BRIDGING the GAP
CONFERENCE 2017

Friday 22 to Sunday 24 September 2017
Whenua Pupuke, Waitemata Clinical Skills Centre,
North Shore Hospital, Takapuna, Auckland

Major Conference Partners

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@NZHPA17 #NZHPA17 #BridgingTheGap
ACKNOWLEDGMENTS

The Organising Committee would like to extend their gratitude to all the sponsors and exhibitors without whom this conference would not have been possible. Please take the time to visit all the exhibition stands to say hello, see what’s new, and complete the quiz competition to win an iPad.

In particular we acknowledge the following sponsors:

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PRIZE PAPER AND POSTER SPONSORS

Best Overall Paper – The Dr L Berry Award
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Best Paper by a Technician
Pharmaceutical Society of New Zealand Inc

Best Paper in Medication Safety/Innovation
Health Quality Safety Commission

Best Paper in Clinical Research/Audit
School of Pharmacy, The University of Auckland

Best Poster Overall
New Zealand Hospital Pharmacists’ Association

Best Poster by an Intern/Student
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Best Poster by a Technician
Pharmaceutical Society of New Zealand Inc

Best Poster in Medication Safety/Innovation
Health Quality Safety Commission

Best Poster in Clinical Research/Audit
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HEALTH AND SAFETY

The Conference Managers, ForumPoint2 Limited, in conjunction with the NZHPA Organising Committee and venues are morally and legally responsible to provide a safe and healthy environment for all attendees at the conference. This commitment extends to ensuring the NZHPA Conference operations do not place the local community at risk of any injury, illness or property damage.

All measures within our ability will be undertaken to ensure that attendees are as informed as possible about any potential risks or hazards they may face whilst attending conference.

All attendees will need to:
• listen to the health and safety briefing onsite and/or read the health and safety document available at the registration desk
• ensure that all health and safety concerns; and all accidents or near misses are immediately reported to the Registration Desk.

All attendees are encouraged to be responsible at all times, and to promote a safe and healthy working environment for the entire conference duration.

First aid kits are located at the Registration Desk.

In the event that emergency medical assistance is required, please call 111 from a mobile.

The nearest medical centre to Whenua Pupuke, Waitemata Clinical Skills Centre is:

**North Shore Hospital**
124 Shakespeare Rd, Takapuna
T: (09) 486 8900

The nearest pharmacy is:

**Life Pharmacy**
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(Open until 9.00pm)
T: (09) 978 5439

Fire and emergency:

**In the event of fire:**
• On the discovery of fire, immediately activate an alarm and notify the ForumPoint2 team.
• Upon hearing alarms, evacuate immediately. Further instructions may be given from the venue – please follow all directions.
• Proceed immediately to your nearest exit.
• Use the stairs, not the lift.
• Await further instructions or clearance for an orderly re-entry.
• Fire hoses and fire alarm switches must remain visible and accessible to the public at all times.
Earthquake Evacuation
- Remain in the building
- Move away from any equipment, windows and furniture
- Take immediate shelter under solid furniture such as tables or desks
- If an evacuation order is given, follow the fire evacuation procedures
- Keep calm and assist those who panic

Accident Reporting
- All accidents and incidents must be reported immediately to the Registration Desk or Paula Armstrong, ForumPoint2, 027 649 2081.

Toilets
- Toilets are located in various locations. Please follow signage in corridors.

Smoking
- North Shore Hospital Campus is a smoke-free zone.

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WELCOME

Welcome! It is my great pleasure to welcome you to the 2017 NZHPA Bridging the Gap Conference at Waitemata.

The exciting programme encompasses the engaging theme of “Bridging the Gap” focussing on various ways to help improve patient outcomes.

There is an inspiring line up of speakers and workshops which will help develop the core skills that all health practitioners need in order to practice safely and effectively. These skills are essential in every sector of practice.

We are very proud to be the first conference held at Whenua Pupuke, Waitemata District Health Board’s new educational centre.

A big thank you to all our sponsors who play a huge role in supporting this conference. Lastly, thanks to those showcasing their work, this is a great opportunity to share and celebrate the hard work and improvements that go on in your work places.

I hope that you go back to your colleagues full of ideas and enthusiasm.

Conference Convenor
Jessica Nand
Waitemata District Health Board
NZHPA 2017 Conference

Committee
Marilyn Crawley, Avril Lee, Ariel Hubbert, Angela Lambie, Jerome Ng, Wendy Fagan, Carole Dawson

CONFERENCE ORGANISERS
ForumPoint2 Conference Partners
PO Box 1008, WMC
Hamilton 3240
Contact: Paula Armstrong, Project Manager
T: +64 7 838 1098
E: paula@fp2.co.nz
www.fp2.co.nz
GENERAL INFORMATION

REGISTRATION AND INFORMATION DESK
The registration desk is staffed by Paula and Amanda, who welcome your enquiries on any conference detail or local information. The desk will be open from Friday 22 September at 12.00pm (noon) and remain open for the duration of the conference.

Useful Telephone Numbers
Registration Desk Staff:
Paula Armstrong 027 649 2081

Whenua Pupuke, Waitemata Clinical Skills Centre,
North Shore Hospital (09) 486 8900 or 0800 80 93 42
Auckland Co-operative Taxi (09) 300 3000
Green Cabs 0800 464 7336
Northshore Taxi (09) 488 8000
Supershuttle 0800 748 885 or (09) 522 5100 from mobile

ATTENDEE LIST
There is a list of attendees in your conference bag.

CATERING
Daily catering during the conference will be served in the exhibition area on the first floor of Whenua Pupuke, Waitemata Clinical Skills Centre.

CERTIFICATE OF ATTENDANCE
A certificate of attendance will be emailed to you once the conference evaluation has been complete online.

ENHANCE POINTS
The professional sessions of this conference has been endorsed by PSNZ ENHANCE for group 1 learning and pharmacists may allocate group 1 points at 1 point per hour for each session attended.

EVALUATION
An online evaluation survey including workshop evaluations will be emailed to attendees following the conference. We welcome your feedback and would be grateful for a few minutes of your time to complete this. A certificate of attendance will be emailed to you once the meeting evaluation has been completed.

INDUSTRY EXHIBITION
NZHPA acknowledge and thank all sponsoring and exhibiting companies for their support of the conference. All delegates are encouraged to spend time with the sponsors and exhibitors in the exhibition area, as without their valued support the association would be unable to provide an annual conference of this nature for their members.
INSURANCE
Registration fees do not include personal, travel or health insurance of any kind. Neither the New Zealand Hospital Pharmacists’ Association nor ForumPoint2 Limited take responsibility for delegates failing to take out adequate insurance cover.

INTERNET ACCESS
Complimentary Wifi access is available to conference delegates.

MOBILE PHONES
During conference sessions please set mobile phones to silent or vibrate. We ask that mobile phones are not used while sessions are in progress.

NAME BADGES
All conference attendees and industry representatives are asked to wear their name badges at all times during the conference and social functions. It is your official entrance pass to the sessions, conference catering and a requirement of health and safety.

PARKING
Parking will be as per the normal site parking. Collect a parking ticket from the barrier when you arrive at North Shore Hospital. Take your ticket with you and pay before returning to your car. You can view parking rates using this link http://www.waitematadhb.govt.nz/patients-visitors/getting-around/parking/

PRESENTERS’ INFORMATION
Oral presentations
Presentations are being loaded in the auditorium control room, which is located on the ground floor. Please go to the speakers’ room to load and check your presentation.

Presentations will only be accepted for loading at the following times only:
Friday 22 September  11.30am to 12.00pm
12.30pm to 12.45pm
3.00pm to 3.30pm
5.05pm to 5.30pm
Saturday 23 September  7.45am to 8.15am
10.00am to 10.30am
12.10pm to 1.10pm
2.40pm to 3.10pm
Sunday 24 September  9.00am to 9.30am
10.30am to 11.00am
12.30am to 1.15pm
If you wish to use your own laptop please go to the speakers’ room and see the technician on your arrival at the venue.

Please be in the conference room where you are presenting ten minutes before the start of the session to check your presentation, familiarise yourself with the AV set-up and meet the session chair.
POSTER PRESENTERS
Please report to the registration desk for allocation of a poster number and location of your poster board. Posters will be displayed in the foyer area.

Posters must be displayed by 5.00pm on Friday 22 September and removed on Sunday 24 September at 1.15pm. Posters are to be manned on 23 Saturday between 12.40pm and 1.10pm.

POWERPOINT PRESENTATIONS
PowerPoint presentations will be available in the members section of the NZHPA’s website (www.nzhpa.org.nz) following the conference where presenter approval has been given. The Visit My Poster session will be presented in the auditorium. The order of presentation will be as per the poster listing on page 82.

SESSIONS CHAIRS
Ten minutes before the session you are chairing, please be in the conference room to meet the presenters. Please ensure each session starts and finished at the advertised time.

SPECIAL DIETS
If you have advised us of any special dietary requirements on your registration form these have been notified to the chef. Vegetarian options are located on the main buffet. There will be a “pre-ordered special dietary requirement” table located in the catering area for other special diets. Please make yourself known to the catering staff at the social functions. Any problems please contact the staff at the conference registration desk.

WATER STATIONS
Water stations will be available throughout the venue.

WORKSHOPS
Attendance at workshops has been pre-booked on your registration form and workshop numbers are limited and ticketed. Your selected workshop is printed on the front of your namebadge.
DISCLAIMER OF LIABILITY

Whilst we have endeavoured to ensure that information on the conference website and printed material is accurate, details may be subject to change without notice. Any corrections or amendments will be notified as soon as possible. In the event of industrial disruptions, or service provider failures, neither the New Zealand Hospital Pharmacists Association nor ForumPoint2 Limited will accept any responsibility for losses incurred by delegates and their partners.

Acceptance of oral free papers does not indicate endorsement by the conference committee of any product or activity that the session may promote.

Although care has been taken to ensure accuracy, the conference committee does not accept liability for any errors in published abstracts.

The organisers of the New Zealand Hospital Pharmacists’ Association Conference 2017 have made every effort to ensure that the conference achieves its goal of disseminating the very best and most current information, advances and research in the field of hospital pharmacy. Furthermore, the organisers have made every effort to ensure that the delegates remain comfortable and enjoy the experience of the conference.

However, the organisers take no responsibility for any damage, loss or inconvenience delegates may incur or experience in connection with the conference. In addition, the organisers cannot be held liable for the correctness or appropriateness of the talks, papers, panels, tutorials and demonstrations included in the conference programme. In particular, changes to the published conference programme or cancellation of parts thereof do not entitle delegates to a full or partial refund of the conference fee.

Moreover, in the event of industrial disruption or other unforeseen circumstances, the organisers accept no responsibility for injuries/losses of whatever nature incurred by participants and/or accompanying person, nor for loss or damage to their luggage and/or personal belongings. Delegates are expected to make their own arrangements with respect to personal insurance.

Any personal/business information supplied to the conference will be used by the conference organisation for the purposes of conference registration and administration. Names and addresses of delegates will be processed electronically and included in a list of delegates that may be posted and distributed during and in conjunction with the conference, unless the delegate has previously opted via the online registration system not to have their information shared. By registering for the conference, delegates give their consent for such uses of their personal and business information.
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SOCIAL PROGRAMME

Welcome Function and Quiz
Date:   Friday 22 September 2017
Time:   5.05pm – 6.30pm
Venue:  Industry Exhibition area, first floor
This function is an occasion to catch up with friends and colleagues, chat with the exhibitors and other delegates whilst enjoying drinks and nibbles and viewing the exhibition.

Conference Dinner
Date:   Saturday 23 September 2017
Time:   7.00pm – midnight
Coaches depart from
6.15pm City of Sails Motel
6.20pm Takapuna Motor Lodge
6.25pm Anzac Court Motel
6.30pm Spencer on Byron
6.35pm Parklane Motor Inn
Venue: The Wharf, 2 Queen Street, Northcote Point, Auckland
Theme: Time Travellers Ball
Your ticket includes your meal, limited beverages and entertainment. Please exchange your ticket for a beverage on arrival. As a cash bar will be operating, please bring cash, eftpos or credit card to purchase additional beverages.

Transport
Coaches depart from
6.15pm City of Sails Motel
6.20pm Takapuna Motor Lodge
6.25pm Anzac Court Motel
6.30pm Spencer on Byron
6.35pm Parklane Motor Inn
Return transport will be at 10.30pm, 11.15pm and midnight (last coach).

Entertainment
Get ready to dance the evening away to the sounds of DJ Ronnie.

Important
Please take your ticket with you to the dinner (inside your name badge pocket), these will be exchanged for a beverage. If you have a ticket for the dinner, but will no longer be attending, please advise the ForumPoint2 team at the conference registration desk.
SPEAKERS

Rakesh Patel
Rakesh S Patel MBChB MRCP MMed MD SFHEA currently works as a Clinical Associate Professor in Medical Education at the University of Nottingham and Honorary Consultant Nephrologist at Nottingham University Hospitals NHS Trust. In his academic role, Rakesh is Course Director for the MMedSci in Medical Education and is Postgraduate Taught Course & Research Lead in the School of Medicine. His research focuses on developing the performance of healthcare professionals across the continuum of medical education and the use of technology-enhanced learning resources such as virtual patients or high-fidelity simulation, for developing clinical problem-solving and decision-making skills. His current study is called EPIFFany (Effective Performance Insight for the Future -http://tinyurl.com/EPIFFanyHEE) where the aim is to investigate the effectiveness of a multifaceted educational intervention for increasing the prescribing performance and safety behaviours of junior doctors across hospitals in the NHS.

Billy Allan, Health Quality and Safety Commission
Alex Chapman, Waitemata District Health Board
Sue Christie, Waitemata District Health Board
Maya Crawley, Cerno
Carole Dawson, Waitemata District Health Board
Christina Dukeson, Waitemata District Health Board
Annie Egan, Nelson Marlborough Health Service
Euan Galloway, Wellington
Lara Hopley, Waitemata District Health Board
Lindsay Hounsell, St. Ives Medical
Ariel Hubbert, Waitemata District Health Board
Avril Lee, Waitemata District Health Board
Pauline McQuoid, Medwise
Mariska Mannes, Waitemata District Health Board
Nikola Ncube, Waitemata District Health Board
Jerome Ng, Waitemata District Health Board
Susie Ovens, AUT
Kim Robinson, AUT
David Ryan, Waitemata District Health Board
Dale Sheehan, Unitec
Andi Shirtcliffe, Ministry of Health
Andrea Wilson, Wellington
INNOVATIVE DISPENSING SOLUTIONS

0800 TOAUTOMATE (0800 862 886)
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<td>12.00pm – 12.15pm</td>
<td>Mihi Whakatau</td>
<td>Fraser Toi, Louise Elia</td>
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<td>Lunch and Exhibition Opens</td>
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<td>12.45pm – 3.00pm</td>
<td>Conference Opening and Plenary Session</td>
<td>Auditorium, Ground Floor, Chair: Jessica Nand</td>
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<td>12.45pm – 1.00pm</td>
<td>Conference Opening</td>
<td>Marilyn Crawley</td>
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<td>1.00pm – 1.30pm</td>
<td>eHR Papering the Cracks</td>
<td>Lara Hopley</td>
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<td>1.30pm – 1.55pm</td>
<td>Social Media – The Good, the Bad and the Ugly</td>
<td>Annie Egan</td>
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<td>1.55pm – 2.05pm</td>
<td>Ministry of Health Update: Bridging the Gap the Ministry Way</td>
<td>Andi Shirtcliffe</td>
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<td>2.05pm – 2.25pm</td>
<td>#O2TheFix: Swimming Between the Flags</td>
<td>Alex Chapman, Jessica Nand, Nikola Ncube</td>
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<td>2.25pm – 2.35pm</td>
<td>Health Quality and Safety Commission Update</td>
<td>Billy Allan</td>
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<td>The Birth and Growth of NZHPA</td>
<td>Euan Galloway, Lindsay Hounsell</td>
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<td>3.00pm – 3.30pm</td>
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<td><strong>Concurrent Session – Free Papers</strong></td>
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<td><strong>1A</strong></td>
<td>Venue: Auditorium, Ground Floor Chair: Ariel Hubbert</td>
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<td><strong>1B</strong></td>
<td>Venue: Manuka Room, Ground Floor Chair: Kim Rogers</td>
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<td><strong>1C</strong></td>
<td>Venue: Waitemata Room, First Floor Chair: Jessica Nand</td>
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<td><strong>1D</strong></td>
<td>Venue: Harakeke Room, Ground Floor Chair: Elizabeth Brookbanks</td>
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**3.30pm – 3.45pm**

- **1A**
  - Do Electronic Tools Enable Doctors to Take Better Medication Histories? *Johana Marcroft, Gong J, Ticehurst R*

- **1B**
  - Sodium Valproate in Female Patients with Bipolar: Extent of Contraceptive Prescribing *Abbey Evison, McKean A, Vella-Brincat J, Chin P*

- **1C**
  - Keeping Pace With E-Systems: A Pharmacist Initiative to Establish a Multi-Disciplinary, Training Integration Group *Dean Croft, Rogers J*

- **1D**
  - Catastrophic Antiphospholipid Syndrome *Amy Peng, Chironi ML*

**3.50pm – 4.05pm**

- **1A**
  - Incorporating Laboratory Results into Electronic Prescribing and Administration to Improve Patient Care *Stella Fulton, Tianyang Zhou, Rogers JM, Ryan DM*

- **1B**
  - Exploring Medical Patient Medicines Information Needs at Auckland District Health Board *Hannah Ashmore-Price, Aspden T, Brackley K, Chan A, Honey M*

- **1C**
  - Medication Safety Option: Inter-Professional Program to Improve Junior Medical Staff Transition *Avril Lee, Chandran G, Nand J*

- **1D**
  - Terlipressin Infusion as a Bridging Therapy to Orthotopic Liver Transplantation *Jay Gong, Singh M*

**4.10pm – 4.25pm**

- **1A**
  - Back to the Future: Introducing a New Paper Medication Chart to Implement Electronic Prescribing *Joanne Rogers, Loe B*

- **1B**
  - Attempting to Improve Medication Safety on Admission and Patient Experience at Discharge: Two Birds with One ADU Pharmacist *Olivia Coe, Collings E, Croft DE*

- **1C**
  - Safety in Practice – Making Our Community Pharmacies Safer *Angela Lambie, Houston N*

- **1D**
  - What has *Lead* to This: A Case of Heavy Metal Poisoning *Nazia Hossain, Hana Numan*

**4.30pm – 4.45pm**

- **1A**
  - Don’t be Rec-less at Discharge: Results From a Post Implementation Audit of Electronic Medicines Reconciliation and Comparison with Previous Audits *Dean Croft*

- **1B**
  - Piperacillin/Tazobactam Use at Canterbury District Health Board. Are Prescribers Complying with Hospital Medicines List Restrictions? *Holly Boyle, Vella-Brincat J, Chin P*

- **1C**
  - Improving Medicine Administration in People With Parkinson’s Disease: An Interprofessional Service Development Initiative *Anna Miles, Ood M, Lambie A, Lee A*

- **1D**
  - Medicinal Cannabis - Prescribing, Supply and Use in the Symptom Management of Progressive Multiple Sclerosis *Suzy Barber*
| 1A | Venue: Auditorium, Ground Floor  
Chair: Ariel Hubbert |
|---|---|
| 1B | Venue: Manuka Room, Ground Floor  
Chair: Kim Rogers |
| 1C | Venue: Waitemata Room, First Floor  
Chair: Jessica Nand |
| 1D | Venue: Harakeke Room, Ground Floor  
Chair: Elizabeth Brookbanks |

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<tr>
<th>Time</th>
<th>Session Details</th>
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| 4.50pm – 5.05pm | Proton Pump Inhibitors – Reviewing the Appropriateness of Their Use in Medical Ward Patients  
*Fion McKibben, Hooker R*  
Psychotropics in the Elderly – Benefit or Burden?  
*Bernadette Rehman, Hikaka J*  
An Audit of Infliximab Use in Hutt Hospital’s Medical Day Stay Unit and the Potential Cost Savings Associated With HML Prescribing  
*Katrina Tandecki* |
| 5.05pm – 6.30pm | **Welcome Function**  
Venue: Industry Exhibition, Rata and Kawakawa Rooms, First Floor  
**Quiz with Quiz Masters: Euan Galloway, Lindsay Hounsell**  
Venue: Auditorium, Ground Floor |
1. PLENARY SESSION
   Friday 22 September 1.00pm – 1.30pm

eHR Papering the Cracks
Lara Hopley
Lara.Hopley@waitematadhb.govt.nz
Waitemata District Health Board
2. PLENARY SESSION
Friday 22 September 1.30pm – 1.55pm

Social Media – The Good, The Bad and The Ugly
Annie Egan
annette.egan@nmhs.govt.nz
Nelson Marlborough Health Service
3. **PLENARY SESSION**  
Friday 22 September 1.55pm – 2.05pm

**Ministry of Health Update: Bridging the Gap the Ministry Way**

Andi Shirtcliffe  
*Ministry of Health*
4. **PLENARY SESSION**

   Friday 22 September 2.05pm – 2.25pm

**#O2TheFix: Swimming Between the Flags**

Alex Chapman, Jessica Nand, Nikola Ncube

Jessica.Nand@waitematadhb.govt.nz

Waitemata District Health Board
5. **PLENARY SESSION**

**Friday 22 September 2.25pm – 2.35pm**

**Health Quality and Safety Commission (HQSC) Update**

Billy Allan  
*william.allan@hqsc.govt.nz*  
*Health Quality and Safety Commission*
6. **PLENARY SESSION**  
Friday 22 September 2.35pm – 3.00pm

**The Birth and Growth of NZHPA**  
Euan Galloway, Lindsay Hounsell  
euan.galloway@paradise.net.nz
7. CONCURRENT SESSION 1A: FREE PAPERS
Friday 22 September 3.00pm – 3.45pm

Do Electronic Tools Enable Doctors to Take Better Medication Histories?
Johana Marcroft, Gong J, Ticehurst R
johanam@adhb.govt.nz
Auckland District Health Board

Context / existing situation
Approximately 67% of medication histories taken by doctors contain at least one error resulting in patients receiving medicines they were not taking prior to admission or having medicines they were taking omitted. Medicines Reconciliation is a process designed to identify (and remedy) these errors. There is a national requirement for hospitals to undertake electronic medicines reconciliation (eMR). Most hospitals in NZ using the eMR tool utilise pharmacists to complete all elements of the electronic process. However, pharmacist to bed ratios at ADHB limits our ability to roll out this eMR model. We identified an opportunity to have doctors complete the first step of the process by recording each patient’s medication history electronically.

Planned change
Our goal is to have an accurate medication history recorded electronically for every inpatient across ADHB. We will utilise the Medication History Form (MHF) within our Concerto application (Orion Health) that integrates with the community pharmacy dispensing repository in the Northern Region (Testsafe).

Methods
We worked with General Medicine teams in our Admission and Planning Unit to create a suitable workflow to enable doctors to complete the MHF. Each doctor received face to face training on using the MHF. Once finalised, the MHF was printed and placed in the clinical notes in lieu of a handwritten medication history. Clinical pharmacists reviewed each MHF for accuracy.

Measurement of improvement
Baseline measurements were taken to quantify the quality of Doctors’ non-electronic medication histories. Errors were grouped by type (e.g. omission) and we also looked at the number of incidents for high risk medicines. Measures will be repeated after implementation in order to assess the impact of our intervention.

Effects of changes
Our pilot is still in progress and full results will be presented at conference.

Lessons learnt / implications for others
We will describe the methods used to engage prescribers in this new process. We will discuss the risks and benefits of having prescribers complete the MHF and the applicability of our results to other DHBs.

Justification for presentation
An accurate medication history is a key component of a patient’s admission to hospital. At ADHB we have trialled Doctors completing the MHF as a method of increasing the accuracy of the medication history.
8. **CONCURRENT SESSION 1A: FREE PAPERS**
Friday 22 September 3.50pm – 4.05pm

**Incorporating Laboratory Results into Electronic Prescribing and Administration to Improve Patient Care**

Stella Fulton, Tony Zhou, Rogers JM, Ryan DM

*stella.fulton@waitematadhb.govt.nz*
*tony.zhou@waitematadhb.govt.nz*
*Waitemata District Health Board, Auckland*

**Introduction**

Following the successful implementation of an electronic prescribing and administration (ePA) system at Waitemata DHB in 2012, an interface to the laboratory system (Éclair) was written. This enables the population of results (serum creatinine, serum potassium, and INR/PR) into the MedChart rules engine in order to provide basic clinical decision support during the prescribing and administration process.

**Aim**

To determine whether clinical decision support warnings that incorporate individualised patient laboratory results promote safer and more judicious prescribing and administration practices.

**Method**

Waitemata DHB’s MedChart rule engine provides warnings when any of the following criteria are met:

1. Administering warfarin when INR >3.6
2. Administering enoxaparin when INR >2
3. Administering IV/PO potassium when $K^+ > 5.6$ mmol/L
4. Prescribing nitrofurantoin when CrCl <30 mL/min

A database query retrieved all rule infringements between 01/11/2016 and 02/06/2017 for the four rules above. These were analysed to determine the effect that they had on decision-making when prescribing and administering medicines.

**Results**

Results are still pending due to the vast amount of data to be analysed, however preliminary results for prescribing nitrofurantoin suggests that the prescriber took appropriate action in 91% of cases when the rule was triggered.

**Conclusion**

The initial results suggest that incorporation of individual patient data into MedChart’s clinical decision support system provides a basic level of around-the-clock clinical guidance, resulting in safer prescribing and administration practices, ultimately reducing the inappropriate use of medicines, and improving patient safety. The positive outcomes from these rules allow for further rules to be developed using medication, patient, and institution specific parameters and demonstrate the advantages of adopting an ePA system. Furthermore, this paves the way for incorporation of other electronically recorded patient parameters such as heart rate in the future.

**Justification for presentation**

MedChart is planned to be implemented across all DHBs in New Zealand. As a leading site, Waitemata DHB is in a prime position to demonstrate the contribution ePA systems can make in promoting judicious prescribing and administration processes.
9. **CONCURRENT SESSION 1A: FREE PAPERS**  
Friday 22 September 4.10pm – 4.25pm

**Back to the Future: Introducing a New Paper Medication Chart to Implement Electronic Prescribing**

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**Context / existing situation**

Electronic Prescribing and Administration (ePA) implementation is a challenging time of transition for all staff members affected. Implementing ePA “upstream” first and working along the patient journey has benefits as compared to implementing at the end of the patient journey and working backwards. We needed a solution to ensure the safe transfer of a medication chart from the electronic system to a paper chart in the interim phases of our large-scale ePA implementation.

**Planned change**

Our vision was to create a “transfer chart” to facilitate the transition from paper charts to ePA as we implemented from upstream areas throughout the hospital.

**Methods**

In conjunction with HQSC, we designed a Transfer Medication Chart modelled on the National Medication Chart, with blank pages where the printed ePA chart could be affixed by nursing or clerical staff. This enabled ePA implementation to begin in the Emergency Department, then moving on to the Assessment and Diagnostic Unit (ADU), followed by the wards in a stepwise fashion.

**Measurement of improvement**

The Transfer Medication Chart facilitated safe patient transfer between ePA and paper chart areas with no transcription errors. There was minimum disruption to prescribers, as transcribing medications between the systems at the point of transfer was not required.

**Effects of changes**

The Transfer Medication Chart enabled our ePA implementation to roll through the hospital from start to end of the patient journey. All medical staff were compelled to learn how to use the ePA program upfront, due to upstream implementation in ED and ADU. The risk of transcription errors was eliminated by using the printed version of the ePA chart at patient transfer.

**Lessons learnt / implications for others**

As more DHBs start to plan their ePA implementations, the Transfer Medication Chart will provide safety and flexibility during interim phases of change.

**Justification for presentation**

A transfer medication chart is available to DHBs to aid the implementation of ePA. Transfer between ePA areas and paper chart areas is, and continues to be a major area of risk for DHBs where ePA is not fully implemented.
10. **CONCURRENT SESSION 1A: FREE PAPERS**  
Friday 22 September 4.30pm – 4.45pm

**Don’t be Rec-less at Discharge: Results from a Post Implementation Audit of Electronic Medicines Reconciliation (eMR) and Comparison with Previous Audits**

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**Introduction**  
Despite the initiative to roll-out electronic Medicines Reconciliation (eMR) nationally, evidence for the software’s benefits and effectiveness is lacking, both for unintended discrepancy rates and clinical outcomes.

**Aim**  
Conduct a post-implementation audit of discharge summary documents, examining discrepancies and quality measures following eMR rollout to general medicine. Compare these results with previous audits conducted in 2008 and 2012.

**Method**  
Discharge Summaries for older adult inpatients of general medicine, at high risk of re-admission were audited retrospectively, together with clinical notes and medication charts. Patient selection methods were identical to those used in 2012. Measures between audits were kept consistent where possible. Outcomes included the number and type of discrepancies, accuracy of admission and discharge medications lists, documentation around medication changes and allergy/adverse drug reaction list accuracy.

**Results**  
126 episodes were audited between August and September 2015. Of these, 87 (67%) had an eMR form completed. A total of 163 unintended discrepancies were identified, with the majority (n=121, 74%) found in the 39 non-eMR episodes (3.1 discrepancies/episode vs. 0.48/episode for eMR). All quality measures were consistently better when eMR was completed. Overall, compared to 2008 and 2012, accuracy of discharge medicines improved modestly, with fewer discrepancies. Documentation around changes worsened overall.

**Conclusion**  
Discharges with eMR were generally of very high quality, having few discrepancies. Non-eMR discharges deteriorated in quality from 2008 and 2012, offsetting some of the improvements gained with eMR and raising questions around ‘de-skilling’ RMOs. New types of error not previously seen were identified. A high eMR coverage and completion rate appears necessary to maximise the benefits of the software.

**Justification for presentation**  
These results generally support the use of this nationally mandated piece of software, while also revealing some of its potential downsides - lowering RMO skill in documenting medicines information at discharge medicines and ‘creating’ new types of errors.
11. **CONCURRENT SESSION 1B: FREE PAPERS**  
**Friday 22 September 3.30pm – 3.45pm**

**Sodium Valproate in Female Patients with Bipolar: Extent of Contraceptive Prescribing**

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**Introduction**

Sodium valproate is contraindicated in pregnancy due to risks of teratogenicity. Congenital malformations and developmental delay occur in between 6.7-12.4% and 30-40% of children exposed in utero respectively. Valproate is therefore reserved for females of childbearing age when other treatments are ineffective and ideally in combination with adequate contraception. Recent MHRA advice suggests that 1 in 5 women taking valproate are unaware of these risks.

**Aim**

1. To identify whether there is documentation around the decision to prescribe valproate with the patient, including the risks in pregnancy and subsequent need for contraception.
2. To evaluate the extent of contraception use in female bipolar inpatients of childbearing age prescribed sodium valproate.

**Method**

Female bipolar inpatients of childbearing age (13 to 50 years old) under Specialist Mental Health Services (SMHS) at Canterbury District Health Board prescribed valproate were identified using MedChart. Both MedChart and clinical notes were reviewed to ascertain whether the patient received either pharmacological contraception or other methods of contraception (including barrier methods and intrauterine devices). The clinical notes were also used to identify whether discussion of the risks around the decision to prescribe valproate are clearly documented. Microsoft Excel was used to analyse data.

**Results**

Over a three-month period in 2017, 24 females aged 13 to 50 years were administered at least one dose of valproate under SMHS. Of these 24 female patients, three were also prescribed a contraceptive. Two of the three were prescribed oestradiol and cyproterone in combination, and the third patient prescribed ethinylestradiol with norethisterone.

**Conclusion**

Females prescribed valproate need to be informed of the risks associated with pregnancy. Where sodium valproate must be used, contraception should be ideally prescribed in this population, in order to minimize these risks. These findings may impact future prescribing of valproate in this population, and address a need for guidelines and education around prescribing.

**References**

**Justification for presentation**
Following recent media coverage in NZ, it would be interesting to learn about the safe prescribing of valproate in women. This is an important issue, requiring discussion of the risks in pregnancy with the patient, and subsequent need for contraception.
Exploring Medical Patient Medicines Information Needs at Auckland District Health Board (ADHB)

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Introduction
Routine patient surveys at ADHB highlight that there is a need and desire for more information to be provided to patients about their medications. Providing information to patients about medicines is becoming particularly important as New Zealand’s health system is increasingly shifting towards patients being able to self-manage their own health conditions and medicines. Limited information exists however on what kind of information patients need and want about their medicines and focuses on specific conditions such as asthma¹, cancer² or general health information³.

Aim
1. To determine the medicines information needs of patients admitted to inpatient medical wards at one New Zealand hospital;
2. To explore the perceived barriers and enablers to meeting these patient needs.

Method
A descriptive exploratory approach was used with purposive sampling to recruit a diverse range of patients. Data was collected via one-on-one interviews which were audio-recorded and transcribed verbatim. Inductive thematic analysis of the interview data was facilitated using NVivo®. Interviews were analysed by one member of the research team and all relevant themes identified and coded.

Results
Thirty patient interviews were conducted between Dec 2016 and Feb 2017. In general, the medicines information needs of patients were highly individualised. Information preferences centred around a desire for understanding and influence over their own health. Five key themes were identified: autonomy, fostering relationships, access, communication and status quo. The enablers to providing medicines information were found to be established relationships with a healthcare professional, easy access to a provider and other sources of information.

Conclusion
While each participant wanted different medicines information, for most patients, the information was generally required to help them understand both their condition and treatment. Effective provision of medicines information was underpinned by the need for clear, simple explanations to support self-management.

Justification for presentation
This research provides insight into the information needs of medical patients and provides guidance on the provision of medication counselling practices to improve understanding and encourage self-management by patients

References:
13. CONCURRENT SESSION 1B: FREE PAPERS  
Friday 22 September 4.10pm – 4.25pm

Attempting to Improve Medication Safety on Admission and Patient Experience at Discharge: Two Birds with One ADU Pharmacist

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Context /existing situation
The clinical service model at WDHB results in high numbers of post-acute patients requiring admission Medicines Reconciliation (MR). Consequently, less time is available for pharmacists to conduct discharge related activities (DRAs). Furthermore, incorrect medicines are often prescribed and administered, or doses missed prior to commencement of post-acute MR.

Planned change
Trial a dedicated Admission and Diagnostic Unit (ADU) pharmacist at North Shore Hospital from 11:30-8pm Monday to Friday, focussing on earlier admission MR to reduce post-acute workload, increase DRAs and ward round attendance.

Methods
Pre- and post-intervention data were collected in two, 4-week periods. Workload and DRAs were recorded by all pharmacists. General medical patients admitted to ADU at North Shore hospital were eligible. Data collected included numbers of medication histories, interventions and DRAs completed by the ADU and clinical pharmacists. ADU staff and pharmacists were surveyed following completion of the trial.

Measurement of improvement
Key outcomes were average reduction of post-acute patients needing MR, changes in DRAs between pre- and post-intervention and average time from admission to MR.

Effects of changes
- ADU Pharmacist completed average of 17.7 MRs/day, average time from admission to MR was 3hours 49minutes.
- Use of MedChart\textsuperscript{®} to document admission medicines resulted in 0.14 discrepancies/admission vs. 1.25/admission for ‘traditional’ charting.
- Average of 6 fewer post-acute patients/day needing MR for each pharmacist team
- ADU Pharmacist answered 105 enquires from doctors and nurses, made 341 MR+clinical interventions.
- Pharmacist highly valued by ADU staff.

Lessons learnt/implications for others
Reduction in post-acute MR does not necessarily lead to an increase in DRAs, other factors may have possibly contributed to this. Medication histories documented in MedChart\textsuperscript{®} prior to RMO clerking virtually eliminated discrepancies.

Justification for presentation
- Whilst ADU Pharmacists are not novel, attempting to increase DRAs by adding resource to the ‘front-end’ is a counter-intuitive approach worth sharing.
- Using MedChart\textsuperscript{®} to enable rapid, accurate charting by RMOs had a surprising impact on discrepancies.
14. CONCURRENT SESSION 1B: FREE PAPERS
Friday 22 September 4.30pm – 4.45pm

Piperacillin/ Tazobactam Use at Canterbury District Health Board. Are Prescribers Complying with Hospital Medicines List Restrictions?
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Introduction
Piperacillin/ tazobactam use in Christchurch Hospitals has more than tripled over the past 5 years. Increased use of antimicrobials has the potential to lead to the emergence of bacterial resistance. Specific criteria have been established to restrict prescribing of piperacillin/ tazobactam. This project will investigate whether or not these criteria have been met.

Aim
1. To identify whether the prescribing of piperacillin/ tazobactam in Christchurch Hospitals complies with Hospital Medicines List (HML) restrictions.
2. To assess appropriateness based on the National Antimicrobial Prescribing Survey.

Method
The study was carried out prospectively. Medchart and a referral system were used to identify the inpatients that had been charted piperacillin/ tazobactam over a 2- week period. Patient notes were accessed to identify whether or not the prescribing of piperacillin/ tazobactam complied with HML restrictions. The HML restrictions are, that it was recommended by a clinical microbiologist, infectious disease specialist or respiratory specialist OR that it was being used in accordance with a protocol or guideline that has been endorsed by the Canterbury District Health Board. Microsoft Excel was used to collect and analyse the data generated.

Results
225 adult patients received at least one dose of piperacillin/ tazobactam in three months in 2017 across all Christchurch Hospitals. 103 patients were treated in oncology/ haematology, cardiothoracics and general medicine wards. The number of doses ranged from 1 to 122 with a median (interquartile range) of 10 (4.75 to 16.25). From this data, it can be assumed that the study will net approximately 35 patients over a 2- week period.

Conclusion
To be confirmed

Justification for presentation
Resistance to antimicrobials is increasing with time. There is growing risk that infections will not be treatable in the future. Appropriate use of antibiotics and compliance with antimicrobial guidelines is essential in reducing this risk of increasing resistance globally.
Proton Pump Inhibitors – Reviewing the Appropriateness of Their Use in Medical Ward Patients

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Introduction
In recent years, the long-term safety profile of proton pump inhibitors (PPIs) has come under the spotlight with the suggestion of increased risk of infections, nutritional deficiencies and bone fractures\(^1\). The over-prescribing of acid suppression medications has been explored internationally, with prescribing of PPIs in Australia, Ireland and UK hospitals not meeting criteria for use in 63%, 33% and 67% of patients\(^2\). Pharm et al reviewed acid suppression use in medical inpatients, with only 15 of 152 patients having an acceptable indication for use\(^3\). The continuation of prescribing between primary and secondary care was identified as an issue by a small New Zealand study, identifying that 40% of inpatients were taking proton pump inhibitors inappropriately\(^4\). Two-thirds of these patients were prescribed a PPI on discharge with the majority of patients still taking them six months later\(^4\).

Aim
- To identify the extent of inappropriate PPI use on the medical ward at Whanganui Hospital.
- To provide an informed basis for future action aimed at reducing unnecessary PPI use.

Method
A data collection tool was created to collect information on the type, dose and frequency of the PPI, indication, recent dose changes, and whether diagnostic procedures had been undertaken. It was decided to collect data from a total of 50 patients on the medical ward prescribed a PPI. Charts and clinical records would be reviewed and if documentation is not sufficient enough to form a clear conclusion, patients would then be asked about their PPI use.

Results
Full results are not available as the audit has not yet been completed. Preliminary results appear to suggest that PPIs are being inappropriately prescribed in the majority of patients.

Conclusion
A conclusion cannot yet be drawn, as the results are not complete.

Justification for presentation
Local data on PPI use is lacking. Results of this audit will highlight the extent of inappropriate PPI prescribing within WDHB. This would be of interest to all DHBs to highlight one avenue to potentially reducing medication-related harm and poly-pharmacy.

References
16. **CONCURRENT SESSION 1C: FREE PAPERS**  
**Friday 22 September 3.30pm – 3.45pm**

**Keeping Pace with E-Systems: A Pharmacist Initiative to Establish a Multi-Disciplinary, Training Integration Group**

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**Context/existing situation**
The inevitable migration of traditional paper processes to electronic platforms has accelerated over the past five years with an increasing number of core business processes being managed electronically. This shift has had a number of knock on effects, in particular, causing a significant increase in complexity of organising and providing effective training and user provisioning.

Feedback following the 2016 Q3 RMO induction indicated issues were beginning to compromise care delivery.

**Planned change**
We decided to form a pharmacy led e-Systems Training Integration Group (eSTIG) to engage with key individuals, explore the issues and formulate practical steps to address them, with the aim of integrating aspects of all DHB e-systems training into a unified process.

**Methods**
Initial correspondence sent to E-Systems leads, IT training managers, Clinical lead of the Medical Education and Training Unit (METU). The key aspects to the problem were defined and an initial focus on RMOs was decided. The initial approach consisted:

- Stocktake of systems and training requirements
- Review of training content, delivery, spaces and time requirements
- Incorporation of simpler systems into BAU training
- Investigate a single provisioning process

**Measurement of improvement**

- Feedback following staff inductions
- Visible changes to existing processes
- Reduction in incidents (official or anecdotal) relating to use of e-systems

**Effects of changes**
Concerto training for RMOs increased from 2 to 3 hours, e-Vitals and eMR incorporated within this. Group has taken over co-ordinating run changes and inductions. Where possible, induction now takes place prior to commencement date. Now moving into Allied and nursing.

**Lessons learnt/implications for others**
Recruiting and gaining support of the right individuals, while keeping the group small enough to be focussed has been the key to progress.

**Justification for presentation**
The eSTIG represents a pharmacist created, ‘grass roots’ initiative that has led to positive collaboration and organisation between multiple disciplines and has begun taking meaningful, practical steps towards training integration without any official mandate.
17. **CONCURRENT SESSION 1C: FREE PAPERS**  
Friday 22 September 3.50pm – 4.05pm

**Medication Safety Option: Inter-Professional Program To Improve Junior Medical Staff Transition**  
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**Context/ Existing situation**  
Junior doctors often find prescribing a difficult task as they feel unprepared and express concerns that prescribing is not highlighted within the medical curriculum. Although prescribing is known to be the most common therapeutic intervention carried out by doctors, there are currently no transition initiatives being undertaken to address this issue.

**Planned Change**  
Develop and pilot a 3 week Medication Safety Option for Trainee interns

**Methods**  
A proposal was developed and approved by Auckland Medical School. Learning outcomes for the option were based on the University of Auckland medical curriculum and clinical scenarios. The overall aims of the option include developing and understanding interprofessional teamwork, their roles in prescribing and administration processes, and to demonstrate the ability to safely and accurately prescribe core medications including conveying learning to patients and colleagues. Practical learning opportunities include medication reconciliation and discharge counselling.

**Measurement of Improvement**  
1 trainee intern completed this option in May 2017. Towards the end of the option, 2 teaching sessions were delivered to groups of trainee interns and clinical pharmacists about their learning. A Pre and Post knowledge evaluation demonstrated increased awareness and knowledge around medication safety. The trainee intern found the option extremely valuable and suggested this option should be offered to all trainee interns.

**Effect of Changes**  
Prescribing is a complex process and not just a task. To overcome new doctors confidence and knowledge gap issues, inclusion of this medication safety option will aid the transition processes. Without exception all clinicians (involved or observing) fully support this initiative.

**Lessons learn/ implications**  
This pilot option has demonstrated that interprofessional training in a practical setting is capable of addressing this transition issue.

**Justification for Presentation**  
This is the first medication safety option for medical students to be developed in Australasia. It is a new and exciting way of ensuring our medical graduates are more prepared for the responsibilities of prescribing.
18. **CONCURRENT SESSION 1C: FREE PAPERS**  
Friday 22 September 4.10pm – 4.25pm

**Safety in Practice – Making Our Community Pharmacies Safer**  
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¹ Quality Use of Medicines Team, Waitemata District Health Board  
² Planning and Funding Department, Waitemata District Health Board

**Context / existing situation**  
The 2015 HQSC primary care survey revealed 8% of patients report receiving the wrong medicine or dose over 12 months, and 46% sought medical advice or attention for the error. During 2016 over 4000 admissions to Waitemata hospitals had a documented adverse drug event caused outside of hospital; mostly from known high-risk medicines, warfarin, NSAIDS and opioids.  
Up to 67% of adverse drug events could be preventable¹ and 40% of medicine errors occur during transitions of care.² Collaborative models to reduce medication-related harm are needed in New Zealand.³

**Planned change**  
To integrate quality improvement techniques in community pharmacy focusing on patient safety, to reduce preventable admissions to hospital from high-risk medicines and establish robust medicines reconciliation processes.

**Methods**  
To run collaborative Learning Sets with community pharmacies in Auckland and implement quality improvement techniques to improve safety of high-risk medicines and encourage medicines reconciliation for patients discharged from hospital. Resources will be developed to assist with patient counselling. General practices working with Safety in Practice are focusing on the same areas; this will help to improve collaboration and share learnings with them.

**Measurement of improvement**  
Community pharmacies will use Plan Do Study Act (PDSA) cycles and ‘measurement bundles’ to review, improve and measure management of high-risk medicines and medicines reconciliation processes.

**Effects of changes**  
These changes will help reduce preventable admissions to hospital through better management of high-risk medicines, and medicines reconciliation processes. Patient resources will assist with counselling and patient empowerment by improving health literacy.

**Lessons learn / implications for others**  
This will improve management of high-risk medicines in community pharmacy and medicines reconciliation processes, reducing preventable admissions to hospital. Regular Learning Sets, involving pharmacists and technicians, will help to share lessons learned. These interventions can be adapted for use throughout the country.

**Justification for presentation (40 words or less)**  
There are unacceptable admissions to New Zealand hospitals from adverse events with high-risk medicines. ‘Safety in Practice’ will help manage high-risk medicines in primary care and support medicines reconciliation processes to reduce preventable admissions and improve patient empowerment.
References
Improving Medicine Administration in People with Parkinson’s Disease: An Interprofessional Service Development Initiative

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Context / existing situation
Swallowing of medicines can be critical in the elderly population where over 35% of people over 65yrs old take more than five regular medications each day (Health Quality & Safety Commission, New Zealand, 2016). Medicine administration errors have been found twice as frequently in people with dysphagia than in those without (Haw, Stubbs, & Dickens, 2007). Many people with Parkinson’s disease are at high risk of administration error due to their age, increased incidence of dysphagia and dependency on timely and accurate medicine use. Errors involving late, extra or missed doses can reduce medication effectiveness and have an impact on the quality of life of people with Parkinson’s disease and their carers (Buetow et al., 2010).

Planned change
The aim of this service development initiative is to improve the medicine administration of people with Parkinson’s disease in New Zealand through education of health professionals, carers and people with Parkinson’s disease.

Methods
A cross-sectional, self-administered web-based survey of people with Parkinson’s disease across New Zealand is in progress. The results of the survey will guide the development of an educational leaflet for circulation through General Practices and Community Pharmacies and an interactive eLearning course for health professionals, patients and carers.

Measurement of improvement
The resources will be designed based on systematic literature review, expert opinion and the results of the national survey. The final resources will be assessed through feedback from Parkinson’s New Zealand regional meetings and analysis of the feedback survey attached to the eLearning course.

Effects of changes
The project is in progress and results will be analysed in time for Conference. The results of the survey, as well as the draft educational leaflet and draft eLearning course will be shared with conference attendees.

Lessons learn / implications for others
This comprehensive interprofessional initiative will support health professionals, patients and carers to reduce medication errors and optimise medicine administration for people with Parkinson’s disease.

Justification for presentation
To our knowledge, this is the first Pharmacy/Speech-language Therapy collaboration to improve medicine administration practices for people with Parkinson’s disease in New Zealand. This initiative demonstrates the potential for positive research, clinical and educational relationships between these two professions.
Psychotropics in the Elderly – Benefit or Burden?
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¹ Waitemata District Health Board

Introduction
Psychotropic medicines are often prescribed for older adults to manage behaviour and psychiatric symptoms - their use is associated with an increased risk of adverse events such as falls and fractures, cognitive impairment, movement disorders, and with antipsychotics an increased risk of stroke, particularly in dementia. The prevalence of psychotropic medicine use amongst aged care residents with dementia is high. Evidence suggests that pharmacist review of psychotropic medicines, with the aim of reducing or discontinuing them has been effective in the aged care setting.

Aim
1. Describe psychotropic use in the aged care setting
2. Evaluate the impact of a pharmacist medicine optimisation review service on psychotropic prescribing

Method
All pharmacist medicines optimisation reviews from 01 June - 30 November 2016 were analysed. Data was collected on psychotropic prescription by class and comorbidities. Pharmacist recommendations relating to psychotropic medicines were analysed based on type, acceptance rate and whether they were communicated via written review or as part of a multidisciplinary (MDT) meeting.

Results
A total of 307 medicine reviews were completed; 40% occurring within an MDT meeting. More than half of the residents reviewed were prescribed at least one psychotropic medicine - 34% an antipsychotic, 41% a benzodiazepine and 56% either an antipsychotic or benzodiazepine. The most common type of recommendation was to reduce or stop psychotropic medicines (85% for antipsychotics; 98% for benzodiazepines). Recommendations were more likely to be accepted if made as part of an MDT meeting rather than written review (91% vs 66% for antipsychotics; 87% vs 75% for benzodiazepines).

Conclusion
The results showed a high psychotropic burden, and therefore, a high potential for harm. Comprehensive medicine optimisation review by a pharmacist reduced the prescribing of psychotropic medicines. Recommendations made as party of a collaborative MDT meeting were more likely to be accepted and actioned.

Justification for presentation
This audit demonstrates extensive use of psychotropics in aged care in our DHB, often initiated in other settings, with no clear plans for review. This research will be of interest to other pharmacists, demonstrating the positive outcome of pharmacist review.

References
Catastrophic Antiphospholipid Syndrome
Amy Peng1, Chiaroni ML
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Introduction
Antiphospholipid syndrome (APS) is an acquired autoimmune disorder that manifests as venous or arterial thrombosis. Catastrophic APS (CAPS) is a rare subset of APS that has mortality risk as high as 50 percent. Here we describe a case that was possibly CAPS.

Case description
Ms PL, a 17 years old student, presented to hospital with fever and generalised weakness. She had a recent diagnosis of systematic lupus 2 months prior admission. On examination she was tachycardic, tachypnoeic, and hypotensive. She had severe lactic acidosis, acute kidney injury and pancytopenia. The differential diagnoses initially were septic shock or severe lupus flare. She was managed with intravenous fluids, antibiotics, steroids and blood pressure support. Subsequently she was found to have methicillin sensitive staphylococcus aureus (MSSA) bacteraemia. This was managed with fluclaxacinil and clindamycin. Her extremely high ferritin and pancytopenia led to the suspicion of CAPS triggered by MSSA sepsis. Ms PL was treated with intravenous immunoglobulin, plasmapheresis and heparin infusion. Anti-Xa level was used for monitoring due to deranged APTT. Antithrombin was replaced for low levels. Ms PL subsequently bled and was given transfusions and platelets. She later deteriorated secondary to fungal sepsis which was treated with caspofungin. Noradrenaline had increased to 4mg/hour at this stage. On day 10 of admission, Ms PL unfortunately passed away.

Discussion
Ms PL most likely passed away because fungal sepsis which carries a high mortality risk. The patient was treated in a timely manner with appropriate antibiotics and anticoagulation. It highlights the importance of anti-Xa level and antithrombin monitoring and consideration of drug elimination via plasmapheresis in CAPS.

Conclusion
This case describes the difficulty in diagnoses and treatment of CAPS. Despite this, it did not affect decision on best management which included early antibiotics, cardiorespiratory support and anticoagulation. It demonstrates the importance and difficulty on balancing anticoagulation and bleeding risk.

References

Justification for presentation
This is a rare case that demonstrates the reality of complex management in CAPS. In particular, balancing the need for anticoagulation with risk of bleeding, and immunosuppression of lupus with need for functioning immune system in severe sepsis.
Terlipressin Infusion as a Bridging Therapy to OLT (Orthotopic Liver Transplantation)
Jay Gong, Singh M
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Auckland City Hospital, Auckland

Introduction
Terlipressin is used to treat hepatorenal syndrome in end stage liver disease. Traditionally some patients may have required ongoing terlipressin for bridging towards OLT. This was administered via IV bolus doses and managed as an inpatient. These patients will then remain on terlipressin until their transplant (which can be upwards of 2 weeks). We report the first case of using terlipressin as an infusion in New Zealand and management of hepatorenal syndrome in the outpatient setting.

Case description
A 49 year old Caucasian male (GW) transferred to Auckland hospital with end stage liver disease and worsening renal function was diagnosed with hepatorenal syndrome awaiting OLT. GW was initially started on 1mg of terlipressin every six hours given as IV boluses with albumin. On admission his serum creatinine was elevated to 340µmol/L (baseline 120-130 µmol/L) and subsequently decreased and stabilised to 130µmol prior to discharge. GW was then discharged on terlipressin infusion at 4mg over 24 hours via an elastomeric pump and subsequent serum creatinine remained stable at around 130µmol/L for the next four days before he received a liver transplant.

Discussion
This case illustrates the first reported use of terlipressin infusion in an elastomeric pump for the management of hepatorenal syndrome as an outpatient. Cases have been reported from Australia regarding terlipressin infusions via conventional devices, offering patients limited ability to perform activities of daily living. Though the total duration of infusion was short, it is clear GW’s serum creatinine did not deteriorate further and he did not experience any adverse effects.

Conclusion
This is a novel approach to patients requiring ongoing terlipressin prior to OLT, and it will be developed into a protocol for future liver transplant patients. The advantages of this approach include cost savings, release of nursing time and hospital beds, and reduced risks associated with prolonged hospital stay.

Justification for presentation
This case is the first to trial terlipressin infusion as an outpatient in New Zealand and will impact future practices and management of liver transplant patients with hepatorenal syndrome in Auckland and other major centres around New Zealand.
23. CONCURRENT SESSION 1D: FREE PAPERS
Friday 22 September 4.10pm – 4.25pm

What Has Lead To This: A Case of Heavy Metal Poisoning
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Waitemata District Health Board, Auckland

Introduction
Heavy metal toxicity is an uncommon but potentially lethal event. A contributing factor is the self-administration of unregulated Ayurvedic medications (Indian herbal medication) that may contain significant concentrations of heavy metals (1). This report describes an incident of chronic lead poisoning secondary to long term Ayurvedic medication use and the procurement of its antidote.

Case description
Mrs X, a 40 year-old Fijian Indian female presented to hospital with biparietal headache and high lead levels following chronic use of ayurvedic medicines for essential tremor management. No other obvious source of lead exposure was noted. Treatment with IM dimercaprol and sodium calcium EDTA was commenced in hospital however stock was limited. Given the patient was asymptomatic, treatment was changed to PO succimer as per toxicologist advice. The choice and procurement of antidote agents required significant teamwork and liaison between DHBs. Succimer was supplied to the patient along with medication counselling on discharge to ensure completion of course. Public health unit was notified for further community follow up whereby repeat blood levels ultimately showed response to treatment.

Discussion
Mrs X's case exposes the potential for ingestion of lead-containing ayurvedic medication to cause lead poisoning. A myriad of toxicity related symptoms may occur including vomiting, headaches, anaemia, renal insufficiency, neurological changes, and blue discolouration of the gums (2,3). The course of treatment is determined by blood lead levels along with patient symptoms. The antidote –which is usually of limited stock – would need to be sourced in an efficient manner to complete an entire course.

Conclusion
This case demonstrates the importance of timely, sound management of lead toxicity that may potentially be fatal. It also highlights the need for readily available antidotes and the importance of knowing what different options of therapy are available to us. Currently, a registry of antidotes throughout the country is not available – should this be done?

Justification for presentation
This is a rarely occurring problem, nevertheless, the knowledge of its specific management and the consideration that must be made are vital in ensuring patient survival. The knowledge acquired from this case presentation enables us to confidently manage lead poisoning.

References
2. http://www.toxinz.com/Spec/2020006#secrefID0EDMA1
Medicinal Cannabis - Prescribing, Supply and Use in the Symptom Management of Progressive Multiple Sclerosis
Suzy Barber
Suzy.Barber@middlemore.co.nz
Counties Manukau District Health Board, Auckland

Introduction
Multiple sclerosis (MS) is an autoimmune inflammatory demyelinating disease of the central nervous system (CNS) with symptoms including spasticity and neuropathic pain. In randomised trials, cannabinoids failed to provide consistent improvement in MS-related outcomes. In New Zealand, a cannabis-based product Sativex® is approved for use only as an add-on treatment for symptom improvement in patients with moderate to severe spasticity due to MS. This report describes symptomatic relief provided by two cannabis-based products (Sativex® and Tilray TN-CT11G THC/CBD 10mg/ml Elixir) when compared to conventional analgesia.

Case description
In 2015, a 55-year-old woman wheelchair bound with progressive MS was experiencing painful muscle spasms, neuropathic pain, uncomfortable paraesthesia and reduced cognitive function impacting on her ability to work full-time. Regular analgesia included Gabapentin and Opioids. Baclofen and Amitriptyline were ineffective for muscle spasms and neuropathic pain respectively. June 2015, Ministry of Health approved prescribing and supply of Sativex® for this patient whom reported a global improvement in her wellbeing, reduction in pain and cognitively improved having completely weaned off Opioids and Gabapentin. Due to patient funding constraints, in Feb 2017 a cheaper alternative unapproved cannabis-based product (Tilray Elixir) was procured from Tilray Canada by Middlemore Hospital Pharmacy for the first time in NZ, via convoluted, expensive and time-consuming process. Tilray Elixir was effective for neuropathic pain and muscle spasm, similar to Sativex®, allowing a drastic reduction in requirement for other analgesics.

Discussion
Impact on this patients’ daily life included her neuropathic pain became almost non-existent, muscle spasms minimised, less sleepiness during daytime and improved cognitive function with Sativex® and Tilray products. Tilray Elixir provided subtle body changes offering greater sense of well being for patient.

Conclusion
This case demonstrates cannabis-based products had a positive impact in alleviating symptoms of MS for our patient and procurement of a less expensive product could widen access for MS patients.

References

Justification for presentation
There appears a stigma associated with use of medicinal cannabis in NZ. This case provides opportunity to demystify use of cannabinoids for progressive MS, unfunded by Pharmac, and inform about legislation changes regarding Ministerial approval for prescribing/supply of cannabinoids.
An Audit of Infliximab Use in Hutt Hospital’s Medical Day Stay Unit and the Potential Cost Savings Associated with HML Prescribing

Katrina Tandecki¹
katrina.tandecki@huttvalleydhb.org.nz
¹ Hutt Valley District Health Board, Lower Hutt

Introduction
Monoclonal antibodies (mAbs) are biologic, immunosuppressive agents used to treat a range of conditions, including cancers, inflammatory bowel, and rheumatology diseases. Hutt Hospital’s Medical Day Stay Unit (MDSU) administers several different mAbs; the most used agents are infliximab, rituximab, and tocilizumab. Infliximab usage has increased significantly each year since our initial use in 2001. Monoclonal antibodies, particularly infliximab, are high use, high cost medications. Significant potential cost savings are possible if infliximab is prescribed properly, as outlined by Pharmac’s Hospital Medicines List (HML).

Aim
1. To review current patients receiving infliximab therapy, and evaluate the HML criteria for initial and continued use
2. To calculate the potential cost savings of infliximab based on current prescribing practices

Method
A retrospective audit to review all patients on infliximab on Concerto, and evaluate charts received from MDSU (until 31 May 2017). Data collection and analysis performed via Microsoft Excel. Financial analysis calculated using current wholesale costs for infliximab and dispensing history from WinDose, and extrapolated to a per annum low and high end range.

Results
Hutt Hospital has 77 patients receiving infliximab treatment in the MDSU, mainly for rheumatology or gastroenterology diagnoses, 44% and 56%, respectively. Fourteen of the 77 patients have had changes in their dosing and/or frequency regimens. These changes, which deviate from the HML guidelines, represent a significant financial impact, of an average of more than $220K per annum.

Conclusion
Infliximab and other mAbs are being prescribed at a steadily increasing rate at Hutt Hospital; this is an area that can provide significant cost savings if prescribed appropriately according to the HML. Our local data might promote conversations about de-escalation of mAb therapy, and possible treatment exit criteria.

Justification for presentation
An audit to consider current infliximab use, prescribing patterns, and financial implications of continued mAb therapy.
### SATURDAY 23 SEPTEMBER 2017

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<td>Creation of an Electronic Professional Development Portfolio for Pharmacy Technicians</td>
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<td>Automation in the Hospital Pharmacy – What are the Benefits? Rob Ticehurst, Daya J</td>
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<td>Implementation of Strategic Clinical Pharmacy Plan Stephen Drackett, Monkhouse JP</td>
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<td>10.50am – 11.05am</td>
<td>Junior Doctor Prescribing-Pharmacists Working With Medicine to Raise the Bar Avril Lee, Young M, Pettersson N, Lynch G, Fowke S, Rogers J, Sheehan D</td>
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<td>What do Service Users Think of Electronic Mental Health Information Resources? Insights into User Perspectives and Preferences Carla Corbet, Chan AHY, Nakarada-Kordic I, Hayes N</td>
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<td>Use of the WOMBAT Tool to Quantify Clinical Pharmacists' Time and Workflow Prior to Implementation of Electronic Prescribing Jillian James, Nisha Bangs, Roberts V, Farris J, Lewis M, Court K, Chale K, Richelle J, Hill T</td>
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<td>Implementation of a Medicine Discharge Service in the Transition Lounge, Auckland DHB – a Pilot Study Linda Lam, Monkhouse J</td>
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<td>How To Recognise and Manage Unwell Patients in Different Clinical Areas</td>
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<td>Beyond Reconciliation – Re-imagining the Role of Clinical Pharmacists</td>
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**Venue:** The Wharf, 2 Queen Street, Northcote Point, Auckland
26. **PLENARY**
Saturday 23 September 8.30am – 9.30am

**Using the ‘Team Sky’ Approach To Reduce Medication Errors Among Junior Doctors**

Rakesh Patel
27. **PLENARY**
   Saturday 23 September 9.30am - 10.00am

*e-Prescribing: Mission Difficult, But Not Impossible*

David Ryan
Creation of an Electronic Professional Development Portfolio for Pharmacy Technicians
Rachel Dunn, Stevens A, Mortimer C
Rachel.dunn@bopdhb.govt.nz
Bay of Plenty District Health Board, Tauranga Hospital, Tauranga

Context / existing situation
Internationally a number of countries have moved towards registration of pharmacy technicians and this may become introduced in New Zealand in the future. With registration all practicing pharmacy technicians may be required to demonstrate and provide evidence of meeting competencies and professional development.

Planned change
This project developed an electronic portfolio for collecting, reflecting and sharing pharmacy technician continuing professional development activities.

Methods
The BOPDHB senior pharmacy technician and pharmacy manager were invited by the Clinical Education School to attend a Midland Region workshop to investigate learning opportunities on an electronic platform using a web application “Mahara”. Mahara in Te Reo Maori means “to think, thinking, thought”.

The Senior Pharmacy technician was trained by the Clinical Education School to pilot developing a personal electronic portfolio for the pharmacy technician team. Material was collected from evidence, for example, reflections from attending the Midland Leadership course, journal articles, peer appraisals, quality improvement projects and uploaded into a number of categories aligning with competencies (eg Working and Communicating Professionally in the Pharmacy) into the electronic platform.

Measurement of improvement
The ePortfolio has been presented to the pharmacy technician team and BOPDHB is now in the process of rolling out to all technicians.

Effects of changes
Eportfolio allows users to track their learning progress and achievements and demonstrate and identify learning outcomes have been achieved and its impact on their practice.

Lessons learnt / implications for others
The ePortfolio, as an extension of the paper based-portfolio, has the benefit of making a portfolio of evidence portable and shareable anywhere that you have Internet access and has been used to demonstrate and support career advancement. BOPDHB has implemented ePortfolios in other technical groups for example clinical physiology technicians, nursing staff.

Justification for presentation
The ePortfolio is an example of a personalised electronic vehicle that can be used for pharmacy technician in their lifelong learning journey and provide evidence to meet competencies.
Automation in the Hospital Pharmacy – What are the Benefits?
Rob Ticehurst1, Daya J1
rticehurst@adhb.govt.nz
1 Auckland City Hospital, Auckland

Context / existing situation
The inpatient dispensary at Auckland City Hospital was using a manual process for producing compliance aids (blister packed medicines) for patients at the Buchanan Rehabilitation Unit. Workload and staff capacity meant that blister packing was constrained to a particular day of the week and a maximum of 30 clients. If a client required a change to their medicines then nursing staff had to make the changes to the pack leading to a risk of error. The dispensary frequently had to refuse requests for blister packaging for other patients because of capacity issues.

Planned change
We identified an opportunity to trial a blister packing robot (ALPACA®, Douglas Automation) to automate our process and to enable us to assess the feasibility of expanding the blister service to a wider patient group.

Methods
We worked alongside the Douglas Automation team to determine the service improvements that the ALPACA could enable:
• More patients to receive blister packs
• Reduced time to prepare blister packs
• Flexibility – change packs any day of week
• Reduced dispensing errors
• Use of blister packs to support inpatient administration
• Shared use of the ALPACA with the Auckland City Hospital Retail Pharmacies

Measurement of improvement
Baseline measures were captured for each of the elements to enable us to assess the impact of the ALPACA. Staff and patient surveys will be undertaken to gauge satisfaction with the new process.

Effects of changes
We are still in the process of collecting results – these will be fully available for presentation at conference.

Lessons learnt / implications for others
We will describe the benefits (and any pitfalls) associated with this technology in a way that will enable other hospital pharmacies to determine whether it is an appropriate solution for them.

Justification for presentation
This is the first installation of a blister packing robot in a NZ hospital pharmacy. Our results will help other hospitals assess whether the patient safety and workflow improvements make this a technology worth investing in.
CONCURRENT SESSION 2A: FREE PAPERS
Saturday 23 September 11.10am – 11.25am

Use of the WOMBAT Tool to Quantify Clinical Pharmacists’ Time and Workflow Prior to Implementation of Electronic Prescribing

Jillian James, Nisha Bangs, Roberts V, Farris J, Lewis M, Court K, Chale K, Richelle J, Hill T
Jillian.james@middlemore.co.nz, Nisha.bangs@middlemore.co.nz
Counties Manukau District Health Board, Auckland

Introduction
The introduction of electronic prescribing and administration (ePA) systems is considered a “disruptive innovation” (1). These systems affect the workflow of a range of healthcare professionals – including clinical pharmacists. No studies have yet demonstrated the impact of the ePA system (MedChart) on clinical pharmacists’ time and workflow in New Zealand.

Aim
1. To collect baseline data quantifying time spent by clinical pharmacists on various daily tasks.
2. To assess the impact of MedChart on pharmacists’ time and workflow post-implementation (phase 1 is planned for Q4 2017/Q1 2018 in Adult Rehabilitation and Health of Older People (ARHOP) wards).

Method
In an observational time-and-motion study, observers shadowed 17 pharmacists over four weeks using the Work Observation Method by Activity Timing (WOMBAT) tool. This tool allows observers to time stamp clinical tasks pharmacists complete such as documentation, communication, locating and reviewing medication charts, and direct time spent with patients. Other data collected included locations and task flow variables such as multitasking or interruptions. Pharmacists observed were from surgical, medical and ARHOP wards.

Results
Pharmacists were observed for a total of 221 hours. The largest proportion of time was spent reviewing charts (31.8%), followed by documenting (15.3%) and communicating (13.8%). Interim results allow us to predict areas where efficiencies may be gained with ePA implementation. These include documentation on medication charts, locating medication charts and utilising the clinical decision support tools within the software (e.g. alerts for medications requiring ID approval).

Conclusion
The WOMBAT tool was an effective method for collecting baseline data on clinical pharmacist time and workflow. Once MedChart is implemented, we will use the WOMBAT tool to reassess how time spent on areas such as documentation, locating drug charts and work management is affected and what impact ePA has on clinical pharmacist communication with doctors and nurses.

Justification for presentation
This data gives insight into the time pharmacists currently spend on certain tasks, and indicates how ePA may modify workflow. We also provide an opportunity for NZ pharmacists to see how the WOMBAT tool could be utilised in their practice.

References
31. **CONCURRENT SESSION 2B: FREE PAPER**  
**Saturday 23 September 10.30am – 10.45am**

**Improving Financial Access to Community Medicines for Patients in the Hutt Valley: A Collaborative Approach Between Health And Social Care**  
Chris Jay¹, Fraser K¹, Russell J²  
Chris.Jay@huttvalleydhb.org.nz  
¹ Hutt Valley District Health Board, Wellington  
² Ministry of Social Development, Wellington

**Introduction**  
The cost of medication is a burden for people with chronic illness, high medical needs and limited financial resources. Not collecting necessary medication can have a negative impact on short and long term patient health, and lead to greater costs for health services and the New Zealand economy. Working collaboratively with Ministry of Social Development, Hutt Valley DHB wanted to see if this issue could be addressed.

**Aim**  
By removing the cost barrier to collecting medications, we expected that patients would have improved medication adherence and reduce adverse events and the need for hospital level care.

**Method**  
145 people were identified and consented to participate. Funding of $100 was provided directly to pharmacies to meet the required annual co-payment costs. Patient’s health outcomes in the 1 Feb 2015 to 31 Jan 2016 period were compared with the previous year using: Emergency presentations, hospital admissions and average length of stay. Management of Long Term conditions was measured through analysis of patients’ biochemical markers and management of Asthma through the Reliever:Preventer ratio of inhalers collected. Changes in medicine adherence were measured by analysis of individual medicines dispensed. All patients and pharmacists involved were asked to complete a questionnaire. Patient stories were collected at the beginning and end of the study.

**Results**  
For participants:  
• 62 (43%) had fewer ED presentations  
• 24 (40%) had fewer inpatient admissions  
• Inpatient bed days reduced by 12% (306 to 270)  

Improved medicine adherence, stabilised Cardiovascular, Asthma and Diabetes Long Term Condition (LTC) management and laboratory LTC markers. Patients and pharmacies reported the avoidance of patient embarrassment about medication affordability. Community pharmacies found that removing the financial obstacle enabled engagement with patients about clinical care.

**Conclusion**  
These changes improved patient outcomes and achieved some of the strategic objectives of the social and health sectors - Better Public Health Services, Smart System, One Team.

**Justification for presentation**  
Collaborative project in the Hutt Valley between Health and Ministry of Social Development demonstrated the benefit of social investment and also delivered positive outcomes for patients, health professionals and both sectors involved in supporting the most vulnerable populations.
Implementation of Strategic Clinical Pharmacy Plan
Stephen Drackett¹, Monkhouse JP¹
sdrackett@adhb.govt.nz
¹Auckland City Hospital, Auckland District Health Board, Auckland

Context / existing situation
Pharmacists are advancing practice in multiple fronts of healthcare. Clinical pharmacy services are rapidly evolving worldwide. As pharmacists become more involved in direct patient care and decision making, the development of these skills across a wide variety of patient types is essential. Currently, these are inconsistent and there is inconsistent service due to competing factions and interests.
In order to advance practice it was recognized that the current staffing and development model needed to evolve.

Planned change
To meet the demands of advancing pharmacy practice in New Zealand and specifically the ADHB, as twelve part strategic plan was developed. One aspect of the plan was implementation of the Core Clinical Programme which set prescribed rotations of clinical service for a large group of broadly scoped pharmacists with specific development skills for each rotation.

Methods
Focus groups of key stakeholders were conducted in multiple forums to assure all aspects were considered. This was further supplemented with an all staff survey to assess core contents of each rotation and the order in which runs would be started. A set schedule of four month rotations was then proposed and decided upon by staff.

Measurement of improvement
Consistently staffed service lines in a predictable manner are the measures of success along with ability to efficiently cover deficient areas.

Effects of changes
The ability to assure continuity of service and any gaps in coverage were easily discovered and plans of action to correct could be implemented in a structured manner.

Lessons learnt / implications for others
Implementing a structured rotation of broadly scoped pharmacists allows for consistent coverage at a knowledge base needed for the service.

Justification for presentation
This opens the discussion on how to meet the growing demands of pharmacy services with limited resources across a broad range of services.
So, What Are The Activities And Characteristics Of A Prescribing Pharmacist?

Linda Bryant¹, Clarke P², Te Karu L
linda@cpsl.biz
¹ Phoenix Consulting Pharmacists
² NorthCare

Background
There are 14 prescribing pharmacists registered in New Zealand, with a further eight undertaking the course this year (2017). Six of the prescribing pharmacists are working in hospital settings and eight in primary care. The role(s) for the prescribing pharmacists, particularly in primary care, were not well defined and have developed in an organic manner, depending on the different environment for the pharmacists. In an environment that requires justification of services and a focus on outcomes, it is essential that we establish the benefit of pharmacist prescribers.

Methods
This is a qualitative review of the general roles of primary care prescribing pharmacists, plus delves into the day-to-day activities undertaken to explore the areas in which prescribing pharmacist provide a unique contribution to patient care. A two to four day detailed activity log was provided by four prescribing pharmacists to identify the specifics of what prescribing pharmacists do, and determine characteristics required of these pharmacists. To explore the characteristics required for prescribing pharmacists, a short perceptions survey was undertaken.

Results
The roles of the prescribing pharmacists were diverse, and activities variable, with the act of prescribing a small part of the overall activities. As well as the clinics for direct care for people with long term and / or complex conditions, the pharmacists were utilised as a resource for general practitioners, nurses and other health care providers. The characteristics demonstrated were adaptability and the ability to make clinical decisions in areas of uncertainty, focusing on individualisation of therapy. This is presented as examples of clinical decision making in practice.

Conclusion
With non-medical prescribers increasing it is essential that we develop and demonstrate roles for pharmacist prescribers that contribute unique benefits. A starting point is exploring the activities that are currently undertaken, and the characteristics required to fulfil the roles. This is preliminary information on which to build further research.
34. CONCURRENT SESSION 2C-1 : FREE PAPER
Saturday 23 September 10.30am – 10.45am

eLearning, But Not As You Know It: An Evolution For Medicines Education
Angela Lambie1, Croft D2, Laidlaw M3
angela.lambie@waitematadhb.govt.nz
1 Quality Use of Medicines Team, Waitemata District Health Board
2 Pharmacy Department, Waitemata District Health Board
3 Awhina, Waitemata District Health Board

Context/existing situation
There is increasing demand for learning in healthcare to be delivered in novel and effective ways. eLearning is one such modality with considerable potential, but the traditional approach of pushing information followed by questioning that tests immediate recall is of questionable effectiveness in changing behaviors. Advances in technology has enabled greater flexibility in designing and delivering eLearning content, leading to an evolution towards scenario-based courses, where the learner is placed in more realistic situations and is encouraged to think critically to identify and solve problems.

Planned change
To challenge and change the behavior of learners via scenario-based eLearning and measure their feedback to determine if this method of eLearning is considered effective.

Methods
Work with an instructional designer to create a scenario-based eLearning course for Medical Interns that encourages behaviors that will improve the quality of electronic discharge summaries. This begins by clarifying the goal, the behaviours to achieve that goal, and the activities that will demonstrate those behaviours. The scenario-based course design will encourage learners to think carefully about the consequences of their actions when writing discharge summaries and resolve issues that could have significant impact on patients and families.

Measurement of improvement
A forced feedback form will follow the completion of the scenario-based course to determine whether learners would change their behavior using this style of learning, and if it would encourage them to consider consequences of their actions.

Effects of changes
Pending.

Lessons learn/implications for others
We expect scenario-based eLearning courses will be more effective in changing behavior in a sustainable way compared to the traditional eLearning approach. In addition, the technology used enables courses to be easily shared between organisations using a variety of eLearning platforms.

Justification for presentation
To demonstrate the evolution of eLearning as a means of improving medicines education. eLearning has progressed from pushing information onto learners to scenario-based course design that aims to change behavior rather than rely on immediate knowledge recall.
Junior Doctor Prescribing- Pharmacists Working With Medicine To Raise The Bar

Avril Lee1, Young M2, Pettersson N1, Lynch G2, Fowke S1, Rogers J1, Sheehan D3
avril.lee@waitematadhb.govt.nz
1 Waitemata District Health Board
2 Canterbury District Health Board
3 Unitec Institute of Technology

Context/existing situation
Professional development of doctors and post-entry education and training are usually focussed on individuals and their competence yet prescribing by junior doctors’ work in hospital generally takes place within a ward team, a team that includes a pharmacist.

Pharmacists play key roles in:
- Informal teaching about medicines, routinely discussing and clarifying errant prescriptions with doctors
- Sharing knowledge in the wider healthcare team because pharmaceuticals, prescribing processes and procedures are constantly changing
- Providing a medication safety net for junior doctors

These potentially powerful educational opportunities often go unnoticed or left to chance.

Planned Change
To pilot a local version of a successful educational strategy developed in the UK (ePiFFany) featuring simulation and one-to-one coaching by pharmacists. Two centres in NZ were invited to participate.

Methods
Junior doctors complete a simulated videoed ward round of 3 real patients at the start of the attachment. They are observed by specialists and generalised feedback provided. Pharmacists assisted with the simulation design, using common prescribing errors. During the following weeks the pharmacist coaches the doctor (using their videos) with key learning points, looking at medicines involved and applies learning to attachment requirements. The simulation is repeated at the end of the 3 month attachment.

Measure of Improvement
Pharmacists and doctors complete post-simulation interviews for their perspectives on this interprofessional coaching model.

Effects of changes
Both groups felt it worthwhile. Doctors felt they developed their prescribing competence and confidence faster and valued the support of the pharmacists and their expertise. Each doctor felt it was really valuable and should be repeated and extended to all new prescribers.

Lessons learnt/implications for others
One-to-one coaching can establish long-term positive relationships between doctors and pharmacists. Model fits well with medical council portfolio requirements supporting doctors with their self-directed learning on medication safety. Streamlining of the model is required for larger numbers.

Justification for presentation
New Zealand is the first international site for ePiFFany and is a medical education model that supports and strengthens pharmacists as clinical educators – an exciting space.
ENGAGE Programme: Wellington Sub-Region Pilot Mentoring Programme for Newly Qualified Pharmacists

Natasha Nagar\textsuperscript{1}, Jay C\textsuperscript{1}, Liu A\textsuperscript{2}, Tandecki K\textsuperscript{1}

Natasha.nagar@huttvalleydhb.org.nz
\textsuperscript{1} Hutt Valley DHB, Hutt Valley
\textsuperscript{2} Unichem Miramar Pharmacy, Wellington

Context / existing situation
Each year, over 100 interns move to the pharmacist scope of practice, which preludes a dramatic change in responsibility. A significant number of newly registered pharmacists are left to manage on their own without any formal support or guidance. Although these young pharmacists have the enthusiasm, they’re still inexperienced in both clinical and professional areas of pharmacy. These challenges can result in diminishing job satisfaction, a reduced willingness to provide a high standard of patient care, and some are even exploring other career options.

Planned change
To develop a mentoring support programme, initially for newly qualified pharmacists, to aid in career direction, assist with developing a more skilled workforce, and help build the profession within New Zealand.

Methods
This pilot involved 5 newly registered pharmacists (1 – 3 years post-registration) and 5 experienced mentors (3+ years working experience and holding a pharmacist APC). Mentors and mentees were matched via questionnaires, and required to meet once a month at a minimum.

Measurement of improvement
Feedback forms were sent out monthly to each pair to help illustrate topics discussed, how these aligned with the mentees’ initial goals, and what were their next steps. These were compared each month within the pairs to gauge any improvements. All data received was qualitative and converted into quantitative data.

Effects of changes
The pilot is due to finish end of July, by which time, the effects of this programme for each pair will become more evident. So far, feedback has been positive from both mentees and mentors.

Lessons learnt / implications for others
This pilot has added to the strong body of evidence of the benefits of a formalised mentoring programme for young professionals. Like many projects, there were distinct limitations; however, the positive aspects thus far re-enforces the need for a programme like this for our profession. With a few tweaks and turns, we intend to carry this project forth to the next phase.

Justification for presentation
Developing a mentoring programme that keeps young pharmacists engaged in the profession is essential to ensure a sustainable future workforce.
Exploring The Medicines Information Needs Of Patients Receiving Care In A New Zealand Inpatient Mental Health Service
Lucy Sheed L1, Haua R1, Brackley K1, Aspden T2, Honey M2, Chan A1
lsheed@adhb.govt.nz
1 Auckland District Health Board
2 University of Auckland

Introduction
Patients are increasingly interested in self-managing their own health and medicines, and desire access to information about their medicines. However, it has been found that mental health service users’ medicines information needs are not currently being met1. Minimal literature exists on what medicines information mental health patients need and want, which creates a potential gap in effective healthcare delivery to this population.

Aim
To explore the medicines information needs of patients within the adult inpatient mental health service of one New Zealand hospital.

Method
A descriptive exploratory analysis approach was used with purposive sampling to recruit a diverse range of patients. Data was collected via one-on-one semi-structured interviews and one focus group. These were audio-recorded then transcribed. Analysis of the transcripts was facilitated using NVivo® software. Transcripts were analysed by coding then theming all relevant text excerpts.

Results
Twenty-six interviews and one focus group with four participants were conducted over a two-month period in 2016. Six key themes pertaining to patient preferences around medicines information emerged: individualisation of information, information about side effects, relationships and trust, informed choice, use of reliable internet resources and involvement of family and support people.

Conclusion
Patients interviewed in this study want individualised and tailored medicine information relating to their specific needs. Trust and informed choice were found to be important in alleviating confusion or fear around taking medication. Addressing the medicine information needs of mental health inpatients can potentially bridge the gap that currently exists with between information provision and patients’ desire for information. Further research is required to identify tools which efficiently determine an individual’s medicine information needs and preferences for receiving this information.

References

Justification for presentation
We believe this research provides valuable insight into the medicine information needs of mental health service users and can be used to guide medication prescribing and education practices, which may have implications for medicines adherence.
What Do Service Users Think of Electronic Mental Health Information Resources? Insights into User Perspectives and Preferences

Carla Corbet¹, Chan AHY¹, Nakarada-Kordic I², Hayes N²  
carlac@adhb.govt.nz  
¹ Auckland District Health Board, Auckland  
² Design for Health and Wellbeing Lab, Auckland

Introduction
There is an increasing interest in the use of electronic media, such as websites or apps, to deliver health information to patients. However, many of these electronic resources are not used by patients or used only for a short period of time. This is particularly relevant for people living with psychosis, who often report difficulties with accessing effective information and express a desire for more. There is a need to understand the factors which facilitate or hinder their use of electronic information to ensure that any new resources developed are useful and effective.

Aim
To explore service user perceptions of current electronic information sources, and identify preferences for future mental health information resources in people living with psychosis

Method
A series of four co-design workshops, involving participants aged 16 to 25 years with psychosis recruited from inpatient child and adolescent mental health services, and community early psychosis centres, were held. Workshops were facilitated by a designer and qualitative researcher with experience in co-design. Each workshop lasted around 2 hours and explored what resources participants currently used, pros and cons of the resources, and what their ideal electronic information resource for psychosis would look like.

Results
Early themes show that service users want a resource that addresses all aspects of psychosis and includes stories from other people living with psychosis. Service users wanted an electronic resource that was accessible, flexible, personalised and private, yet provided a platform to share information with others including their careers and health providers.

Conclusion
People living with psychosis perceive electronic information as an acceptable and useful means of delivering health information, particularly as a tool to share information with others. These findings have important implications for the development of future mental health information resources.

Justification for presentation
Electronic information resources are considered an effective means of delivering health information to patients, yet little information exists on how mental health service users perceive these. The study findings have implications for the future development of mental health information resources.
39. Concurrent Session 2D: Free Papers
Saturday 23 September 11.10am – 11.25am

Implementation of a Medicine Discharge Service in the Transition Lounge, ADHB – a Pilot Study
Linda Lam, Monkhouse J
llam@adhb.govt.nz
Auckland District Health Board (ADHB), Auckland

Background
International and local studies suggest approximately 1 in 10 patients discharged are at potential of medication-related harm. At ADHB, the majority of patients do not receive medicines reconciliation (MR) at discharge. The impact is an increased risk of medication-related errors and/or avoidable medication-related readmissions, with poorer patient discharge experience. A comprehensive MR pharmacy-led service strategy has been endorsed at ADHB and an early step is to pilot a pharmacist implementing a discharge MR and liaison service for patients.

Planned change
One full FTE clinical pharmacist to provide a discharge MR and liaison service within the transition lounge of Auckland City Hospital for up to one year.

Method
The transition lounge at ADHB receives a high number of discharges from multiple areas. The clinical pharmacist prioritises patients depending on medical complexity (age, reason for admission, medical specialty) then conducts MR review on the discharge medicines list. Interventions made by the clinical pharmacist were classed as clinical, supply or counselling-related.

Measurement of improvement
Number of patients reviewed at discharge, number of interventions identified and resolved at discharge.

Effects of changes
5,101 patients were discharged from Auckland Hospital via the Transition lounge over the data collection period (136 days, September 2016 to May 2017). 2,255 patients (44%) had their discharge paperwork screened by the clinical pharmacist, of whom, 1,174 (52%) were prioritised for a medication review. 175 patients (15%) had one or more medication-related errors identified on discharge. 2,192 interventions were made by the clinical pharmacist over the data collection period.

Lessons learnt / implications for others
Our results show a clear risk of medication error for patients at discharge, and a pharmacist working at the discharge interface can mitigate this risk. Others may find our approach useful in obtaining local evidence so to engage key stakeholders at their organisation.

Justification for presentation
Medication error at discharge affects patient health outcomes, potentially increases hospital readmissions leading to poor patient experience. Other pharmacy departments may benefit by learning from our experience in highlighting this issue so sustainable solutions can be agreed upon and implemented.
Maori Pharmacist Award Update - Bring your Medicines Knowledge, Rakes and Spades
Joanna Hikaka on behalf of Ngā Kaitiaki o Te Puna Rongoā
johikaka@gmail.com
"Ngā Kaitiaki o Te Puna Rongoā o Aotearoa – The Māori Pharmacists’ Association"

Context / existing situation
Inequities in health outcomes between Māori and non-Māori continue to exist in Aotearoa as those with the social advantage to operate within the Western model continue to be privileged with better outcomes.

To improve health outcomes for Māori we need to return to models of care which uphold the principles of Hauora Māori.

Planned change
In recognising a different approach premised on tikanga and kaupapa Māori delivery, The Māori Pharmacists’ Association (MPA) co-designed with Ngāti Te Roro o Te Rangi a ‘Health and Wellness’ hui held at Owhata Marae, ancestral home of our treasured kaumatua, Hiwinui Heke.

Methods
The hui kaupapa was developed by both parties with mana whenua maintaining overall governance. MPA pharmacists volunteered their wide range of skills and experience and provide services including medicine review and management, education, recruitment discussions and gardening.

Measurement of improvement & Effects of Change
There were multiple positive effects demonstrating the possibilities of alternate models of medicines expertise delivery to the wider health sector:
- Whānau and hapū of Ngāti Te Roro o Te Rangi endorsed/celebrated the engagementRequests for further hui (already being co-planned)
- Health workforce development of MPA pharmacists in marae setting (shared learnings)
  o Application of Hauora in a wider sense including physical activity, whānau, connectedness and the foundation of whenua – afternoon spent maintaining rongoā gardens
  o Improved whānau knowledge of pharmacists’ roles
  o Delivery of culturally competent care
  o Recruitment messages through the lens of interacting with Māori health professionals, observing the possibilities of health delivery within communities.

Lessons learnt / implications for others
This model shows the benefit and absolute importance of what is commonly call ‘co-design’, but deemed tikanga in Te Ao Māori. The ripples are far reaching and raise the profile of the profession as a whole including the many possible scopes of pharmacist services.

Justification for presentation
MPA showed collaboration with whānau and between members which will provide insight and inspiration for others. Not only did the community benefit but it also provided an opportunity for MPA members to grow and feel fulfilled in their roles.
Managing Psych Meds on Non-Psych Wards
Ariel Hubbert
Ariel.Hubbert@waitematadhb.govt.nz
1 Waitemata District Health Board, Auckland
With thanks to Graham Rivers for his work on the 2013 version.

Aim
To support pharmacists working outside mental health settings to identify and manage issues linked to mental health medication use.

Learning outcomes/objectives
• Recognise relative rates of adverse effects caused by mental health medication and discuss the implications for patient care
• Apply this knowledge to medical or surgical hospital admission case studies

Format of activities
This workshop is in two interactive parts:
• Identifying the relative rates of adverse effects amongst mental health medication and reflecting on the implications for clinical practice
• Review of medical and surgical case studies
Both parts involve working in small groups so come fully pre-caffeinated and prepared to contribute.

Target audience
This workshop is aimed at pharmacists working in clinical settings outside of mental health. The emphasis will be on medical and surgical admissions, though content will be relevant to other specialist areas of pharmacist practice. Content is suitable for pharmacists with a range of experience – interns through to more senior leads.

Soundbite for workshop
There is increasing recognition of the poor physical health outcomes for those with serious mental illness.

So back by popular demand (updated from the 2013 Queenstown conference) this workshop seeks to bridge knowledge gaps, and enable pharmacists to recognise and manage potential issues that can crop up when providing physical health care to those with a concurrent mental health diagnosis.
CONCURRENT SESSION: WORKSHOP 3B
Saturday 23 September 1.10pm – 2.40pm

How to Recognise and Manage Unwell Patients in Different Clinical Areas
Annie Egan
Annette.egan@nmhs.govt.nz
Nelson Hospital

With Intensive Care and High Dependency beds becoming increasingly scarce it’s becoming even more important to prioritise patients who are at risk of deteriorating but to recognise why and when they are crashing.

**Aim**
This is a practical workshop with the overall aim of developing a prioritisation tool for pharmacists to use on clinical areas to detect high risk patients. Factors that lead to worsening of clinical status and tools used to recognise clinical deterioration will be reviewed.

**Learning outcomes/objectives**
1. To develop a prioritisation tool for high risk patients for pharmacists to use on clinical areas (outside of ICU)
2. Understand clinical reasons why patients deteriorate
3. Learn how to recognise when a patient is deteriorating on the ward

**Format of activities**
Combination of teaching and targeted small group work

**Target audience**
Clinical pharmacists particularly pharmacists involved with education and training
Beyond Reconciliation – Re-Imagining the Role of Clinical Pharmacists

Rakesh Patel, Lee A, Sheehan D,
Rakesh.Patel@nottingham.ac.uk
University of Nottingham, United Kingdom.
Waitemata District Health Board, Auckland
Unitec – University of Technology, Auckland

Learning Outcome / objectives
Participants will:
• Identify the various expert roles of the pharmacist for delivering 21st century healthcare and healthcare professions education
• Explore the role of the pharmacist as an expert medical educator for junior doctors in the workplace
• Create and curate information on prescribing performance in the workplace for giving as feedback to junior doctors

Content
• The political, economic and educational rationale for re-imagining the role of the pharmacist in the workplace
• The collective NZ-UK experience of re-designing the workplace into a safe learning and working environment for junior doctors
• The opportunity to create a feedback prescription and hold a feedback conversation with junior doctors to improve performance in the workplace

Format of activities
An open discussion about the NZ and UK medical education research programmes around patient safety and prescribing with a focus on developing knowledge transfer partnership
Small group discussion around challenging feedback and coaching scenarios
Debrief to identify ideas and educational strategies for applying in a local context

Target audience
Clinical pharmacists wanting to take their existing workplace role beyond medicines reconciliation and more towards quality improvement and healthcare professions education

Justification
The authors suggest that pharmacists have a critical role for supporting junior doctor development in the workplace
44. PLENARY  
Saturday 23 September 3.10pm – 3.40pm  

Evolving Pharmacist Roles Towards Integrated and Patient-Centred Care  
Pauline McQuoid  
pauline@medwise.co.nz  
Medwise
### SUNDAY 24 SEPTEMBER 2017

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<td>9.30am - 10.00am</td>
<td>Medicines Management Governance: Developing Systems for Meaningful Surveillance, Monitoring and Improvement&lt;br&gt;<strong>Jerome Ng</strong></td>
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<td>10.00am - 10.30am</td>
<td>Pharmacy Technicians’ Working in Expanded Roles&lt;br&gt;<strong>Carole Dawson, Christina Dukeson</strong></td>
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<td><strong>Morning Tea and Exhibition</strong>&lt;br&gt;<strong>Venue:</strong> Industry Exhibition, Rata and Kawakawa Rooms, First Floor</td>
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<td>11.00am - 12.30pm</td>
<td><strong>Concurrent Workshops</strong>&lt;br&gt;4A&lt;br&gt;<strong>Venue:</strong> Waitemata Room, First Floor&lt;br&gt;<strong>Chair:</strong> Jessica Nand&lt;br&gt;Introduction to Mindfulness, Looking After Our Own Well Being and Increasing Productivity at Work&lt;br&gt;<strong>Maya Crawley</strong>&lt;br&gt;4B&lt;br&gt;<strong>Venue:</strong> Auditorium, Ground Floor&lt;br&gt;<strong>Chair:</strong> Elizabeth Brookbanks&lt;br&gt;Culture and Cultural Competency&lt;br&gt;<strong>Mariska Mannes</strong>&lt;br&gt;4C&lt;br&gt;<strong>Venue:</strong> Manuka Room, Ground Floor&lt;br&gt;<strong>Chair:</strong> Kim Rogers&lt;br&gt;Managing Difficult Situations, Providing Feedback While Mentoring and Having Difficult Conversations&lt;br&gt;<strong>Sue Christie</strong>&lt;br&gt;4D&lt;br&gt;<strong>Venue:</strong> Harakeke Room, Ground Floor&lt;br&gt;<strong>Chair:</strong> Ariel Hubbert&lt;br&gt;You and M2 (Communication and Collaboration) with Deaf/Hard of Hearing Patients&lt;br&gt;<strong>Andrea Wilson, Kim Robinson, Susie Ovens</strong></td>
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<td>12.30pm – 1.15pm</td>
<td><strong>Lunch and Exhibition</strong>&lt;br&gt;<strong>Venue:</strong> Industry Exhibition, Rata and Kawakawa Rooms, First Floor</td>
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# Concurrent Workshops

| 4A | Venue: Waitemata Room, First Floor  
| Chair: Elizabeth Brookbanks | Introduction to Mindfulness, Looking After Our Own Well Being and Increasing Productivity at Work (Repeat)  
| Maya Crawley |  
| 4B | Venue: Auditorium, Ground Floor  
| Chair: Angela Lambie | Culture and Cultural Competency (Repeat)  
| Mariska Mannes |  
| 4C | Venue: Manuka Room, Ground Floor  
| Chair: Avril Lee | Managing Difficult Situations, Providing Feedback While Mentoring and Having Difficult Conversations (Repeat)  
| Sue Christie |  
| 4D | Venue: Harakeke Room, Ground Floor  
| Chair: Jessica Nand | You and M2 (Communication and Collaboration) with Deaf/Hard of Hearing Patients (Repeat)  
| Andrea Wilson, Kim Robinson, Susie Ovens |  

## 2.45pm - 3.00pm

### Conference Close

Venue: Auditorium, Ground Floor  
Marilyn Crawley
45. PLENARY SESSION: 5A
Sunday 24 September 9.30am – 10.00am

Medicines Management Governance: Developing Systems for Meaningful Surveillance, Monitoring and Improvement
Jerome Ng
Jerome.Ng@waitematadhb.govt.nz
Waitemata District Health Board
46. **Plenary Session: 5B**  
Sunday 24 September 9.30am – 10.00am

**Pharmacy Technicians’ Working in Expanded Roles**  
Carole Dawson, Christina Dukeson  
carole.dawson@waitematadhb.govt.nz, christina.dukeson@waitematadhb.govt.nz  
Waitemata District Health Board
**CONCURRENT WORKSHOP 4A**

**Sunday 24 September 11.00am – 12.30pm**

Introduction to Mindfulness, Looking After Our Own Well Being and Increasing Productivity at Work

Maya Crawley

maya@cerno.co.nz

1 Cerno Ltd

**Aim**

This interactive workshop session introduces the key ideas behind Mindfulness, with a focus on practical techniques to help stay grounded and focused in times of stress or busyness.

**Learning outcomes/objectives**

Drawing on current psychological research and age-old wisdom traditions, Mindfulness is introduced in a contemporary context for busy professionals juggling competing demands. In addition, this interactive workshop session introduces the key ideas behind Mindfulness, with a focus on practical techniques to help you stay grounded and focused in times of stress or busyness. Drawing on current psychological research and age-old wisdom traditions, Mindfulness is introduced in a contemporary context for busy professionals juggling competing demands. In addition, y context tailored to clinical professionals in the hospital context. By the end of the session, participants will understand our current scientific understanding of Mindfulness. They will learn techniques that can be applied in the hospital pharmacy context to improve wellbeing and enhance leadership or teamwork.

**Content**

The session begins with an overview (presentation) and group discussion of the key concepts relevant to Mindfulness. We then participate in a series of guided meditations and reflections, so that participants have the opportunity to experience these first hand. We then discuss these activities, and conclude with some activities around Mindfulness for personal/professional development.

**Format of activities**

Powerpoint, group discussion, practical exercises, self-assessment questionnaires, pair discussion.

**Target audience**

Anybody interested in learning more about Mindfulness and finding practical strategies to stay calm, focused and grounded amidst challenging professional demands.

**Soundbite for workshop**

Learn about Mindfulness in a balanced and rounded manner, from a presenter who has an understanding of both the current scientific research underpinning Mindfulness, and the age-old wisdom traditions from which the concept stems. Learn practical techniques to manage work-related stress, and stay focused on what really matters. At the same time, gain insight into yourself and your habitual ways of reacting.
48. **CONCURRENT WORKSHOP 4B**  
*Sunday 24 September 11.00am – 12.30pm*

**Culture and Cultural Competency**

Mariska Mannes, Mannes M¹, Lim S²  
¹ mariska.mannes@waitematadhb.govt.nz  
² sue.lim@waitematadhb.govt.nz

**Aim**

To expand participants understanding of how cross cultural differences affect communication and engagement with culturally and linguistically diverse (CALD) clients and gain strategies to interact effectively to achieve better outcomes.

**Learning outcomes/objectives**

- Understand and learn how to apply the four elements of cultural competency - cultural awareness, sensitivity, knowledge and skills.
- Gain more awareness of your own cultural values and their impact in cross cultural interactions.
- Gain knowledge and skills for working with CALD clients in a culturally sensitive manner.

**Content**

With increasing cultural diversity in New Zealand, health practitioners are experiencing more cross-cultural interactions with CALD clients from migrant and refugee backgrounds. Standards of cultural competence set by registration bodies require pharmacists and other health professionals to gain understanding and skills to work with CALD populations. This workshop includes defining culture and cultural competency in a health context. It provides opportunity for participants to explore their own values and to understand how cultural differences impact on cross-cultural relationships. Video scenarios will demonstrate strategies that can be used to adjust to accommodate cultural differences.

**Format of activities**

The workshop will be interactive and participants are expected to engage in discussion and to share experiences and challenges. Group activities, questionnaires and videos will help participants understand ways that they can interact in a culturally competent manner. The workshop is 90 minutes of which two thirds will be active learning.

**Target audience**

This workshop will benefit pharmacists, allied health staff and service providers who are interested in gaining strategies to work more effectively with CALD clients and their families.

**Workshop pre-requisite**

Participants must complete the attached questionnaires and bring them to the workshop.

**Justification for the workshop**

The Health Practitioners Competence Assurance Act 2003 (HPCAA) requires registration bodies to develop standards of cultural competence and to ensure that practitioners meet those standards. eCALD® Services provides accredited face to face and on-line learning options.
Managing Difficult Situations, Providing Feedback While Mentoring and Having Difficult Conversations

Sue Christie
sue.christie@waitematadhb.govt.nz
Waitemata District Health Board

Aim:
To enhance participants’ confidence and competence to engage in challenging interactions and relationships in ways which build teamwork, maintain professional integrity of all stakeholders and impact positively on patient safety and experience.

Objectives:
By the end of the session participants will be:
• More aware of what experiences have shaped their willingness and ability to engage in conversations which may be challenging.
• Have been exposed to some useful tools which when practised and integrated into “normal” professional functioning are enabling.
• Clear about specific contexts and relationships where they will take action in the short term.

Format:
Session will be interactive. Some theory will be presented where appropriate. Focus will be on developing self-awareness via paired and small group activities. Opportunities for practise using scenarios which emerge from the group will be provided.

Audience:
The workshop will be appropriate for all levels of experience and managerial/professional responsibility. Wherever we are working these issues emerge and cultural change is achieved when all members of the team or multi discipline group appropriately confront and deal with challenging situations and relationships.

Soundbite: Feel the tension and do it anyway!
50. CONCURRENT WORKSHOP 4D  
Sunday 24 September 11.00am – 12.30pm

You and M2 (Communication and Collaboration) with Deaf/Hard Patients
Andrea Wilson¹, Robinson, K²
andreawilson@beniaminus.com
¹ Registered Pharmacist, Wellington  
² Health Advocate, NZ Deaf Community, Whangarei

Aim
To provide pharmacists a hands-on workshop on how to meet the health needs of Deaf/Hard of Hearing patients.

Learning outcomes/objectives
Pharmacists will gain cultural awareness of the health needs of Deaf/Hard of Hearing patients. You will understand the current barriers to equitable health outcomes and learn tools to manage these better. Relevant to the Pharmacy Council Competence Standard Domain: Mandatory 2 (M2) subsection 2.1 “Communicate Effectively”.

Content
Deaf/Hard of Hearing patients have challenges accessing healthcare affecting health outcomes, and experience barriers at all stages of the healthcare system. Pharmacists attending will be introduced to using a NZSL interpreter, learn about Deaf Culture and needs, learn communication skills and useful signs for medical situations.

Format of activities
Kim will lead a discussion about the health barriers and needs of Deaf/Hard of Hearing patients. You will have the opportunity to discuss with Kim his experiences with Health Professionals. A qualified NZSL interpreter will be present. A short presentation will follow of research conducted at Capital and Coast District Health Board in 2016 of Deaf/Hard of Hearing patients’ experiences within the hospital environment. Practical tips on how to use NZSL interpreters and communication skills will be covered using scenarios. Participants will learn and practice common NZSL signs relevant to medical situations.

Target audience
Any pharmacist whose role includes patient counselling and communicating with patients. Particularly useful for those who have never communicated with a Deaf/Hard of Hearing patient, never used a NZSL interpreter or want to improve their skills in this area.

Justification for workshop
Training for pharmacists in Deaf Health is difficult to find. For many, this will be your first exposure to understanding the Deaf Community of NZ. Upskilling in this area will significantly impact on the health outcomes of Deaf/Hard of Hearing patients.
51. **CONCURRENT WORKSHOP 5A**  
**Sunday 24 September 1.15pm – 2.45pm**

**Introduction to Mindfulness, Looking After Our Own Well Being and Increasing Productivity at Work**

Maya Crawley  
maya@cerno.co.nz  
^1 Cerno Ltd

**Aim**  
This interactive workshop session introduces the key ideas behind Mindfulness, with a focus on practical techniques to help stay grounded and focused in times of stress or busyness.

**Learning outcomes/objectives**  
Drawing on current psychological research and age-old wisdom traditions, Mindfulness is introduced in a contemporary context for busy professionals juggling competing demands. In addition, this interactive workshop session introduces the key ideas behind Mindfulness, with a focus on practical techniques to help you stay grounded and focused in times of stress or busyness. Drawing on current psychological research and age-old wisdom traditions, Mindfulness is introduced in a contemporary context for busy professionals juggling competing demands. In addition, y context tailored to clinical professionals in the hospital context. By the end of the session, participants will understand our current scientific understanding of Mindfulness. They will learn techniques that can be applied in the hospital pharmacy context to improve wellbeing and enhance leadership or teamwork.

**Content**  
The session begins with an overview (presentation) and group discussion of the key concepts relevant to Mindfulness. We then participate in a series of guided meditations and reflections, so that participants have the opportunity to experience these first hand. We then discuss these activities, and conclude with some activities around Mindfulness for personal/professional development.

**Format of activities**  
Powerpoint, group discussion, practical exercises, self-assessment questionnaires, pair discussion.

**Target audience**  
Anybody interested in learning more about Mindfulness and finding practical strategies to stay calm, focused and grounded amidst challenging professional demands.

**Soundbite for workshop**  
Learn about Mindfulness in a balanced and rounded manner, from a presenter who has an understanding of both the current scientific research underpinning Mindfulness, and the age-old wisdom traditions from which the concept stems. Learn practical techniques to manage work-related stress, and stay focused on what really matters. At the same time, gain insight into yourself and your habitual ways of reacting.
52. **CONCURRENT WORKSHOP 5B**  
**Sunday 24 September 1.15pm – 2.45pm**

**Culture and Cultural Competency**  
Mariska Mannes, Mannes M\(^1\), Lim S\(^2\)  
\(^1\) mariska.mannes@waitematadhb.govt.nz  
\(^2\) sue.lim@waitematadhb.govt.nz

**Aim**  
To expand participants understanding of how cross cultural differences affect communication and engagement with culturally and linguistically diverse (CALD) clients and gain strategies to interact effectively to achieve better outcomes.

**Learning outcomes/objectives**  
- Understand and learn how to apply the four elements of cultural competency - cultural awareness, sensitivity, knowledge and skills.
- Gain more awareness of your own cultural values and their impact in cross cultural interactions.
- Gain knowledge and skills for working with CALD clients in a culturally sensitive manner.

**Content**  
With increasing cultural diversity in New Zealand, health practitioners are experiencing more cross-cultural interactions with CALD clients from migrant and refugee backgrounds. Standards of cultural competence set by registration bodies require pharmacists and other health professionals to gain understanding and skills to work with CALD populations.

This workshop includes defining culture and cultural competency in a health context. It provides opportunity for participants to explore their own values and to understand how cultural differences impact on cross-cultural relationships. Video scenarios will demonstrate strategies that can be used to adjust to accommodate cultural differences.

**Format of activities**  
The workshop will be interactive and participants are expected to engage in discussion and to share experiences and challenges. Group activities, questionnaires and videos will help participants understand ways that they can interact in a culturally competent manner. The workshop is 90 minutes of which two thirds will be active learning.

**Target audience**  
This workshop will benefit pharmacists, allied health staff and service providers who are interested in gaining strategies to work more effectively with CALD clients and their families.

**Workshop pre-requisite**  
Participants must complete the attached questionnaires and bring them to the workshop.

**Justification for the workshop**  
The Health Practitioners Competence Assurance Act 2003 (HPCAA) requires registration bodies to develop standards of cultural competence and to ensure that practitioners meet those standards. eCALD® Services provides accredited face to face and on-line learning options.
53. CONCURRENT WORKSHOP 5C
Sunday 24 September 1.15pm – 2.45pm

Managing Difficult Situations, Providing Feedback While Mentoring and Having Difficult Conversations
Sue Christie
sue.christie@waitematadhb.govt.nz
Waitemata District Health Board

Aim: To enhance participants’ confidence and competence to engage in challenging interactions and relationships in ways which build teamwork, maintain professional integrity of all stakeholders and impact positively on patient safety and experience.

Objectives: By the end of the session participants will be:
• More aware of what experiences have shaped their willingness and ability to engage in conversations which may be challenging.
• Have been exposed to some useful tools which when practised and integrated into “normal” professional functioning are enabling.
• Clear about specific contexts and relationships where they will take action in the short term.

Format: Session will be interactive. Some theory will be presented where appropriate. Focus will be on developing self-awareness via paired and small group activities. Opportunities for practise using scenarios which emerge from the group will be provided.

Audience: The workshop will be appropriate for all levels of experience and managerial / professional responsibility. Wherever we are working these issues emerge and cultural change is achieved when all members of the team or multi discipline group appropriately confront and deal with challenging situations and relationships.

Soundbite: Feel the tension and do it anyway!
54. CONCURRENT WORKSHOP 5D
Sunday 24 September 1.15pm – 2.45pm

You and M2 (Communication and Collaboration) with Deaf/Hard Patients
Andrea Wilson¹, Robinson, K²
andreawilson@beniaminus.com
¹Registered Pharmacist, Wellington
²Health Advocate, NZ Deaf Community, Whangarei

Aim
To provide pharmacists a hands-on workshop on how to meet the health needs of Deaf/Hard of Hearing patients.

Learning outcomes/objectives
Pharmacists will gain cultural awareness of the health needs of Deaf/Hard of Hearing patients. You will understand the current barriers to equitable health outcomes and learn tools to manage these better. Relevant to the Pharmacy Council Competence Standard Domain: Mandatory 2 (M2) subsection 2.1 “Communicate Effectively”.

Content
Deaf/Hard of Hearing patients have challenges accessing healthcare affecting health outcomes, and experience barriers at all stages of the healthcare system. Pharmacists attending will be introduced to using a NZSL interpreter, learn about Deaf Culture and needs, learn communication skills and useful signs for medical situations.

Format of activities
Kim will lead a discussion about the health barriers and needs of Deaf/Hard of Hearing patients. You will have the opportunity to discuss with Kim his experiences with Health Professionals. A qualified NZSL interpreter will be present. A short presentation will follow of research conducted at Capital and Coast District Health Board in 2016 of Deaf/Hard of Hearing patients’ experiences within the hospital environment. Practical tips on how to use NZSL interpreters and communication skills will be covered using scenarios. Participants will learn and practice common NZSL signs relevant to medical situations.

Target audience
Any pharmacist whose role includes patient counselling and communicating with patients. Particularly useful for those who have never communicated with a Deaf/Hard of Hearing patient, never used a NZSL interpreter or want to improve their skills in this area.

Justification for workshop
Training for pharmacists in Deaf Health is difficult to find. For many, this will be your first exposure to understanding the Deaf Community of NZ. Upskilling in this area will significantly impact on the health outcomes of Deaf/Hard of Hearing patients.
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POSTER 1

Unfractionated Heparin Infusion Dose Adjustment Calculator
Ev Tolerton
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Canterbury District Health Board, Christchurch

Context / existing situation
Unfractionated heparin infusions at the CDHB are based on a paper chart (C160010), which provides guidance for loading and maintenance doses. Unfractionated heparin infusions are not prescribed often, so there is a lack of familiarity with prescribers and nursing staff; increasing both the potential for errors, and the likelihood of these errors not being recognised by nursing staff. A number of incidents related to the miscalculation of the unfractionated heparin infusion rate have been noted.

Planned change
Develop a dose calculator based on the CDHB unfractionated heparin paper chart (C160010) that will calculate loading doses and infusion rates based on the patient weight, current infusion rates and APTT result. This would be accessible for all ward staff to use following appropriate education sessions.

Methods
An Excel™ document was designed to calculate the next infusion rate and loading doses if applicable. Pharmacists in the department were asked to test the calculator and provide feedback over a month long period. Feedback was also sought from other user groups including junior doctors and nursing staff. Access to the calculator was set up via the CDHB pharmacy intranet page, as well as a link from the CDHB hospital clinical guidelines.

Measurement of improvement
Compare the number of medication error reports related to unfractionated heparin infusion rates prior to and after roll out of the calculator. Seek qualitative feedback from different user groups.

Effects of changes
A tool was created for on-call + clinical pharmacists as well as nurses and doctors to use, to ensure patients are receiving the appropriate dose of unfractionated heparin.

Lessons learnt / implications for others
Positive feedback has been received from a variety of user groups.

Justification for presentation
An easy tool to prevent medication errors with unfractionated heparin infusions that could easily be adjusted for other complex dose calculations.
**POSTER 2**

**Ketogenic Dietary Service for Treatment of Children with Epilepsy – Pharmacists’ Involvement**

Esther Kostan¹, McDermott L¹, Tan-Smith C²

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*Canterbury District Health Board, Christchurch, New Zealand*

**Context / existing situation**

Ketogenic dietary therapy has been a well-known treatment for children with refractory epilepsy. Alongside refractory epilepsy, the Ketogenic diet (KD) has been used in the management of a wide range of conditions as well as different types of seizure. The KD is also considered as the first line management for the neuro-metabolic conditions including glucose transporter type 1 deficiency syndrome (GLUT1) and pyruvate dehydrogenase deficiency.

The Canterbury District Health Board (CDHB) have just started a service involving paediatric neurologists, a dedicated ketogenic dietitian, keto/epilepsy nurse and pharmacists. This poster will focus on the values and benefits of pharmacist involvement in this service.

Measurements of exact carbohydrate, protein and fat contents are crucial in achieving target ketone levels associated with seizure control.

**Planned change**

When the ketogenic dietary service expands there will be scope and more demand for pharmacist input within the hospital and in community settings. Information and contacts-sharing decrease the need for unnecessary effort to ‘re-invent the wheel’ and allow a more consistent approach in managing patients being treated with ketogenic dietary therapy.

**Method**

Pharmacists set up a database of common epilepsy medicines, antibiotics and analgesia by contacting manufacturers and other contacts. Pharmacists also advised on the suitability of crushing or dispersing medicines in this paediatric population.

**Measurement of improvement and Effects of changes**

Once the database of carbohydrate contents of medicines was set-up, the ketogenic dietary therapy team was able to access the required information to allow decision making and carbohydrate calculations when pharmacists weren’t available.

**Lessons learnt/ implications**

Working databases can be shared nationwide with other hospitals and be accessible in community settings.

**Justification for presentation**

Pharmacist involvement in this setting is an excellent example of pharmacists working as part of a multi-disciplinary collaboration. This will also provide a platform for information sharing.
POSTER 3

Pharmacy Coaching for International Medical Graduate Junior Doctors – A New Paradigm in Orientation

Avril Lee1,2, Clissold E1,2
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1 Waitemata District Health Board
2 University of Auckland Medical School

Context/existing situation
House officers rotate through our organisation on an annual basis. A sub-set of these enter our organisation every 12 weeks as international medical graduates.

When new house officers join the organisation, pharmacists anecdotally noted; i) a rise of unacceptable abbreviations, ii) poor discharge summary quality and, iii) a lack of understanding of the pharmaceutical schedule. This in turn led to significant delays in treatment and potentially significant harm.

Planned change
Ensure this vulnerable staff group are equipped to prescribe safely in their new roles supported by: i) building sustainable interprofessional relationships, ii) creating a personalised welcome into a large organisation, iii) sign-posts to local policies and prescribing support tools.

Methods
Each doctor is assigned a clinical pharmacist within the department they work. Pairs meet at a mutually convenient time for usually 30 minutes on one or more occasions during the clinical attachment. Pharmacists are provided with a list of topics as a guide, these include national prescribing standards, local policies, high risk medicines and abbreviations. Pairs are encouraged to move through these at the learners pace.

Measure of Improvement
Over the past 9 months 25 doctors have been through the scheme. Pairs met an average of 4 times during their first attachment for approximately 25 minutes each time.

Effects of changes
Prescribing is a complex process, without the added complexity of knowing about different legislation, nomenclature, medicine names and funding requirements unique to New Zealand. Both parties report they’ve found the scheme useful and saved time by pre-empting prescription errors and reduced the number of ward calls.

Lessons learnt/implications for others
This model of orientation is feasible. In a time–poor, modern, clinical environment investing in building relationships can save time and may help prevent patient harm. It continues to evolve as we gain more feedback.

Justification for presentation
This is a new strategy to support new prescribers in our organisation. The model could be easily adapted and applied within hospitals throughout New Zealand.


**POSTER 4**

**Are we being Bloody Wasteful? An Audit of Blood Use**

Cindy Mortimer, Boker A, Smith V

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1 Bay of Plenty District Health Board, Tauranga

2 Auckland University, Auckland

3 Bay of Plenty District Health Board, Tauranga

**Introduction**

Blood is a scarce, expensive and potentially life-saving resource, therefore prudent to use wisely. It is well recognised both internationally and nationally that in order to safely rationalise the amount of blood being prescribed there is a shift towards a restrictive transfusion policy. The NZ Blood Red Cell Transfusion Policy recommends prescribing one unit and assessing the patient to determine whether further transfusion is required. This has been shown to reduce the number of red blood cell units transfused. Given these recommendations and the cost of blood products Bay of Plenty District Health Board reviewed practice compared to recommended guidelines.

**Aim**

The aim of the project was to audit and review the prescribing and administration of red blood cell products, focussing on specialties with high use, that is orthopaedic (knee and hip) and vascular surgery at Tauranga Hospital against guidelines.

**Method**

A retrospective audit of blood transfusions for knee or hip surgery (2 months) and vascular surgery (6 months) was undertaken. For the purpose of the audit only transfusions administered outside the operating theatre for patients without active bleeding were analysed.

**Results**

Adherence of transfusion practice was compared to guidelines as follows:

- Transfusion triggered Hb < 80g/L orthopaedic (64%) and < 100g/L vascular (100%)
- One unit blood only prescribed and patient reassessed before a second unit is prescribed – orthopaedic (12%), vascular (63%)
- Tranexamic acid usage – orthopaedic (79%), vascular (44%) as per recommendations were appropriate
- Documentation of indication, time of issue, start and completion of transfusion - orthopaedic (76%), vascular (42-46%)
- Observations recorded within recommended time frames– orthopaedic (48%), vascular (30%)

**Conclusion**

The audit has highlighted gaps in adherence to guidelines in the blood transfusion management process and opportunities for improvement prescribing and administration of red blood cells. An estimated 134 units per annum could have been saved and associated human resources.

**Justification for presentation**

This project was part of a student pharmacology placement supervised by pharmacy which coincided with the BOPDHB reviewing the blood transfusion process. Overseas evidence has demonstrated pharmacy involvement as a valuable member of the blood management team.
POSTER 5

Wait – Have You Recorded the Weight?
Kathleen McAskie, Leon L, Goddard J
Kathleen.McAskie@waikatodhb.health.nz
Waikato District Health Board, Hamilton

Introduction
Using patient body weight to determine doses for some medications can result in improved safety and efficacy (1). Pharmacists in the Waikato hospital pharmacy have highlighted that weight documentation on medication charts is generally poor, resulting in potential risks for patients on medications dosed via body weight. Waikato DHB Medicines Management Policy (2) requires a patient’s weight to be documented on medication charts when used to calculate drug doses.

Aim
• To evaluate whether patient weight documentation on medication charts aligns with the current Medicines Management Policy (2).

Method
A pilot study on two randomly selected wards was carried out one week prior to the audit. An audit tool was developed to determine whether patient weight was documented on medication charts or in a readily available place (clinical notes, observation chart, clinical workstation). Information was also collected if patients were on a medication requiring weight for dose calculation. All adult patients (≥ 18 years) admitted to hospital wards 48 hours prior to 8am on the audit date was included.

Results
Results from the full audit are forthcoming. The pilot was carried out on 22 patients. Weight was documented in a readily available place for 31.8% of patients. No patient weight values were documented on medication charts. 46.7% of patients were on a medication requiring weight for calculating doses.

Conclusion
Results from the pilot highlight that patient weight documentation on medication charts is poor. If this is verified by the full audit, weight documentation within our organisation must be promoted, in order to improve medication safety and efficacy. Otherwise, current procedures will require a review.

References

Justification for presentation
Failure to document patient body weight on medication charts removes the ability for pharmacists and other health professionals to check dose calculations, leading to possible dosage errors. This study provides a baseline for Waikato DHB and highlights room for improvement.
POSTER 6

Is the Medium the Message? – Format Matters in Medicines Information
Megan Veail, Mutavdzic A, Ragupathy R, Goddard J
Megan.Veail@waikatodhb.health.nz
Waikato District Health Board, Hamilton

Introduction
Patient preference in regards to receiving medicines information has been sparsely researched. A recent study undertaken at Middlemore Hospital, NZ, found that patients preferred written pamphlets or medication cards. These traditional formats for delivering medicines information have however been proven ineffective, and do not encourage patients to actively participate in their health care. Assessing whether demographic factors such as age, education and ethnicity affect patient preference will help to determine whether current delivery formats are suitable.

Aims
• Assess patient preference for presentation of medicines information.
• Determine what medicines information patients deem important.
• Determine whether demographic factors affect how patients want to receive medicines information.

Method
A pilot study was conducted to test our method. Patients were selected by using computer generated random numbers. Data were collected by ward pharmacists throughout Waikato Hospital over a five-day period. Demographic data including age, gender, ethnicity and level of education were collected. Patients were asked to rank the different formats used to deliver medicines information - pamphlet, email, smart-phone app, video, medication card or face-to-face discussion. Patients were also asked what information they considered to be important.

Results
Preliminary results suggest patients prefer to receive medicines information by a face-to-face discussion. Smart-phone applications appeared to be less popular. Final results will be presented.

References

Justification for presentation
The provision of medicines information is central to the role of a pharmacist. This study provides an evidence-based means of optimising the way we deliver medicines information.
POSTER 7

Reducing Misplaced Medicines – Adding Accountability to the Manual Medicine Delivery Process
Kim Rogers¹, Arti Chandra²
Kim.Rogers@waitematadhb.govt.nz, Arti.Chandra@waitematadhb.govt.nz
Waitemata District Health Board, Auckland

Context / existing situation
Serious patient harm can result from delays or omissions of critical medicines. At Waitemata DHB, the majority of medicines are transported between the pharmacy and clinical areas by pharmacy technicians for storage within Pyxis machines. 3-5% of medicines are not contained in Pyxis machines. These medicines are transported by orderlies, pharmacy technicians, Lamson tubes or provided after hours by the Duty Nurse Managers.
There is a robust electronic dispatch system in pharmacy, but no standardised process that captured accountability for delivery and receipt of medicines. We identified this as an integral process requiring improvement. As well as misplaced medications causing potential administration delays, pharmacy staff receive a high volume of phone calls chasing the requested medicine, causing significant rework for both pharmacy and clinical staff.

Planned change
To increase the number of non-Pyxis medicines that follow a standardised delivery and receipt process to 95% by January 2017.

Methods
A multidisciplinary improvement project team was set up with support from the Waitemata DHB Institute for Innovation and Improvement (i3). Issues and ideas were discussed and tested using Plan-Do-Study-Act cycles. An accountability process was piloted whereby a nurse receiving the non-Pyxis medicine delivery (via Orderly and Lamson) would:
1. Sign the medicine into a green folder (provided by Pharmacy)
2. Inform the nurse looking after patient that medicine has arrived
The process was rolled out at North Shore Hospital, Waitakere Hospital and CADDS with support from nursing senior leadership.

Measurement of improvement
A post pilot audit was conducted to measure compliance. The aim of 95% compliance was not achieved. Orderly deliveries at both Waitakere and North Shore Hospitals had 75% compliance. Lamson delivery at North Shore Hospital had 37% compliance.

Effects of changes
• Raised profile of the medicine supply system at Waitemata DHB
• Focussed attention on accountability once medicine leaves Pharmacy
• Developed an audit of compliance to be undertaken quarterly

Lessons learnt / implications for others
Medicine receipt is an integral often overlooked part of the medicine supply process. It requires a co-ordinated team approach that is supported DHB wide. It is complex and involves commitment and accountability. The implementation of this project has enabled more medicines to be delivered and receipted safely – ensuring best care for our patients.

Justification for presentation
This project demonstrates the manual medicine delivery system is complex. Its safety involves careful co-ordination between services and personnel outside Pharmacy and the nurse administering the medicine. The project brought together a multidisciplinary team consisting of pharmacists, technicians, orderlies, after hours nursing, charge nurses, nurse co-ordinators, delivery drivers and improvement specialists to problem solve using improvement science and close some gaps in this complex pathway.
POSTER 8

Managing Alcohol Withdrawal Consistently – Mitigating the Pain
Kane Pettitt, Elizabeth Brookbanks
Kane.pettit@waitematadhb.govt.nz, elizabeth.brookbanks@waitematadhb.govt.nz
1 Waitemata District Health Board

Context / existing situation
WDHB had a diverse range of guidelines for managing alcohol withdrawal across multiple settings (inpatients and outpatient areas) quietly gathering dust due to lack of use. Clinicians were confused. Patients were erratically managed. A multidisciplinary group, led by the pharmacy team, recognised the need for improvement and banded together for the sake of patient care and clinician sanity.

Planned change
A single unified protocol incorporating consensus expert opinion from all relevant stakeholders and underpinned by quality evidence was created and ratified. However further innovation was required to ensure that this work did not gather dust like the guidelines that proceeded it. Resource was secured for expert led development of an interactive e-learning module targeted at key clinicians.

Methods
A business case was created and submitted to the e-learning development team to successfully secure a 2016 spot in the e-learning development calendar. The creative process harnessed expertise from medical and pharmacy clinicians working across multiple specialities combined with interactive adult learning specialists.

Measurement of improvement
User experience feedback and customer feedback. Ultimately we anticipate improved outcomes in patient care as demonstrated by future audit.

Effects of changes
Feedback from ward pharmacists has noted early improvement in prescribing practice as a result of guideline implementation. Cross fertilisation has improved working relationships across multiple disciplines leading to greater understanding and more professional contact.

Lessons learnt / implications for others
This process has shown that a multidisciplinary approach led by pharmacy can lead to overall improvement in management of patients with alcohol withdrawal.

Justification for presentation
Wish to share lessons learnt, and encourage conference attendees to work across disciplines to bridge gaps in services.
POSTER 9

Prescriber’s Attitudes Pre and Post Electronic Prescribing and Administration Implementation

Lena Estrin, Fulton SM, Eryn Olshen, Rogers JM, Ryan DM, Wilkinson SJ, Zhou T

Lena.estrin@waitematadhb.govt.nz
Eryn.olshen@waitematadhb.govt.nz
Waitemata District Health Board, Auckland

Introduction
Prescribers were surveyed pre- and post-implementation of electronic Prescribing and Administration (ePA) to gauge perceptions towards a shift in practice from paper to electronic medication charts. The surveys were also a means for prescribers to provide feedback on various aspects of the implementation such as training, support, usability, and effects on patient safety.

Aim
To gain feedback on the ePA implementation process in order to improve future service roll-outs, and to gain insight into prescriber perceptions that can provide value to other District Health Boards that are intending to implement ePA.

Method
The pre- and post-implementation surveys were designed to provide both qualitative and quantitative data.
The surveys used a semantic differential approach to questioning to quantify attitudes towards the change in practice. This provided insight into potential difficulties during implementation and helped to develop strategies to overcome these. All surveys were anonymous and allowed prescribers to provide qualitative data through use of a comments box.

Results
The results of the pre-implementation survey showed that prescribers had divided opinions about whether the existing paper-based system was satisfactory, with responses evenly spread between satisfied, unsatisfied and unsure. Anecdotal feedback suggested that moving between wards and finding patient notes to prescribe medications while on-call was an inefficient use of time.
The post-implementation survey concluded that 100% of prescribers felt supported when using ePA and 95% felt that they received sufficient training. 84% of prescribers found preset ‘Quicklists’ and ‘Protocols’ useful when prescribing by providing guidance on standard doses. Prescribers stated that ePA reduced handwritten errors, with 89% agreeing that it improves patient safety while also improving the ability to manage their workload.

Conclusion
Some prescribers were apprehensive prior to ePA implementation, however post-implementation surveys after a period of bedding in demonstrate that prescribers feel ePA has improved the safety and efficiency of prescribing.

Justification for presentation
Electronic prescribing is now live for approximately 970 beds at Waitemata DHB. It is important to understand the impact that this has had on patient safety, staff workflow and perceptions of electronic systems and to share this with other DHBs.
POSTER 10

The Creation of a Clinical Trials Service in Tauranga City Hospital Pharmacy Department

Gini Smith, Robinson C, Mortimer C
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1 Bay of Plenty District Health Board, Tauranga

Context / existing situation
Pharmacy input into clinical trials at Tauranga Hospital prior to 2015 was on ad-hoc arrangement with limited consultation as to our capacity to manage the trial or structure. In March 2015, it was agreed that the service would be reviewed and re-designed to allow the provision of clinical trials in a robust, efficient and cost-effective manner, according to ICH-GCP.

Planned change
An experienced pharmacist was tasked to develop the service on a part-time basis. This involved the creation of robust SOP’s, checklists, financial agreements, prescriptions and internal forms.

Methods
Information was gathered regarding standard processes e.g. charging for trial functions and SOP’s. Templates were created and have been modified as our experience grows. Strong working relationships were formed between the Clinical Trial Unit (CTU), health professionals and pharmacy to improve communication and ensure we are collaborating efficiently and effectively in relation to both the set-up and running of trials. In November 2015, a technician was delegated to assist on a part-time basis.

Measurement of improvement
We are currently involved with 12 trials. This generates income to back-fill the pharmacy staff needed to support trials and in addition, provides financial support to the Community and PCT budgets. The CTU/DHB are being actively approached for potential new trials. We now have comprehensive paperwork and processes for trials to ensure we meet ICH-GCP requirements.

Effects of changes
Trials run efficiently from the pharmacy perspective and our department is seen as safe and competent. Feedback by our monitors is testament to this. Involvement in trials allows patients the opportunity to receive alternative therapies that may not be currently funded or available in New Zealand.

Lessons learnt / implications for others
We have frequently reviewed our processes and templates and there is not a ‘one rule fits all’ situation relating to trials. Establishing the service has taken time, but pharmacy are now a key member of the research team.

Justification for presentation
Trials are an important clinical service which offers patients novel or alternative therapies to existing treatments. Pharmacy is an essential service to allow trials to function efficiently and requires an experienced team to manage the service as per ICH-GCP.
POSTER 11

An Electronic Format to Improve the Transparency and Accessibility of the Intern Training Programme for all Staff at Tauranga Hospital Pharmacy

Tanya Appleby, Wheatley K

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Bay of Plenty District Health Board, Tauranga, New Zealand

Context / existing situation
The pharmacy department has an intern programme incorporating many different aspects and multiple supervisors at different times throughout the year. Interns are expected to follow detailed timetables, complete readings and be responsible for their own workloads within their scope of practice. Previously interns were given tasks, projects and overviews of rotations as paper copies.

Planned change
To formalise and standardise the current intern programme, a decision was made to investigate an electronic version of our intern programme using the existing Midland Learning Programme. Midland Learning is a Managed Virtual Learning Environment, owned by Bay of Plenty District Health Board.

Methods
Each pharmacist supervisor involved was responsible for the content to their specific sections, and followed a general outline to ensure uniformity between topics/modules.

Measurement of improvement
No formal measurements of improvement have been made but feedback from all involved – interns and supervisors has been very positive.

Effects of changes
Interns have a standardised format for the year outlined. This can be easily referred to at any time, and any changes to programs only have to be made once. It remains consistent for the following year with minimal reviewing necessary. It has benefits of being accessible to supervisors and interns throughout the year. Information can be released at specific times, there are no limits on the amount of resources that can be added or removed. The program can give quizzes to assess progress. Information can be visible for supervisors only – so all information regarding intern teaching and supervision can be in one place.

Lessons learnt / implications for others
Staffs involved with this electronic programme have generally found it to be a positive experience. It has been shown to be an ideal tool for multiple supervisors teaching interns.

Justification for presentation
This format is a simple but complete way to present the training of an intern in a complex hospital setting in a way which allows the intern and the supervisor to interact with each other and have all of the appropriate information in one accessible place. Other sites maybe interested to see how such a programme could be presented and useful for their own ongoing teaching needs.
POSTER 12

An Aminoglycoside Safe Prescribing Project (ASPP) at Waitemata District Health Board

Nicola Davies¹, Bondesio K²
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¹ Waitemata District Health Board, Auckland
² Waitemata District Health Board, Auckland

Context / existing situation
Aminoglycosides are rapidly bactericidal antimicrobial agents primarily active against Gram-negative bacilli. They are commonly used to treat a wide range of infections. The therapeutic and potentially lifesaving benefits of aminoglycosides must be balanced with the potential harms of prolonged use, namely ototoxicity and nephrotoxicity. At Waitemata District Health Board (WDHB) the most commonly used aminoglycoside is gentamicin. Historically this has been extensively used to treat intra-abdominal infections and a ‘one-fit’ dosing approach has been adopted. Wide-spread use, inappropriate dosing and prolonged use has resulted in a number of medication safety incidents.

Planned change
In response to the number of medication safety incidents, a comprehensive Aminoglycoside Safe Prescribing Project was undertaken to address the above issues. The main aim was to ensure safe and appropriate use of aminoglycosides, as well as reducing prolonged use at WDHB

Methods
Between May 2015 and June 2016 a widespread overhaul of the management of aminoglycosides at WDHB occurred. This included the development of an aminoglycoside protocol with the requirement for Infectious Diseases approval for use beyond 48 hours and an individualised dosing nomogram, extensive prescriber education, a therapeutic drug monitoring validation programme for pharmacists and implementation of an AUC monitoring tool.

Measurement of improvement
Success was primarily assessed via treatment duration audits. This was supplemented by regular review of reported medication safety incidents and ID pharmacist input for patients prescribed aminoglycosides on the regular medication chart or for more than 48hours.

Effects of changes
Preliminary audit results have shown less than 5% of patients prescribed gentamicin receive more than 48 hours duration. This is a reduction from 11% pre-implementation. Reporting of aminoglycoside medication safety related incidents has been observed to have reduced.

Lessons learnt / implications for others
The ASPP has been a successful initiative. As well as improving patient safety and reducing prolonged aminoglycoside use we have anecdotally seen more rational antibiotic prescribing in the setting of intra-abdominal infections.

Justification for presentation
This is a timely initiative in the global setting of antibiotic misuse. We describe changes to the management of high risk antibiotics that are widely used around NZ, in which pharmacists played a central part in the initiative’s success.
POSTER 13

Comparison of Enquiries for Complementary and Alternative Medicines with Enquiries for Conventional Medicines at the Medicines Information Service at Christchurch Hospital from 2010 to 2016

Tracey L Borrie1, Morahan MC1, Barclay M1, Vella-Brincat JWA1, McQueen GP1

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Canterbury District Health Board, Christchurch.

Introduction

Use of complementary and alternative medicines (CAMs) appears to be becoming more prevalent. As with conventional medicines, CAMs have the propensity to cause significant interactions and adverse drug reactions (ADRs), and the resources for answering these enquiries are limited.

Aim

To quantify and describe CAMs enquiries received by the Christchurch Hospital Medicines Information Service (MIS) over the last six years and compare these with enquiries for conventional medicines.

Methods

Data were extracted from the Christchurch Hospital MIS database (containing all enquiries from 2010 to 2016). Microsoft Excel® was used to analyse these data. Data extracted included medicine (CAMs versus conventional), enquirer profession, category and time taken to answer.

Results

Eight hundred and seventy (6%) of a total of 15,105 enquiries involved CAMs. For CAMs, most enquiries came from hospital pharmacists (31%) or community doctors (23%). Similarly, for conventional medicines, most came from community doctors (28%) or hospital pharmacists (23%). The most common categories for CAMs were interactions (55%) followed by ADRs (16%); whereas for conventional medicines, the most common categories were administration/dosage (24%) and contraindications/precautions (21%). Most CAMs enquiries took one to four hours to answer (36%) compared with half to one hour (35%) for conventional medicines. The proportion of CAMs enquiries increased from 4% to 9% over the six-year period.

Discussion

The proportion of CAMs enquiries to the MIS has increased over the six-year period and consumes a significant amount of time. Increase in both use and prescriber awareness of CAMs may have contributed to the increase in enquiries.
Poster 14

Waitemata DHB Practice: The Development and Implementation of Hazardous Substance Policies and Resources for the Protection of Staff and Patients

Trudy Hayes
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Waitemata DHB, Auckland

Context / existing situation
In 2013 a multi-disciplinary Environmental Protection Management Group (EPMG) was formed (which included pharmacy) within WDHB, in response to a proposed legislation change. The Health and Safety at Work Act was passed in 2015 with widespread implications. An employer must have taken every possible step to ensure safety. Employees must ensure their actions (or inaction) do not harm those around them. Managers (and staff) can be found personally liable for negligence. Ignorance is not a defence.

Planned change
The group planned for policies, resources and training to be in place and to ensure that WDHB staff understood their responsibilities under the Act.

Methods
• Assessment and identification of high risk areas.
• Stocktake of hazardous substances within these areas.
• Needs analysis of required documentation.
• Training of Approved Handlers in high risk areas.
• Source current Safety Data Sheets (SDS).
• Develop the Hazardous Substances Database which includes hazardous property classifications, recommended personal protective equipment (PPE) for spills, first aid recommendations and wastewater disposal guidelines for all identified substances.
• Update the WDHB Hazardous Substance Policy. An external consultant and the legal team were part of the review.
• Development of spill kit and other resources.
• Staff and manager training.
• Development of new Disposal of Medication policy and update of Waste Management Policy.
• Creation of Pharmacy New Product Hazardous Substance checklist.
• Implementation and change of practice.

Measurement of improvement
Risk tools created within this project are used as part of an ongoing audit process to ensure organisation compliance with legislation. The EPMG provides ongoing governance.

Effects of changes
Health and Safety considerations and SDS are now a compulsory part of all procurement at WDHB. Staff have 24/7 access to current resources and measures are in place to keep these current.

Lessons learnt / implications for others
In an emergency, an SDS is legally required within ten minutes. Medicines are exempt from the Hazardous Substance Legislation, however many possess hazardous properties, so the same safety principles apply. This is an evolving area and work is ongoing.
Justification for presentation
WDHB are leaders in the production and development of hazardous substance resources to protect staff and patients. We prepared a wealth of information and learned many lessons in four years. Other DHB’s and healthcare organisations can learn from our experience.

Resources
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<td>Hana Numan</td>
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<td>David Ryan</td>
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<td>Lucy Sheed</td>
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<td>Andi Shirtcliffe</td>
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<td>Tony Zhou</td>
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