Implementation of GS1 Standards in Healthcare

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G Nicolaos – GS1 Healthcare Conference
Budapest 2015
Summary

- How it began
- First GS1 project
- GS1 involvement since 2009 and implementations of GS1 standards in Coulommiers Hospital and in East Francilian Hospital Group
- GS1 Standards in the future in the East Francilian Hospital Group
How it began

How it began: two important challenges
- Sterilization unit: Ballanger Hospital
- Find a solution for:
  - The traceability or surgery instruments during the sterilization process
  - The traceability of surgical implants

How it began: two important persons
- F Fremont – Ballanger Hospital
- V Marchand – GS1 France
First GS1 Project

TRACEABILITY OF SURGICAL INSTRUMENTS THANKS LASER DATA MATRIX AND MEDICAL DEVICE TRACEABILITY

M. Tournoud, Y. Hassani, J. Mignon, F. Fremont, G. Nicolaos

Robert Ballanger Hospital
Project presented in Eucomed 2008
Work presented in :
GS1 Healthcare Conference Vienna 2009 and
GS1 Healthcare Conference Washington 2009
Traceability in the operating room

Pharmacy
Reception
Implantable Medical Device
Sterilization unit
Distribution
Process
Distribution of a sterile medical device

Operating room
Surgery intervention

Patient traceability
Patient record

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Laser Data Matrix 2D barcode
New instrument
Laser Data Matrix 2D barcode

Used instrument
GS1 involvement since 2009 and implementations of GS1 standards in Coulommiers Hospital and in East Francilian Hospital Group
Several areas of involvement with GS1

- **Work with GS1:**
  - Co Chair of HPAC (Healthcare Provider Advisory Council)
  - Co Chair of the PCM Group (GS1 France)
  - Member of the CoLogh group (GS1 France)
  - Member of the gestion comity (GS1 France/Gendi)

- **Several publications and oral interventions**
  - Techniques hospitalières 2011
  - ISQUA: 27th International Conference – Paris Oct 2010
  - SNPHPU Congress 2013 (poster)
  - Value Chain Pharma – Paris 2015
  - ...
East Francilien Hospital Group

Paris and the surrounding area
420 Hospitals
12 000 Km²
12 $10^6$ Habitants

Seine et Marne
28 Hospitals
5 900 Km²
1,2 $10^6$ Habitants

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East Francilian Hospital Group

Beds : 935
MSM : 532

Beds : 757
MSM : 410

Beds : 475
MSM : 263

Beds : 315
MSM : 0

M Guizard
Head of Pharmacy unit
East Francilian Hospital Group (EFHG)

Beds : 2583
MSM : 1205

1er Hospital Groupment after AP-HP
In Paris and the surrounding area

MSM: Medicine, Surgery, Maternity
In 2009, it was a very simple process
How can we promote patient safety with 1 ou 2D barcodes?
Method

Is there a bar code?
- 1D ?
- 2D ?

Is the Bar code readable?

What are the data contained in the 1 ou 2D barcode?

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# Barcode composition

<table>
<thead>
<tr>
<th></th>
<th>Secondary level n=572</th>
<th>Primary Level n=572</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar code presence</td>
<td>100% (572)</td>
<td>20,8% (119)</td>
</tr>
<tr>
<td>Readability of bar code</td>
<td>100% (572)</td>
<td>56,3% (67)</td>
</tr>
<tr>
<td><strong>Bar code format N=572</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GS1 Datamatrix</td>
<td>96,3% (551)</td>
<td></td>
</tr>
<tr>
<td>Linear bar code</td>
<td>3,7% (21)</td>
<td></td>
</tr>
<tr>
<td><strong>Composition of the GS1 code (n=551)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GTIN/Batch/ED (01/10/17)</td>
<td>97,3% (536)</td>
<td></td>
</tr>
<tr>
<td>GTIN/Batch/ED/Fab (01/10/17/11)</td>
<td>2,0% (11)</td>
<td></td>
</tr>
<tr>
<td>GTIN/Batch/ED/SN (01/10/17/21)</td>
<td>0,35% (2)</td>
<td></td>
</tr>
<tr>
<td>GTIN/Batch/ED/Fab/SN (01/10/17/11/21)</td>
<td>0,35% (2)</td>
<td></td>
</tr>
</tbody>
</table>
First application

- First use of GS 1 barcodes: Reception and distribution of stable blood derivatives

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<table>
<thead>
<tr>
<th>N° Lot</th>
<th>N° de série</th>
<th>Préemption</th>
<th>Qté</th>
<th>Status du lot</th>
<th>Nb.U.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B241C2611</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

**Batch**: B241C2611

**Expiry date**: 30/09/2014

**Product**: OCTAPLEX, pdr et solv pr sol inj, flac & flac + sol
Second application: Intravenous chemotherapy preparation

- Reception of cytotoxic drugs thanks to the 2D Barcode
The Pharmaceutical Process
Marne la Vallée Hospital

B Loison Head of Pharmacy unit / M Tiah Pharmacist
The Pharmaceutical Process
Meaux Hospital

M Guizard Head of Pharmacy Unit / L Pellamourgues - S Dhoussa Pharmacists
The Pharmaceutical Process
Meaux Hospital

Drug prescription

Pharmaceutical validation of drug prescription

Distribution – return

Automatic distribution

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GS 1 Standards in the future in the East Francilian Hospital Group
And the future?
The pharmacy of the EFHG in 2017

- 1 principle pharmacy and four sites: GLN
- 3 sites with surgery: UDI, traceability of surgical instruments
- Reception of drugs with the GS1 datamatrix
Conclusion

- More than ten years to promote traceability and patient safety with GS1 standards
- Implementation of several applications with GS1 standards: traceability of surgical instruments and implants, reception and distribution of drugs
- Implication in several GS1 groups

- **One goal**: promote patient safety and traceability of drugs and medical devices
Thanks to

- F Fremont, J Mignon, B Besnard, P Laffly, JM Toulouse Ballanger Hospital
- V Marchand, P Georget, F Despres, GS1 France
- U Kreysa, T Snioch, GS1 Global Office
- JC Phelep, CEO of the EFHG
- P Borg, T Simon, Y Benanteur, Coulommiers Hospital
- T Liautaud, L Pellamourgues, M Tiah, B Loison, M Guizard
- All members of GS1, Ballanger Hospital and EFHG