Implementing traceability cytostatics projects

Global GS1 Healthcare Conference Geneva,
June 22 -24 2010

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Vienna General Hospital „Traceability in Compounding of Cytotoxic Drugs from Vendor to Patient“

GS1 Healthcare Conference Geneva
June 22-24, 2010

Content

- Pharmacy department
- Current situation
- Project: 2 parts
- Goals
- Expected improvements
- Beyound our own nose

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Pharmacy Department Vienna General Hospital

- 2009 app. 57.000 ready to use preparations of
- cytotoxic drugs, virustatics and monoclonal antibodies
- Including service for St. Anna Kinderspital (childrens hospital with focus on oncology - 7.500 units)
- Number of different substances used: 68
- Software used:
  - SAP for merchandise management
  - CATO:
    - Oncology software for compounding
    - Working according gravimetric principle using a balance in the clean bench (weighing control)
    - Computerised physician order entry

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Current Situation in Austria

- Linear barcodes on registered drugs including the Austrian product specification code
- Mainly on secondary package
- Some blisters with product name and expiry date
- No 2 dimensional barcodes

DataMatrix

- The more advanced bar codes like
  - GS1-128
  - GS1 DataBar
  - GS1 DataMatrix

- allow attribute information such as
  - batch numbers
  - expiration dates
- to be encoded using the GS1 Application identifier

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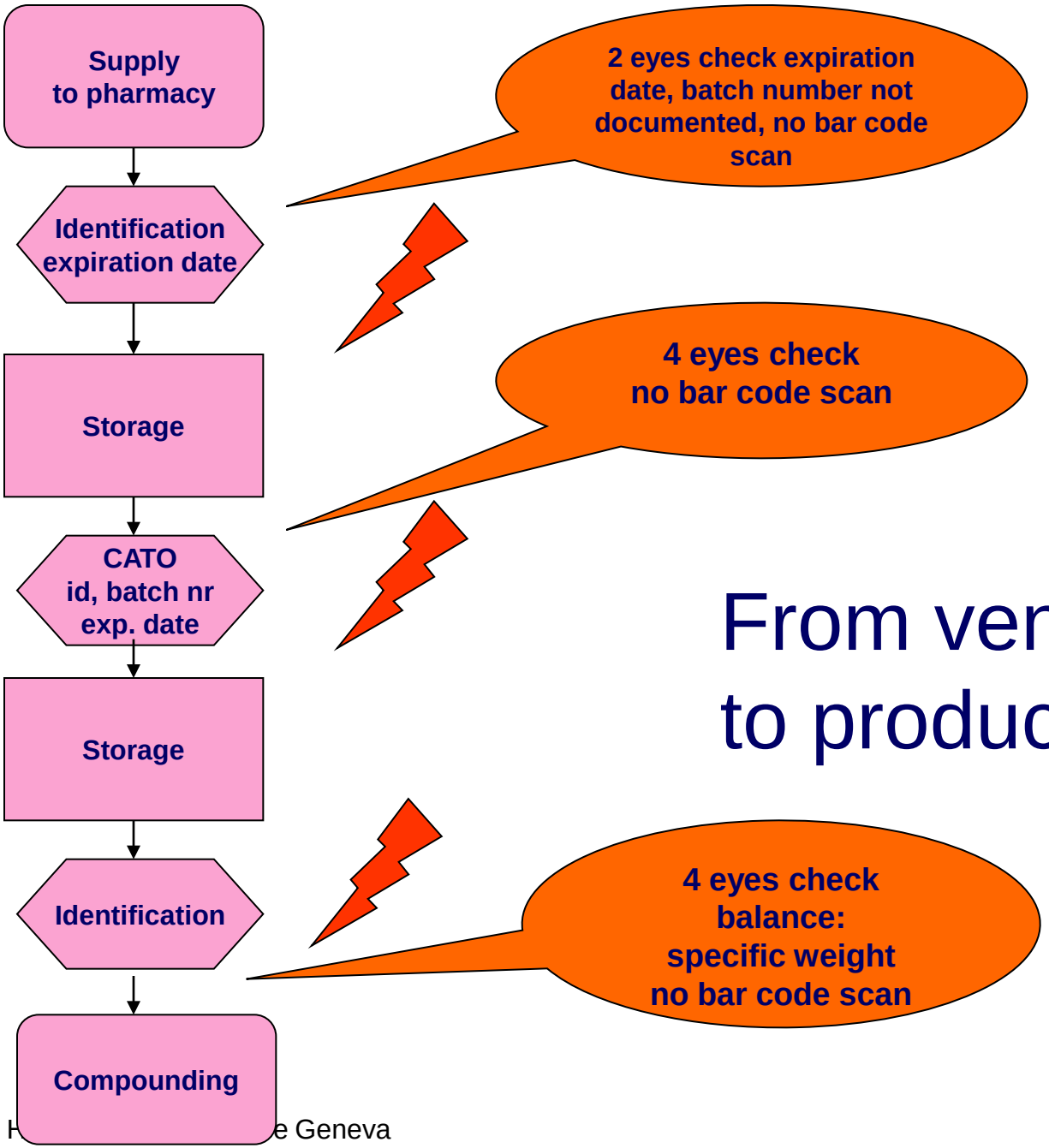
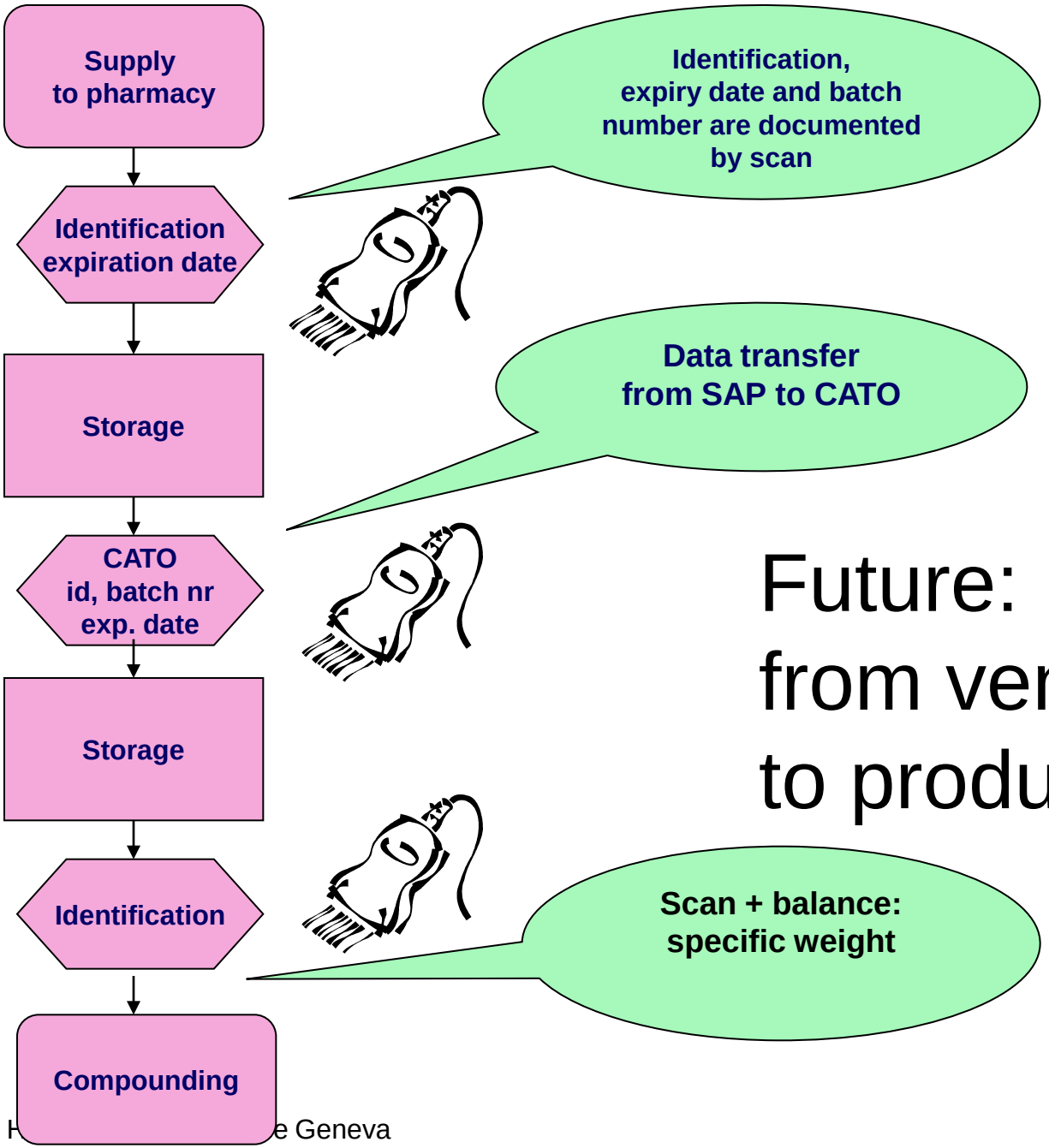
Goals Part I: Traceability from vendor to production

Increase patient safety- right drug, right dose, righ

- Using DataMatrix on primary and secondary packages of cytotoxic drugs and solutions for reconstitution
- Identification of product, batch number and expiry date
  - Scan at point of delivery to pharmacy
  - Scan at point of storage in compounding unit
  - Scan before compounding
- Reduce manual interventions



From vendor to production



Future: from vendor to production

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Project team

- GS1 Austria Health Care
- Vienna General Hospital
- 6 Pharmaceutical companies: cytotoxic drugs and solutions for reconstitution
- CATO

GS1 Austria

- Gives Information about global standards for product identification
- Link to pharmaceutical industry
- Looking for network partners
  - Hôpitaux Universitaire Genève
  - Projects in Germany and Belgium

Vienna General Hospital

- Pharmacy department
  - Project leader: Head of Pharmacy department
  - Oncology pharmacist
- IT- Department
  - Implementation of scanning at point of receipt using 2-dimensional barcode in SAP
  - Identification, documentation of batch number and expiry date
  - Creating an interface with SAP/Cato
    - Inventory – same inventory in SAP and CATO
    - Cost centre accounting
- Oncologist and head nurse of Oncology Department

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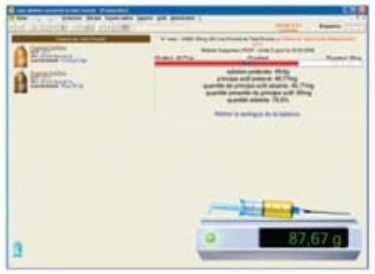
Industry

- Currently implementation of 2-dimensional barcodes on pharmaceuticals in a few countries
- DataMatrix on pharmaceuticals expected in whole Europe in about 5 years
- Production mainly centralized Europe/whole world
- Public procurement - advantage in competition

CATO

- Oncology software used
  - for CPOE
  - for compounding



- Scan of DataMatrix on original packages
- Scan of unique identification number during transport and administration

Goals part II:Traceability from Preparation to Patient

To ensure the 5 “Rs”

- Print of an unique identification number on label
  - linear barcode GTIN + serial number
- Scan at point of dispensing in pharmacy
  - Identification of hospital
- Scan at point of delivery to ward
  - Identification of drug and ward
- Scan at point of administration
  - Identification of drug and patient (case number)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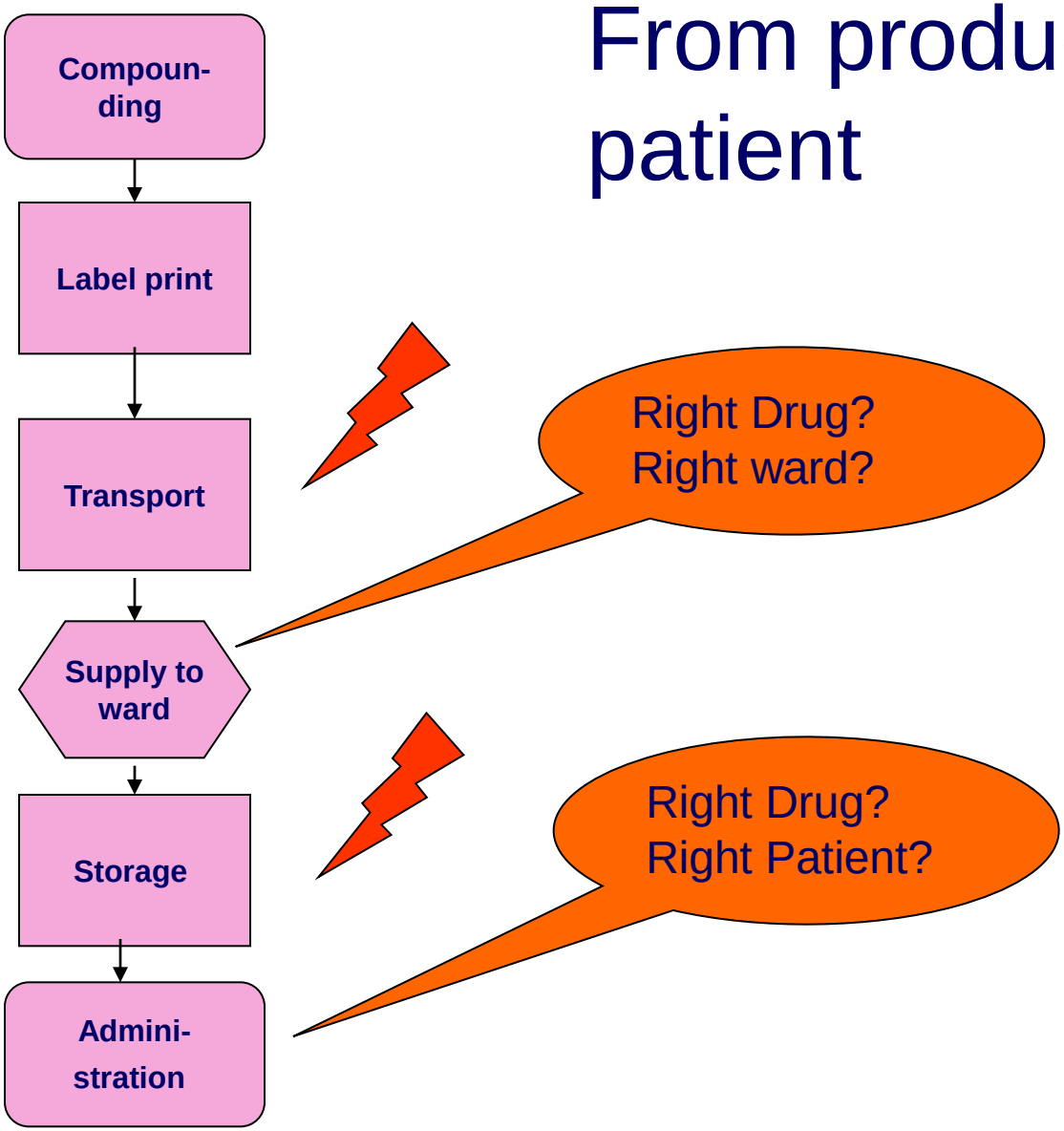
From production to patient



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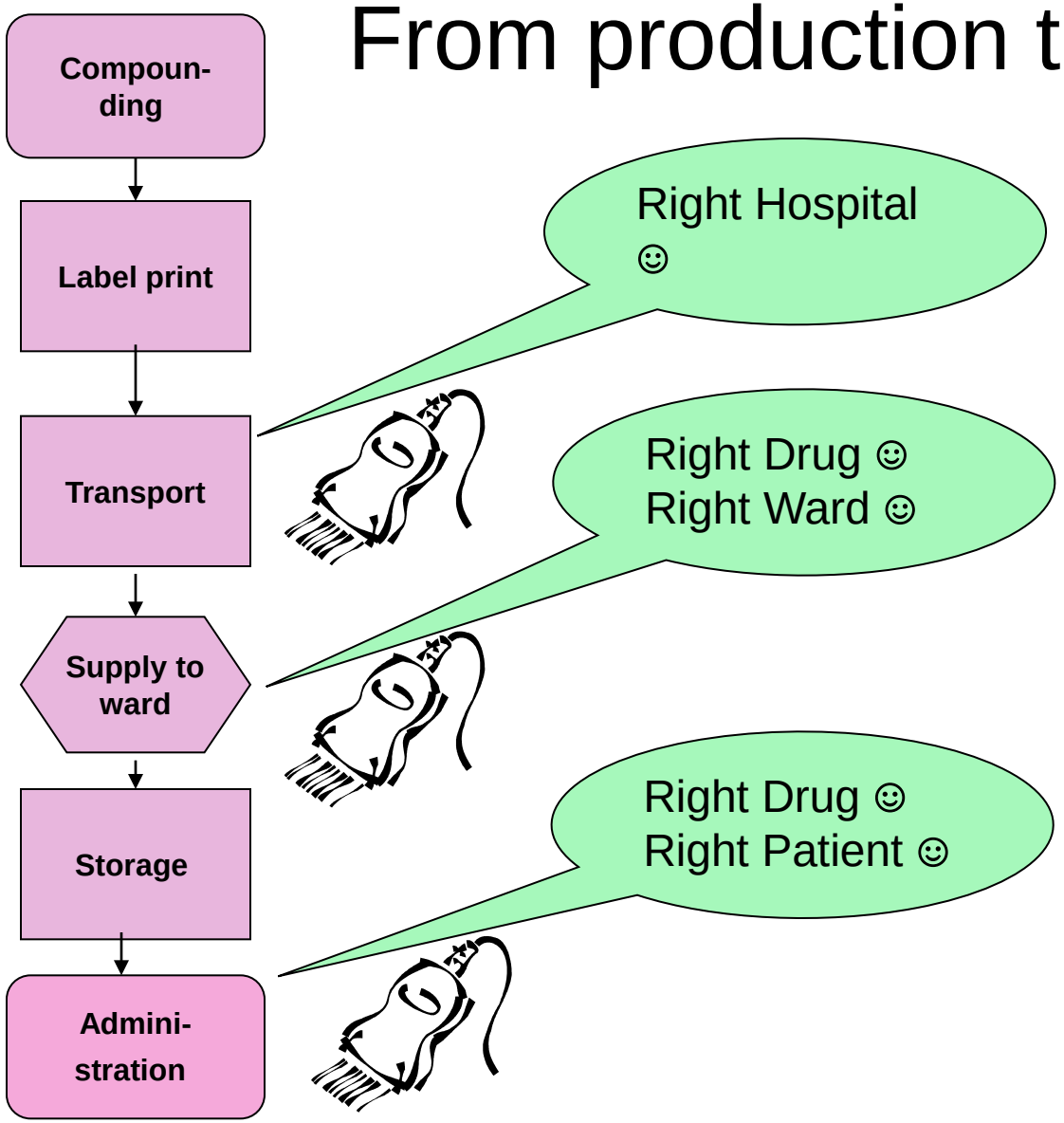
From production to patient



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Further goals

- Reembursement in Austria – Austrian DRG system
- ICD 10 **International Statistical Classification of Diseases and Related Health Problems**
- **Coding at point of administration**

Timeline

- Idea during Global GS1 Health Care Conference in Vienna in March 2009
- First contacts with CATO and some pharmaceutical companies at EAHP Congress in Barcelona in March 2009
- Kick off meeting end of August 2009
- Visit to Geneva University Hospital beginning of September 2009
- GS1 first contacts to industry
- Kick off meeting with all partners in November 2009
- Trial period September 2010

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Transition period

Handling of products without DataMatrix

- Identification per double check
- Documentation of expiry date and batch number manually in SAP and Cato
- Goal : to make this period as short as possible
- Information to other companies which are not part of the project in due time

EAHP- Working group
Unit dose identification

- Unit doses blisters, with each single dose containing the whole information
  - Trade name
  - Active substance
  - Dosage
  - Expiration date
  - Batch number
  - Barcode
    - Including product ID, expiry date and batch number
    - Use of a recognized international standard (i.e GS1)
    - DataMatrix

EAHP, 2007

HUG: Cytotocic treatment and bedside scanning: Improving patient healthcare

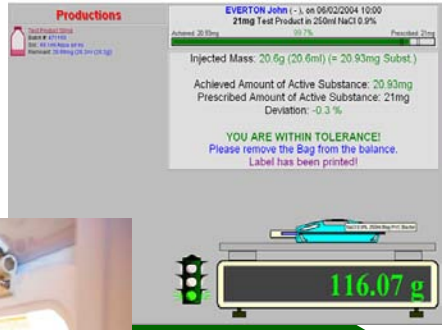
Prof. Pascal Bonnabry

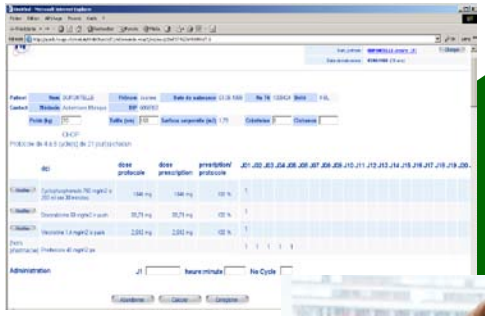
- Risk analysis to find the best and most efficient solution of cytotoxics
- Strategic approach built on three pillars
  - Prevention
  - Diagnosis
  - Treatment
- Goals: reduction of criticality at patients bedside
- Implementing barcode system GS1 Datamatrix

Source 2010/2011 GS1 Health Reference Book

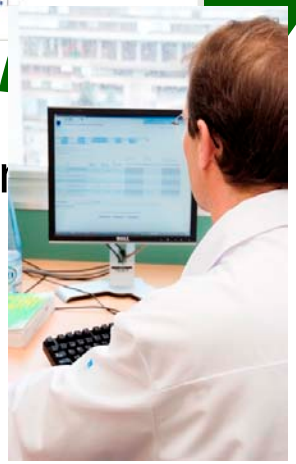
Global process management

Preparation with weighing control





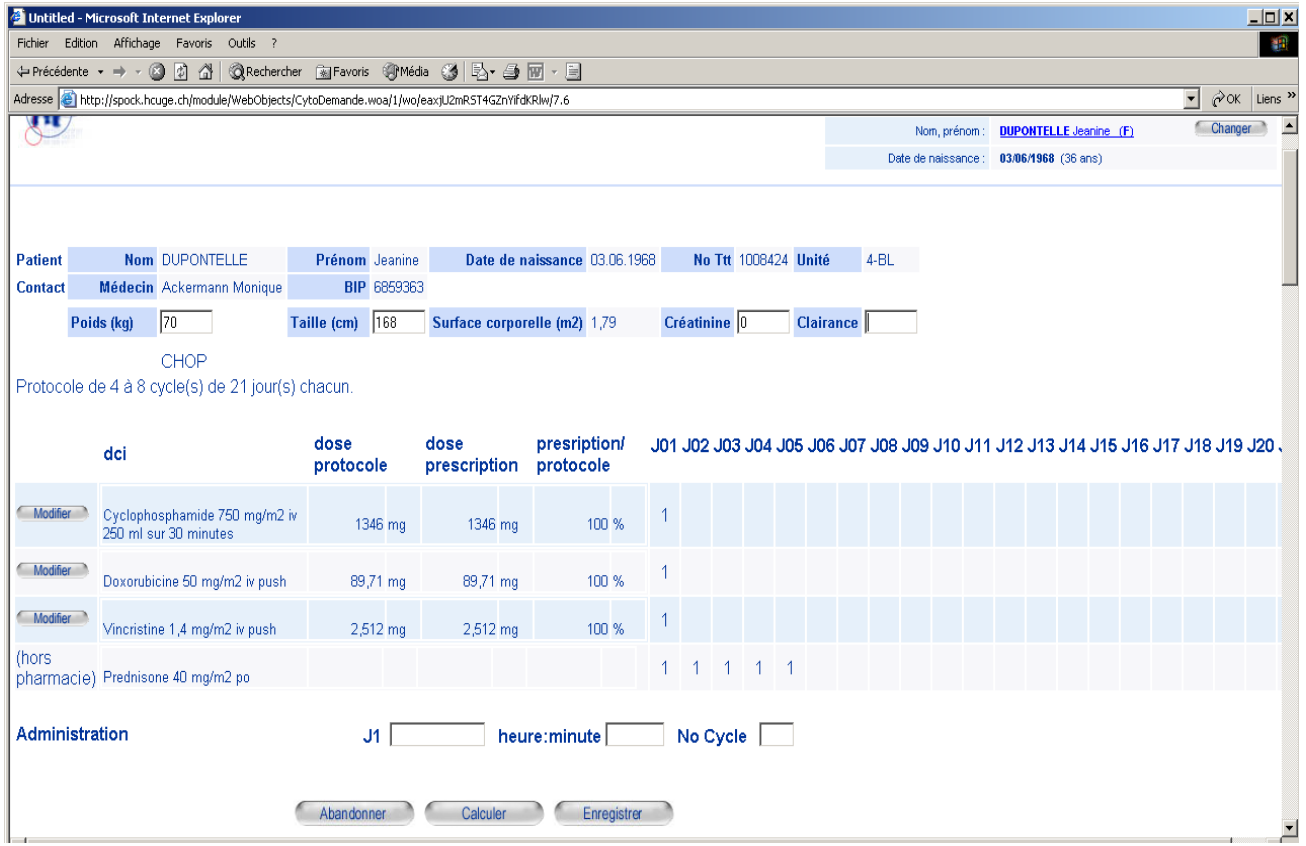
Electronic prescription



Bedside scanning

Source Pascal Bonnabry

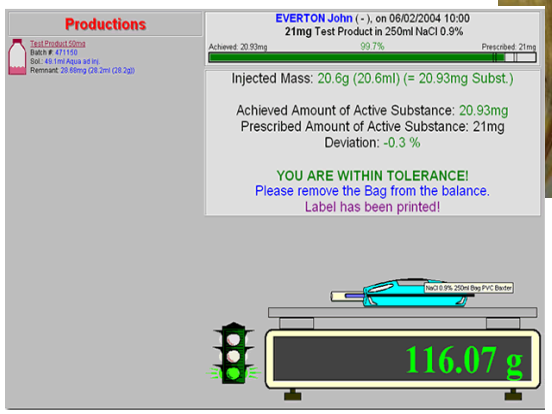
Electronic prescription



Source Pascal Bonnabry

Production with weighing system

- **Cytostatics – CATO®**
  - Direct calculation from the prescription
  - Operator guided step by step
  - Weighing control
  - Identity control by barcode *(version 2)*
  - Traceability



Need to have a barcode on the primary package

www.cato.eu

Source Pascal Bonnabry

Bedside scanning

Physician

Nurse

Drug

Database

Patient

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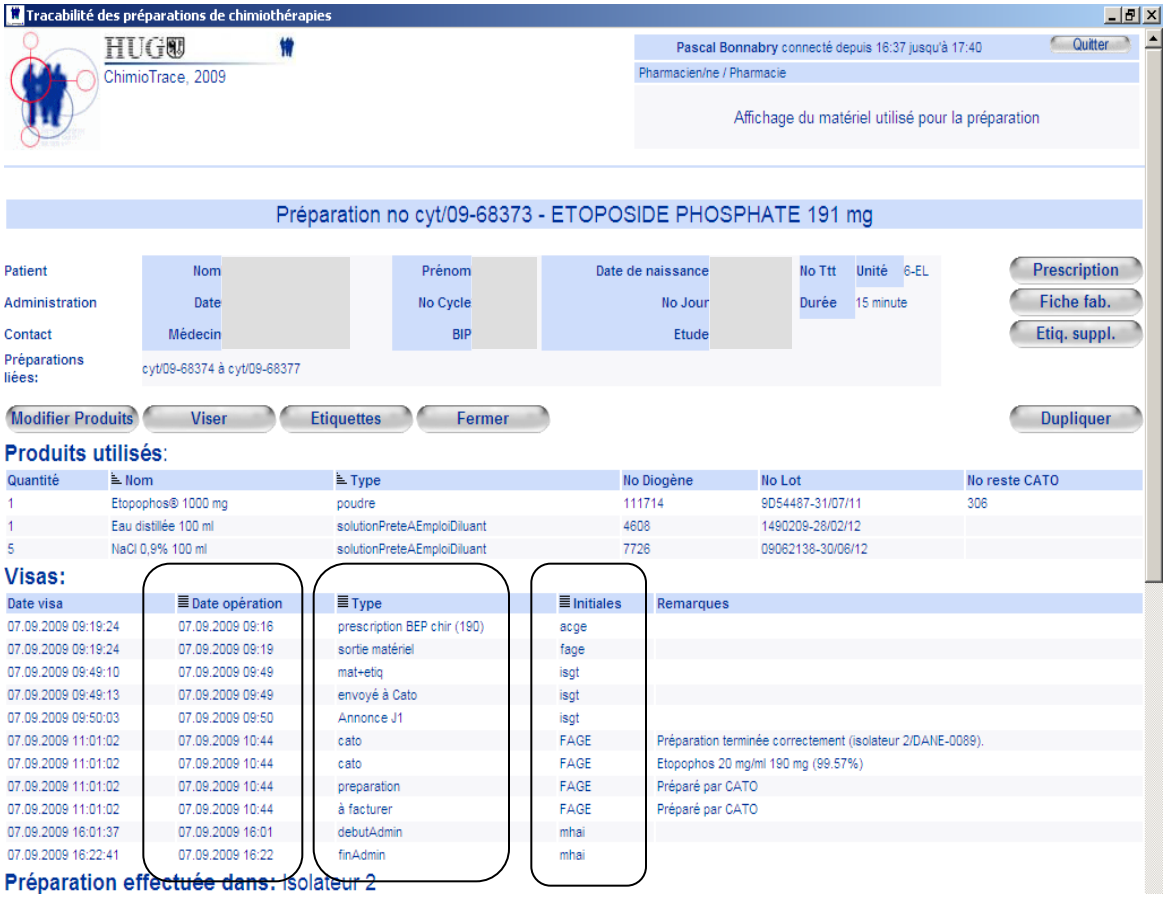
Traceability



When ? What ? Who ?

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Perspective

Will we be able to be as effective as supermarkets?

Pascal Bonnabry

Yes, we scan !

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