REGULAR MEDICATION PRESCRIPTION FOR EMERGENCY SURGICAL PATIENTS

Quality Improvement Project 2015-16

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Evidence suggest clear advantages in safe prescribing electronically (1)

NHS Mandate 2016-17 shows continued support for optimisation of patient safety using IT systems (2)

All current inpatient prescriptions at RHCH function through electronic ‘JAC’ system

However, emergency surgical admissions at RHCH seen in A+E require paper drug charts until admitted to ward

This has led to issues with regular medications being missed (including diabetes, anti-HTN and asthma meds) for extended periods of time

Prescribing issues have been highlighted by the Associate Medical Director as a cause for concern
AIMS

- To determine if regular medications are being prescribed by the time patients arrive to the ward

- To determine how long it takes for regular medications to be prescribed

- Standard local guidelines state that all patients should have their regular medicines prescribed (unless contraindicated) by the time they reach the ward

- If guidelines are not being met, to encourage early electronic prescription and improve local compliance
25 patients admitted as surgical emergencies in May 2015 were included in the study.

Admission time on the ward was determined by checking EPR/JAC systems and looking at when the first set of observations were performed.

Time when medicines were prescribed was determined by reviewing JAC system (time of prescription e-signature rather than time of first administration).

Audit standard used: 100% of patients expected to have regular medications prescribed by the time they have reached the ward.
RESULTS

- 23 Patients

- Average of 3.8 regular medications each
  - Range between 1-9

- 0/23 patients had all meds prescribed by time they reached the ward (0%)

- 6/23 took longer than 24hrs to prescribe regular meds (26%)

- 12.6 hours mean average time to prescription
RESULTS

Example breakdown of medication type:

- 2/5 pts with IHD drugs not Px by 24hrs
- 2/6 pts with HTN meds not Px by 24hrs
- 2/5 pts with diabetic medications not Px by 24 hrs
- 1/3 pts with psychiatric medications not Px by 24 hrs
Issues raised following results included SHOs reporting unfamiliarity with admitting patients to the JAC system, and unavailability of JAC on computers in A+E (where emergency admissions first seen).

After liaison with IT department, the JAC E-prescribing system was installed on to 4 A&E computers.

SHOs were shown (during teaching session) how to manually add patients to a specific ward on JAC, expediting regular medication prescribing in A+E.

Re-audited in October 2015.
Same aims and methods used

To determine whether number of patients with regular medications prescribed by time of ward admission has changed at all

Target is for all regular medications and analgesia to be prescribed before ward admission
RESULTS

- Total of 18 acute surgical admissions (with known regular medications) reviewed
- 0/18 patients had regular medications prescribed before reaching the ward (0%)
- 4/18 patients had to wait >24 hours before regular meds prescribed (22%)
- Mean average of 8.5 hours wait for those that were done within 24 hours
- No analgesia/VTE prescribed within same periods for each patient
FURTHER INTERVENTION

- New on-call proforma template designed, including instructions for JAC admission/prescribing

- Contains reminders to fulfil prescription criteria

- Direction to admit patient to ‘ABC’ ward when prescribing in A+E (when ward not known) – nursing staff can then change ward location when destination confirmed

- Message raised with SHOs again
NEW ON-CALL TEMPLATE

<table>
<thead>
<tr>
<th>General Surgery – Mr</th>
<th>Date:</th>
<th>SpR #034</th>
</tr>
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<tbody>
<tr>
<td>Ward</td>
<td>Details</td>
<td>PC</td>
</tr>
<tr>
<td>PMHx</td>
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<td>PMHx</td>
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</tbody>
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**PRESCRIBING ON JAC** - TO BE DONE BY SHO
1. Admit to ANY ward: ‘JAC’ → ‘Nurse Admin’ → ‘Admit Pt’
2. Prescribe regular Meds/VTE/ABx/analgesia as usual
3. Nurses will then transfer to correct ward on arrival

**Useful Numbers:**

<table>
<thead>
<tr>
<th>ITU</th>
<th>Bartlett</th>
<th>Wainwright</th>
<th>Kemp-Welch</th>
<th>TD/Surgical Short Stay</th>
<th>ATL</th>
<th>Northbrook</th>
<th>McGill</th>
<th>A+E</th>
<th>CT Scanner</th>
<th>Haem/Blood Bank</th>
<th>Biochem</th>
<th>Endoscopy</th>
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</thead>
<tbody>
<tr>
<td>5037</td>
<td>5022</td>
<td>4248</td>
<td>4511/6433</td>
<td>6329</td>
<td>4448</td>
<td>4988</td>
<td>5700</td>
<td>4954/11</td>
<td>5689</td>
<td>4460</td>
<td>4449</td>
<td>8903</td>
</tr>
</tbody>
</table>

ITU SpR 032
Orth SpR 037
Medical SpR 666
Urology SpR 426
Gen Surg SpR 034
Micro via switch
Gynaec SpR 363
Paeds SpR 305
Identical methods used

Total of 16 Emergency Inpatients (with regular medications) reviewed

100% non-compliance

0/16 patients had regular medications prescribed by arrival on ward

3/16 patients had to wait >24 hours for regular meds (19%)

Mean average 8.2 hours for regular prescriptions
Message again highlighted with on-call SHO team

- Ongoing non-compliance issues, and the clinical need for timely prescription of regular medications on the ward discussed with On-call FY1s (who are primarily responsible for emergency admissions AFTER transfer to ward)

- Agreed for concerted effort from all members of on-call team to comply with guidelines
Identical Methods used

17 emergency inpatients reviewed (admissions in late January/Early February)

14/17 patients had regular medications prescribed within 24 hours
3/17 (18%) had to wait >24 hours
4/17 had medications ALREADY PRESCRIBED by ward admission (24%)
Average of 2.9 hour wait for regular medications
# COMPARISON OF RESULTS

<table>
<thead>
<tr>
<th>Audit Cycle:</th>
<th>May 2015 (n=23)</th>
<th>October 2015 (n=18)</th>
<th>November 2015 (n=16)</th>
<th>February 2016 (n=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Meds Prescribed electronically by ward admission (guideline 100%)</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>&gt;24 hour wait for Regular Medication prescription</td>
<td>26%</td>
<td>22%</td>
<td>19%</td>
<td>18%</td>
</tr>
<tr>
<td>Mean time (hours) to regular medication prescription</td>
<td>12.6</td>
<td>8.5</td>
<td>8.2</td>
<td>2.9</td>
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Despite recurrent interventions, electronic regular medication prescription is still clearly being delayed with non-compliance remaining at >75%.

Main issue raised by SHOs is the availability of time during busy on-call shifts to prescribe electronically, with prescriptions still having to be duplicated on paper charts first.

However some change has been demonstrated, with repeat audits showing improved compliance (from 0% up to 24%).

Overall sustained reduction in average time to prescription (12.6 hours to 2.9 hours).

Further interventions are currently being planned, with re-audit in June 2016.
REFERENCES


2) NHS England Mandate 2016/17