Implementing ePMA at a large teaching Trust.

Pitfalls and Positives

Jonathan Snape BSc(Hons), MSc, MRPharmS
Pharmacy Team Leader – ePMA & Clinical Informatics
Topics to be covered

- Business case / Tech fund
- Baseline audits
- Clinician engagement
- Business change / process mapping & ICT support
- Testing, Testing, Testing...
- Development roadmap / collaboration
- Decision support (de-skilling?)
- Prescriber support (Templates & taskpads)
- Reporting / audit trails
- Benefits of ePMA
- ePMA team
Our approach.

- 1400 bed acute teaching Trust on two sites.
- Aiming to roll-out ePMA across all inpatient & outpatient areas.
- Trust ICT approach 2012 was to procure ‘best of breed’ IT solutions.
- OJEU tender process 2012/13 led by Trust procurement team with input from:
  - ePMA Project board and implementation team
  - Clinician working group (clinical MDT incl. Pharmacy)
  - IT working group (technical)

- Needed to be seen as ‘Not just a Pharmacy project’

- Project management – PRINCE2 approach – Project board chaired by Medical Director.
- Contract awarded Autumn 2013 to Oasis / Noemalife.
Business cases and Tech fund

- Costing the ePMA team
- Duration of roll-out & any areas excluded?
- Financial planning (capital and revenue)
- Benefits realisation (crucial esp. Tech Fund)
- ROI / VFM calculations = finance team!
Baseline audits

• Link to your benefits
• i.e. You need to be thinking of your benefits from the project and plan audits pre-roll out
• Examples include:
  • Missed doses
  • Allergy status
  • VTE completion (or other CQUINs)
  • Mandatory indications for antibiotics
Clinician engagement

- Essential - don’t underestimate this.
- Who chairs your Project board?
- Medical Director / Chief Nurse / CD Pharmacy
- Involve clinicians from beginning (CCIO)
- MDT approach to tender specification
- You will need support to overcome inertia
- Link to guidelines committee
Business change, process mapping & ICT support

• Easy to underestimate esp. for nurses (guilty)
• IT Working group is useful.......... 
• ...... so long as attendees have authority 
• Process mapping experience / tools (Visio™)
• Involve end users 
• Need to maintain ICT support (from the top)
Testing, Testing, Testing....

- Need ‘real life’ use cases- who writes UAT scripts?
- Test medicines by all routes (inc. unlicensed).
- ? dm+d as a native drug dictionary.
- Load testing & technical / DR / BC / multi-users
- Include interfaces to other systems (PAS, Pharmacy, clinical portal, discharge letters etc.)
- Test your workflows (what do pharmacists record?) – do they need to be reviewed?
Development roadmap

- Collaboration between UHN M & WAHT
- Plenty of common ground
- Some bespoke elements / local priorities
Decision support / de-skillling?

Patient issue

Provisional decision or idea

Decision support

Decision made

Action taken

2025 Vision

University Hospitals of North Midlands
NHS Trust
Decision support considerations

- **DRUG INTERACTIONS**
  - Alert all?
  - Alert none?
  - Alert some?

- **ALLERGIES**
  - Allergies
  - Intolerance
  - Adverse effects

- **DUPLICATE THERAPIES**
  - Class
  - Therapeutic effects

- **DOSE RANGING**
  - Only some drugs in some catalogues
  - Mixed economy

- **POSITIVE IMPACT**
  - Timely information
  - Accurate
  - Up to date

- **NEGATIVE IMPACT**
  - Alert fatigue
  - Conflicting alerts
  - System slows down
  - Deskilling staff
Decision Support

![Decision Support Image]

University Hospitals of North Midlands
NHS Trust

2025Vision
Being a place our families would choose
Prescriber support (templates & taskpads)
Prescriber support (templates & taskpads)

<table>
<thead>
<tr>
<th>Taskpads</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAVED PROFILES</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Default Profiles</strong></td>
<td></td>
</tr>
<tr>
<td>Administrations of CDN within 2-3 hrs</td>
<td></td>
</tr>
<tr>
<td>Admins to be prepared/administered, 2-3 hrs, Intra/sub/epidural</td>
<td></td>
</tr>
<tr>
<td>Admins to be prepared/administered, 2-3 hrs, routes other than Intra/sub/epidural</td>
<td></td>
</tr>
<tr>
<td>Discharge authorised to nurse</td>
<td></td>
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<tr>
<td>Not administered last 24 hrs</td>
<td></td>
</tr>
<tr>
<td><strong>Other profiles</strong></td>
<td></td>
</tr>
<tr>
<td>Active inpatients with Controlled Drugs</td>
<td></td>
</tr>
<tr>
<td>Active inpatients with High Risk Drugs</td>
<td></td>
</tr>
<tr>
<td>Discharge medicines authorised to pharmacy</td>
<td></td>
</tr>
<tr>
<td>Discharge meds in status validated/dispensed/checked and released</td>
<td></td>
</tr>
</tbody>
</table>
## Taskpad search result

### Inpatient Prescriptions

<table>
<thead>
<tr>
<th>Prescription</th>
<th>Dates</th>
<th>Review Date</th>
<th>Notes</th>
<th>Alerts</th>
<th>Presc. Status</th>
<th>Verif.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>morphine - 12-hour modified-release - modified-release tablet</strong>&lt;br&gt;Dose: 36 mg (01:00, 20:00) - oral</td>
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Benefits of ePMA

Reducing Errors
- May pick up currently unreported errors
- May find new errors
- Errors will still happen

Reducing Harm
- Reduce duplicates
- Reduce missed or delayed doses
- Reduce allergic reactions
- Reduce serious interactions
Benefits of ePMA

- Legibility: ✓
- Availability of charts: ✓
- Formulary choices: ✓
- Dose range checks: ?
- System configuration: ✓
Quality considerations

- Filters to improve efficiency
- Easy to identify due doses / missed doses
- Remote access (beware!)
- Hyperlinks to external references (e.g. Medusa)
- Accuracy of information exported to discharge letters
Using filters
Missed or delayed doses
Our ePMA team

- Pharmacist team leader
- Project Manager (Nurse with roll-out exp)
- Nurse (transformation background)
- Pharmacy technician (training background)

- And soon to be joined by another transformation nurse
Thanks for listening.

Any Questions?