Safe treatment of Haemophilia patients using GS1 standards

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Agenda

• Background: Haemophilia service
• Our service needed to change
• Problems & Solutions
• Outcomes
• The Future
What is Haemophilia?

• A hereditary bleeding disorder caused by a deficiency of protein called a clotting factor

• Characterised by excessive bleeding, even after minor injury

• Very expensive medication: approximately 200 patients with severe form need this medication

• Patients self-medicate in the home to help prevent bleeding emergencies
Crisis: our service needed to change

- Infection of patients with Hepatitis C and HIV (late 1970’s – 1985) due to contaminated blood products
- Infected products remained in the supply chain after recall, leading to subsequent infection
- Over 100 patients suffering from haemophilia died

Corrective action after government investigation:

- Improve communication between treatment centres
- Blood products supplied to persons with haemophilia should be of the highest standard and of the safest nature that are available
Solutions

- GS1 standards
- National Electronic Patient Record
- Home/Hospital track and trace
- Validated Cold Chain Delivery Service
Patient records: Digitised

- Clinicians can view a record when and where they need it
- Can be used to populate a Patient Portal
Multi-location deployment

Regional Haemophilia Centres

National Coagulation Centre

Care provider
Home access
Medication delivery supply chain – where we were then
Medication delivery – Where do GS1 standards Fit?

- Manufacturer
- Cold Chain Supplier
- Hospital
- Patient
- Medication
- GS1 Identifiers
- Patient Home
Medication delivery supply chain – where we are now

IDENTIFY

CAPTURE

SHARE
Capture within Hospital

Stock delivered

Hospital

Check Product vs. Patient and issue

Issue Fridges

Stock Fridge

Prepare product (GTIN)

Patient receives product

Electronic Patient Record

Warehouse Management system
### Stock Report By Location

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<th>Received On</th>
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</table>
Capture at home

Barcode on Vial box is scanned to check

- Product detail (prescription)
- Expiry date
- Recall status
- Shorter-dated stock
Benefits of using Scanning App

• Real-time recall alert
• Timeliness of infusion
• Prescription compliance (2000iu instead of recommended 1750iu)
• Automatic compliance verification
• Real-time alerts for specific bleeds
• Patient empowerment
Integrated care
Outcomes

• Validated Cold Chain delivery service ensured all products delivered in the correct temperature range

• €5 M medication stock removed from the supply chain

• Stock rotation saved €600,000 worth of stock

• Mock recall identified location of all medication within 10 minutes; identified quantities of alternate stock available
Lighthouse Projects

eHealth Ireland is working to deliver an Electronic Health Record (EHR) for Ireland in 2016. As part of this, eHealth Ireland is investing resources into 3 project areas known as the ‘Lighthouse Projects’ to build an understanding of the benefits of an EHR in the Irish healthcare system. These projects are in the clinical disciplines of Epilepsy, Haemophilia and Bipolar Disorder and will be carried out over a 12 month period with specific deliverables. They are the first chronic disease related areas for eHealth Ireland to focus on as part of the eHealth Ireland strategy. Specific feedback will be made available during the whole of 2016 as these projects provide patient, public and clinical benefit. eHealth Ireland will be working in collaboration with a number of organisations to deliver these projects (see individual projects). eHealth Ireland will also be working with ARCH across all three projects to research the implementation of a flexible and re-usable EHR model. ARCH is the industry-driven technology centre for connected health research in Ireland. Through the projects the many positive outcomes and benefits for patients as well as healthcare professionals associated with using information technology within health will be showcased. It will develop a new paradigm of healthcare delivery for Ireland.
Thank you

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