

The winner of the GS1 Healthcare Provider Implementation Best Case Study Award



Hospital Israelita Albert Einstein,
São Paulo, Brazil

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Pharmacist, Hospital
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Patient safety gains in a Brazilian hospital thanks to the implementation of GS1 identifiers

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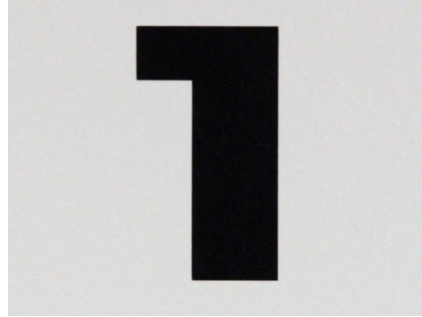
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Main topics



- The journey undertaken to create a hospital dispensing system with barcoding in unit dose up to the point of care;
- The effects of this on patient safety and traceability;
- How the hospital found partners in the pharmaceutical industry;



Patient Safety

What do we know?



According to IOM report (Institute of Medicine – EUA, 1999), 7.000 Americans die annually due to medication errors.

Annually, medication errors cost 3,5 billion dollars according IOM estimations (2006).

Kohn LT, Corrigan JM, Donaldson MS, eds. To Err is Human: building a safer health system. Washington, DC. National Academy Press; 1999.

Aspden P et al. Preventing Medication Errors: Quality Chasm Series. Washington, DC. National Academy Press; 2007.

Initial difficulties – once in 1998...



- Providers do not identify their product within hospital requirements. In the sector, EAN 13 is not enough.
 - Ordinance 801/98 – EAN13 have to be applied to all medicines secondary packages
- Without lot, hospitals have to relabel all items that need to be tracked and traced.



Unsafe relabeling process



- Misidentification risk
- High expenditures on man power



Find your KEY PARTNER!



Seeking a standard



- **Data Matrix** - Symbology developed for being applied where the linear barcode cannot be used due to space restrictions, what in pharmaceutical products is very common.



GS1 DataMatrix

Industry partnership



- 2005 – Pioneer initiative GS1 RSS
 - HC WG GS1 Brasil / Albert Einstein & Hypofarma
- 2008 – GS1 DataMatrix



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DataMatrix – they started...

Baxter

isofarma
Industrial Farmacêutica Ltda.



Eurofarma
Brasil, sempre.

...others followed

B | BRAUN
SHARING EXPERTISE

AstraZeneca



prati-donaduzzi
...dicamentos Genéricos



SANOFI



união química
FARMACEUTICA NACIONAL S/A



CRISTÁLIA
PRODUTOS QUÍMICOS FARMACÉUTICOS LTDA.



ABL
Antibióticos do Brasil



New standard – New issues



- Lots of technical issues involving barcodes. Some providers printed different information in human readable form from barcode. Others used the incorrect FNC1.

FNC1 -]d2

FNC101034531200000111709112510ABCD1234

New standard – New issues



- Others used the GS character when not needed.
Others did not put the GS when needed.

FNC101034531200000111709112510ABCD1234**FNC1**422250



(01)03453120000011(17)091125(10)ABCD1234(422)250

New standard – New issues



- Different forms of “printing” the code. Badly printed ones.
 - Thermal transfer
 - Ink jet
 - **Laser**
 - Direct marking



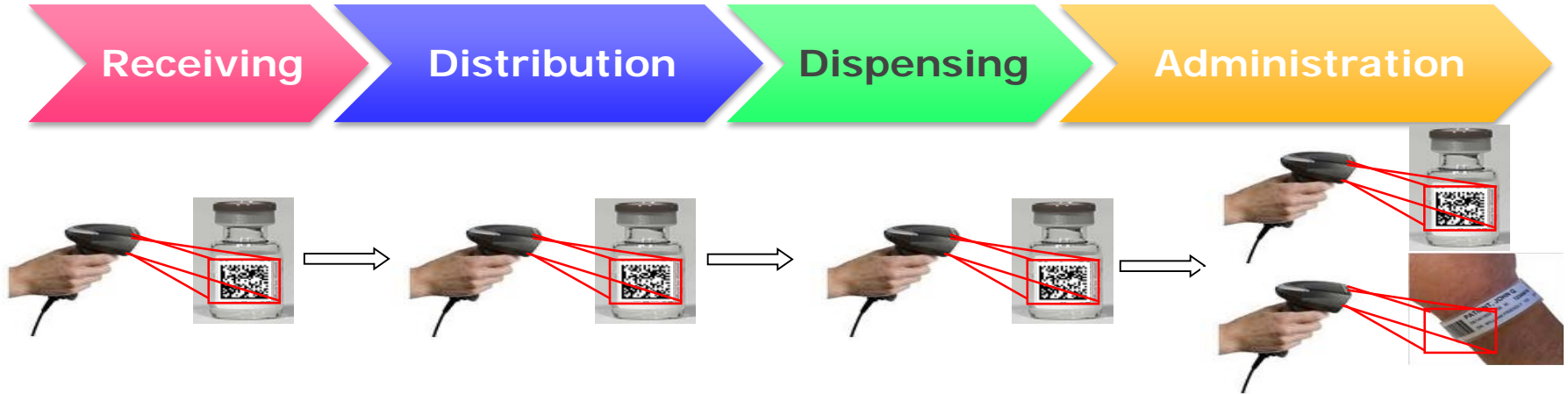


- How should they be...



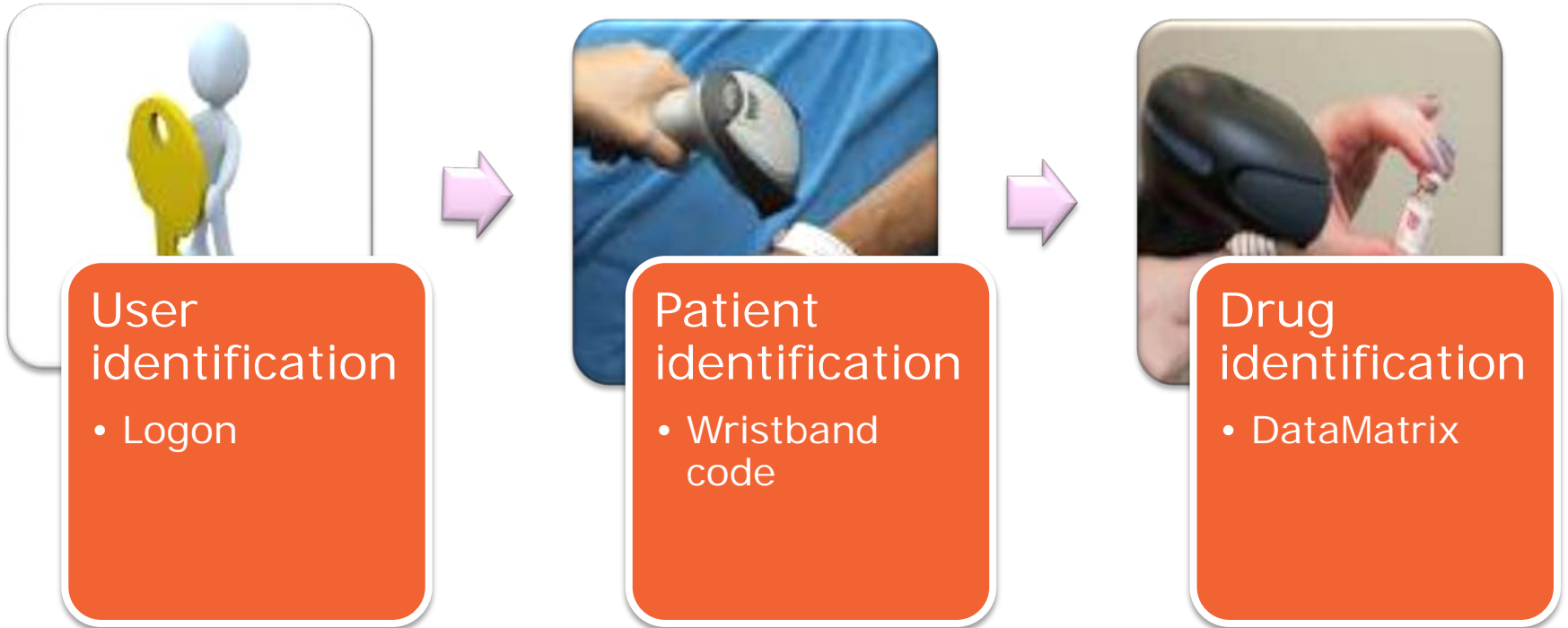
All GS1 DataMatrix

Whole process covered



Patient safety, allowing the register of medication/active ingredient in all logistics steps and at the time of its consumption, allowing the traceability of use until its final step.

BCMA Bar-code-assisted Medication Administration



Revisão da enfermagem

Criar prescrição e documento.

Última atualização em 12:14 BRT

Paciente Teste Robô

PRT:2102370







DN: 12/jan/94

Loc: A876; 1

Masculino

Nº do episódio: 25211604 Idade: 24 Ano(s)

** Alergias não cadastradas **

	Agendado	Mnemônico	Detalhes
<input type="checkbox"/>	 20/mar/18 22:00 BRT	ceftriaxona ceFTRIAXona (ROCEFIN EV)	1.000 mg, EV, Volume Total (ml): 50, Velocidade de infusão: 100 mL/h, em 30 a cad
<input type="checkbox"/>	 21/mar/18 10:00 BRT	ceftriaxona ceFTRIAXona (ROCEFIN EV)	1.000 mg, EV, Volume Total (ml): 50, Velocidade de infusão: 100 mL/h, em 30 a cad
<input type="checkbox"/>	 21/mar/18 22:00 BRT	ceftriaxona ceFTRIAXona (ROCEFIN EV)	1.000 mg, EV, Volume Total (ml): 50, Velocidade de infusão: 100 mL/h, em 30 a cad
<input type="checkbox"/>	 22/mar/18 10:00 BRT	ceftriaxona ceFTRIAXona (ROCEFIN EV)	1.000 mg, EV, Volume Total (ml): 50, Velocidade de infusão: 100 mL/h, em 30 a cad
<input type="checkbox"/>	 Contínuo	norepinefrina (padrão) NOREPinefrina 16mg + SG5% QSP 250mL (PADRÃO) 16 mg	250 mL, Forma: BOL, EV contínuo, Volume Total (mL): 250, ACM, Início: 22/Mar/18
<input type="checkbox"/>	 Contínuo	Glicose 10% em Água solução intravenosa SG 10% QSP 90 mL + Água Destilada IV 40 mL + Soro Fisiológico Aditivo ...	90 mL, Forma: BOL, EV contínuo, Volume Total (mL): 90, Velocidade de infusão: 7



- Results:
- 150 to 170 thousand units/month do not have to be relabeled anymore
- 600 hours of manpower saved/month
- Consumables use reduction (labels and – about US\$ 600/month



Other results



- Electronic bedside check of medication administration, according to the order and ensuring control over 7 of 9 rights proposed (patient, drug, dose, time, register, *route* and information).
- Important tool for obtaining quality certifications.

Other results *continued*



- Agility in the dispensing process, with online inventory decrement.
- Verification of the item dispensed as ordered.
- Guarantee the dispensing drugs in condition of use, with lots being blocked from dispensing which may have been recalled or are expired.
- Agility in localizing products banned for recall.

Thank you!



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