Welcome

“Building the foundations for a Digital Strategy”

St James’s Hospital
On-going Projects

- Instrument T&T
- Haemophilia T&T
- eProcurement
- Electronic Patient Record
- SJH Healthcare Campus
- Scan4Surgery
- Automatic tracking (RFID)
- Others...

Building the foundations for a Digital Strategy across the Hospital campus...

Supported by Regulation for medical devices and pharma
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>17.45</td>
<td>Registration</td>
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<tr>
<td>18.00</td>
<td>Welcome and opening address</td>
<td>Lorcan Birthistle, Vice President, HMI and CEO, St. James’s Hospital</td>
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<tr>
<td>18.10</td>
<td>“Overview (project Oak and key hospital initiatives enabled by standards)”</td>
<td>Grainne Courtney</td>
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<td>18.20</td>
<td>“Scan for surgery and patient level costing”</td>
<td>Mary O’Brien, Assistant Director of Nursing &amp; John Cotter (TBC), Director of Finance</td>
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<td>18.30</td>
<td>“Surgical Instrument track and trace from HSSU to the patient in theatre”</td>
<td>Andrew Smith, HSSU (Sterile Services) Manager</td>
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<td>18.40</td>
<td>“Safe treatment of Haemophilia patients using GS1 standards”</td>
<td>Feargal McGroarty, National Haemophilia System Project Manager</td>
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<td>18.50</td>
<td>“Improving patient safety by automatic tracking of precious samples from theatre to laboratory”</td>
<td>Dr Una Geary, Director for Quality and Safety Improvement</td>
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<td>19.00</td>
<td>Q&amp;A and close of meeting</td>
<td>Lorcan Birthistle, Vice President, HMI and CEO, St. James’s Hospital</td>
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</table>
2006
- Went live with Cerner Order Communications for laboratory & radiology.
- In house development of Ad hoc PowerForms for Out-Patient Depts.

2011
- GUIDe Outpatient clinic (Sexual Health, HIV and ID ambulatory care area) fully electronic for physician & nursing documentation & EPMA

2015 – 2018
- Project Oak established to design, build & implement an electronic patient record for inpatient nursing & physician documentation and inpatient EPMA
- October 2018 ‘Go Live’
Our Project Oak Story

• Safer Better Care
• Release time to care
• By
  ▪ Improving processes
  ▪ Standardising Care
  ▪ Implementing Decision support
### What is Included?
- Physician records for in-patients
- All Nursing end of bed notes and admission assessments (including vital signs, fluid balance)
- E-prescribing and Meds administration

### What is not Included?
- Residential Care areas
- Out-patients
- Theatre/IR/Endoscopy
- ED (in-patient prescribing for admissions)
- Consent
- Pre-procedure and pre-op checklists
- Chemotherapy Prescribing
- Insulin prescription
- Patient Contract
- Nursing Care plans (with exception of 6 on system)
The Project Team

Core Team of 15 Workstream Leads

12 Trainers

Supported by a whole organisation - every department
Change and Transformation Activities

• **Standardisation of drug rounds**
• Building relationships with all clinical staff
• Complex medication workshops
  • Antimicrobial stewardship
  • Resuscitation/DNR
  • Insulin prescribing
  • VTE/Anticoagulation
  • Managing patient interface with other systems ICU/radiology/Endoscopy
  • Pain /PCAs/Syringe drivers
  • Discharge process
### Paper Based Medication Process Issues

<table>
<thead>
<tr>
<th>Single Access Only to the Medication Prescription (Drug Kardex)</th>
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<tbody>
<tr>
<td>Missing Prescriptions From Bedside</td>
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<tr>
<td>Illegibility</td>
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<tr>
<td>Prescribing Errors</td>
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<tr>
<td>Multiple Interruptions</td>
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<td>Problems identified led to more contact with teams to clarify, re-chart, correct or rewrite prescriptions</td>
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<tr>
<td>Time Consuming</td>
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Training

- 2,550 Staff Trained
- 21,300 Hours of Training
Communications

• Hospital Communications Manager & Project Oak Communications Lead

Electronic Patient Record (EPR) to ‘Go-Live’ on 13th & 14th October

- Improved Clinical Records
  - Clinical staff will have more complete patient information to enable well-informed care decisions helping to improve care and reduce safety risks

- Electronic Patient Record (EPR) will have: patient information, medical records in computerised format instead of on paper
- EPR will include Nurse’s and Doctor’s records as well as Medication Prescriptions (E-Prescribing)
Each ward has the following additional devices:

- 6-7 Workstations On Wheels depending on acuity and numbers of visiting teams (3 wards will have 8 WOWs in total)

- At least 4 additional PCs on corridor/MDT room/duty base (total PCs now 6-8 per ward)

- 1 PC in clinic room

- 2 laptops on drug trolleys
Today
<table>
<thead>
<tr>
<th>Benefits</th>
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<tr>
<td>Development of an Electronic Patient Record – not information held in separate places by all disciplines</td>
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<td>Obtaining rich data to inform service delivery and improvements to patient care</td>
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<td>Improved patient safety through the use of Clinical Decision Support – alerts, rules, allergy checking, interaction checking, reference text etc</td>
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<td>Multiple &amp; Remote user access to record</td>
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<td>Ability to standardise safe care for Falls Prevention and Management, Nutrition, Infection Prevention &amp; Control (incl. invasive devices)</td>
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<tr>
<td>Enter information once and share multiple times</td>
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<td>Releasing Time to care</td>
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Prescription Legibility

Before

After

TREATMENT FOR VTE
Consider Low Molecular Weight Heparin
Prescribe here if required:

Order Sentences
Order Sentences for: Enoxaparin

DOSE: 20 mg - ROUTE: subCUTANEOUS - ONCE a day
DOSE: 40 mg - ROUTE: subCUTANEOUS - ONCE a day
DOSE: 60 mg - ROUTE: subCUTANEOUS - ONCE a day
DOSE: 80 mg - ROUTE: subCUTANEOUS - ONCE a day
DOSE: 1 mg/kg - ROUTE: subCUTANEOUS - TWICE a day
DOSE: 1.5 mg/kg - ROUTE: subCUTANEOUS - TWICE a day
DOSE: 1 mg/kg - ROUTE: subCUTANEOUS - TWICE a day
DOSE: 0.6 mg/kg - ROUTE: subCUTANEOUS - TWICE a day

Enoxaparin
DOSE: 80 mg - ROUTE: subCUTANEOUS - TWICE a day - START: 16/01/2019 18:00:00
Target Dose: Enoxaparin 1 mg/kg 16/01/2019 11:38:28
Enoxaparin
Preparation check by (name and PIN/MCRN)
Administration type
## The Electronic Drug Chart

### Time View

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<th>Medications</th>
<th>06/03/2019</th>
<th>07/03/2019</th>
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<td>DOSE: 5 mg - ROUTE: oral - ONCE a day - STARTS: 06/03/2019 06:00</td>
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<td>DOSE: 625 mg - ROUTE: oral - THREE TIMES a day - INDICATION: Surgical prophylaxis - STARTS: 06/03/2019 06:00 - REVIEW DATE: 08/03/2019 17:00:00</td>
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<td>DOSE: 1 g - ROUTE: oral - FOUR TIMES a day - PRN for (not specified): STARTS: 05/03/2019 17:31:00</td>
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<td><strong>Infusion Summary</strong></td>
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**Notes:**
- Green indicates a scheduled medication.
- Yellow indicates an unscheduled medication.
- Red indicates a discontinued medication.
- **Green bold:** Indicates an active medication.
- **Yellow bold:** Indicates an in-active medication.
- **Red bold:** Indicates a discontinued medication.

**Date Range:** 22-Feb-2019 10:15 - 22-Mar-2019 10:15 (Clinical Range)

**Last Update:** 08/03/2019 10:15

**Next Update:** 08/03/2019 12:00

**Last Updated:** 08/03/2019 10:15

**Next Update:** 08/03/2019 12:00

**Patient ID:** 11852124

**Patient Name:** 08-Mar-2019 10:13

**PMCN:** 11852124

**Diagnosis:** 08-Mar-2019 10:13
Medication Administration

Statistics:

• Approx. **13,500** medication administered electronically per day

• Approx. **94,500** medications are administered per week

• Since go-live we have administered **1,734,460** (5months) medications electronically
Medication Round Audit Timings (Before Project Oak go-Live)

- Acute Medical Medication Round (AMAU)
  - Median time taken to complete administration of oral medications to 15 patients was **94.5 minutes**
  - Median number of **interruptions was 16.5 per round**
- Demonstrates time consuming activity with negative impacts for patients and staff
And the winners are...

- **Patients**
  - Timely, safer administration of medications

- **Nurses**
  - Increased time to care as median medication round now takes 60 minutes (per team).
  - Saving of 34.5 minutes per team which is 69 minutes per shift
  - Interruptions reduced to 9 per round (from 16.5).

- **Prescribers**
  - Aware of administration times throughout the hospital
  - Reduction in medication errors due to illegibility, incorrect prescribing
  - Time saving no Kardex Rewrites
  - Multiple user access to the prescription
iView Nursing assessments x 72 hours incl EWS
Critical Success Factors

1. Patient Focused Project
2. Governance – Executive Support, Clinically Led
3. Joint funding from HSE and SJH
4. EHR infrastructure embedded in SJH
5. Protected time for Health Informatics Clinicians
6. Mandatory Training
What next?

- Workflow Optimisation
- Outpatient Implementation
- Biomedical Device Integration
- ED & Theatre