It also prints a dose adjustment table for subsequent refinement based on future levels.

The third step was to abandon the dose recommendations in the Thomson paper and instead program Excel to use the formulas recommended in Winter2. This gave another improvement to 73% of levels in range, with only 1% of levels <5mg/l and 0.3% over 25mg/l.

Unfortunately MHRA rules dictate that although such calculators can be used in the owner’s hospital, if they are ‘placed on the market’ they are classed as medical devices and so need to go through a licensing process, thus hampering sharing of such items.

References

Categorisation of MI enquiries using patient safety, patient support and treatment effectiveness outcomes

Lorna Hand and Nina Lustman, Medicines Information Centre, Central Manchester Foundation Trust

Focal Points

- A retrospective audit was carried out to identify whether MI enquiries could be allocated to 3 new patient-focused categories, to determine overlap between categories, and the views of the MI team on the process.
- The majority of enquiries (92%) could be allocated at least 1 category. There was some overlap with 22% of enquiries fitting into more than 1 category.
- The MI team viewed the tool as easy to use but that there is a large degree of subjectivity and if this is done prospectively there were concerns over remembering consistently to categorise calls, as this is not a mandatory field on MiDatabank.

Introduction

UKMI have recently recommended categorising calls into patient safety; patient support and experience; or treatment effectiveness and outcomes. Centres are encouraged to categorise both by level 1/2/3 and the predominant patient centred theme. As a local MI centre, before implementing this prospectively we wished to find out how easy it is to use, what the level of overlap is between categories, and general limitations and advantages of the tool.

Method

A random sample of 50 past enquiries were categorised by a pharmacy student and an MI pharmacist. A secondary category was assigned if more than one category applied. Views were sought from the MI team on using this tool.

Results

The majority of enquiries (92%) could be allocated at least one patient-focused category (table 1). There was some overlap of categories with 22% of enquiries fitting into more than 1 category. Most of the "not applicable" enquiries were legal enquiries.

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of enquiries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient safety</td>
<td>38%</td>
</tr>
<tr>
<td>Patient support and experience</td>
<td>28%</td>
</tr>
<tr>
<td>Treatment effectiveness and outcomes</td>
<td>26%</td>
</tr>
<tr>
<td>Not applicable</td>
<td>8%</td>
</tr>
</tbody>
</table>

Overall the MI team thought that the tool is simple to use. However, because there is some overlap in categories it was felt that categorisation could be subjective and inconsistent amongst individuals in the team. It was not possible to categorise a call without knowing the answer to the enquiry. Furthermore, as the outcome of the calls are unknown it has to be assumed that advice is followed.

Discussions

New categorisation is easy to use and can be implemented prospectively for all enquiries in the future. There are limitations to adding this to the first page of MiDatabank as the category may change once the answer to the enquiry is known. Furthermore, uptake may be low as this is not a mandatory field. Low usage could be misinterpreted as a large proportion of not-applicable enquiries or create bias in allocation. It would be preferable for this to be a mandatory field on the final page of the enquiry to allow for accurate categorisation and interpretation of results.
**Aps and BZDs for BPSD on DC – is the intention clear?**

**Natasha Gearing, Sam Holloway. East Anglia Medicines Information Service (EAMIS), The Ipswich Hospital NHS Trust.**

**Focal Points**
- This audit aimed to assess the quality of information given on hospital discharge letters regarding newly initiated antipsychotic and benzodiazepines for delirium or BPSD.
- Very few discharge letters had a documented clear plan for review.
- Collaborative training sessions between MI and clinical pharmacists have been developed to increase ward staff awareness of the delirium policy, which includes information that should be given to care providers on discharge.

**Introduction**

EAMIS receives a number of enquiries from GPs and care homes regarding antipsychotics and benzodiazepines initiated for delirium and/or BPSD during admission to the trust. Antipsychotics are associated with an increased risk of cerebrovascular adverse events and greater mortality when used in patients with dementia. It is suggested that up to 66% of prescriptions for these medications may be inappropriate.

Ipswich Hospital Trust guidelines state that if a patient is to be discharged on a medication initiated for delirium, a clear plan for review should be documented on the discharge letter. 2 previous audits, CQC feedback and a number of enquiries from primary care suggest that this is not taking place. Without a planned, formal review these medicines are often continued for far longer than they are necessary – putting patient safety at risk.

The aim of this audit was to determine the quality and appropriateness of prescribing antipsychotics or benzodiazepines for delirium and/or dementia, and whether plans for formal review post-discharge are in place and communicated

**Method**

The audit protocol was redesigned from previous audits with a focus on information given at discharge. Patients who were issued either an antipsychotic or benzodiazepine for discharge were retrospectively identified via pharmacy dispensing software. Data was collected from patient records during their inpatient stay. Adherence to standards derived from the IHT delirium policy was measured.

**Results**

87% of patients received a specialist review before discharge. Despite this, just 9% of patients had a documented plan for review stated on their discharge letter. Every discharge letter examined had been validated by a pharmacist.

**Discussion**

The delirium policy clearly states that medications that are initiated for delirium should only be issued on discharge if there is a clear plan for review documented on the discharge letter. It is suspected that both pharmacy ward teams and clinicians have a poor awareness of the delirium policy which may partially explain why adherence to this standard is so low.

Ward staff need to be aware of the contents of the delirium guideline in order to safely prescribe these medications. Collaborative training sessions lead by MI and clinical pharmacists have been developed in order to raise awareness of the potential safety concerns surrounding prescription and supply of these medications. By working collaboratively, MI has supported the medicines optimisation agenda in an acute trust. We hope to improve the patient experience and patient safety in this vulnerable group of patients.

By increasing staff awareness of the delirium policy we hope to enhance information documented on the discharge letter therefore ultimately improving communication with primary care and care home environments.

**References**

Non-documented Medicines Information Queries received at Clinical Ward and Dispensary level.

Sarah Baig, Lead Pharmacist Medicines Information and Diabetes, Dudley Group NHS Foundation Trust.

Focal Points

- The objective of this research is to quantify the impact of a change to the medicines Information service on the workload of pharmacists at ward and dispensary level. The Carter report which suggests Medicines Information is an “infrastructure role” has led to a national review of the provision Medicines Information Services and discusses the benefits of centralising services. This audit looks at the impact of reduced MI service provision and its impact on clinical services.
- The main results indicate in a week 227 minutes were spent outside Medicines Information answering 42 queries. The majority of queries were taken on the professional checking bench in the dispensary and the peak time for queries was between 9-10.30am (21%), and 12-1.30pm respectively (21%). These queries varied between level 1 and 2 in complexity.
- The Medicines Information service provision impacts on the ward services and dispensary output as pharmacists have to answer their own queries. The advantage is that the pharmacists are empowered by being up skilled in Medicines Information and using Evidence Based Practice autonomously.

Introduction

The Carter review published on 5 February 2016, found significant variation in the number of prescribing pharmacists in hospitals and in the total pharmacy and medicines costs across acute trusts1. Currently at Dudley Group NHS Foundation Trust the Medicines Information Service operates for level 2 and 3 queries and pharmacists are trained to complete their own Level 1 medicines Information queries.

Method

Data collection took place over a one week period during opening hours. On call queries were excluded from the data collection. A data collection sheet was placed on all ward folders and the professional checking bench.

Results

<table>
<thead>
<tr>
<th>Average time spent on a query</th>
<th>Number of queries received</th>
<th>Number of queries referred to MI of 2/42 (5%)</th>
<th>Origin of queries of 20/42 – Nurse 15/42 – Doctor 3/42 – Patient 4/42 – Pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4 minutes</td>
<td>42</td>
<td>2/42 (5%)</td>
<td>20/42 – Nurse 15/42 – Doctor 3/42 – Patient 4/42 – Pharmacy</td>
</tr>
</tbody>
</table>

Discussion

The results indicate there is a significant impact on the workload of pharmacists. The Carter report describes Medicines Information as “infrastructure services” but highlights the need for patients to be given more information about their medicines. The provision of a patient helpline would support the recommendations from the Carter report to provide information to patients about their medicines. This audit has allowed extra staffing in Medicines Information and reinforcement of its crucial role. Medicines Information is a useful resource to empower pharmacists with the knowledge and resources to be able to deliver expert clinical care autonomously. In line with recommendations from the Carter report which suggests at least 80% of pharmacist resource is used for medicines optimisation, medicines governance and safety. Essentially pharmacists require the skills and expertise to execute queries using evidence based resources. UKMi can support trusts and higher education institutes through providing effective resources for training undergraduate and postgraduate level to encourage use of evidence based prescribing and empowering all pharmacists to successfully undertake Medicines Information queries whether they are working within the Medicines Information Service or at a ward or dispensary level.

References

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