

The implementation of global standards in a large academic hospital, supporting efficiency and patient safety

Mr Erik Zwarter, Information Manager EHealth and AIDC, Erasmus MC, Rotterdam, the Netherlands

May 17, 2018



Welcome and thank you for attending!



- Welcome to our May 2018 webinar.
 Thank you to our guest speaker Mr Erik Zwarter, Information Manager EHealth and AIDC, Erasmus MC, Rotterdam, the Netherlands
- Some housekeeping for today:
 - All attendees will be on mute
 - If you have questions during the presentation, please type them into the questions area and these will be monitored then answered at the end of the call
- After the webinar:
 - Within a week, the recording will be posted to: http://www.gs1.org/healthcare/hpac webinars
 - All previous webinars are also posted to this location, so please feel free to use this resource and share the link



The GS1 Healthcare Provider Advisory Council (HPAC)



Focus is on thought leaders and adopters of GS1 Healthcare Standards from the global clinical provider environment. Their final goal is to improve patient safety, cost efficiency and staff productivity through implementation of GS1 standards.

A forum for sharing and discussion

Identification of projects and case studies

A source of expertise and advice

- About the practical realities of implementation of GS1
 Standards in the care giving environment in regards to the impact on clinical care and patient interaction
- That support the adoption of GS1 Standards in healthcare providers and retail pharmacies
- For publication, presentation and sharing
- To those involved in GS1 standards development, the wider Healthcare stakeholder community and senior executives/decision-makers to gain their buy-in and support for implementation of GS1 Standards



HPAC Activities



Webinars

- Monthly webinars open to all stakeholders interested in learning about GS1 standards implementation in the care giving environment.
- http://www.gs1.org/healthcare/hpac_w ebinars

Awards

- Twice per year
- Provider Best Case Study Award
- Provider Recognition Award
- The prize is travel / accommodation to attend the next GS1 Healthcare conference
- http://www.gs1.org/healthcare/hpac

GS1 Healthcare also holds two global conferences per year. The next conference will be in Bangkok from October 31st – November 1st, 2018. We expect significant Healthcare Provider participation on the agenda.



THE IMPLEMENTATION OF STANDARDS

Erik Zwarter





Implementation of our EMR

Introduction of next generation of a Electronic Medical Record on June 23, 2017





Moving in

Moving into our new hospital on May 18, 2018





Introduction

information manager working on

- eHealth,
- digital information exchange of medical data
- Automatic Identification and Datacollection (AIDC).

Working for 15 years in different functions and several departments in Erasmus MC.

For the last 2 years in the central IT department.





Every healthcare provider is able to scan and share data fast, reliable and flawless within their own work environment (EMR)

Main Goals

Patiënt safety
Logistic efficiency

In the way the domain of **public transport** uses processdata via Automatisch Identification and Datacollection (**AIDC**) for **crowd control**





PATIËNTVEILIGHEID 07 FEB 2017

Why bard

21,4 miljoen baten van 21,4 miljoen Euro's per year saving on medication barcodes in ziekenhuizen

miljoer barcc

17 JAN 2012

Het ministerie van VWS heeft vorige week de Tweede Kamer geinformeerd over de uitkomsten van het onderzoek van

Capgemini Consulting over barcodering op de verpakking van geneesmiddelen. Eén van de belangrijkste conclusies is dat bij Ziekenhuizen in euro besparen door in. bij medische hulpmiddeleri. 'Patiëntveiligheid en efficiency in

Erasmus MC zafung

Medical Devices and IVD Regulations in EU, US and other countries

Status:

- May 2017 : publication Medical Device Regulation (MDR)

Purpose: Medical Devices Identification system

Open point(s)/upcoming developments:

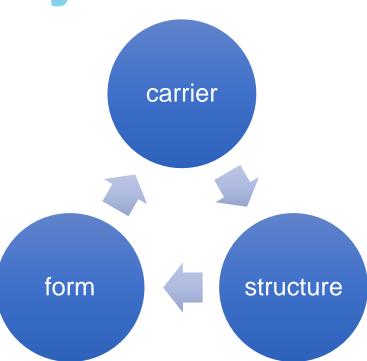
- Unique device Identification (UDI) specifications are part of the core of the Regulations
- EU DataBase, Eudamed
- Some different approaches to US FDA
- UDI assigning entities: GS1, HIBCC and ICCBBA
- traceability requirements
- healthcare providers have to store the UDIs

http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L:2017:117:FULL&from=EN



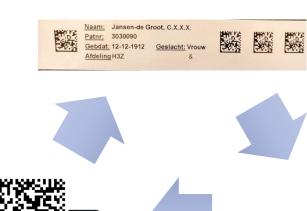


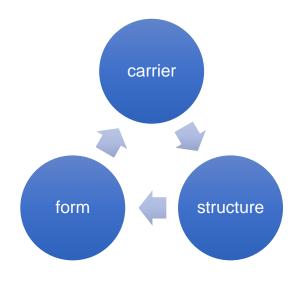
Trinity











9201 8018871405400030300908

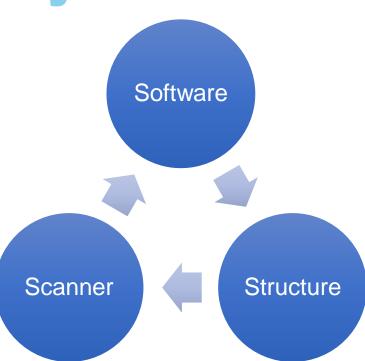


Daily routine in healthcare





Trinity











Structure

As old as







Erasmus MC 2 afuns

Why a brilliant failure?





Brilliant Failure 1





Why is this a failure?

Yes, we scan





Yes, we scan, but







Wij verzoeken u 15 minuten voor uw afspraak in onderstaande wachtruimte plaats te nemen. Meldt u zich met dit ticket aan bij de zuil op de etage.

Uw afspraken voor vandaag:

13:29 uur

Polikliniek urologie spreekuur andrologie

14:45 uur

Polikliniek cardiologie

spreekuur cardiologie

15:00 uur

Chirurgie

Route:

Gebouw Ng, etage 10 Lounge Ng

18:00 uur

Oncologie

Route:

Gebouw Ng, etage 10 Lounge Ng

19:00 uur

Oncologie

Route:

Bloedafname

Bent u in uw brief gevraagd bloed te laten prikken? Ga dan naar: Gebouw

Problem:

- The form is conform GS1
- The datastructure in NOT conform GS1
- 7 IT systems could NOT use the new Datamatrix

Solution:

Reprogram the barcode scanners



Triple Constraint

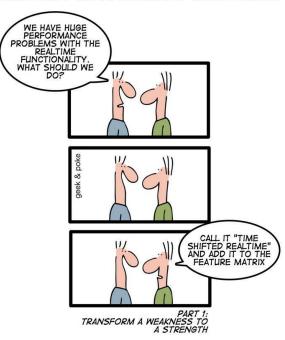
Problem:

- Fixed time, fixed budget > scope is flexible
- GS1 standard adopted by the Board of Directors but...

Solution:

- GS1 standards should be a part of the Project Start Architecture (PSA) of every project, program and implementation.
- The role of middle management in adoption and implementation of GS1 standards is key.

PRODUCT MANAGEMENT MADE EASY





So by sharing this knowledge with you, is has become a **Brilliant** failure.







Brilliant Failure 2





Why is this a failure?

Yes, we scan





Yes, we scan, but

Problem:

- The form was NOT conform GS1
- The datastructure in NOT conform GS1
- The datastructure contained a URL to ...
- A data and information catalogue of the vendor

Solution:

- Re-label all the rooms (GLN)
- Re-label all assets (GIAI)
- No vendor lock via assetlabelling
- The label solution of <u>T2S</u>







Briljant Failure 3





Why is this a failure?

Yes, we scan





Yes, we scan, but

Problem:

- The datastructure in NOT conform GS1
- Proposed solution by B.Braun #4 for patients and #5 for medication.
- Barcode scanner and B.Braun software could NOT scan the wristband and GS1 UDI on medication

Solution:

- Reprogram the barcode scanners
- Re-label all the medication (Z-index)
- The label solution of <u>T2S</u>





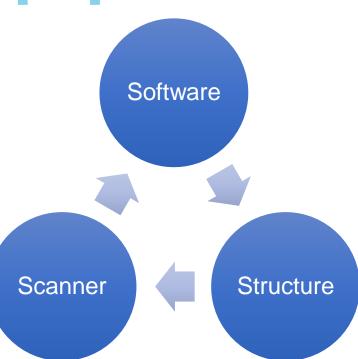
So by sharing this knowledge with you, it has become a brilliant failure.







Wrap Up:







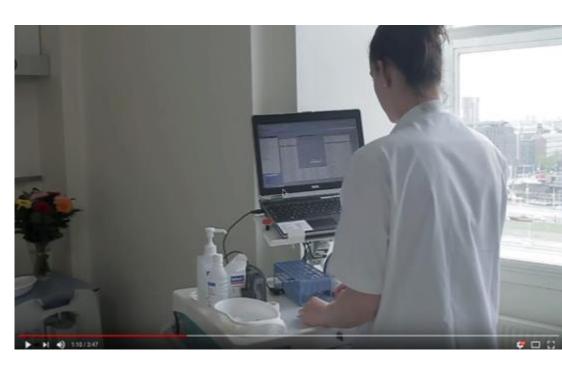
Our Successes

Triple aim:

- One proces in the healthcare flow
- Interoperability between IT systems
- Supporting the administrative healthcare processes

Goals:

- Creating patient safety
- Logistic efficiency





Our Successes

Triple aim:

- One seemless proces in the healthcare flow
- Interoperability between IT systems
- Supporting the logistic healthcare processes

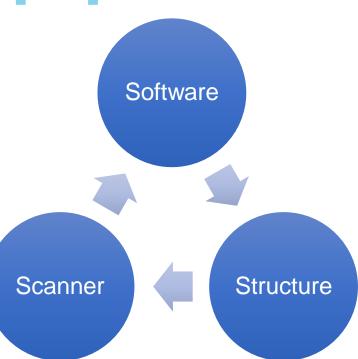
Goal:

Logistic efficiency





Wrap Up:







Why a IHE UBP profile?

The datastructure from the barcode is processed in the right way Reliable data interchange without datatransformation.

Interoperability

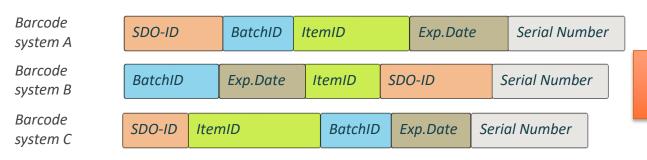
(Uniform Barcode Processing)





UBP - Uniform Barcode Processing

Input from product scanning



Input from scanning of patient, staff, location or document

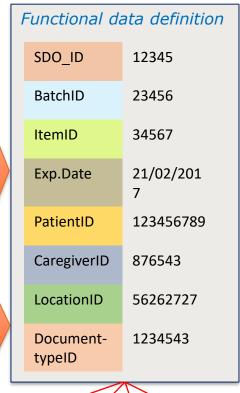
PatientID CaregiverID LocationID Documentty	ypeID
---	-------

GS1 generic
HIBCC generic

<u>ICCBBA</u> only medical products of human origin

SDO Standard Developing Organization

Technical communication templates





Wristband

Al	Carrier	Al	Company Prefix	Service Reference	Check Digit
92	01	8018	8714054	0003030090	8

Afdeling H3Z

Naam: Jansen-de Groot, C.X.X.X.

Patnr: 3030090

Gebdat: 12-12-1912

Geslacht: Vrouw







Call To Action: implement the UBP profile

- 4 Standardisation Organisations (HL7, IHE, Nictiz, GS1)
- Hospital IT-vendors (Ascom, Swisslog, Repoint, MedEye, EPIC, Chipsoft, Type2Solutions, Nedap)
- Hospitals (Erasmus, MC Leeuwarden, UMCG, Bernhoven)



To find UBP ...

http://www.ihe.net/Technical_Frameworks/
#pharmacy

Pharmacv

Comments and implementer feedback on all documents can be submitted at Pharmacy Public Comments.

Current Technical Framework - Forthcoming

Supplements for Trial Implementation

The IHE Pharmacy Technical Committee invites organizations to begin development work based on the follosupplements to the forthcoming Pharmacy Technical Framework. These trial implementation profiles will be testing at subsequent IHE Connectathons.

- · Common Parts Document Revised 2014-09-29
- Community Dispense (DIS) Revised 2017-10-11
- Community Medication Administration (CMA) Published 2017-10-11
- Community Medication List (PML) Revised 2017-10-11
- Community Medication Prescription and Dispense (CMPD) Revised 2017-10-11
- Community Medication Treatment Plan (MTP) Revised 2017-10-11
- Community Pharmaceutical Advice (PADV) Revised 2017-10-11
- Community Prescription (PRE) Revised 2017-10-11

Hospital Medication Workflow (HMW) - Revised 2013-10-11
 Mobile Medication Administration (MMA) - Published 2017-12-04

Uniform Barcode Processing (UBP) - Published 2617-12-04

Pharmacy Archives

papers and handbooks. As of July 2012, it also contains:

- Superseded versions of trial implementation supplements
- Current published versions of the Technical Framework Volumes and supplements

Current documents (published July 2012 or later) have generic files names, for example:

· IHE Pharmacy Suppl HMW

Those links will always return the newest document and support linking to specific sections (section linking of File names on the archive page include revision numbers, status and date of publication, and can be used to

The archive page contains deprecated supplements and superseded versions of the Technical Framework

· IHE Pharmacy Suppl HMW Rev1.3 TI 2012-09-27

Back to top

versions of a document:

Quality, Research and Public Health Technical Framework

information_2_contact





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Wrap up:





Dagticket

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Erasmus MC

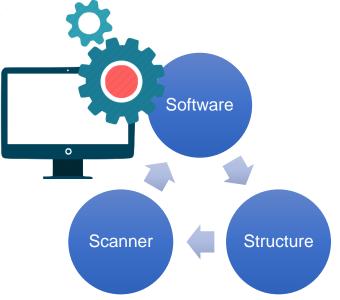
Risks of this solution

Huge maintenance costs

Reprogram barcode scanners

Change the datastructure for each IT system







GS1 standards

Product identification (GTIN)

Expiry date (Al 17)

Batch/lot (Al 10)

Serial number (Al 21)

Patient (GSRN)

Healthcare Professional (GSRN)

Global Location Number (GLN)



GS1 ID Keys

Global Trade Item Number (GTIN)

Global Location Number (GLN)

Global Returnable Asset Identifier (GRAI)

Global Individual Asset Identifier (GIAI)

Global Service Relation Number (GSRN)

Global Document Type Identifier (GDTI)



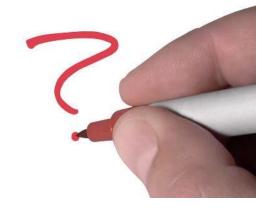


Erasmus MC



GS1 Healthcare webinar: Questions and contact details





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www.gs1.org











