Critical Success Factors for Digital Hospital Transformation

Queensland Clinical Senate
Friday 5 August 2016
Richard Royle
Acting CEO - Australian Digital Health Agency
Relevant Experience

• Implemented Australia’s first fully integrated digital hospital – St Stephens Hervey Bay – opened October 2014

• Chaired a review of the Personally Controlled Electronic Health Record for the Federal Government – December 2013

• Oversaw the closure of NEHTA and the opening of the new Australian Digital Health Agency – July 2016.
St Stephens Hospital, Hervey Bay

- Greenfield build, 100 bed private hospital – 5 operating theatres
- Fully integrated digital health hospital, utilising 29 Cerner Millennium applications, including a closed loop electronic medication system
- All clinical and non-clinical services integrated through the Cerner Millennium EMR
- Only 5 clinical interfaces – Medical Imaging, Pathology and Pharmacy.
St Stephens Hospital, Hervey Bay

- **July 2010**
  - Federal Government sought submissions via Health and Hospitals Fund for projects to improve access to regional and rural health services

- **May 2011**
  - Government announced $47.1M grant to UCH towards developing Australia’s first fully integrated digital hospital
    - $25.9M towards construction costs
    - $21.2M for eHealth

- **June 2012**
  - Contract signed with Federal Government

- **July 2012**
  - Project Director for eHealth appointed – Connie Harmsen
  - Australia’s first CMIO appointed – Dr Monica Trujillo

- **13 October 2014**
  - St Stephen’s Hospital Hervey Bay takes its first patient

- **December 2014**
  - St Stephen’s hospital is the first in Australia to achieve HIMSS Level 6
Key Learnings from Early Visits to US Fully Digital Hospitals

• Treat project as a change management piece, not an IT installation
• Develop a close working relationship with your IT vendor - in our case Cerner
• Engage with your Doctors upfront and involve them in the detailed design of the system
• Employ project personnel with a thorough knowledge of full EMR implementation
• Focus strongly on staff education pre go-live and educated IT support on the ground post go live

Richard Royle & Neal Patterson October 2012
St. Stephens Hospital Hervey Bay – Digital components
St. Stephens Hospital Hervey Bay – Patient room
- Unit dose packaging

<table>
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<th>Before</th>
<th>After</th>
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<td>Blister packs</td>
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![Image of blister packs before and after unit dose packaging]
Paracetamol Cumulative Maximum Dose Alert

This 24hr Paracetamol dose will be 5000 mg (including this administration), which exceeds the maximum daily dose of 4000 mg.
Clinical Transformation and Work Redesign Teams

- Medical Doctors
- Surgical Doctors
- Anaesthetic Doctors
- Inpatient Workflows
- Surgical Workflows
- Device Integration
- Medication Management
- Admission Process

eHealth Project Team
Redesign UCH Team Composition

62 Staff

- 15 St Stephen’s Hospital
- 8 The Wesley Hospital
- 8 St Andrew’s War Memorial Hospital
- 2 The Sunshine Coast Private Hospital
- 29 UCH corporate (pharmacists, quality, eHealth, ISD)

27 Doctors

- 7 St Stephens
- 4 St Andrews
- 9 Wesley
- 5 Sunshine Coast
- 2 corporate
Guiding Principles for Work Redesign Teams

• We will do what is **best for the patient**

• **Patient safety** is our primary objective

• Design principles will be based on what is best for **UCH as a whole**, following the **80/20 rule**: 80% can be used at any UCH hospital, 20% can be facility specific

• Design will be **clinician-driven** and support standardization of clinical “**best practices**” and **medical decision-making**

• All design work will incorporate **Australian National Standards, ISO, Hospital licensing, UCH Policies & Procedures, Guidelines and Best Practice**

• Proactively identify, manage and resolve **issues to maintain the project timeline**, effectively utilize resources, and ensure design decisions are aligned with the Guiding Principle

• Design must be **benefit driven** and focused on improving performance of the organization for the **long-term future**
EMR elements that help clinicians

• One record, multiple users, multiple locations: no chasing around to access the record
• No more trying to read Doctors’ handwriting
• Able to get reports quickly and not have to search for them amongst faxes
• When call Doctor in rooms or at home, they can access the record as we discuss the patient’s condition, clarifying sometimes confusing discussions
• Will receive reminders when things are due, eg tasks, dressings
• Able to add orders and start processes without the Doctor physically present
• Easy documenting of care plans
• Clinical support tools and links with clinical alerts personalised for patients
EMR elements that help clinicians

- Easier investigation of incidents and discrepancies
- Can see exactly who did what when
- Able to easily find missing, misplaced, borrowed equipment and confused, wandering pts
- Able to place an order, request a service and not have to worry/remember to phone them
- Can easily find information from past encounters
- Single Sign On with “tap on, tap off” provides quick and easy access for clinicians to the EMR
- AnywhereRN allows nurses to remotely queue medication removal from ADC
- GP Notifications provides immediate discharge summary information to referring GPs, as well as to VMPs’ rooms
Lessons Learned

• Strong and extensive clinical engagement
• Close working relationships with system vendors
• Treat it as change management, not IT implementation
• Strong, high visibility executive and clinical leadership
• High capability project management
Lessons Learned (continued)

• Infrastructure delivered early
• Strong Board support
• Empowered, agile implementation team
• Train hard