Drivers for Change:
Influencing Policy, Practice and Education
10th to 11th April 2017

Health Services Research and Pharmacy Practice Conference 2017
The University of Nottingham

#HSRPP2017
Foreword

We are delighted to welcome you to Nottingham and the HSRPP 2017 conference. This year sees the 23rd anniversary of the HSRPP conference demonstrating its ongoing sustainability through the coming together of high quality research. Our venue will be on the main University Park campus set in 330 acres of multi-award winning parkland. University College Nottingham was established in 1877 and through a series of generous gifts from Sir Jesse Boot (founder of the Boots Company), the college moved to its present home on University Park officially opening in 1928. The University received its charter in 1948. Since then the University of Nottingham has become a truly global university with a total of 9 campuses, including our campuses in Semenyih in Malaysia and Ningbo in China.

The conference theme this year is “Drivers for Change: Influencing policy, practice and education”. In the UK and around the world the pressures on delivering high-quality health care are ever present. Effective health care delivery depends on highly trained, well informed practitioners to deliver health care in a robust health care infrastructure. We hope that through the conference we will be able to provide insight into all three of these key areas.

Our three keynote speakers are all leaders in their field and have been selected to inspire and challenge. Their presentations will cover understanding the patients’ experiences of medicines and the impact that this should have on practice. We will look at how policy changes have been implemented in the UK on primary care-based pharmacy services and the evidence for the contributions that pharmacy has delivered. Finally we will also look at the area of recruitment for health care and how we can select using non-academic attributes and values.

This year’s conference sees some new initiatives to build on the previous 22 successful HSRPP conferences. This year we especially welcome our undergraduates with a special discount rate. Undergraduates are the academics of the future and we hope you have a great conference experience. Those authors who will be presenting posters will also have the opportunity to deliver a one minute summary via a PechaKucha round-robin presentation and we also have a brand new submission stream the “Health Services Development Showcase” (HSDS). The HSDS has been designed to allow submission of work that might have previously missed our normal conference radar and we are delighted to welcome work this year from practitioners who are directly supporting patients and for breaking research, through a mentored submission process.

We would like to thank everyone who has contributed to making this conference a success including those who have submitted abstracts, the conference steering committee, Pharmacy Research UK, our keynote speakers, workshop leads, everyone at the University of Nottingham who has contributed and all of our sponsors.

We wish you an enjoyable and informative conference and an opportunity to meet good friends and make new ones. Welcome to Nottingham for the HSRPP conference!

Matthew Boyd and Helen Boardman

HSRPP 2017 Conference hosts
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### Sunday 9 April

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<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17.30 - 19.00</td>
<td><strong>Pre-conference research workshop ~ Alyson Brown</strong>&lt;br&gt;SoMe, so what: social media and eprofessionalism in pharmacy practice Cavendish Hall</td>
</tr>
<tr>
<td>19.00</td>
<td><strong>Pre-conference arrival ~ meet and greet</strong>&lt;br&gt;Cavendish Hall</td>
</tr>
<tr>
<td>20.00</td>
<td><strong>Pre-conference dinner</strong> in Nottingham (Nada Budaya, 20-22 Broad St, Nottingham)</td>
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### Monday 10 April

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09.15</td>
<td><strong>Conference Registration opens and refreshments</strong>&lt;br&gt;Foyer, Sir Clive Granger Building (No 16 on the university map)</td>
</tr>
<tr>
<td>10.30</td>
<td><strong>Welcome to HSRPP 2017 and the University of Nottingham</strong>&lt;br&gt;Dr Matthew Boyd, Conference Chair&lt;br&gt;Prof Sir David Greenaway, Vice Chancellor&lt;br&gt;Lecture Theatre A48 (LT A48)</td>
</tr>
<tr>
<td>11.00</td>
<td><strong>Keynote 1 ~ Professor Sue Ziebland</strong>&lt;br&gt;Understanding and using patient's experiences to change practice&lt;br&gt;LT A48</td>
</tr>
<tr>
<td>12.00</td>
<td><strong>Poster PechaKuche Session 1</strong> (one minute and one slide per speaker)&lt;br&gt;LT A48</td>
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<tr>
<td>12.20</td>
<td><strong>Oral Presentation Session 1</strong>&lt;br&gt;Stream 1 Consultation Skills&lt;br&gt;LT A48&lt;br&gt;Stream 2 Patient Experience I&lt;br&gt;LT A41&lt;br&gt;Stream 3 Health Promotion I&lt;br&gt;LT A40&lt;br&gt;Stream 4 Clinical Practice I&lt;br&gt;LT A39</td>
</tr>
<tr>
<td>13.10</td>
<td><strong>Lunch</strong>&lt;br&gt;Room A42 and foyer</td>
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<tr>
<td>13.45</td>
<td><strong>Attended Poster Session 1</strong>&lt;br&gt;Room A42 and main corridors</td>
</tr>
<tr>
<td>14.30</td>
<td><strong>Keynote 2 ~ Professor Justin Waring</strong>&lt;br&gt;The contributions (and contingencies) of community pharmacy to patient safety: learning from electronic prescribing, the New Medicine Service, and pharmacists in GP practices&lt;br&gt;LT A48</td>
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<tr>
<td>15.30</td>
<td><strong>Refreshment Break</strong>&lt;br&gt;Room A42 and foyer</td>
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<tr>
<td>16.00</td>
<td><strong>Oral Presentation Session 2</strong>&lt;br&gt;Stream 1 Pharmacy Education&lt;br&gt;LT A48&lt;br&gt;Stream 2 Safety&lt;br&gt;LT A41&lt;br&gt;Stream 3 Health Promotion II&lt;br&gt;LT A40&lt;br&gt;Stream 4 Clinical Practice II&lt;br&gt;LT A39</td>
</tr>
<tr>
<td>17.40</td>
<td><strong>Day 1 Close</strong></td>
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<tr>
<td>19.15</td>
<td><strong>Drinks Reception</strong>&lt;br&gt;Council Dining Room foyer, Trent Building</td>
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<tr>
<td>19.45</td>
<td><strong>Conference Dinner, followed by Networking and Entertainment</strong>&lt;br&gt;Senate Chamber and Great Hall, Trent Building</td>
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**Tuesday 11 April**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>08.15</td>
<td><strong>Day 2 Registration Opens</strong></td>
<td>Foyer, Sir Clive Granger Building (refreshments available in Room A42)</td>
</tr>
<tr>
<td>09.00</td>
<td><strong>Keynote 3 ~ Professor Fiona Patterson</strong></td>
<td>Lecture Theatre A48 (LT A48)</td>
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<tr>
<td></td>
<td>Selecting for non-academic attributes and values in the healthcare professions</td>
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<tr>
<td>10.00</td>
<td><strong>Poster PechaKuche II</strong> (one minute and one slide per speaker)**</td>
<td>LT A48</td>
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<tr>
<td>10.20</td>
<td><strong>Refreshment Break</strong></td>
<td>Room A42 and foyer</td>
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<tr>
<td>10.40</td>
<td><strong>Oral Presentation Session 3</strong></td>
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<td>Stream 1</td>
<td>LT A48</td>
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<td></td>
<td>Professional Development I</td>
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<td>Stream 2</td>
<td>LT A41</td>
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<td></td>
<td>Non-medical Prescribing</td>
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<td>Stream 3</td>
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<td>Patient Experience II</td>
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<tr>
<td></td>
<td>Clinical Practice III</td>
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<tr>
<td>11.30</td>
<td><strong>Workshops</strong></td>
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<td></td>
<td>Workshop 1</td>
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<tr>
<td></td>
<td>Social Media in Research</td>
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<td></td>
<td>Prof C Anderson</td>
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<td>University of Nottingham &amp; Dr R Joynes Pharmacy Research UK</td>
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<td></td>
<td>Workshop 2</td>
<td>Room A44</td>
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<td></td>
<td>Health Economics</td>
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<td></td>
<td>Prof R Elliott</td>
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<td>University of Manchester</td>
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<td></td>
<td>Workshop 3</td>
<td>Room A45</td>
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<td></td>
<td>Operationalising Research into Practice</td>
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<td></td>
<td>Prof T Thornley &amp; Dr C Kirkdale Boots UK</td>
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<td></td>
<td>Workshop 4</td>
<td>Room A31</td>
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<tr>
<td></td>
<td>Navigating the HRA ethics process</td>
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<td></td>
<td>J Harrison Change Manager Health Research Authority</td>
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<tr>
<td>13.00</td>
<td><strong>Lunch</strong></td>
<td>Room A42 and foyer</td>
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<tr>
<td>13.30</td>
<td><strong>Attended Poster Session 2</strong></td>
<td>Room A42 and main corridors</td>
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<tr>
<td>14.00</td>
<td><strong>Oral Presentation Session 4</strong></td>
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<td>Prescribing</td>
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<td>Patient Experience III</td>
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<td>Stream 4</td>
<td>LT A39</td>
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<tr>
<td></td>
<td>Clinical Practice IV</td>
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<tr>
<td>15.40</td>
<td><strong>Closing remarks, prizes and handover</strong></td>
<td>LT A48</td>
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<td>16.00</td>
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**Keynote Speakers**

**Professor Sue Ziebland**

Sue Ziebland is Professor of Medical Sociology and Director of the Health Experiences Research Group (HERG), in the Nuffield Department of Primary Care health Sciences. She is also a senior research fellow at Green Templeton College and in 2013 she was appointed as an NIHR Senior Investigator.

Sue’s background is in medical sociology, with increasing focus on qualitative research approaches. Sue has worked as a researcher in the academic, NHS and voluntary sectors and has published over 150 papers and chapters in social science and health publications. Sue was invited (by Ann McPherson) to be involved in the DIPEX (now Healthtalk) project in 1999 when it was still at the kitchen table stage. She spent a considerable (and perhaps not surprising) amount of 1999 getting the projects through a national research ethics committee. Since then Sue has worked closely with colleagues in HERG and the DIPEX charity to develop the methods used in the projects and raise funding for the research.

Healthtalk has been emulated worldwide within the DIPEX International Collaboration, which currently includes Japan, Korea, Australia, Norway, Netherlands, Germany, Czech Republic, Spain, Canada, Israel and USA. HERG specialise in qualitative methods of understanding health experiences and using the understanding for experience-based health information, clinical education and service improvements.

Sue’s other current research interests include how the internet is changing health care, through access to health information, through the opportunity to comment on services and how the web is changing patients relationships with health professionals, including how they consult with GPs. International work includes a comparative narrative interview study of help seeking and health system response in Sweden, Denmark and England and projects with the DIPEX International Collaboration.

Sue tweets as @sueziebland
Professor Justin Waring

Justin Waring is Professor of Organisational Sociology and Associate Dean for Research at Nottingham University Business School. He is also Founding Director of the Centre for Health Innovation, Leadership and Learning. His work examines the changing organisation and governance of healthcare systems, especially in relation to care quality and safety. Justin has written extensively on patient safety, new service models and the implementation of organisational innovations.

Justin tweets as @dr_waring

Professor Fiona Patterson

Fiona Patterson is a leading expert in the field of assessment, selection and innovation in organisations. She is the founding Director for Work Psychology Group, a research-led consulting practice located in the UK and Australia, providing advice to public and private sector organisations internationally. She is a Visiting Researcher affiliated to the University of Cambridge and she continues as a Visiting Professor to Cass Business School. In her early career, Fiona was Head of Assessment at The Boots Corporation Plc and held a similar role at Ford Motor Company Limited (Global). Fiona publishes regularly in the highest-ranking journals in healthcare (e.g. British Medical Journal, Medical Education) and she has published over 90 peer reviewed articles.

In recognition of her work she was appointed as Honorary Professor at the University of Nottingham Medical School in 2010 and in 2012, Fiona was awarded an Honorary Fellowship of the Royal College of General Practice, which is the highest award the College can bestow. In 2013, she won the international Association for the Study of Medical Education’s (ASME) Silver Quill award for the highest impact research publication in Medical Education. Also in 2013, she won the annual British Psychological Society’s Occupational Psychology Academic Contribution to Practice award. In 2014, alongside her collaborators, Fiona launched a new international research network for selection for the healthcare professions with contributors from around the globe. Building on this work, Fiona is currently guest editing a special issue of Advances in Health Science Education focusing on the latest research in selection into healthcare to be published in 2017.

The Work Psychology group tweets as @WorkPsychGroup
# Oral Presentations

## Oral Presentation Session 1

**Monday 12.20 – 13.10**

### Consultation Skills

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>12.20</td>
<td>Facilitating personal goal setting through community pharmacy: does it encourage patient activation?</td>
<td>MJ Twigg, C Kirkdale, G Barton, D Wright, T Thornley</td>
</tr>
<tr>
<td>12.45</td>
<td>A qualitative study of community pharmacists’ clinical decision-making skills</td>
<td>V Sinopoulou, P Summerfield, P Rutter</td>
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### Patient Experience I

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>12.20</td>
<td>A patient satisfaction survey of a new cancer satellite pharmacy</td>
<td>N Patel, N Okonkwo, C Henriquez, C Baldwin, N Stoner</td>
</tr>
<tr>
<td>12.45</td>
<td>Attitudes towards medicines-related information and support: a qualitative study of hospital in-patients</td>
<td>JC Veeren, M Weiss, A Taylor</td>
</tr>
</tbody>
</table>

### Health Promotion I

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>12.20</td>
<td>Outreach activity: an evaluation of healthy living assessments provided by pharmacy students to the local community</td>
<td>C Langran, R Hannan, B Greenland, P Donyai</td>
</tr>
<tr>
<td>12.45</td>
<td>Now's the time: Scoping the possible involvement of local pharmacies in a community fitness promoting project using qualitative interviews</td>
<td>T Thomas, AS Arman, N Johnston, AMR Miah</td>
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### Clinical Practice I

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>12.20</td>
<td>Pharmacists’ perceptions of the barriers and facilitators to successful medicines management for people with dementia in primary care</td>
<td>MMcGrattan, H Barry, C Ryan, J Cooper, AP Passmore, AL Robinson, GMolloy, CDarcy, HBuchanan, CHughes</td>
</tr>
<tr>
<td>12.45</td>
<td>Nurses’ and caregiver's experiences of recognising and managing pain in people with dementia in residential care in New Zealand: a qualitative study</td>
<td>JTordoff, JWei, ASmith</td>
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</table>
### Oral Presentation Session 2
**Monday 16.00 – 17.40**

#### Pharmacy Education
**LT A48 – Session Chair: Dr Sue Chan**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>16.00</td>
<td>Prepared to prescribe? : Pharmacy trainees’ experience of, and performance in, the Prescribing Safety Assessment</td>
<td>G Fleming, J Hardisty, K Davison, P Hambleton, L Statham, P Wright, S Maxwell, L Bollington, A Littlewood, N Brown, K Maddock, J Silcock</td>
</tr>
<tr>
<td>16.25</td>
<td>Can an extended immersive pharmacy simulation game influence students’ perceptions of their professional competencies?</td>
<td>D Hope, G Rogers, G Grant, M King</td>
</tr>
<tr>
<td>16.50</td>
<td>An exploratory study of ethical dilemmas faced by alumni from one school of pharmacy</td>
<td>M Allinson, P Black</td>
</tr>
<tr>
<td>17.15</td>
<td>A qualitative investigation of peer assisted learning and MPharm student volunteers at the University of Portsmouth</td>
<td>H Hull, J Amin, H Ghafoor, A Jaffer, A Sachoo, D Brown, J Portlock.</td>
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#### Safety
**LT A41 – Session Chair: Dr Sarah Slight**

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>16.00</td>
<td>Policy and practice mismatches: a study of intravenous infusion administration procedural and documentation violations across 14 hospitals in England</td>
<td>D Furniss, I Lyons, A Blandford, BD Franklin</td>
</tr>
<tr>
<td>16.25</td>
<td>What is the burden of medication errors and adverse drug events in mental health hospitals? A systematic review</td>
<td>G Alshehri, R Keers, D Ashcroft</td>
</tr>
<tr>
<td>16.50</td>
<td>Contributory factors to patient safety incidents when patients are discharged from hospital with medicines</td>
<td>B Fylan, A Blenkinsopp, D Naylor, G Armitage</td>
</tr>
<tr>
<td>17.15</td>
<td>Understanding the nature and quality of medication error related incident reports in two English prisons: a retrospective evaluation over a two year period</td>
<td>RN Keers, P Patel, J Dunlop, P Brown, DM Ashcroft</td>
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#### Health Promotion II
**LT A40 – Session Chair: Dr Helen Boardman**

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>16.00</td>
<td>Promoting and implementing self-care: A mixed methods study of offshore workers and remote healthcare practitioners</td>
<td>K Gibson Smith, V Paudyal, S Klein, F Quinn, D Stewart</td>
</tr>
<tr>
<td>16.25</td>
<td>Contraceptive use and non-use among students at the University of Portsmouth: a quantitative study</td>
<td>H Hull, B Shah</td>
</tr>
<tr>
<td>16.50</td>
<td>The behaviours and experiences of the community pharmacy team on the provision of multicompartment compliance aids</td>
<td>K MacLure, T McIntosh, J MacLeod, G Gray, C McDonald, D Stewart</td>
</tr>
<tr>
<td>17.15</td>
<td>Factors affecting self-management of minor ailments in Omani healthcare</td>
<td>M Al-Juma, C Anderson, MJ Boyd</td>
</tr>
<tr>
<td></td>
<td>Study Title</td>
<td>Authors</td>
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<tr>
<td>16.00</td>
<td>Exploring the diagnosis and management of dermatitis and acne by community pharmacists</td>
<td>R Tucker, K MacLure, V Paudyal, D Stewart</td>
</tr>
<tr>
<td>16.25</td>
<td>The role of community pharmacists in CVD prevention; a UK study to establish their views</td>
<td>A Peletidi, S Nabhani-Gebara, R Kayyali</td>
</tr>
<tr>
<td>16.50</td>
<td>Pharmacy staff perspectives on the role of community pharmacy in the provision of first aid and</td>
<td>M Liaskou, S White, G Moss, N Ratcliffe, J Cook</td>
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<td>responding to emergencies: a qualitative study</td>
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<tr>
<td>17.15</td>
<td>Community pharmacy personnel experiences of providing pharmaceutical care for older people</td>
<td>K Killick, T Kroll, M Watson, L Macaden, A Smith, K Stoddart</td>
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<td></td>
<td>with sensory impairment on polypharmacy</td>
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**Oral Presentation Session 3**  
*Tuesday 10.40 – 11.30*

<table>
<thead>
<tr>
<th>Professional Development I</th>
<th>LT A48 – Session Chair: Tom Gray</th>
</tr>
</thead>
</table>
| **10.40**                   | Identifying the challenges in the transition from trainee to registered community pharmacist  
E Magola, SC Willis, EI Schafheutle |
| **11.05**                   | Does the design of the current pre-registration and post-registration training adequately prepare pharmacy technicians for their current clinical role within mental health?  
ID Maidment, C Hallows, H Macfarlane |

<table>
<thead>
<tr>
<th>Non-medical Prescribing</th>
<th>LT A41 – Session Chair: Prof Andy Husband</th>
</tr>
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</table>
| **10.40**                   | What supports hospital pharmacist prescribing? – A cross-sectional survey in Scotland  
J Fisher, M Kinnear, F Reid, C Souter, D Stewart |
| **11.05**                   | Influences on prescribing decisions by non-medical prescribers: a qualitative exploration  
T McIntosh, D Stewart, K Forbes-McKay, D McCaig, S Cunningham |

<table>
<thead>
<tr>
<th>Patient Experience II</th>
<th>LT A40 – Session Chair: Dr Sarah Wilson</th>
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| **10.40**                   | A nationwide questionnaire study of patient satisfaction with the Medicines Use Review pharmacy service  
P Donyai, A Hindi, N Patel, C Parkhurst |
| **11.05**                   | A survey to establish Greater London public perceptions of the use of digital technology and the role of the pharmacist when looking for health information  
P Crilly, S Jair, Z Mahmood, A Moin Khan, A Munir, I Osei-Bediako, M Samir, R Kayyali |

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<thead>
<tr>
<th>Clinical Practice III</th>
<th>LT A39 – Session Chair: Dr Roger Knaggs</th>
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| **10.40**                   | The development of an evidence-based consultation guide designed to support patients prescribed capecitabine for colorectal cancer: A qualitative study  
E Kitetere, V Auyeung, C Oakley, K Kantilal |
| **11.05**                   | Key stakeholders and eHealth leads’ perceptions, experiences, and vision towards the implementation of electronic systems for medicines in hospitals in Ireland: a qualitative study using Normalization Process Theory  
D Hogan-Murphy, AP Tonna, A Strath, D Stewart, ITS Cunningham |
### Oral Presentation Session 4
Tuesday 14.00 – 15.40

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<tr>
<th><strong>Professional Development II</strong></th>
<th>LT A48 – Session Chair: Dr Nilesh Patel</th>
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</table>
| 14.00                           | Revalidation in pharmacy: Exploring the perception of pharmacists on the methods and sources of evidence for the revalidation of pharmacists  
S Visram, S Maurya, M Alani |
| 14.25                           | Managing the healthcare provider and retailer divide in community pharmacy – it all comes back to the culture!  
SL Scahill, M Tracey, J Sayers, L Warren |
| 14.50                           | Healthcare regulatory organisation and professional body guidelines on the use of social media: a systematic review of eprofessionalism  
A Brown, K MacLure, D Stewart, B Addison, S. Pedersen |
| 15.15                           | Trainee perceptions on the usefulness of virtual patients and other support during the pre-registration year  
J Thompson, S White, S Chapman |

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<tr>
<th><strong>Prescribing</strong></th>
<th>LT A41 – Session Chair: Prof Christine Bond</th>
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</table>
| 14.00                           | Economic impact of potentially inappropriate prescribing in older people: a Markov modelling study  
F Moriarty, K Bennett, C Cahir, T Fahey |
| 14.25                           | Correlation between opioid dispensing and opioid-related deaths among Clinical Commissioning Groups in England  
T-C Chen, M Kerry, L-C Chen, RD Knaggs |
| 14.50                           | The types and causes of prescribing errors generated from electronic prescribing systems: a systematic review  
CL Brown, HL Mulcaster, KL Triffitt, DF Sittig, J Ash, K Reygate, AK Husband, DW Bates, SP Slight |
| 15.15                           | Prevalence of medicines-related risk factors in frail elderly patients with frequent hospital readmission  
V Cheong, J Silcock, J Sowter, N Hamilton |
### Patient Experience III
LT A40 – Session Chair: Dr Parastou Donyai

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>14.00</td>
<td>The art of prioritising – people’s experiences of dealing with multiple medicines for multimorbidities</td>
<td>C Anderson, J Evans, J M Valderas, P Bower, S Campbell, G Daker-White</td>
</tr>
<tr>
<td>14.25</td>
<td>Gender and everyday narratives of pain: an interdisciplinary corpus-assisted linguistic investigation</td>
<td>K Ryan, S Genovese, S Jaworska</td>
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<tr>
<td>14.50</td>
<td>Engaging patient and public’s perspectives in the developing of a smartphone application to optimising opioid utilisation in patients with persistent pain</td>
<td>L-C Chen, KM Wells, RD Knaggs</td>
</tr>
<tr>
<td>15.15</td>
<td>Comparison of the ease of use of four typical inhaler devices in people with and without rheumatoid arthritis</td>
<td>Y Kafaei Shirmanesh, M D Jones</td>
</tr>
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</table>

### Clinical Practice IV
LT A39 – Session Chair: Dr Cathal Cadogan

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>14.00</td>
<td>Community pharmacy customer’s views of inter-professional record sharing during flu vaccination consultations</td>
<td>Y Karsan, MJ Boyd, HF Boardman</td>
</tr>
<tr>
<td>14.25</td>
<td>An exploration of the use of Twitter hosted social media networks by pharmacists</td>
<td>A Brown, K MacLure, D Stewart, B Addison, S Pedersen, J Andrews</td>
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<tr>
<td>14.50</td>
<td>The perceived benefits and challenges for pharmacists providing a Domiciliary (Advanced) Medicines Use Review Service?</td>
<td>N Murdock, M Brennan</td>
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<tr>
<td>15.15</td>
<td>The safety and continuity of medicines at transitions of care for people with heart failure</td>
<td>B Fylan, G Armitage, L Breen, P Gardner, H Ismail, I Marques, A Blenkinsopp</td>
</tr>
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### Poster Presentations

#### Poster Presentation Session 1

**Monday 13.45 – 14.30**

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<tr>
<th>Poster Walk 2 – Facilitator: Dr Catriona Matheson</th>
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<th>Poster Walk 3 – Facilitator: Dr Nilesh Patel</th>
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<tr>
<td>Poster Walk 4 - Facilitator: Dr Cris Ryan</td>
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| **61** | Identification of risk (prognostic) factors for medication related problems (MRPs) occurring during hospital admission: a survey of healthcare professionals and patient/public representatives  
C Geeson, BD Franklin, L Wei |
| **62** | Cost effectiveness evaluation of Medicines Reconciliation (MR) by a highly specialist pharmacist within 4 hours of patient attendance to the Emergency Department (ED)  
H Henderson, D Steinke, M Hodgins |
| **63** | A qualitative study to investigate the implementation of a pharmacist lead post-hospital discharge domiciliary medicines review service  
Z Nazar, H Nazar |
| **64** | A systematic review of the experiences and views of health care staff about the impact of health information technology on the follow-up of abnormal patient test results  
A Mohammed, A Bagalagel, A Noor, S Forrest, A Husband, S Slight |
## Poster Presentation session 2
**Tuesday 13.30 -14.00**

### Poster Walk 5 - Facilitator: Dr Stephanie Bridges

| 66 | A systematic review of the effect of surgical errors on operating theatre staff  
N Serou, L Sahota, AK Husband, S Forrest, K Moorthy, SP Slight |
| 67 | Can a Facebook networking group support and encourage Health Champions to continue their involvement in Healthy Living Pharmacy activities?  
Z Nazar, J Portlock, D Brown, P Rutter |
| 68 | An exploration of chief pharmacists’ attitudes and perceptions towards hospital pharmacists undertaking research  
J Shenton, R Fitzpatrick, A Gifford |

### Poster Walk 6 - Facilitator: Prof Andy Husband

| 69 | Prescribing and dispensing functions in medicine and pharmacy and the potential for pharmacist prescribing in Nigeria: a cross-sectional survey of pharmacists’ views  
A Auta, B Strickland-Hodge, J Maz |
| 70 | Demographics of people with Chronic Obstructive Pulmonary Disease in the Clinical Practice Research Datalink in 2014  
K Sonnex, R Knaggs |
| 71 | The Guideline Adherence Index as an objective evaluator of appropriate prescribing in heart failure: a meta-analysis  
S El Hadidi, E Darweesh, S Byrne, M Bermingham |
| 72 | Correlation between socioeconomic status and opioid utilisation in primary care in different metropolitan cities of England  
M Kerry, T-C Chen, L-C Chen, RD Knaggs |

### Poster Walk 7 - Facilitator: Dr Claire Mann

| 73 | A quantitative survey of the MPharm peer assisted learning programme at the University of Portsmouth  
H Hull, H Broome, D Brown, J Portlock |
| 74 | Antimicrobial susceptibility of long term care facility and general practice urine samples in the greater Cork region; a multidisciplinary project  
A Fleming, L Barry, S Byrne, M Prentice |
| 75 | An exploratory study: healthcare professionals’ perceptions of pharmaceutical care in human immunodeficiency virus (HIV) and hepatitis C (HCV) management  
DA Ogden, HA Leake, S Reeves |
| 76 | Are student’s accepting of an all-day conference delivered model of Interprofessional Learning (IPL) on antimicrobial stewardship and patient safety  
J Hardisty, C Guilding, L Statham, J Matthan, E Randles, A Green, R Bhudia, C Thandi, L Scott |
| 77 | A systematic review of diet and lifestyle interventions in newly diagnosed, medication naïve patients with type 2 diabetes  
T Katangwe, D Bhattacharya, MJ Twigg |
| 78 | The opinions of Gold Coast pharmacy staff concerning increased availability of non-prescription medicines: a qualitative study  
M King, F Kelly, A Mey, J Townshend, L Baumann-Birkbeck, G Grant, P Woods, D Hope |
| 79 | Scottish Adherence to Antihypertensive Medication in the Elderly (SAAME): a community pharmacy structured interview based pilot study  
K MacLure, G Cousins, P Dillon, S Peddie, A Power, D Stewart |
| 80 | Quality of reporting of randomised controlled trials in pharmacy practice journals: Preliminary findings of a systematic review  
M A Hadi, M E Elrggal |
## Health Services Development Showcase

**HSDS Poster Walk Session 1**

**Monday 13.45 – 14.30**

### Poster Walk HSDS A – Facilitator: Tom Gray

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<th>Authors</th>
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<tr>
<td>82</td>
<td>On-call pharmacists’ perceptions of the provision of out-of-hours medicines advice using semi-structured interviews</td>
<td>M P Cheeseman, P Rutter</td>
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<td>83</td>
<td>A qualitative study exploring community pharmacists’ experiences of interventions that support medication adherence.</td>
<td>A P Rathbone, A Todd, K J Amie, A Husband</td>
</tr>
<tr>
<td>85</td>
<td>A survey of healthcare professionals’ views on community pharmacy services for patients with cancer pain.</td>
<td>Z Edwards, A Blenkinsopp, M I Bennett</td>
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<td>86</td>
<td>Community pharmacy questionnaire to guide the development of a hospital discharge referral system using PharmOutcomes</td>
<td>A Spurling, S Travis, N Hunter</td>
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### Poster Walk HSDS B – Facilitator: Dr Helen Boardman

<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>87</td>
<td>A feasibility study of a theory-based intervention to improve appropriate polypharmacy for older people in primary care</td>
<td>C A Cadogan, C Ryan, J J Francis, G J Gormley, P Passmore, N Kerse, C M Hughes</td>
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<tr>
<td>88</td>
<td>Quantifying the rate of prescribing of high risk medicines for frail patients in primary care, a retrospective study</td>
<td>N Barnes, H Herrera, B Walsh, M Johnson</td>
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<td>89</td>
<td>A retrospective audit of polypharmacy and medication regimen complexity and their association with exacerbations in patients with bronchiectasis</td>
<td>M O'Sullivan, C M Hughes, C Ryan, D G Downey</td>
</tr>
<tr>
<td>90</td>
<td>Evaluation of the medicines management teams’ effect on reducing medication related patient harm and improving medication related patient safety</td>
<td>G Gookey, S Sadler, K Chappell, N Zuzarte, S M ir</td>
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<tr>
<td>91</td>
<td>Developing a SystmOne prescribing formulary to improve safety and increase patient information in GP practices</td>
<td>G Gookey, S Sadler, K Chappell, N Zuzarte, S M ir, J Laws</td>
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<tr>
<td>92</td>
<td>An audit of pharmacist independent prescribing activity as part of the GP pharmacy transformation pilot project in Derbyshire and Nottinghamshire.</td>
<td>G Ellis</td>
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### HSDS Poster Walk Session 2
Tuesday 13.30 -14.00

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<tr>
<th>Poster Walk HSDS C - Facilitator: Dr Sue Chan</th>
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<tr>
<td>93. School to university transition – the views of MPharm students</td>
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<tr>
<td>F Stöckel, C De Matteis</td>
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<tr>
<td>94. A survey to determine MPharm students' views on the role of the emergency department pharmacist.</td>
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<tr>
<td>H Hull, A Dempster, N Warren</td>
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<td>95. A new approach to NHS pre-registration pharmacist recruitment - a pilot study</td>
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<tr>
<td>C Hough, A Hollister</td>
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<td>96. Piloting a panel review of competence in the pre-registration pharmacy year</td>
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<td>A Hollister, C Hough</td>
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<tr>
<th>Poster Walk HSDS D - Facilitator: Alyson Brown</th>
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<tr>
<td>97. Can large scale randomised controlled trials be delivered within a community pharmacy environment in a timely, efficient and robust manner?</td>
</tr>
<tr>
<td>CL Kirkdale, A Bonus, D Berry, J Gladstone, J M Jachimowicz, T Thornley</td>
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<tr>
<td>98. A survey to investigate patients’ inhaler technique: An MPharm research project.</td>
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<tr>
<td>H Hull, N Gilchrist, R Kanabar, M Snelgrove, N South</td>
</tr>
<tr>
<td>99. Using a medication waste audit tool, targeted action plan and good practice guide to reduce avoidable medication waste in care homes</td>
</tr>
<tr>
<td>S Bulmer</td>
</tr>
<tr>
<td>100. Improving the management of behaviour that challenges associated with dementia in care homes: a feasibility study (MEDREV; Medication Review).</td>
</tr>
<tr>
<td>ID Maidment, N Campbell, N Seare, E Randle, J Deeks, R Shaw (on behalf of the MEDREV team)</td>
</tr>
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</table>
SoMe, so what: social media and eprofessionalism in pharmacy practice
Alyson Brown, Lecturer in Pharmacy Practice, Robert Gordon University, Scotland
Dr Katie MacLure, Senior Research Fellow & Lecturer, Robert Gordon University, Scotland

Background
Of the limited number of studies reporting the use of social media (SoMe) by healthcare professionals, many have concluded there is a need for professional guidance on appropriate online behaviours. Findings indicate particular concerns relating to fitness to practise, framed by high profile cases of registered healthcare professionals being subject to investigation and potentially disciplinary procedures, due to their social media behaviour. There is a need to describe clearly what appropriate social media online behaviour – increasingly referred to as eprofessionalism - looks like within the pharmacy context in order to establish whether social media has a role within pharmacy practice. Although eprofessionalism has been defined as ‘the attitudes and behaviours (some of which may occur in private settings) reflecting traditional professionalism paradigms that are manifested through digital media’, the reality of this in the context of healthcare is under-researched.

Aim
The aim of this workshop is to provide a forum for pharmacists to discuss and debate issues around the use of SoMe with a view to characterising the acceptable boundaries of eprofessionalism in pharmacy practice.

Learning Objectives
By the end of the session, attendees will be able to:
- Describe professional guidance made available to healthcare professionals designed to support appropriate use of SoMe
- Define ‘eprofessionalism’ as it applies to pharmacy practice
- Consider the issues of ‘appropriate’ and ‘inappropriate’ SoMe behaviours as they relate to pharmacy practice

Content
The moderators will encourage interaction and participation through small group based activities using a range of well-developed and tailored workshop materials. Findings from this workshop will inform ongoing research surrounding the use of SoMe and eprofessionalism in pharmacy practice.
Structure

• Introduction (10 minutes)

An overview of SoMe and the structure of the workshop, including a brief presentation of the findings from a systematic review carried out by the moderators on SoMe professional guidance for registered healthcare professionals.  

• Activities (facilitated in small groups)

  ◦ Icebreaker (10 minutes)

Participants will consider what SoMe platforms they use and the frequency and purpose for which they primarily use the platforms.

  ◦ What is eprofessionalism? (10 minutes)

In small groups, participants will consider the term eprofessionalism and describe what it means to them and pharmacy practice. Ideas will be collated on flip charts.

  ◦ What is ‘appropriate’? (30 minutes)

Participants will be given examples of SoMe communication from the public domain and asked to consider whether these are appropriate or inappropriate and whether any might lead to professional sanctions.

  ◦ Characteristics of ‘appropriate’ online behaviour (20 minutes)

Participants will use building blocks to characterise and explore the underpinning values of eprofessionalism for appropriate online behaviour.

  ◦ Summary and feedback (10 minutes)

A brief summary of the key findings from the workshop, promoting appropriate eprofessionalism and collating key messages to inform suggested professional guidance.

References


Workshop 1 – Lecture Theatre 48

“It started with a tweet” - using social media to produce research impact
Prof Claire Anderson, Professor of Social Pharmacy, University of Nottingham School of Pharmacy &
Dr Rachel Joynes, Trust Director, Pharmacy Research UK

Background
Social media (SoMe) has become a critical communication tool for academics and practitioners across all sectors and disciplines. Social media can be used to increase awareness about research, publicise your university or institution, and raise discussion or debate or to recruit research participants. Social media platforms like Twitter, blogs, and networking sites such as Facebook can also be used as a research tool or basis for research.
Building a digital presence also offers a way of staying up to date with the latest activity in your field of interest and are now part of personal and professional development and offer key communicating pathways to connecting with your peers.

Aim
This workshop will focus on how SoMe can be used to build profile, presence and strengthen the impact of your work.

Why you should attend this session
This interactive workshop will provide introductory information about the use of social media in research, enabling participants to make informed decisions about how best to use social media moving forward.

Learning Objectives
During this workshop you will learn about:
- building a digital presence
- building a targeted profile
- engaging your audience in meaningful conversations
- identifying and engaging with research influencers
- thinking before you post- the importance of SoMe etiquette and what happens when it all goes wrong
- what are altmetrics and how they work to promote your research

Participants will leave this workshop with a full understanding of how to engage in social media and how to make it work for them in their day to day life and as part of their career.
Workshop 2 – Room A44

How to include health technology assessment and economic evaluation in your research proposal
Prof Rachel Elliott, Professor in Health Economics, Division of Population Health, Health Services Research & Primary Care, University of Manchester

This interactive session provides pragmatic support for researchers wanting to include health technology assessment or economic evaluation in a research proposal. This session will be useful for those designing projects for research programs such as NIHR RFPB, HSDR and HTA. We will cover the components of an economic evaluation, data requirements, analytical approaches and resources required. We will examine how we meet published design criteria and see how this aspect of a research project should be integrated, rather than added as a bolt-on.

Workshop 3 – Room A45

Research to inform practice
Prof Tracey Thornley, Boots UK Ltd and School of Pharmacy, University of Nottingham, Nottingham, UK
Dr Charlotte L Kirkdale, Boots UK Ltd

Aim
To understand how to improve the impact of research on pharmacy practise.

Have you ever considered what happens to your research after it is published and what changes arise as a result? The academic Research Excellence Framework (REF) process takes into account impact factor of publications, but is also becoming more focused on real-world impact. As healthcare professionals the biggest impact we can have is in improving patient outcomes, regardless of practice setting. We will explore a framework that can help identify and support using outcomes evidence and research to influence and inform pharmacy practise.

This session will benefit delegates by making them think about the wider context and impact of their research.

Workshop 4 – Room A31

HRA Approval - a practical guide to the new process
Jen Harrison, Health Research Authority Change Manager

Health Research Authority (HRA) Approval is the process for applying for approvals for all project based research in the NHS in England. It was fully implemented in April 2017. This session, led by Jen Harrison Change Manager for the HRA Approval programme, will provide an overview of the HRA Approval process and how it has evolved over the past year and look at future developments.

Using feedback and experience of the HRA Assessment team reviewing applications, the session will provide practical hints and tips on making successful, high quality applications to the HRA. The session will also explore best practice for working with NHS organisations to ensure your study is set up quickly and smoothly. Delegates who have submitted an application through the new process will be asked to discuss and share their experiences. Delegates will benefit from the session if they have, or are looking to undertake research in the NHS. They will be able to discuss the application process and ask questions direct to the HRA to enable a successful application and have the opportunity to share experiences.
## Venue Information

### Car Parking
Car parking is complimentary in designated conference parking zones (Cavendish Hall and Main Visitors Car Park) and requires a parking permit to be displayed in your car. A parking permit has been emailed to all delegates prior to attendance. Copies are also available from the conference registration desk.

### In an Emergency
If you feel unwell or need assistance during the conference please make yourself known to any of the conference team who will summon appropriate help.

At all other times please contact the University of Nottingham support services
- 24-hour security team 0115 951 3013 (internal 13013)
- 24-hour ambulance/fire/police 0115 951 8888 (internal 8888)

### Internet Access
Wi-Fi access is available to all conference delegates free of charge. To access the guest wireless, please follow the instructions at [http://www.nottingham.ac.uk/it-services/connect/wifi/visitors.aspx](http://www.nottingham.ac.uk/it-services/connect/wifi/visitors.aspx). Select UoN-guest from the list of available networks and navigate to an unsecure website such as [www.bbc.co.uk](http://www.bbc.co.uk). Complete the sign up details to give access throughout the conference.

Visitors from institutions who are part of the global eduroam initiative can connect to the eduroam network. Most users connect entering their access details in the format username@university.ac.uk (e.g. pazabc@nottingham.ac.uk) and entering their normal password. Details of how to connect please follow the instructions at [http://www.nottingham.ac.uk/it-services/connect/wifi/academics.aspx](http://www.nottingham.ac.uk/it-services/connect/wifi/academics.aspx).

### Key Locations (see campus map)
- Conference venue is in the Sir Clive Granger Building, 16 on the map.
- Accommodation is in Cavendish Hall and the Orchard hotel on the west side of the campus.
- Conference dinner is in the Trent building, 11 on the map.

### Luggage
Bags and suitcases can be left in the designated area at the back of room A42. The area will be monitored, however items are left at your own risk.

### Photography
A photographer will be in attendance throughout the conference. If you do not wish to feature in any of the photos of the event, please make yourself known to the photographer.

### Registration
Registration will be in the foyer area of the Sir Clive Granger Building. The registration desk will be staffed throughout the conference. If you have any questions during the conference please do not hesitate to ask.

Conference staff can be identified as they will also have green Nottingham School of Pharmacy lanyards.

### Toilets
Facilities can be found near the front of the Sir Clive Granger Building. Please follow the signs.

### Walking App
Designed to help you find your way around campus, Nottingham Conference’s FREE walking app can be downloaded to your phone via the App Store or Google Play Store. Search for “Nottingham Conferences Walking App”
Conference Venue Map - Sir Clive Granger Building
# 2017 HSRPP Conference Organisation

## Local Organising Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Institution</th>
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<tbody>
<tr>
<td>Matthew Boyd</td>
<td>Chair, University of Nottingham</td>
</tr>
<tr>
<td>Helen Boardman</td>
<td>Vice-chair, University of Nottingham</td>
</tr>
<tr>
<td>Saja Alnahar</td>
<td>University of Nottingham</td>
</tr>
<tr>
<td>Loraine Buck</td>
<td>University of Nottingham</td>
</tr>
<tr>
<td>Victoria Evans</td>
<td>Pharmacy Research UK</td>
</tr>
<tr>
<td>Rachel Joynes</td>
<td>Pharmacy Research UK</td>
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<tr>
<td>Yasmin Karsan</td>
<td>University of Nottingham</td>
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<tr>
<td>Ardeshier Mofidi</td>
<td>Pharmacy Research UK</td>
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<tr>
<td>Kate Woode</td>
<td>Pharmacy Research UK</td>
</tr>
<tr>
<td>The staff and students of the Division of Pharmacy Practice and Policy</td>
<td>University of Nottingham</td>
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## National Organising Committee

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Helen Boardman</td>
<td>University of Nottingham</td>
</tr>
<tr>
<td>Christine Bond</td>
<td>Editor, International Journal of Pharmacy Practice</td>
</tr>
<tr>
<td>Matthew Boyd</td>
<td>University of Nottingham</td>
</tr>
<tr>
<td>Parastou Donyai</td>
<td>University of Reading</td>
</tr>
<tr>
<td>Andrew Husband</td>
<td>Newcastle University</td>
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<tr>
<td>Rachel Joynes</td>
<td>Pharmacy Research UK</td>
</tr>
<tr>
<td>Deborah Layton</td>
<td>Drug Safety Research Unit</td>
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<tr>
<td>Catriona Matheson</td>
<td>Independent Consultant</td>
</tr>
<tr>
<td>Nilesh Patel</td>
<td>University of Reading</td>
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<tr>
<td>Cris Ryan</td>
<td>Royal College of Surgeons, Ireland</td>
</tr>
<tr>
<td>Sarah Slight</td>
<td>Newcastle University</td>
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<tr>
<td>Sarah Wilson</td>
<td>University of Central Lancashire</td>
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Our thanks to:
Our Sponsors

Pharmacy Voice

Pharmacy Voice is an association of trade bodies which brings together and speaks on behalf of community pharmacy contractors. We believe community pharmacy can play a much greater role in England as an integrated part of primary care and helping to improve public health.

We engage with policy makers, politicians, NHS and local government stakeholders representing community pharmacy when plans and decisions are made about primary care and public health services. We seek to influence government policy, legislation and regulation, and lead public debate to help create a better outlook for community pharmacy. We also work to increase public awareness of community pharmacy so that more people visit their local pharmacy for health advice and support, as well as for their medicines.

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

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Background
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 out-of-hours services, in particular the provision of medicines advice.

Aim
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 out-of-hours; 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 out-of-hours 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 out of hours 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 out-of-hours services. Whilst these initial
findings are of interest, this study was limited to a small number of pharmacists from a relatively small geographic area of England.

References

A qualitative study exploring community pharmacists’ experiences of interventions that support medication adherence.
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Background
Community pharmacists (CPs) play a key role in delivering services or supplying products to improve patients’ adherence to prescribed medication. Medicines non-adherence remains a significant problem, presenting challenges across populations as well as on an individual patient level, often resulting in poorer health outcomes and increased financial waste. Little is known about the experiences of CPs that deliver services or supply products to support adherence and recent changes to community pharmacy funding has highlighted the importance of understanding current practices and identify opportunities to support CPs in the future.

Aim
The aim of this study was to explore the experiences of CPs delivering services and/or supplying products to improve adherence.

Method
A convenience sample of CPs was recruited from professional networks including Local Practice Forums and the Royal Pharmaceutical Society. Participants were invited to take part in an audio-recorded qualitative interview. Eligibility criteria include being a registered pharmacist with experience of delivering services or supplying products to support adherence. Interviews took place in community pharmacies (on the shop floor and in consultation rooms) using a semi-structured schedule, were transcribed verbatim, quality checked and thematically analysed using a combination of manual and computer coding (using NVivo). A favourable ethical opinion was given by an institutional ethics committee (Ref ESC2/2016/3). Sample size (currently n = 9) will be determined by theoretical data saturation. Findings will be validated through follow-up telephone interviews with original participants. Recruitment began in October 2016 and is on-going.

Results
Initial results describe very positive experiences of a number of commissioned adherence interventions such as Medicine Use Reviews (MURs) and the New Medicines Service (NMS) as well as interventions that represent non-commissioned ‘work’ such as pharmacy dispensed multi-compartment compliance aids (MCCAs), including MDS, dosette boxes and trays. Improving adherence was described as an integral part of practice that permeated multiple interventions rather than specifically commissioned services. Preliminary analysis suggests that both the financial cost and ‘time-cost’ i.e. how much time it takes to support adherence, is increasingly a concern due to recent changes to community pharmacy funding. Pharmacists reported not claiming for all of the interventions they carried out to support adherence, due to time restraints or concerns that their interventions would be scrutinised and not ‘fit the bill’ of service specifications. This suggests that CPs support adherence in very patient-specific, rather than service-specific, ways that are not reflected by existing or emerging fiscal structures. Within the context of recent
funding changes, many CPs questioned the economic viability of interventions or services that support adherence, potentially increasing patients’ risk of non-adherence.

Discussion
Participants in this study came from a diverse practice background (locums, independent owners, national and local chains). These preliminary results suggest that adherence interventions represent more than individual commissionable services or products and rather ‘improving adherence’ is integral to the construction of everyday community pharmacy practice. This work suggests commissioned services do not go far enough to reflect pharmacists’ everyday experiences of trying to improve patients’ adherence, failing to appropriately remunerate CPs within existing and emerging funding structures and therefore risking the economic viability of community pharmacy practice that posits supporting patients’ medication adherence at the heart of practice.

0084
Screening for common medical conditions in community pharmacy settings/ A survey of pharmacists and patients attitudes.
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Background
The prevalence of chronic non-communicable diseases (CNCD) is increasing and their impact on the disease burden and healthcare economy is substantial. Many patients with CNCDs will access healthcare services in a community pharmacy setting and GPs are struggling to implement CNCD screening programs. Recently there has been a movement for pharmacy practice away from dispensing toward focus on patient care. The UK policy and pharmacists’ professional bodies have emphasised the potential of community pharmacists to extend their roles in patient care services. Nevertheless, the general public’s views are important to be understood for the successful uptake of these services. Evidence shows a generally wide satisfaction of consumers with services given by pharmacists1, but a deeper understanding of patients’ views is advocated. In order to understand and assist the behaviour changes associated with providing health services in community pharmacy, it is also important to establish the beliefs of pharmacists regarding this role. Studies show that pharmacists’ perceive their potential role in health prevention as very significant but recognise a wide gap between ideal and actual levels of involvement2. Early identification of CNCDs and interventional methods to slow disease progression could provide tangible benefits to the UK economy. The potential benefit to society as a whole could include a significant reduction in the NHS healthcare bill.

Aim
To identify if there is a perceived benefit in targeted risk based screening of patients in a primary community pharmacy setting.

Method
Survey questionnaires were developed using previous literature and distributed to members of the public, pharmacists and patients attending pharmacies, in four locations across the UK (Coventry, Birmingham, London and Leicester), over a period of 4 weeks. This study was conducted to provide preliminary data to conduct a larger multicentre study. The next phase will involve a feasibility study in a community pharmacy setting; to assess the feasibility of screening for CNCDs in terms of logistics, environment, process and the impact upon the running of the pharmacy. The study had ethical approval from The University of Birmingham ethics committee. Data was analysed using SPSS 22 statistical software.
Results
From 1559 returned general public questionnaires, 71% (n = 1106) agreed that general health problems should be screened for in community pharmacy settings. When similar questionnaires were completed by patients (533 Responses), 78% (n = 415) agreed to have screening tests for CNCDs in a pharmacy setting. From 120 pharmacy responses, 75% (n = 90) of pharmacists were willing to provide screening for common chronic medical conditions.

Discussion
Preliminary results highlighted the general public and pharmacist acceptance for screening CNCDs in community pharmacy. Thus, conducting a feasibility study could help identify barriers to service development. However, if successful these results will need to be tested in a large multicentre study. Other public health initiatives have been previously tested such as healthy living pharmacies (public health related services) and health checks (cardiovascular risk assessment). However, this study is examining a wider range of CNCDs which are: chronic obstructive pulmonary disease, kidney disease, atrial fibrillation, diabetes, hypertension and hypercholesterolemia. This project is running in parallel with similar screening in a dental setting as part of collaboration with Birmingham University Dental School.

References

A survey of healthcare professionals' views on community pharmacy services for patients with cancer pain.
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Background
Community pharmacists are not currently part of the palliative care team and there is little communication between professions about patients with cancer pain¹. The study is part of an NIHR funded research programme.

Aim
The aim was to explore the knowledge, experience and opinions of healthcare professionals about community pharmacy services for patients with cancer pain.

Method
After ethical approval was granted, purposive sampling was undertaken in one city and one district CCG. Practices with differing levels of deprivation were identified and invited to take part in the research programme. All GPs and nurses from those practices, a local practice pharmacist group and community and outpatient-based palliative care nurses from the city hospital and hospice were identified using internet staff lists. 198 healthcare professionals were identified, however, due to lack of a definitive list, it is not possible to say what proportion of staff from the whole area was invited. Questions requiring a range of responses including Likert and additional open responses were devised from a multi-stakeholder workshop, interviews with patients and published literature. E-mail invitations to participate in an online survey using Survey Monkey® were sent with three reminders.
Results
40/198 (20%) professionals completed the questionnaire including 15/96 (16%) GPs, 6/24 (25%) Practice Pharmacists and 7/18 (39%) Palliative Care nurses. 28 (72%) of respondents were female and 22 (55%) of professionals had been qualified >21 years.

20/38 (53%) thought that needs for medicines support were already met by the palliative care team and 25/38 (68%) respondents thought that community pharmacists needed extra training about cancer or 21/36 (58%) on consultation skills.

35/38 (92%) thought that lack of access to patient records was a barrier to service provision. 27/38 (71%) thought that community pharmacists should have read access and 24/39 (62%) write access to the GPs’ clinical system. 32/38 (84%) thought that services should be available over the telephone and 20/39 (51%) via Skype®.

34/39 (87%) agreed that community pharmacists should be part of the palliative care team.

Open responses in the survey talked about the potential replication of services and if the patient was already under specialist palliative care services community pharmacists would provide little benefit.

Discussion
The results show an appetite for closer working between community pharmacists, GPs and the palliative care team, although some negative views about potential services were found. Whilst the potential for duplication of services exists, only 65% of patients ever get a referral to specialist palliative care, leaving a significant proportion without access to advice about their medicines. Barriers need to be overcome before community pharmacy services could enhance patient care; namely, access to patient records, increased communication, upskilling of the pharmacists who will provide them and a change in the way services can be provided.

Respondents may have been aware of the research programme leading to some bias and it is possible that the low response rate will have not captured views from all professional groups.

References

0086
Community pharmacy questionnaire to guide the development of a hospital discharge referral system using PharmOutcomes
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Background
Transfer of information about medicines at the point of discharge is essential for patient safety in order to minimise the risk of medicines related harm. During hospital admission medicines are often stopped, started or amended as part of the medicines optimisation process and it is essential that primary care healthcare providers understand the rationale for these alterations in therapy.
The provision of this information to community pharmacists gives opportunity for more comprehensive medicines reconciliation at the point of discharge. The questionnaire was designed to welcome engagement from community pharmacists and gather opinion on the most suitable template for referral.

**Aim**
The questionnaire was developed and distributed to seek early engagement and opinion on the most suitable format for a hospital discharge referral system.

**Method**
The questionnaire was developed using survey monkey comprising of 10 structured questions with multiple statements. Each statement required a ranked response to ensure consistency across the questionnaire.

The questions were designed to reflect the level of local engagement from the development of a hospital discharge referral system and gather opinion on the information that was most relevant to community pharmacy contractors when patients are discharged from hospital.

The questionnaire was distributed by email to all community pharmacy contractors within Nottingham following approval by the local pharmaceutical committee and responses were collected over 4 weeks at which point the link was disabled. The results were analysed and published as percentage responses for each ranked response using survey monkey. The data collected was used to develop a referral template for a one month trial of hospital discharge referral in the Nottingham region.

**Results**
The total number of responses was 68 with good distribution between the different types of pharmacy contractors ranging from independents to multiples. The main roles of staff responding to the survey were pharmacy managers and support pharmacists in which 86% of pharmacies were located within 1Km of their primary GP surgery.

In terms of local engagement and need for a hospital discharge service 85% of respondents strongly agreed that patient discharge information would help with day to day practice and 80% strongly agree that it would make a difference to patient safety.

Community pharmacy contractors agreed that the most useful information to be included in the referral was the names and quantity of medicines supplied on discharge and medicines stopped during admission. The services community pharmacist believe patients are most likely to benefit from at the point of discharge include discharge MUR, new medicines service and influenza vaccination.

**Discussion**
The results from the questionnaire support a local need for the introduction of hospital discharge referral to community pharmacy with clear expectations about what the referral system should look like. The results of the questionnaire have since been used to develop the referral interface in PharmOutcomes for the introduction of a 1 month pilot in the region.

A significant limitation of the questionnaire was the number of respondents with approximately 25% of contractors completing the survey therefore the results do not give a true reflection of contractor needs within the local demographic. In those that did respond there appeared to be an overwhelming need for provision of information at the point of discharge which has given local commissioners confidence in future development of the service.
A feasibility study of a theory-based intervention to improve appropriate polypharmacy for older people in primary care

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Background
Evidence to support the effectiveness of interventions to improve appropriate polypharmacy in this population is weak and previous intervention studies lack details of intervention development and preliminary evaluation (i.e. feasibility/pilot testing).1 To address these issues, a general practitioner (GP) targeted intervention aimed at improving prescribing of appropriate polypharmacy for older people was developed using a systematic, theory-based approach, based on the United Kingdom Medical Research Council’s complex intervention framework.2 The primary intervention component comprised a video demonstration of a GP prescribing appropriate polypharmacy during a consultation with an older patient. The video was delivered online and included feedback emphasising the positive consequences of performing the behaviour. A patient recall process was included as a complementary intervention component, whereby patients were invited to scheduled medication review consultations with GPs.

Aim
This study aimed to test the feasibility of the intervention and study procedures (i.e. recruitment, data collection).

Method
A convenience sample of GPs was recruited from two general practices in Northern Ireland. GP participants were given access to the online video and sent written invitations to older patients receiving ≥4 medicines to attend a medication review consultation on a specified date. Primary feasibility study outcomes were the usability and acceptability of the intervention to GPs. Feedback was collected from GP and patient participants using structured questionnaires. Clinical data were also extracted from recruited patients’ medical records (baseline and one month post-consultation). The feasibility of applying validated assessment tools (STOPP/START criteria, Medication Appropriateness Index, Medication Regimen Complexity Index) to these data was assessed. Data analysis was descriptive, providing an overview of participants’ feedback and clinical assessment findings. Ethical approval was granted by the Office of Research Ethics Committees Northern Ireland and the study was registered with the ISRCTN Registry (ISRCTN18176245).

Results
Four GPs and ten patients were recruited across two practices. The intervention was found to be both usable and acceptable to GPs. Some reservations were expressed by GPs as to whether the video demonstration truly reflected the resource and time pressures encountered in the general practice working environment. Patient feedback on the scheduled consultations was positive and patients welcomed the opportunity to have their medications reviewed. Due to limitations with the data collection procedures and the short duration of the follow-up period, it was not feasible to detect any prescribing changes or to apply the assessment tools to the clinical data.
Discussion
The feasibility study demonstrated that the intervention was usable and acceptable from the perspective of GP and patient participants. Despite the small scale nature of the study, important limitations were identified with the data collection procedures. More detailed clinical information will be required in future evaluations in order to apply validated assessment tools of prescribing appropriateness and medication regimen complexity. The study findings will help to further refine the intervention and study procedures which will be tested in a randomised pilot study that, in turn, will inform the design of a definitive trial to evaluate the intervention’s effectiveness in improving prescribing practice.

References

0088
Quantifying the rate of prescribing of high risk medicines for frail patients in primary care, a retrospective study
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Background
Frailty can be defined as a state of vulnerability to physical or environmental challenge. High risk medicines are frequently associated with adverse reactions implicated in hospital admissions. In the case of a frail patient a hospital admission can have wide ranging and long lasting consequences, including functional decline, loss of independence and increased reliance on primary care services.

Aim
This study aimed to quantify the prescribing of high risk medicines in a cohort of frail patients in primary care.

Method
A retrospective review of 101 records from the Hampshire Health Record Analytical Database (HHRA; May-August 2012), from patients aged 55 years and over receiving case management services in primary care, was carried out. A frailty index (FI) using 19 indicators was calculated to identify suitable records to include in this review (FI score ≥0.25). High risk medicines prescribed, were identified and categorised into groups, in line with those medicine groups previously reported as being implicated in hospital admissions (Table 1). Ethical approval was granted by Southampton B Ethics Committee.

Results
Of the 101 patients, 81 (80%) were identified as frail, of which 40 (49%) were prescribed at least one high risk medicine group (table 1). 25 (31%) of frail patients were prescribed medicines from multiple high risk medicine groups. In addition high levels of general polypharmacy were observed, enhancing the potential for an adverse drug reaction; 51 (63%) of the frail patients were prescribed 5 or more regular medicines, of these 37 (73%) included a prescription for a high risk medicine.
Table 1 Prescribing of high risk medicine groups in frail patients (n=81)

<table>
<thead>
<tr>
<th>High risk medicine group</th>
<th>Number of records indicating medication prescribed</th>
<th>% of records indicating medication prescribed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diuretics</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>Anti-platelets</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Angiotensin-converting enzyme inhibitors</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Opioid analgesics</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Beta-blockers</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Anti-coagulants</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Non-steroidal anti-inflammatories</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cardiac glycosides</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Discussion

High risk medicines should be used with caution in frail patients due to their potential to cause hospital admissions. The level of prescribing observed in this study suggests that this patient group is particularly at risk of hospital admissions. Pharmacists can have an impactful role, through Medicines Use Reviews and domiciliary medication review services, supporting general practitioners and patients in reducing inappropriate prescribing and aiding the safe use of high risk medicines. Health care commissioners and providers should ensure that pharmacist led medication reviews are accessible to frail patients at particular risk of a significant medication associated adverse event and who, despite being community dwelling, may not be able to access their community pharmacist readily. A review of more current data is proposed.

We thank NHS South, Central and West Commissioning Support Unit and the Hampshire Health Record Information Governance Group for their support, and for the provision of access to HHRA data.

References


0089

A retrospective audit of polypharmacy and medication regimen complexity and their association with exacerbations in patients with bronchiectasis

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Background

Pulmonary exacerbations are common in patients with bronchiectasis and can have a considerable impact on quality-of-life and disease progression. Polypharmacy and highly complex medication regimens are known to contribute to the treatment burden experienced by patients with chronic conditions and may in turn contribute to higher exacerbation rates observed in some patients with bronchiectasis.

Aim

This study aimed to determine the extent of polypharmacy and medication regimen complexity in a sample of approximately 100 patients with bronchiectasis, and to explore associations between polypharmacy and exacerbations.
Method
Data were collected from the electronic care records (ECRs) of a consecutive sample of bronchiectasis patients attending the Belfast City Hospital from 17th June to 4th October 2016. Total medication count was established for each patient and the percentage of patients prescribed polypharmacy was determined using two commonly cited thresholds (≥4 medicines and ≥10 medicines) and a threshold recommended by NICE (≥15 medicines). Medication Regimen Complexity Index (MRCI) scores were calculated using a validated algorithm. Higher MRCI scores suggest greater medication regimen complexity.

As this was a retrospective study, the number of courses of oral antibiotics prescribed for respiratory infections in the past six months was used as a proxy measure for exacerbations experienced during that time. Comparisons in the number of exacerbations were made between patients below and exceeding the three polypharmacy thresholds using a Mann Whitney U-test (significance level \( p < 0.05 \)). This study was considered to be an audit and was not managed as research by the NHS. As such, ethical approval to conduct the study was not sought.

Results
Of the 95 patients sampled, 68.4% were female (n=65). Mean age was 62.6 (SD 14.8) years.

There was a median medication count of 8 [interquartile range (IQR) 7]. The percentage of patients prescribed ≥4 medicines, ≥10 medicines and ≥15 medicines were 77.9%, 32.6% and 12.6%, respectively. Median MRCI score was 26 (IQR 23.5). Median number of exacerbations in the past six months was 1 (IQR 2). Patients who were prescribed ≥4 medicines had more exacerbations compared with patients prescribed <4 medicines (U= 401.5, \( p < 0.001 \)). Similarly, patients who were prescribed ≥10 medicines had more exacerbations compared with patients prescribed <10 medicines (U= 709.5, \( p = 0.019 \)). No significant differences in exacerbations were found at the ≥15 medicines threshold.

Discussion
These findings suggest there is a high prevalence of polypharmacy and high medicines regimen complexity in patients with bronchiectasis. Polypharmacy becomes problematic when four or more medicines are prescribed, with patients exceeding this threshold having more frequent exacerbations. Management of patients with bronchiectasis should consider the burden of treatment when reviewing outcomes. This study was limited by a restriction in the data available on ECRs regarding antibiotics prescribed in primary care (six months). Patients tend to exacerbate more frequently over winter than summer; therefore, a different exacerbation rate may be observed if the study was repeated at a different time of year.

References

0090
Evaluation of the medicines management teams’ effect on reducing medication related patient harm and improving medication related patient safety
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Background
Clinical commissioning group (CCG) employed pharmacists have historically focussed on cost saving work whereas this review aimed to capture the impact relating to the evolving clinical role of the Rushcliffe CCG Medicines Management Team (MMT) that focused on improving prescribing safety and reducing
medication related harm (including medication query answering, medication review clinics, care home reviews and PINCER prescribing safety indicators\(^1\)).

**Aim**

To evaluate the prescribing interventions made by the MMT outside of prescribing audit work using a bespoke database and peer reviewed case law to grade their severity and considers their use in directing future work for the MMT.

**Method**

An intervention database was developed to allow interventions to be collated in systematic way and reviewed according to different parameters such as type of intervention and clinical severity (major, moderate and minor). The database was not used to capture any work undertaken as a result of standard cost-saving audit work but did note any cost implications of the clinical intervention. No patient data was stored and the database met all CCG information governance requirements. To ensure consistent categorisation of interventions, a case law was developed and new additions peer reviewed. The data relates to interventions recorded from 1st March 2012 and 31st December 2014 although data collection has continued since.

**Results**

2,815 interventions were documented involving 1,246 patients resulting in approximately £35,000 worth of savings. The interventions showed: 1,648 (58.5%) were minor, 1,021 (36.3%) were moderate and 146 (5.2%) were major.

Monitoring interventions were the most frequent minor intervention; amending medication based on patient’s clinical issues was the most frequent moderate intervention. There was a more even spread across intervention types in the major intervention category.

Care home medication reviews were responsible for the largest number of interventions.

PINCER\(^1\) prescribing safety indicators were run twice. 708 patients were reviewed and 286 interventions were made on 104 patients (141 relating to monitoring, 141 relating to amending the medication regimen to improve safety). Issues relating to prescribing and monitoring systems were also identified.

**Discussion**

The MMT made a variety of interventions over a range of clinical scenarios. The variability between practices relates to the type of work the pharmacist undertook as this is not standardised between practices.

The results suggest that the greater the clinical role the MMT has within a GP practice the more interventions the pharmacist can make. Pharmacists can potentially reduce patient harm and increase prescribing safety. The results have been used to support changes in the team such as employing a specialist care homes pharmacist, on-going support for the PINCER interventions and the development of the clinical role of the MMT.

Whilst the database is still in active use it is acknowledged that there is a time commitment to recording the interventions so underreporting is likely. The database is excel based and would ideally be developed further to improve usability. As the clinical role of practice based pharmacists grows the ability to capture their impact is essential.

**References**

Developing a SystmOne prescribing formulary to improve safety and increase patient information in GP practices

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Background
SystmOne is the clinical system used in all but one of the GP practices in NHS Rushcliffe clinical commissioning group (CCG). Prescribing formularies on clinical systems are frequently used to direct prescribing for consistency and cost saving purposes. The CCG Medicines Management Team (MMT) wanted to develop a prescribing formulary that incorporated safety aspects for the prescriber and increased the clarity of patient information.

Aim
To develop a prescribing formulary within SystmOne that helps to improve prescribing safety and patient information.

Method
The formulary was initially developed to include full dosage instructions and clinical indications using evidence and clinical information from local and national guidelines to support prescribers to prescribe safely and provide information to patients. The formulary was piloted in one GP practice and feedback taken via discussion and email. Using the feedback received the formulary was updated, improved and rolled out across the CCG. A robust system for three monthly review and updates was developed. The formulary is updated centrally and major changes are communicated out to all prescribers by the notification system within SystmOne.

Results
The formulary is currently used by all GP practices with SystmOne in the CCG. The formulary has been developed to include further safety aspects including:

- Technique prompts on inhaler directions e.g. “inhale quick and deep”
- Reminder that blood tests are required regularly
- Options for right, left and both eyes when prescribing eye drops
- Multiple dosage options to cover indications e.g. prednisolone for exacerbation of COPD and Asthma, with different doses and quantities labelled for the indication
- Where a dose is related to weight e.g. Epipen, this information is included in the directions
- Including the medication ingredient where brand prescribing is advised e.g. combination inhalers

Feedback has been gauged by discussions between the primary care pharmacist and the practice and has been very positive. Examples of feedback obtained include:

“IT is like a safety net.....I feel like there is someone else checking my prescription”

and

“It makes me want to add indications to all the items on repeat”

Prescriber input is actively encouraged. All requests are reviewed by the MMT and the outcome of the request is communicated back which has encouraged the feeling that the formulary is owned by the prescribers. The quality of directions on prescriptions has improved and patients have clearer information to help aid concordance.
Discussion
A prescribing formulary is a useful way of improving the quality of information available for the prescriber, dispensing pharmacist and patient which may reduce the risk of a patient safety incident due to incorrect product choice or poor instructions.

As a single formulary is in use across the CCG, this allows for consistency in prescribing and makes management time efficient. The information added to the formulary is available for the patient to view which limits further development. To date feedback has not been formally assessed but there is a plan to use an electronic questionnaire to do this.

0092
An audit of pharmacist independent prescribing activity as part of the GP pharmacy transformation pilot project in Derbyshire and Nottinghamshire.
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Background
The NHS 5 year forward view 1 describes the need to address problems in primary care in recruiting and retaining general practitioners, develop a multidisciplinary workforce, develop more out of hospital care and to promote self-care. The joint statement of the RCGP and RPS 2 cites the need to utilise the skills and abilities of pharmacists more in primary care. NHS England, Derbyshire and Nottinghamshire Area Team secured funding to test the feasibility in the form of an 18 month pilot programme at 6 sites in the area from October 2015. The pharmacists were in addition to the normal practice staff.

Aim
To assess the feasibility of using community pharmacy independent prescribing pharmacists seconded into general practice to deliver patient facing services and to describe their activity in the pilot sites.

Method
Data was collected by the pharmacist in each site using a data collection proforma to record activity. Data were entered by the project team into a Microsoft Excel spreadsheet for analysis. Patients attending the appointment were asked to report their satisfaction with the service. This was an internal audit so did not require ethical approval.

Results
To end of December 2016, 10,201 consultations have taken place. The appointments conducted by the pharmacists comprised medication reviews (n=5508, 56%), nursing home medicine reviews (n=204, 2%) monitoring and management of long term conditions (n=2652, 26%), urgent care type appointments such as rashes, allergy, ear problems and urinary tract infections (n=612, 6%) and miscellaneous activities including activities such as managing patients discharged from hospital (n=1021, 10%).

Of the medication reviews conducted and sampled 54% (n=238) resulted in a change of medicine including stopping unnecessary medications or those causing side effects, starting new medications to treat the condition or optimising dosages.

The pharmacists estimated that 7.8% (n=35) of consultations sampled significantly reduced the risk of patients unnecessarily attending hospital.

Patients surveyed about the service reported 100% satisfaction (n=455), and would recommend the service to family and friends. 100% of patients surveyed (n=455), reported improved understanding of
medications following consultation with the pharmacist, with many opting to see a pharmacist for future care.

**Discussion**
The pilot project has shown that community pharmacist independent prescribers can deliver services in primary care. The pharmacists increased capacity improving and increasing patient access to primary care. Patients report high levels of satisfaction following pharmacist consultations. This is a small local pilot, but the work here suggests that the national programme of putting clinical pharmacists in GP practices is likely to have positive impact. The general practices involved are currently developing business cases to continue and build on this work.

**References**

**0093**
School to university transition - the views of MPharm students
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**Background**
The transition from school to university is a challenging time for every student entering tertiary education. It is not just the first months in the new environment which provide the foundation of the students’ future academic and social performance, their preparation after finishing their secondary education has an impact too.

Recent research suggests that the majority of students do not feel adequately prepared for university¹ and the expectations they have for example, regarding the amount of work expected and the size of classes does not meet reality for most².

Only a limited amount of research has investigated transition issues. This is the case for both pharmacy students and international students who additionally need to adjust to a new country and education system.

**Aim**
At the University of Nottingham around one third of pharmacy students entering year one are international students; thus our aim was to determine student views on transition from school to university, including problems which might have occurred during the transition.

**Method**
In November 2016, first year students were asked to take part in the study, two months after starting the MPharm course. Three face-to-face interviews, with 2 UK and 1 international student have been completed to date lasting between 20 and 30 minutes. The interviewer was a pre-registration student which allowed the students to speak openly and candidly without any member of teaching staff present. The interviews will be used to aid the development of a questionnaire to investigate transition in the whole year group.

**Results**
In the 3 interviews conducted differences were seen in students’ experiences. For example, in their participation in social activities or whether or not they felt prepared for university. There were similarities
in experience, all reported struggling with the more independent way of learning which is required at university, compared to secondary education where important information and homework was mostly given. Furthermore the struggle to find a balance between academic work and coping with living on their own, was also mentioned frequently.

Discussion
Throughout the interviews we obtained diverse views on how fresher’s handle the transition from school to university, each of them struggled with a wide range of issues but overall becoming an independent learner and changing the learning habits they developed in secondary education seemed to be the biggest issue. Supporting students with developing different learning habits has the potential to improve students’ experiences during the first few months at university. Unfortunately we were only able to interview 3 students so far, which limits the general applicability of the results, however their different backgrounds in education and nationality mean we had a range of suggestions, hints and issues which will be used to develop our questionnaire.

References

A survey to determine MPharm students’ views on the role of the emergency department pharmacist.

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Background
Resources for accident and emergency (A&E) services are growing and pharmacists are being underutilised in the delivery of quality, emergency care for patients1. The Carter Review recommends the number of independent prescribing pharmacists in hospital should increase and there is a demonstrable need in emergency departments.

Aim
The aim of this study was to investigate University of Portsmouth MPharm students' knowledge of the role and skills of emergency department pharmacists (EDP) and whether a difference in knowledge was apparent between final and second year students.

Method
Following a favourable ethics review, a questionnaire with a mix of open and closed questions was developed and piloted. MPharm students in Year 2 and Year 4 at the University of Portsmouth, were invited to take part and a total of 230 students were targeted opportunistically at the end of one of a lecture. Questions and statements about the role and skills of the emergency department pharmacist (EDP) were included. Descriptive statistics were used to analyse the closed questions and responses to open questions were analysed using content analysis2. Comparisons of knowledge between the year groups were made.

Results
141/230 questionnaires (61%) were completed. Final year students (n=66) were more aware of the growing resource issues within accident and emergency (65%) compared to Year 2 students (n=75) (39%). Awareness of the emergency department pharmacist (EDP) role was greater in the final year cohort (77%) than the Year 2 cohort (48%). Long waiting times and increasing patient numbers were the most commonly
cited resource issues from both student groups. Responsibilities of the emergency department pharmacist (EDP) suggested by respondents differed between student groups. Year 2 thought EDPs would be mostly responsible for dispensing medicines meanwhile Year 4 thought EDPs would mostly undertake medication histories. Few respondents (14%), thought EDPs would prescribe medication or required a prescribing qualification (17%). Team working, good communication and working under pressure were the most commonly cited skills students thought EDPs should possess. The majority (87%), agreed that the EDP would add value to the NHS.

However, only 31% of participants felt confident they could undertake the EDP role post qualification due to their own perceived lack of experience, knowledge and training.

**Discussion**

This work has shown that final year MPharm students have greater awareness and knowledge of the emergency department pharmacist compared to those in Year 2. However all students had limited awareness of the responsibilities and qualifications required for the role. These findings should to be more widely tested to determine where initial teaching about the emergency department pharmacist (EDP) role could be introduced within the MPharm or pre-registration programme so that all pharmacists could expand their scope of practice immediately following qualification. With the right support, pharmacists are well placed to manage medicines across patient pathways, including medicines in emergency departments. Limitations of this study are the use of only one university’s MPharm cohort and small sample size.

**References**


**0095**

**A new approach to NHS pre-registration pharmacist recruitment - a pilot study**

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**Background**

Pre-Registration Pharmacist recruitment takes place across the NHS every September. We have a regional approach to recruitment with approximately 200 people applying for 28 places in five Trusts. Historically, we have used shortlisting criteria to identify 90 applicants for interview. This has become a very time consuming activity that is done by staff at the Trusts and despite a clear shortlisting criteria is also quite subjective, with up to 10 people shortlisting. In 2016 we wanted to pilot a new approach that would standardise our shortlisting process to ensure that it was as fair and transparent.

**Aim**

To pilot the use of a two-stage approach to hospital pre-registration pharmacist recruitment across a region as an alternative to shortlisting.

**Method**

We considered a number of alternatives to shortlisting that would assist us in identifying the top 90 applicants for interview. At the same time, another region was looking to develop a two stage process of recruitment using an assessment centre as the first stage. This approach is used in Medicine and other healthcare professions and hence there was experience within our organisation of this method. We decided to move forward with this approach, using the assessment paper provided by colleagues in the other region.
We invited all eligible applicants to an assessment centre that involved a written paper. The paper comprised of four sections: clinical pharmacy, pharmacy practice, calculations and prioritisation. The applicants had 60 minutes to complete the paper under standard exam conditions and without a BNF. The papers were marked on the day and the top scoring 90 applicants were invited for interview.

**Results**

In total 217 applicants were received across the region and 194 people accepted the offer to attend the assessment centre. 142 candidates sat the paper in the other region as they had applied to both regions and the remaining 52 candidates attended our assessment centre. The following results are for our region only. The candidates came from a range of universities across England and Scotland and were all third year students at the time of application. We did not collect demographics on the cohort.

The mean score in the assessment paper was 69% (41% to 91%). A score of 71% was needed to be in the top 90 candidates and qualify for the second interview stage. Overall the candidates did well in the calculations section of paper with 81% (42/52) scoring 8 out of 10 and above. The clinical pharmacy section was the most challenging for the candidates with a mean score of 5.2 (range 1-9) compared with a mean of 8.8 (range 5-12) for the prioritisation and 8.5 for pharmacy practice (range 5-11). In total 91 candidates took part in the second interview stage, five Multiple Mini Interviews and from this the top 28 candidates were offered places. This pilot does not focus on the MMIs as they have been used extensively in pre-registration pharmacist recruitment. However, of the candidates who scored in the top 30 at the assessment centre only 13 were offered places as a result of their performance at the MMIs.

**Discussion**

This was the first time that an assessment centre has been used for NHS Pre-Registration Pharmacist Recruitment. There were some challenges with the computer system and some of the work had to be done outside of the system, however this workload was much less extensive than shortlisting and could be done by an administrator. It is difficult to establish at this stage if the process has enabled us to recruit a higher standard of applicant. The process did remove an in-depth review of the applicant form in the recruitment process and did not directly take into account prior work experience either within or outside of pharmacy. This may be fairer in an environment where obtaining a pharmacy placement is getting harder to achieve. The balance between assessing academic ability and professionalism/clinical skills was strived for with both the assessment centre and MMIs. At this stage we have not taken our findings forward with academic institutions or the RPS. However, our Head of School is closely involved with the national Oriel recruitment for 2017 and has fed our findings into this new process.

The authors would like to thank and acknowledge HEE London and South East Pharmacy Office.

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**0096**

**Piloting a panel review of competence in the pre-registration pharmacy year**

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**Background**

The General Pharmaceutical Council (GPhC) stipulate that a pre-registration pharmacist tutor must be the responsible person for signing a pre-registration learner on the register. Health Education England quality review processes of pharmacy education have highlighted the risks of a single sign off model. This pilot aims to use the principles of the medical education Annual Review of Competence Progression (ARCP) process to assess feasibility and fitness for purpose of a panel process for final sign off to the GPhC register for pre-registration pharmacist learners.
Aims
The aims were to determine what types of evidence of competence should be presented by learners and then design and evaluate a panel process to review the evidence for sign off on the regulatory register.

Method
Initially, methodology of the ARCP process was reviewed. Then pharmacy stakeholders across Thames Valley were invited to WebEx meetings to develop a process suitable for pharmacy. Key drivers for change and a vision were communicated based on the ARCP process. The WebEx meetings defined: the panel members, the essential evidence of competence required, the communication strategy and the documentation required. A formal panel review policy was written.

The final proposal for the pilot was taken to the School of Pharmacy (governance) Board for approval. The communication plan was implemented targeting directly to learners and tutors via Health Education England Thames Valley (HEE TV) office, supported by local information from the Educational Programme Directors (EPDs) and Accountable Education Officers (AEOs) at each placement provider.

Five competence panels were established and ran in a single week in July 2016. The data from the evidence presented in the learners’ portfolio was recorded against an essential and desired list. Each panel had an external representative from the school of pharmacy at HEE TV. The other members of the panels were the AEO or EPD and a local tutor. The logistics of delivering the panels were led by the placement providers.

Evaluation of the process was via a questionnaire from all learners and panel members. The questionnaire used closed questions for quantitative analysis followed by comments for qualitative analysis. No ethics approval was required for this project as the activity was classed as a quality improvement project.

Results
In total 28 learners took part in the process and 100% were able to provide evidence of completed statutory and mandatory training, progress reviews, audit, first aid certificate and completion of the HEE TV learner survey all of which was considered essential evidence for inclusion in the portfolio. In addition 27 of the trainees were able to provide three pieces of rotation feedback. All tutors were also asked to provide a written statement to be added to the trainees’ portfolio that stated whether or not they anticipated completing the final sign off and 89% (25) trainees provided this. Work based assessments form a useful part of the pre-registration year and in this group only 11% (3) people completed three Mini Cex (Mini clinical evaluation is a form of workplace based assessment using observation to assess competence of a clinical task with immediate feedback). The majority of people, 86% (24) completed only one Mini Cex. The trainees are encouraged to complete three CPD entries as part of their portfolio and 61% (17) included these. It is a requirement of the GPhC that tutors are confident their trainees can complete calculations to the desired level and three calculations results at 80% are required by HEE TV, however this was included in the portfolio for only 18% (5) of people.

10 out of 28 learners responded to the evaluation questionnaire. 90% (9) of respondents reported that the communication strategy worked well with the process being well communicated and that the process provided reassurance of competence sign off. However, panel member qualitative feedback identified that the process should be held earlier to address any concerns with the portfolios and appeals.

Discussion
The process is feasible and provides reassurance of a standard approach to signing off competence within the pre-registration pharmacy year. Barriers to this innovation were time and logistical challenges hampered by the lack of an e-portfolio.

Reference
Can large scale randomised controlled trials be delivered within a community pharmacy environment in a timely, efficient and robust manner?

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Background
Conducting randomised controlled trials (RCTs) in community pharmacies can be associated with many challenges, including engaging with staff and managers to ensure strict compliance with a study protocol, recruiting sufficient patients over reasonable time periods and minimising research costs.

This study trialled an innovative, simple, low cost behavioural ‘nudge’ intervention delivered within community pharmacies to increase medicines adherence as part of the NHS New Medicine Service (NMS). Behavioural ‘nudge’ methods have been trialled in previous studies by the Department of Health Behavioural Insights team to improve patient attendance to hospital appointments with the best performing ‘nudge’ message (as part of a text message) reducing missed appointments by 23%1.

Aim
To use the study to explore how large scale RCTs can be delivered within a community pharmacy environment in a timely, efficient and robust manner.

Method
The study methodology was developed to take into account the busy environment of a community pharmacy and ensure as little disruption to this and patient care as possible. The intervention was kept simple and designed to bolt on to the existing NMS service and take a matter of minutes. The number of pharmacies was chosen to ensure patient recruitment and data capture could be completed within a 9 month timeframe to give sufficient sample size for analysis.

Community pharmacies were randomised to one of four trial arms: a commitment only with no additional message (“I will take this medication as prescribed”), a commitment with an additional health message (“Not taking my medication as prescribed could risk my health”), a commitment with a message relating to costs to the NHS (“The NHS loses £300 million per year from wasted medication”), or control (no sticker). Patients were asked to make a non-enforceable commitment (by signing the sticker) to either take their medicines as prescribed or seek advice. Medicines adherence was measured using the four item Morisky adherence scale at intervention (2 weeks) and follow-up (4 weeks) after the initial consultation. Anonymised data were collated by each pharmacy onto an electronic template which were collected centrally for analysis.

Results
Planning for the trial began in September 2014 and ethics approval was granted from the NRES Research Ethics Committee on June 26th 2015 (ref 15/WM/0225). Implementation occurred between July 2015 and March 2016. The trial was successfully undertaken in 242 pharmacies across London. Complete datasets for 10,904 patients (45.1 per pharmacy) recruited to the trial were collected for analysis over the 9 month period. Final results are currently being analysed and publication is anticipated later this year.

Discussion
This is an example of a robust, academic trial that came about as a collaboration between Government, pharmacies and academics. This research shows that low cost, high quality evidence can be generated through partnership working in a shorter timescale than is usually associated with randomised controlled trials. More trials of this kind could continue to build the evidence base to extend the role of community pharmacists in supporting patients with their health.
A survey to investigate patients' inhaler technique: An MPharm research project.

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Background
Inhaler technique is key for controlling symptoms of chronic respiratory diseases such as asthma and COPD. Without clear instruction and consultation patients may not fully understand their inhaler device and could use it incorrectly. Poor inhaler technique could result in poor control of respiratory conditions and unnecessary treatment or hospital admissions 1.

Aim
The aim of this study was to investigate patients' inhaler technique, provide individualised advice and measure the impact advice had on technique.

Method
Following a favourable ethics review, a data collection tool was developed and piloted. For convenience, a surgery local to the university was approached to take part in the survey. Four final year MPharm students were trained to use a Vitalograph AIM device; to check inhaler technique; and how to provide corrective advice, before data collection. Over one month and following consent, patients attending a respiratory clinic using metered dose inhalers (MDIs) and/or dry powder inhalers (DPIs) had inhaler techniques assessed. Individualised corrective advice was provided if necessary and results were forwarded to the duty respiratory nurse. Patients were also asked where and from whom they had previously received advice about their inhaler technique.

Results
23 patients consented to participate in the survey. 8/23 (35%) used both MDI and DPI, 13/23 (56%) used MDI alone and 2/23 (9%) used DPI alone. Of the patients using MDIs, 4 (19% of all MDI users) used spacers. Based on the AIM device, the technique of 82% of MDI users was categorised as ‘fail’, 14% as ‘suboptimal’ and 4% as ‘good’. For users of DPIs, 25% were categorised as ‘fail’, 50% as ‘suboptimal’ and 25% as ‘good’. The majority of patients reported that a nurse had provided advice about their inhaler technique (83%). Pharmacists had provided advice to only 21% of patients in this study, lagging behind GPs for 30%. Following individualised inhaler technique advice the AIM device scores improved, and ‘good’ was recorded for 50% of DPI users and 23% of MDI users. However, 55% of MDI users were still categorised as ‘fail’. The main causes for poor MDI technique were lack of deep breathe intake prior to use, failing to shake the inhaler device and incorrect synchronisation of the canister activation with breathe intake.

Discussion
This survey worked well as an MPharm research project, students gained experience working with patients and other healthcare professionals. A positive impact on inhaler technique was observed following individualised advice. This work has identified that patients need regular individualised advice to achieve and maintain management of their respiratory condition. Few patients in this study received advice about inhaler technique from a pharmacist. Clinical pharmacists in GP surgeries and community pharmacists are ideally placed to support and advise patients on their inhaler use. There is possibly scope to use trained MPharm undergraduates in suitable locations should the opportunity be made available. Limitations of this study were the use of only one GP surgery and the small patient sample size.
References

0099
Using a medication waste audit tool, targeted action plan and good practice guide to reduce avoidable medication waste in care homes
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Background
According to the Evaluation of the Scale, Causes and Costs of Waste medicine UCL/YHEC Final report medication waste in the care home sector accounts for approximately £50 million of NHS resources per year. One of the reasons for high levels of medication waste in care homes is due to poor systems and processes for medication ordering and stock control.

A pilot study was conducted in one care home in Mansfield where poor procedures for stock control and high levels of waste medication levels were evident. After delivery of a medication waste audit tool and tailored action plan by the Care Home Pharmacist avoidable waste % of total items returned to pharmacy reduced from 66.7% to 12% and cost of avoidable waste reduced by 99% from £94 to £0.65 per resident per year.

Aim
To determine whether a medication waste audit tool, action plan and good practice guide pack can be used to reduce medication waste in care home

Method
Medication issues were identified in a care home in Mansfield by the Care Home Pharmacist during a routine visit to undertake medication reviews. This prompted examination of processes and procedures surrounding medication ordering, stock control and medications returned to pharmacy for destruction. The medication returns book was examined and analysed. Items returned to pharmacy per month were counted for a three month period and split into ‘avoidable’ and ‘unavoidable’ waste categories.

Avoidable waste was identified and costed based on entries in the returns book which were recorded as ‘excess stock’, ‘new stock received’ patient left care home’ or items which were still being prescribed and used by the patient. Costs were calculated using Drug Tariff costs, or the BNF online for branded medicines.

A detailed audit was carried out to examine current practice. Advice on good practice was provided and a tailored action plan was implemented to indicate required changes to practice. This was agreed by the Care Home and Care Home Pharmacist.

Three months later the care home was revisited by the Care Home Pharmacist and the medication returns book was examined to assess any changes in avoidable waste levels.

Results
Prior to the intervention during a one month period 242 items were returned to pharmacy, 66% of these were classed as avoidable waste. This was equivalent to £480. There were 66 residents in the care home so this equated to £7.27 per resident.

After the intervention during a one month period 42 items were returned to pharmacy, 12% of these were classed as avoidable waste. This was equivalent to £3.78 per month. This equated to £0.05 per resident.

The intervention lead to a 54% reduction in avoidable waste items as a % of all items returned to pharmacy and a 99% reduction in avoidable waste costs.
Discussion
Implementation of a medication waste audit tool, tailored action plan along with advice from Care Home Pharmacist led to reductions in avoidable waste in one care home in Mansfield.

This project is now being rolled out across all the care home establishments in the Mid-Notts area and savings are estimated to be up to £200,000 per year based on a 99% reduction seen in the current audit. We were able to identify substantial savings in one home but it is unknown whether this can be replicated in others.

References

0100
Improving the management of behaviour that challenges associated with dementia in care homes: a feasibility study (MEDREV; Medication Review).
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Background
Antipsychotics are used in people with dementia for behaviour that challenges such as aggression and agitation; the National Dementia Strategy identified that 2/3rds of such usage may be inappropriate1. This submission reports preliminary results; if the study is feasible we will move to a full clinical trial.

Aim
To determine whether it is feasible to implement and measure the effectiveness of a combined pharmacy–health psychology intervention incorporating medication review and staff training to limit the prescription of psychotropics to manage behaviour that challenges (BPSD) in care home residents.

Methods
Six care homes will be recruited. People meeting the inclusion criteria, or their personal consultee, will be approached regarding participation.

Inclusion/Screening: confirmed diagnosis of dementia (e.g. on the dementia registers); receiving medication for behaviour that challenges.

Intervention: Medication will be reviewed by a specialist pharmacist with the GP, person with dementia and carer as per a detailed protocol. The behavioural intervention consists of a 3-hour training session for care staff promoting person-centred care and brief training for the GP primarily on the treatment of BPSD.

The primary outcome measure is the Neuropsychiatric Inventory-Nursing Home version (NPI-NH). Other outcomes include quality of life (EQ-5D/DEMQoL), cognition (sMMSE), health economic (CSRI) and prescribed medication. Data will be collected at 6 weeks, and 3 and 6 months. Qualitative interviews will explore expectations and experiences of GPs and care home staff including managers.
Results
It appears possible to implement the intervention; three care homes out of 82 initially contacted have been recruited. Another four care homes have expressed an interest. The intervention has been delivered in one 52-bed care home; 17 residents met the inclusion criteria and of these 10 were successfully consented (conversation rate=58.8%). Outcome data has been collected up to 8 weeks after the intervention was implemented.

A screening tool in the other two recruited care homes identified 27 and 30 potential participants. The most frequently used class of medication in these two homes was anti-depressants (n=34); 19 residents were prescribed anti-psychotics.

Discussion
Our results show that people with dementia resident in care homes continue to be prescribed psychotropics including anti-depressants. Limitations include that the feasibility is conducted in a single geographical area. The intervention developed in MEDREV appears feasible based on initial results.

References:
To request this information in an alternative format, please contact the conference chair, Dr Matthew Boyd: matthew.boyd@nottingham.ac.uk +44 (0) 115 951 5061