Pharmacist Prescriber for Cardiac Patients

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Overview

- Background to the proposal and key issues
- Strategic context
- Audit design and results
- Discussion of the impact of the post
- Plans for the future
- Questions
Background

- A pharmacist prescriber to support clinical staff working within the Cardiovascular & Thoracic Care Group (CV&T), ensuring safe, effective and cost efficient use of medicines
- CV&T comprises of: CCU, CHDU, thoracic ward, vascular ward, 2 cardiac wards, CSSU
- Investment in clinical pharmacists has been shown to improve patient safety by reducing medication errors, and can also save the Trust money
- A prescribing pharmacist within the team can:
  - Take accurate medication histories on admission
  - Deliver medicines reconciliation
  - Produce the first prescription
  - Ensure timely discharge prescriptions to meet 11am targets
  - Support the ANPs in their role
- ANP – advanced nurse practitioner, at least 10 in care group, part of junior Dr rota
- Allows junior Drs to prioritise their time to the sicker patients
- Important in CV&T due to a reduction in junior Dr numbers
Key Issues

• Local data shows the following:
   The pharmacy team make ~1000 clinical interventions each week and at least 25% of those were classified as grade 4-6 (potentially moderate to severe impact on patient care)
   30% of medication histories are incorrect on admission and 50% of discharge prescriptions need correction prior to discharge
• The EQUIP study for the GMC (2009) showed:
   FY1 and FY2 doctors are almost twice as likely as consultants to make prescribing errors, but pharmacist and nurse prescribers had similar error rates to consultants.
• NICE (2005) reports that 30 – 50% of medicines are not being taken as intended
Strategic Context

- Investment in this proposal would contribute to the following objectives:
  - QIPP – efficiency savings through clinical intervention
  - Patient safety – reduce the number of prescribing errors and the costs associated e.g. LOS reduction
  - Contribute to CQUIN targets – improving information provided to patients on side effects of medicines, in response to CQC survey 2009.
  - Improved patient experience and potentially reduced number of complaints, due to improved patient flow through the hospital
  - Encourage self administration of certain medicines and improve management of certain groups e.g. diabetics
What we did…

- **August 2011**
  - Applied for Innovation Fund money
  - Trust asked Division D to support on a 1 year trial basis (Div D = CV&T, neurosciences and orthopaedics)

- **September – December 2011**
  - Funding agreed, JD written, pharmacist recruited

- **January 2012 – August 2012**
  - Pharmacist in post, training to become an independent prescriber, working in the role but getting prescriptions signed by a Dr before patient discharged

- **August 2012 to current**
  - Fully qualified prescriber, audit work undertaken, post made permanent in Jan 2013

- **November 2012**
  - Trial of a pharmacist prescriber within the day of surgery unit for orthopaedics

- **Jan/Feb 2013**
  - Plans underway to develop a pharmacist prescriber within neurosciences also
Audit of the Service

- Baseline discharge data collected in Nov/Dec 2011
  - One week per ward
  - Times recorded for the whole discharge process, including:
    - When patient informed that they can be discharged by the medical team
    - When Dr finished writing the discharge prescription
    - When pharmacy staff told about the prescription
    - When the prescription was screened by a pharmacist
    - When all medicines were ready on the ward
  - The number of discharge prescriptions completed on the ward and in the dispensary
- Data was collected again during October 2012 to compare the time taken for the complete discharge process now that a pharmacist prescriber was part of the team, and to compare errors made by different types of prescribers
- Data was also collected in August 2011 and August 2012 to compare the number of discharge prescriptions written by different staff groups
Results (1)

• Full data was recorded for 39 discharge prescriptions during the one week baseline study in November / December 2011

• Of the 39 prescriptions, 28 (72%) were completed on the ward

• During October 2012, full data was recorded for 56 discharge prescriptions

• Of the 56 prescriptions, 42 (75%) were completed on the ward
### Results (2)

**30% reduction in time taken**

<table>
<thead>
<tr>
<th>Ward</th>
<th>Av. baseline times (minutes per patient)</th>
<th>Av. times with a pharmacist prescriber (minutes per patient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCU</td>
<td>90</td>
<td>77</td>
</tr>
<tr>
<td>D2</td>
<td>137</td>
<td>131</td>
</tr>
<tr>
<td>E3</td>
<td>253</td>
<td>202</td>
</tr>
<tr>
<td>E4</td>
<td>266</td>
<td>89</td>
</tr>
<tr>
<td>D4</td>
<td>485</td>
<td>219</td>
</tr>
</tbody>
</table>

Average time taken for care group = 206 mins

Average time taken for care group = 144 mins
# Results (3)

<table>
<thead>
<tr>
<th>Year</th>
<th>August 2011</th>
<th>August 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMRs written in 7 days</td>
<td>144</td>
<td>126</td>
</tr>
<tr>
<td>HMRs created by a Dr</td>
<td>119 (83%)</td>
<td>88 (69%)</td>
</tr>
<tr>
<td>HMRs created by an ANP</td>
<td>16 (16%)</td>
<td>31 (25%)</td>
</tr>
<tr>
<td>HMRs created by a pharmacist</td>
<td>2 (1%)</td>
<td>7 (6%)</td>
</tr>
<tr>
<td>Medication part of the HMR written by a pharmacist</td>
<td>2 (1% of all HMRs)</td>
<td>27 (21% of all HMRs)</td>
</tr>
<tr>
<td>Medication prescribed by a pharmacist during core hours</td>
<td>2% (2 out of 81 HMRs screened)</td>
<td>48% (27 out of 56 HMRs screened)</td>
</tr>
</tbody>
</table>
# Results (4)
October 2012 for 1 week

<table>
<thead>
<tr>
<th>Prescriber group</th>
<th>No. of interventions by screening p’cist</th>
<th>No. of HMRs</th>
<th>Interventions per HMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr</td>
<td>39</td>
<td>37</td>
<td>1.05</td>
</tr>
<tr>
<td>ANP</td>
<td>2</td>
<td>3</td>
<td>0.66</td>
</tr>
<tr>
<td>IPP</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>
Discussion

- A pharmacist prescriber as part of the team can reduce the time taken for discharge medication to be available on the ward – 30% reduction in time taken
- On average, medication for each patient was available on the ward 1 hour earlier than before
- A saving of 2912 hours per year (121 days)
- Savings are not significant in terms of ability to close beds, but by having the HMRs ready earlier this improves patient flow through the unit and hopefully patient satisfaction.
- Time savings have probably been seen for both nurses and ward pharmacists, although no formal audit has been carried out
- Accuracy – no pharmacists had to make any changes to HMRs written by the pharmacist prescriber during the audit in Oct 2012. This was further confirmed on a separate week in Oct 2012
- Staff like the new service – lots of positive comments received
Discussion (2)

• One fifth of all discharge prescriptions were written by the pharmacist prescriber during the one week audit in August 2012.
• The number of discharge prescriptions written per week by the IPP does vary week by week
• This post only covers core hours, Monday to Friday and if this is taken into account then almost half (48%) of the discharge prescriptions written during these hours were completed by the pharmacist prescriber.
• Previous data suggests that it takes ~15 mins to write the drug part of an HMR, therefore this pharmacist prescriber is saving 351 hours (~15 days) of Dr time per year
  ❑ This allows Drs to prioritise their time to the sicker patients
Plans for the Future

• Focus on improving the discharge process further on all wards
• Audits of patient and staff satisfaction
• Further formal audit to confirm improved accuracy over a longer period of time
  – Review and grade severity of interventions made per staff group
• Repeat the audit again now that ePrescribing has been introduced to CV&T
• After the roll out of electronic prescribing to cardiac, look at the potential opportunities for developing self medication policies and improving patient counselling on medication throughout the unit
• Develop the pharmacist prescriber role for newly admitted patients
• Using this model to develop pharmacist prescribers in other areas of the division e.g. T&O and neurosciences
Comments from Senior Managers at UHS

- Presentation very positively received
- Medical director very keen to develop this model throughout all Care Groups within the Trust
- Suggested that this model should be included as an example within the NICE QIPP database
- Senior medics wanted to know if Dr’s prescribing has improved now that an IPP is part of the team
- Audit to investigate effect on 11am discharge targets
- There is a push to develop this into a 7 day service!
Questions?