Implementation of GS1 Standards in Healthcare

G. Nicolaos
Head of Pharmacy unit
Head of Medical Community
Coulommiers Hospital

Co-Head of Pharmacy unit
East Francilian Hospital Group (EFHG)
Summary

1/ Several examples of GS1 Standards in Healthcare
  ✓ Traceability of surgical instruments and medical devices
  ✓ Reception and traceability of blood derivatives, cytotoxic drugs

2/ Projects for the future
  ✓ E catalog
  ✓ Supply chain of drugs and medical devices
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
- Process
  - Distribution of a sterile medical device

Operating room
- Surgery intervention

Distribution of a sterile medical device

Patient traceability

Patient record

G Nicolaos – GS1 Healthcare Conference
Dubai 2016
Laser Data Matrix 2D barcode
New instrument
Laser Data Matrix 2D barcode
Used instrument
GS1 standards in Coulommiers Hospital and in East Francilian Hospital Group
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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Dubai 2016
East Francilian Hospital Group

Centre hospitalier de Marne-la-Vallée
Beds: 757
MSM: 410

Centre hospitalier de Coulommiers
Beds: 475
MSM: 263

MEDICINE, SURGERY, MATERNITY

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
The Pharmaceutical Process
Coulommiers Hospital (T Liautaud – Pharmacist)

In 2009, it was a very simple process
How can we promote patient safety with 1 ou 2D barcodes?

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Dubai 2016
Method

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

Is the Bar code readable?
What are the data contained in the 1 ou 2D barcode?
## 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
<table>
<thead>
<tr>
<th>Batch</th>
<th>Expiry date</th>
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<tr>
<td>31/07/2014</td>
<td>31/08/2014</td>
</tr>
</tbody>
</table>
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 Djoussa Pharmacists
The Pharmaceutical Process
Meaux Hospital

Drug prescription
Pharmaceutical validation of drug prescription
Return
Automatic distribution
GS 1 Standards in the future in the East Francilian Hospital Group
And the future?
The ultimate goal
The pharmacy of the EFHG in 2017

- 1 principle pharmacy and Three or four sites : GLN
- 3 sites with surgery : UDI , traceability of surgical instruments
- Reception of drugs with the GS1 datamatrix
E-catalog project

- Direct transmission of products related informations
- For the EHFG, standardization of health products
Supply of drugs and medical devices

-2017-
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
- GS1 standards is the global solution

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

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- 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