



*"That it will ever come into general use, notwithstanding its value, is extremely doubtful because its **beneficial application requires much time and gives a good bit of trouble**, both to the patient and to the practitioner."*



Understanding CPOE design and Implementation: Lessons from an Australian Hospital

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Structure of presentation

- Solution at Frankston Hospital
- Implementation Lessons
 1. Importance of clinical champions
 2. Training and Helpdesk / Access to computers
- Product design Lessons
 3. Clinician acceptance – importance of UI
 4. Workflow Issues
 5. Alert Fatigue



The Setting

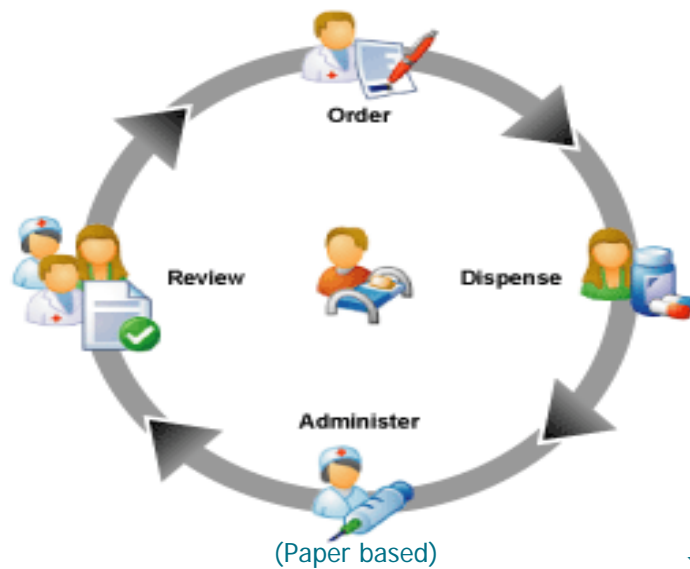


The Solution

- Stage 1: Discharge Prescribing with decision support
- Stage 2: Inpatient prescribing (July '03)
 - Trial in acute and subacute setting




Inpatient prescribing workflow



Results

- Internal Audit showed 19% reduction in pre and post e-prescribing medication error rates.

Discharge scripting		Rolled out across organisation
Sub-acute trial		Rolled out to subacute wards
Acute trial		Withdrawn after 8 weeks

Lesson #1 Clinical Champions

- No such thing as too much clinical involvement
- Acute ward
 - Lack of engagement from senior clinical staff
 - Slower ward round (Understaffed ward in winter)
- Subacute ward
 - Slower pace
 - Commitment from medical and nursing staff
- Involve clinicians from start and ensure clinical ownership

Lesson #2 Training and Access

- Training done on wards at doctors time
- Helpdesk inaccessible due to queues
- Insufficient computers
- Prepare adequately for e-prescribing role out
 - Round the clock accessible helpdesk
 - Adequate computers
- Onsite mentors



Lesson #3 Importance of UI

- Speed and intuitive UI are essential
- Lay emphasis on
 - Responsiveness
 - Sequence of screens
 - Consistent terminology
 - Tasks performed in a straightforward manner
- Common orders



Lesson #4 Workflow Issues

- Lack of support for e-Administration
- Medication chart re-printed with each update



- Partial solution can be problematic, aim for a strategy that avoids a paper based step

Lesson #5 Alert Fatigue

- Decision support is a double edged sword
 - Repetitive false alerts can be cumbersome
- 'Sensitivities' or 'side effects' often noted as 'allergies'
- Respect physicians sense of autonomy
- Configure e-prescribing software to only show alerts judiciously

Summary

- e-prescribing is not just a turn key rollout of technology
 1. Nurture clinical champions
 2. Provide adequate training and access to computers
 3. Speed and intuitive UI are important
 4. Partial solutions can be problematic
 5. Avoid Alert Fatigue

