T & T of Drugs: the Italian way

Global Healthcare User Group (GS1 HUG™)

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Italian way

- Goals and Drivers
- Instruments
  - I.T.
  - Tecnology and coding systems
- Work in progress
- Logistic Problems
- Conclusion
DRIVERS

- Public Administration
  - expense control *et al.*
  - pride of being first

- Production
  - Tactical
  - Strategic
ITALIAN PRESCRIPTION

- Serial number:
  - Legitimate payments
  - never pay twice
I.T. instruments

- Supply-chain lacks:
  - A standard of communication
  - An interconnection network
- The system becomes old
- It’s necessary to define and to impose standards
TECNOLÓGICAL INSTRUMENTS

- What I mean for parallel or serial processes
- Today we have a barcode labels with serial numbers
- We have no big problems where processes are mostly serials
- We hope to have a single-shot reading process for a stock of products
RFID?

- Italy was (after USA) the first country in the world to be interested in this technology.
- In my first meeting (Health Ministry) on May, 29th 2001 I spoke about RFID: optical ID is obsolete.
- In the 2° meeting on June, 26th 2001 all the supply-chain showed up in favour of it.
RFID vs. Barcode
Two aces in the sleeve, two critical points

- **The pros**
  - Parallel process without optical contact
  - DB inside (expiry date etc.)

- **The cons**
  - Collisions
  - Laborious repair process of the lacked readings
Work in progress

- The first with pride
- 1st phase: life cycle of at least 2 years
- Spain failed to start tracking of the expiry date and stocks (starting in June 04)
- USA talks about “Electronic Drug Pedigree”
- Robin Koh (Director of Applications Research, Auto-ID Center, M.I.T, Boston) agrees on RFID:
  - 2005: labels on pallet
  - 2006: many factories support this technology
  - 2007: mass-serialization
- FDA hopes RFID to be running in 2008
Work in progress

- Optical Reading in the serial phases of the system
  - Production
  - Delivery to SSN (Italian NHS)
- RFID technology could be active in the intermediate tracking
- Innovation must not damage the system functionality
LOGISTICS

- Throughput is reduced by each ring of the chain
- Today technology is not cheap
- Data feedback is not economically rewarding
LOGISTICS

- Positive feedback for PA
- Moving stocks are tracked as a standardized record but a communication protocol is missing
- Matching records with stocks must be granted by serial reading (expensive)
LOGISTICS

- It’s mandatory to balance productivity and the amount of information
- The choice of technology may change this equilibrium point
LOGISTICS

- **Sustainable** is the keyword
- A Logistics revolution not supported by technology can’t win…
- To track drugs not packages…
- Pharmaceutics is an international market.
- Tags don’t have an international standard
Meanwhile

- Optical data acquisition in the serial phases of the system with an eye to implementation with radio-frequency technology.
- Create a network to exchange information
In pills

In systems by now to elevated automations and throughput, with performances of excellence in the elapsing time between demand for drugs and preparation and delivery, the delay introduced by data acquisition, in absence of technologies with the same performance, produces absolutely unacceptable quality of service regarding the time it needs to access the drugs.
Goals of distribution

- To reduce the lead time
- More productivity
- Better accuracy
Opportunity

- Standardization and automation of every information exchange
- To conjugate publics needs, like control of the expense, with private, tactical and strategical need.
- We do not trace the banknotes in spite of the enormous advantages in the fight against the crime and the tax evasion
Conclusion

- Not only intelligence but fantasy

I believe …
The winning cocktail

- We study and observe (knowledge)
- We understand > synthesis (intelligence)
- We imagine something new (fantasy)
- We create (ability to undertake)
Without forgetting our humanity

“Where is the wisdom that we have Lost in knowledge? Where is the knowledge we have Lost in information?“

(Thomas Stearns Eliot)
Look at the future with young eyes
With the intelligence of those who always look ahead
With the pleasure to have such a beautiful future