



PATIENT SAFETY AND THE IMPLEMENTATION OF THE FALSIFIED MEDICINES DIRECTIVE IN THE HOSPITAL ENVIRONMENT

FEEDBACK FROM ROUEN UNIVERSITY HOSPITAL

Valérie PELLETIER - Pharmacist, Supply Manager



ROUEN UNIVERSITY HOSPITAL : 2 429 BEDS

- Distribution on 5 sites
- A centralized storage of drugs
- on average 100,000 boxes stored

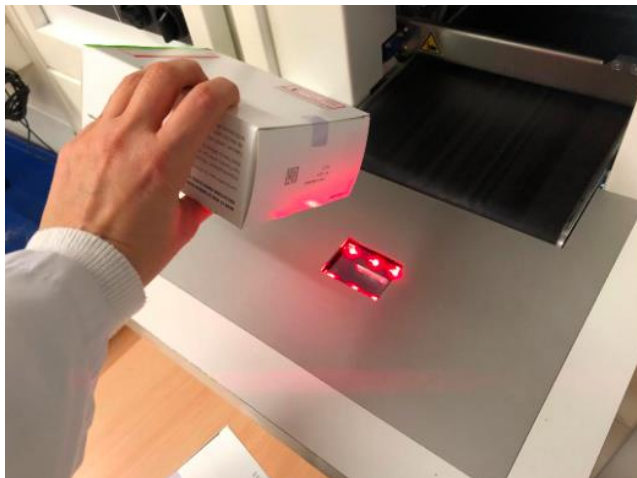
- storage mode

- Shelves



- Automated dispensing System : ROWA robot





The staff scan the data matrix barcode of the drugs boxes

The boxes are stored by the robot with information (expiration date, batch number)

STORAGE

● 2722 references of drug to Rouen University Hospital

- 1538 references stored in the robot
- 1184 references stored outside the robot

● Prescription drugs that should have a unique identifier and anti-tampering device on their outer packaging.

=> Number of drug references answering to the Directive : **80,7%** (2198 ref)

- 63,2% references stored in the robot
- 36,8% references stored outside the robot

⇒ **INTEGRATION OF ADDITIONAL SOFTWARE**

⇒ **CHOISE OF A SINGLE SOFTWARE FOR PHARMACY**

STATE OF READINESS OF THE DIRECTIVE

● Software : BD Pyxis FMD Verify

- For medicines stored in the ROWA robot
- For drugs stored on manual shelves

● Medication stored in the ROWA :

The required Datamatrix read when the drug is loaded into the Rowa :

{ realization of the decommissioning **at the same time**
no extra staff

- Antitampering device: visual control during input

● Medication stored on manual shelves :

- Reading the Data matrix with a handheld device
- **need additional staff time** (scaling up)

ONE YEAR LATER : 9TH OF FEBRUARY 2020

- Start up : 9th of February 2019
- 309 968 box decommissioning in one year
 - 245 495 box stored in the robot
 - 65 305 box stored outside the robot

⇒ **BUT :**

NOT ALL DRUG BOXES ARE DECOMMISSIONING

● Report on 9th February, 2020 :

Not all drug boxes have a unique identifier

● Only **77,8%** references have a unique identifier at Rouen

● Why ?

- Pharmaceutical Industry continue to sell boxes without the unique identifier (low production)
- At Rouen, some drugs have low rotation (1 or 2 orders per years for example)

● Some drugs boxes are wrapped with plastic film

=> scanning impossible through plastic film

=> no time to open each package

● In the carton of x boxes of the same bath number, 1 box is unread or not decommisioning => why ????

● Impossible to decommisioned boxes stored on a pallet



- 1- Take carton by carton
- 2- Decommission
- 3- Put the carton on the pallet

=> 286 cartons for this pallet

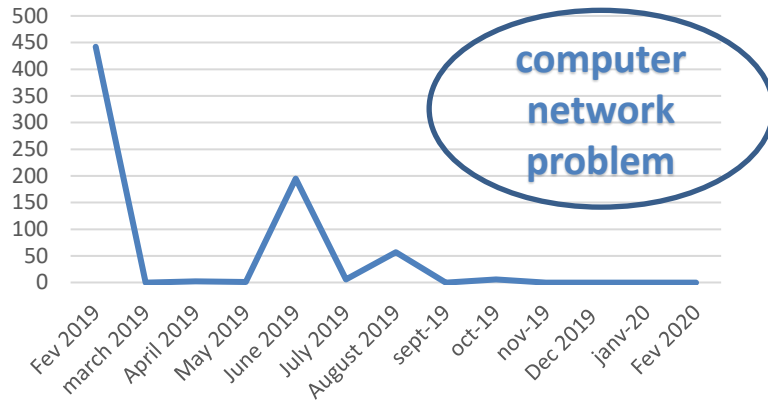


- 1- Take each carton
- 2- Take each box out of the carton
- 3- Decommission
- 4- Put the boxes les boites on the carton
- 5- Put the carton on the pallet

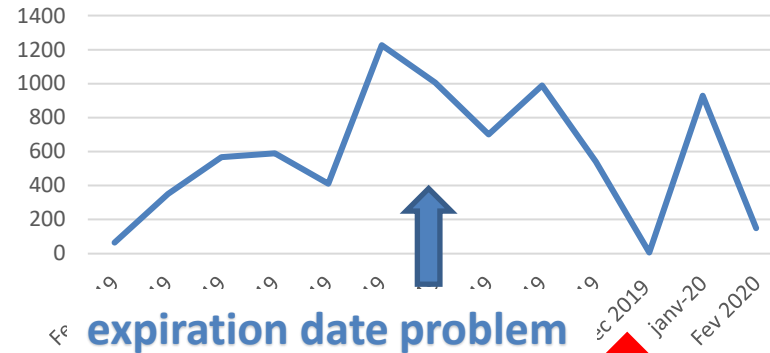
=> 675 boxes for this pallet

DIFFERENT PROBLEMS ENCOUNTERED

Technical error

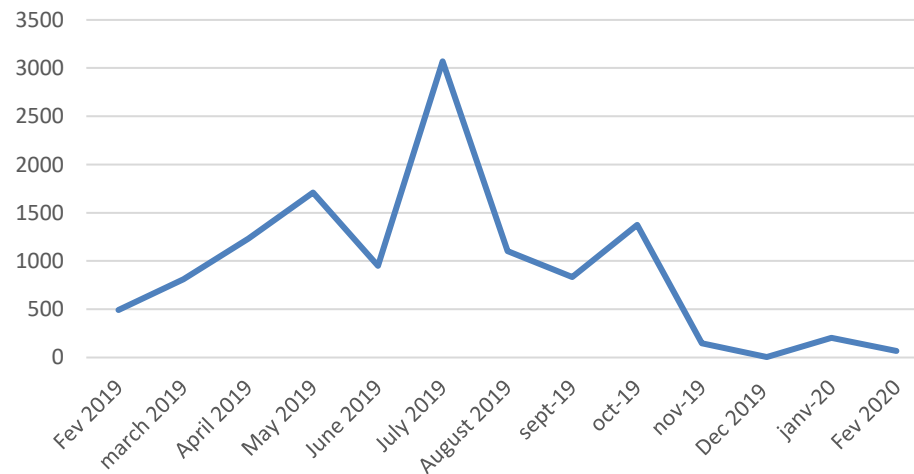


Barcode reading problem



Cyberattack

Deactivation failure



**3.6% of
decommissioning
actions**

INVENTORY OF OTHER FRENCH HOSPITALS

● Few hospitals are operational

- some “small” hospitals started because few boxes, low stock
- Few University hospital have started
- Why ? What is the need :
 - Software investment
 - Investment in equipment (scanner, etc.)
 - Request for additional staff (rarely agreed)

⇒ if investment requests have not been anticipated, investments are postponed

● Nobody works the decommissioning failures

- the messages are not clear (code)
- need a European or National guide to help us

CHALLENGES FOR THE CORRECT IMPLEMENTATION AND HOW THEY CAN BE OVERCOME

- Hospitals must invest => need to involve hospital top management
- Barcode data matrix scanning problem :
 - because of packaging : plastic film
 - because of the storage volume (pallets)
 - because of the quality of the scanner heads
 - one box is not read or decommissioned while the others are ok

⇒ need **AGGREGATED and CONSOLIDATED CODES**
- Tests have been carried out in France +/- success :
 - a lot of software publishers are working to be able to scan these codes
 - many laboratories do not offer these codes
 - ⇒ tests with only 2 pharmaceutical industries and 2 software publishers
- Need support guide for error messages

AUTOMATED DISPENSING SYSTEM

● Justification :

- 100% decommissioning
- No extra staff with ROWA robot

● Many hospitals have or will buy a robot to carry out the decommissioning (awaiting installation)

Because an automated dispensing system allows :

- ⇒ Guarantee of secure delivery
- ⇒ Secure part of the med management process
- ⇒ Improve Pharmaceutical services
- ⇒ Optimize stock management
- ⇒ **AND decommissioning**

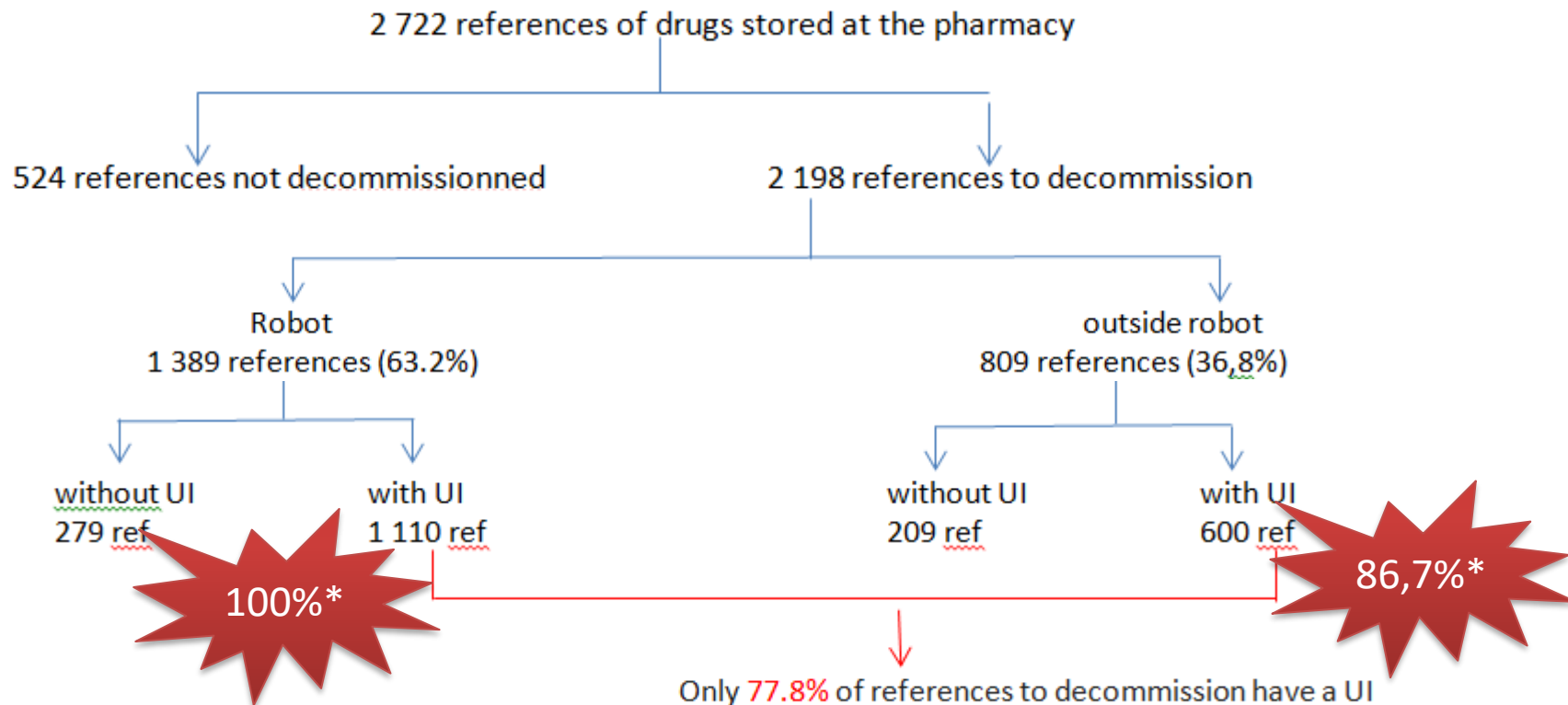
=> The robot is therefore a useful investment for the hospital

● The robot cannot store all the medicines (Narcotic drug, refrigerated drug, Drugs of inappropriate size or weight, ...)



CONCLUSION

ROUEN UNIVERSITY HOSPITAL



➔ 309 968 box decommissioning in one year

*number of references

- **The example of the Rouen hospital is an advanced example**
 - conclusion in number of references because the number of boxes in stock changes all the time
 - Interest to have an Automated Dispensing System
- **Many hospital pharmacy services wait for directors to invest to carry out decommissioning**
- **A work on the errors of scanning or failure of decommissioning must be deepened because today very few hospitals are interested in these dysfunctions**



THANK YOU
FOR YOUR ATTENTION

valerie.pelletier@chu-rouen.fr

