A focus on patient safety – How unique identification and bar coding of healthcare products and services can improve patient safety

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GS1 21st Global Healthcare Conference
20 March 2012, Sydney

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The intersection of eHealth Safety & Quality and the Supply Chain

1. eHealth in Australia and NEHTA

2. Patient Safety Adverse Event and the Clinical Safety Case

3. National Product Catalogue

4. Unique Identification and Harm Reduction

The approach to eHealth in Australia

The direction proposed in Australia has 2 points of difference:

➢ Clinically Driven Build

(Internally within NeHTA only, internal check of Clinical utility, Assurance and Clinical Safety to prepare better for external scrutiny and validation)
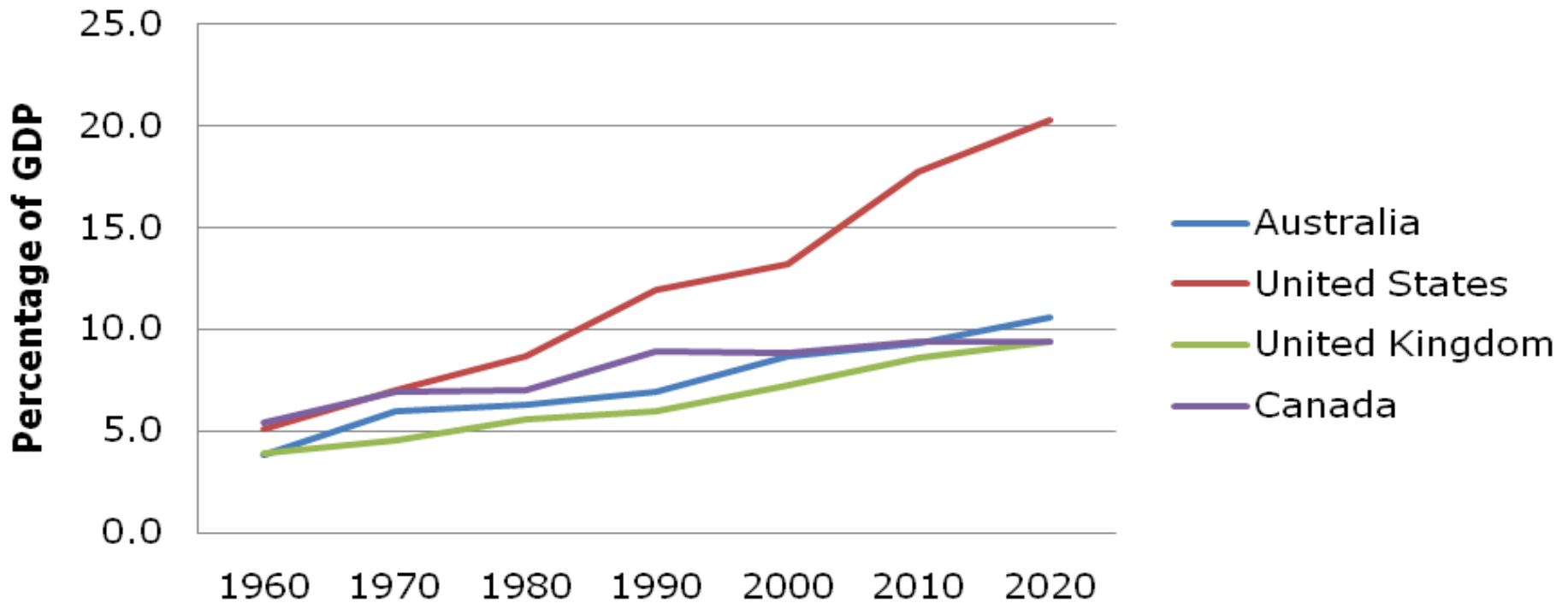
➢ Patient Controlled

(Patient decides to have one, who writes to it, who reads from it: NOTE no document can e altered but any can removed at the Patient's request)

Impact on the economy

National health expenditure as a percentage of GDP

Legend:
- Australia
- United States
- United Kingdom
- Canada

What is NeHTA and what is eHealth!

Leading the uptake of eHealth systems of national significance.

Coordinating the progression and accelerate the adoption of eHealth by delivering urgently needed integration infrastructure and standards for health information

eHealth is "the combined use of electronic communication and information technology in the health sector"

World Health Organisation

Patient Safety at a glance: more than the Jumbos....

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- **16.6%** of people admitted to hospitals experienced an **adverse event** associated with their care (Quality in Australian Health Care Study, 1996).

- **13.7%** of the adverse events reported resulted in **permanent disability**, and **4.9%** resulted in **death**.

- **Medication misuse**, under-use, overuse, and reactions to therapeutic drugs result in **140,000 hospital admissions** every year.

- *surgical instruments/consumables being left in the patient post surgery, issues with counterfeit medications/devices statistics…*

Identification and Patient Safety

Unique ID and barcoding can reduce patient harm by:

- Identification of the drug at point of care and validation (by bar code scanning) means that that you are giving the correct drug
- Identification of the patient by scanning the bar code on the patient wristband will ensure the correct patient
- Use of identification and bar coding technologies as product moves through the supply chain enables traceability and reduces the risk of counterfeit products entering the market
- Scanning bar codes on the items in the operating theatre allows (1) reconciliation of what has been used and (2) relating of the items used to the patient record or for reporting to registries

eHealth Supply Chain Reform

Accurate identification is critical

eHealth Supply Chain Reform can deliver:

- ☑ The right **products**, at
- ☑ The right **price**, for
- ☑ The right **person**, in
- ☑ The right **location**, at
- ☑ The right **time**

Healthcare Supply Chain and Patient Safety

Australian Governments working together to improve Healthcare Supply Chain and Patient Safety: Adoption of the National Product Catalogue and eProcurement

"….. a commitment by the Federal, State and Territory Health Departments in Australia to the collaborative development and adoption of national e-health standards in healthcare supply chain"

"….. with the goal of improving patient safety and the quality of healthcare delivery for all Australians.

"This commitment includes working towards effective adoption and utilisation of the National Product Catalogue and the NEHTA eProcurement Solution."

National Product Catalogue

- Utilising data provided by suppliers via the National Product Catalogue (NPC).

- Encourage suppliers to load, validate and publish their data to the NPC, effectively becoming 'NPC Ready'.

- Automated solutions to receive data from the NPC, validate and feed this into internal ERP systems and other business solutions.

This key piece of healthcare infrastructure will be a primary foundation to providing accurate and complete supply chain data, clinically relevant product information and price data to Australia's public health system.

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What is needed:

Integration into eHealth patient records

Unique product identification life cycle

Supply Chain:
Best Practice, Best outcomes

Patient Identification (1)

Medication Identification (2)
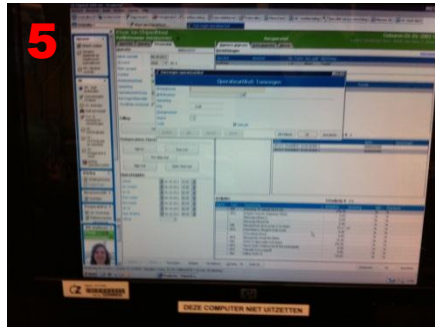
Instrument Identification (3)

Prosthetic Identification (4)

EMR Integration (5)

Pharmacy: Hong Kong Hospital Authority

Hong Kong Hospital Authority
Prince of Wales Hospital: Pharmacy

Large numbers through….

Changed work processes…

Pharmacy: Hong Kong Hospital Authority

Innovation

Technology

Mechanisation

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Product ID at point of dispensing…Check and check again.

Pharmacy: Hong Kong Hospital Authority

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Double tagging…. confirm **Patient ID** matches that on Med **order** or pathology request…

Double tagging…. confirm **Patient ID** matches that on Med **order** or pathology request… THEN SCAN!!
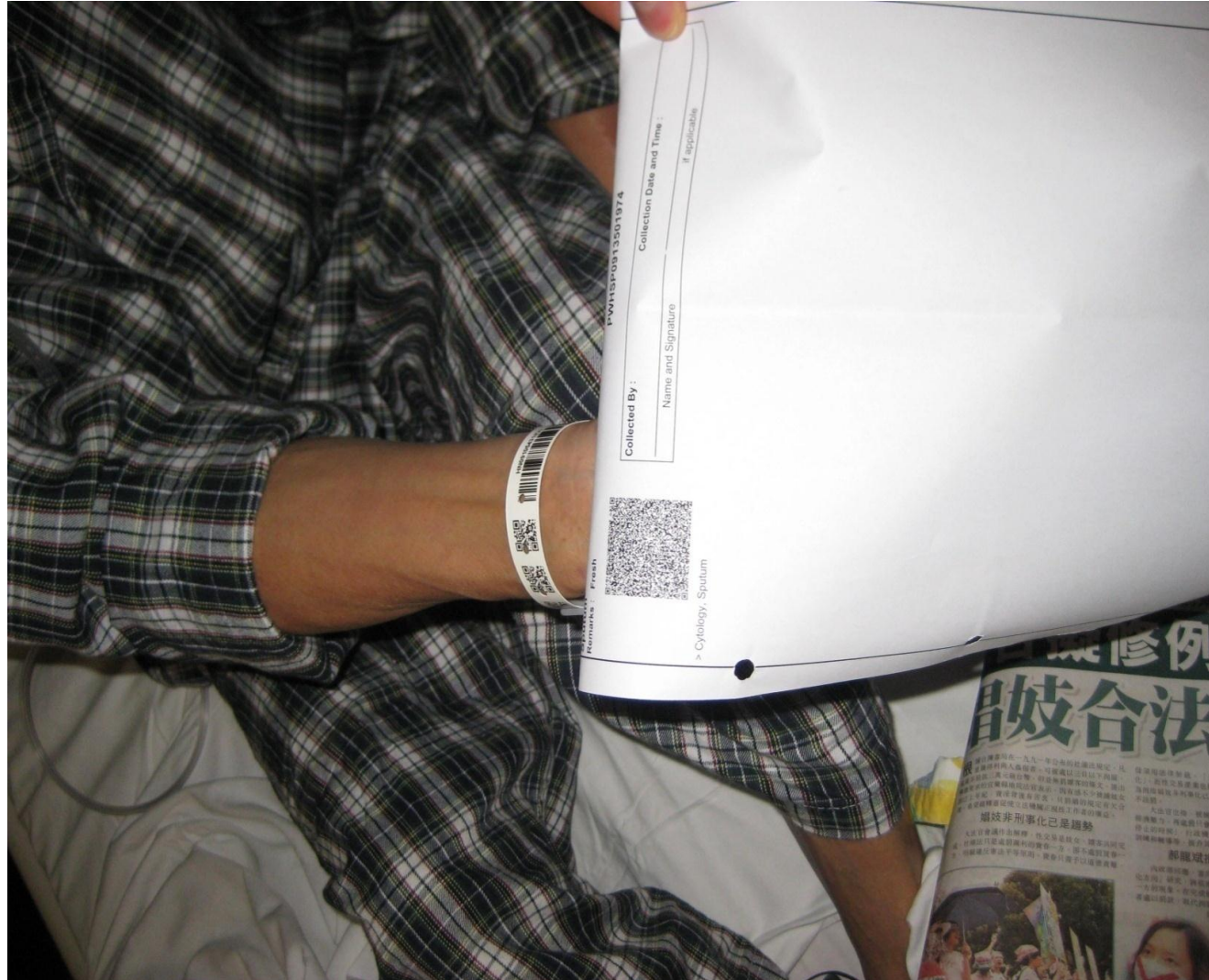
Once IDs match, label prints out to place onto specimen jar…

Healthcare Supply Chain and Patient Safety:

Looking back, moving forward Capturing lessons and building the evidence base for health informatics The Connecting for Health Evaluation Programme

benefits gained by the deployment of an electronic blood tracking system ranged from reducing inpatient safety incidents, reducing
the number of samples rejected by the lab, and improved traceability of Blood

Healthcare Supply Chain and Patient Safety:

The key clinical safety outputs of the pilot:

- much better and safer patient identification processes;
- reduction in the number of blood samples rejected by the laboratory;
- improving the traceability of blood;
- using automated information checking;
- time savings for staff involved in blood transfusions;
- enhanced accountability and audit trail.

….using the technology purchased for the blood tracking system for other purposes ….for example the huge benefits for improving patient safety and reducing length of stay.

Healthcare Supply Chain and Patient Safety:

The pilot shows that implementing a blood tracking system based on the national standard (the Electronic Clinical Transfusion Management System - ECTMS) makes patient care safer by:

• Ensuring better processes for accurate patient identification

• Reducing patient safety incidents

• Reducing the number of blood samples rejected by the laboratory

• Improving the traceability of blood

• Automating information checking

• Enhancing accountability and audit trail

• Making time savings for staff involved in blood transfusions via the automation of processes

• Introducing innovative use of mobile technologies.

Keeping up

Supply Chain

http://www.nehtasupplychain.com.au/

PCEHR

www.yourhealth.gov.au

The latest in eHealth

www.ehealthinfo.gov.au

NEHTA specific information

www.nehta.gov.au

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Thank you and Questions