Successes and Failures in Telehealth

2017

Ipswich Hospital Telepharmacy Service – an innovation in inpatient clinical pharmacy activities

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Overview of Hospital Pharmacy Services

What is telepharmacy?

- In 2010, only 42 of 116 public hospitals employed fully qualified pharmacists to staff their pharmacies
- Nurses, doctors and other healthcare providers at rural and remote hospitals may extend their scope of practice to include traditional pharmacy based activities, but do not provide a clinical pharmacy review
- Telepharmacy is the provision of clinical pharmacy services at a remote location, without the physical presence of a pharmacist
- A 2010 feasibility study demonstrated that telepharmacy is an effective alternative to on-site pharmacist reviews for inpatients at rural facilities
- In 2013-14 pharmacists in Northern Queensland concluded that telehealth is an appropriate and accepted model of service delivery for clinical pharmacy services in rural and remote communities

From humble beginnings

- Ipswich Pharmacy trialled an early telehealth model from 2004 to Laidley Hospital
- Hub & spoke model utilising desktop scanners & fax copies of interventions
- Outcomes not as predicted for the 20 bed unit with ALOS of 5 days
- Varied time of day, day of the week & communication methods to improve engagement
- Monitored medication incidents as a service lever

Telehealth revolution

- ACHS Accreditation identified disparity in provision of clinical pharmacy review
- Over 10 years of trialling telehealth models
- Aim – to see every chart of every patient each working day
- 50 patients across 4 sites via 1 pharmacist
- Telehealth support with improvements in ICT
- HHS KPIs for telehealth services
- Telepharmacy perfectly suited to telehealth model of care

Gold standard pharmaceutical care

- Key drivers must outweigh the opposition
- Change is never easy & high level management essential
- Many, many meetings (remote & on site)
- Much trial & error
- Be clear of the desired outcomes but be flexible on how they might be achieved
- Escalate early when things not going to plan
- Regular review & remodelling
Telepharmacy at Ipswich Hospital

- Operates as a hub and spoke model - Boonah, Gatton and Laidley Hospitals receive daily reviews, Esk Hospital is reviewed twice weekly
- Medication charts are scanned and emailed to the pharmacist at Ipswich Hospital who performs the clinical pharmacy review
- Recommendations and interventions from the pharmacist are documented on the medication action plan (MAP)
- The pharmacist leads a multidisciplinary clinical pharmacy review meeting with the medical officer and nursing staff at each rural hospital using Cisco jabber video-conference technology
- Outcomes of this review are recorded on the MAP and form part of the clinical care plan
- Each spoke site is also visited once each month by the telehealth pharmacist

Clinical Pharmacist Interventions - Examples

- Patient on GTN patch 5mg/24h (brand name 'Transderm-Nitro 25'), order written for GTN patch 25mg/24h
- Patient on slow weaning dose of prednisolone for radiation oesophagitis, commenced 2 months earlier. Prednisolone ceased when dose was 20mg daily
- Duplicate medication orders for potassium chloride SR tablets written on two different medication charts
- Patient prescribed doxycycline for 7 days, on day 3 and still receiving
- Patient’s recent dispensing history showed 2 different inhaled corticosteroids (duplication in class, increased risk of systemic side effects)

Telepharmacy at Ipswich Hospital

- The table below displays the median number of inpatient charts reviewed by the pharmacist per telehealth encounter with each rural hospital for the period June - August 2017

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Median no. charts reviewed per telehealth encounter (interquartile range)</th>
<th>Median no. interventions made per telepharmacy encounter (interquartile range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boonah</td>
<td>15 (11.0 - 17.0)</td>
<td>7 (4.0 - 11.0)</td>
</tr>
<tr>
<td>Gatton</td>
<td>7 (2.0 - 9.5)</td>
<td>7 (4.0 - 10.5)</td>
</tr>
<tr>
<td>Esk</td>
<td>8 (6.0 - 9.5)</td>
<td>11.5 (9.5 - 13)</td>
</tr>
<tr>
<td>Laidley</td>
<td>7.5 (2.0 - 10)</td>
<td>7.5 (4.5 - 11)</td>
</tr>
</tbody>
</table>

Perceived Barriers and Limitations

- Lack of an electronic medical record
- Staffing constraints
- Inconsistent engagement
- No direct interaction with patients
- Cannot physically annotate medication charts

Benefits and Strengths

- Immediacy of intervention
- Improved medication management and safety for patients at rural hospitals within WMHHS through daily clinical pharmacy review
- Development of professional rapport between pharmacists at Ipswich Hospital and medical/nursing staff at rural sites within our HHS

The future for telepharmacy at Ipswich Hospital...

- Inpatient charts at Laidley are now reviewed on a daily basis, providing greater opportunity to review those patients who would have previously been missed with a weekly review
- We are now involved in twice weekly Multidisciplinary Team (MDT) meetings at Esk Hospital, providing the opportunity to interact with and hear from speech pathologists, occupational therapists and physiotherapists via videoconference
- Possible provision of education and training for nursing staff on the completion of a MAP for new admissions
- Discharge counselling between pharmacy & appropriate patients via telehealth

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References