Product Master Data, Quality and Sharing

January 2019

Topics

- Product data

  - Master data today

  - Big data - why

  - Role and responsibilities

- Data sharing tools

The Master Data problem

Every company has a database filled with master data about the products they make, sell, or buy

But when one company changes any bit of information in their database or adds a new item, another database becomes outdated!

What happened to "Master Data"

- Systems have evolved in "silos" over the last 40 years

- The link between "process" and data was broken (*remains so in many cases*)

- Numerous efforts to "unify" data and process, or views of data – one use at a time

- **So what**? Business success still happened anyway… (*and hospitals operated*)

- **Only when costs increase, profits fall, (*or a patient is negatively affected*) does the real impact of bad data become known!**

1970s

1990s

Now…

The reality today!

- The data explosion impacts everyone

- Hospitals need trusted data

- Suppliers are often overwhelmed by the amount of data requested and the lack of data standards

The challenge – for hospitals/pharmacies

Product catalogues - current situation:

- Varying methods of communicating new items
  - Supplier A – printed catalog
  - Supplier B – price quote
  - Supplier C – PDF data
  - Supplier D – Excel tables
  - Supplier E – text data
  - Supplier F – link to website

- Varying methods of communicating updates/changes (or not communicating)
- Varying descriptions and levels of detail (product attributes)
- Varying levels of data accuracy and data quality

Hospitals need single and integrated system of exchange of information on devices and adequately identified medical devices distribution and use

The challenge – for regulators

- U.S. Department of Defence* discovered that :
  - product catalogues had problems matching the correct manufacturer name for 30% of the medical devices and 20-25% lack the product brand name
  - the part number '8630' in the product catalogue of a leading GPO was linked to 9 different numbers from different distributors

- *"Different manufacturers use different standards in different ways if they use anything at all. Distributors apply their own. Hospitals apply their own. And we just sort of cascade into this series of events which means that we can't find devices."*

  Jay Crowley, US FDA, FDA UDI Public Workshop, Feb. 2009

- In the US from 2005 through 2009, firms initiated 3,510 medical device recalls, an average of just over 700 per year.

Regulators need to be able to ensure highest levels of market surveillance, to efficiently mange adverse event reports and to quickly recall devices … not only in their country but also across borders

Source: US DoD Study

The Challenge – for manufacturers

- Where do we start?

- What data do I have and what do I need to start collecting it?

- What are customers looking for?

- Are we in compliance?

- How do we define success?

The most important impact:
Patient safety and care providers

We need to understand the healthcare provider's data pain points...

...in order to provide them with correct and accurate data

Data Recipient: Trusting the Data

The primary objective is for the hospitals, and other data recipients, to transact with GS1 Keys and integrate data into internal systems

- In order for the hospitals to do so, the following conditions must exist:
  - Must trust the quality of the data
    - Verification & integrity of data chain of custody
  - Must use the data as provided by the Source without altering it
  - Have the ability to store identifiers and supporting data
  - Internal systems must be capable of supporting GS1 standards
  - Procedures and pathways must be updated to include the relevance of GS1 standards,
- Hospital processes such as procurement, logistics, warehousing, clinical, pharmacy and operating theatres need to be updated
- Establish Master Data Management & Governance processes within the hospital system, including executive sponsorship, roles and responsibilities

When trusted data is used

- Greater efficiencies

- Lower costs

- Improved patient outcomes

Trusted data leads to better patient care
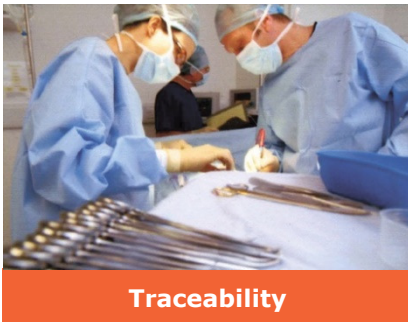
Safer and better treatments

Traceability

- **Standardising product data**, enables physicians to more easily analyse and compare results from products used
- **Applying unique GS1 identifiers** or UDIs enables more efficient recalls and verification of legitimacy of products

- eHealth ➔ **combining** the best **product information** with the best **patient information**

Trusted data improves processes

Seamless order to cash

- Global Location Numbers (GLNs), GS1 EDI, and the unique Global Trade Item Number (GTIN) to identify products supports a **fully automated** order-to-cash **process**

Warehouse management

- **Accurate product data** (weight, dimensions and packaging) exchanged through GS1 Global Data Synchronisation Network saves valuable space

Trusted data means better collaboration and lowers costs

Seamless order to cash

Warehouse management

- Publishing product catalogues only once in the **GS1 Global Data Synchronisation Network (GDSN)** instead of using multiple formats, improves **accuracy of data** and **collaboration**

£350,000,000

With clinical time back to patient care!

$52,000

Reduction of human intervention ($52,000/year)

Download the paper

The Value of Trusted Product Data
Perspectives shared by hospitals and government agencies

http://www.gs1.org/healthcare/share-data

Roles and Responsibilities

Managing Master Data
How to improve?

Supplier = data source

Needs single point-of-entry

- One database to load new item data and update data on existing items

Needs security

- Authorisation access by supply chain partners

Standards-based

- Standard identification keys
- Predefined (set of) product attributes

Hospital = data recipient

Needs single point-of-truth

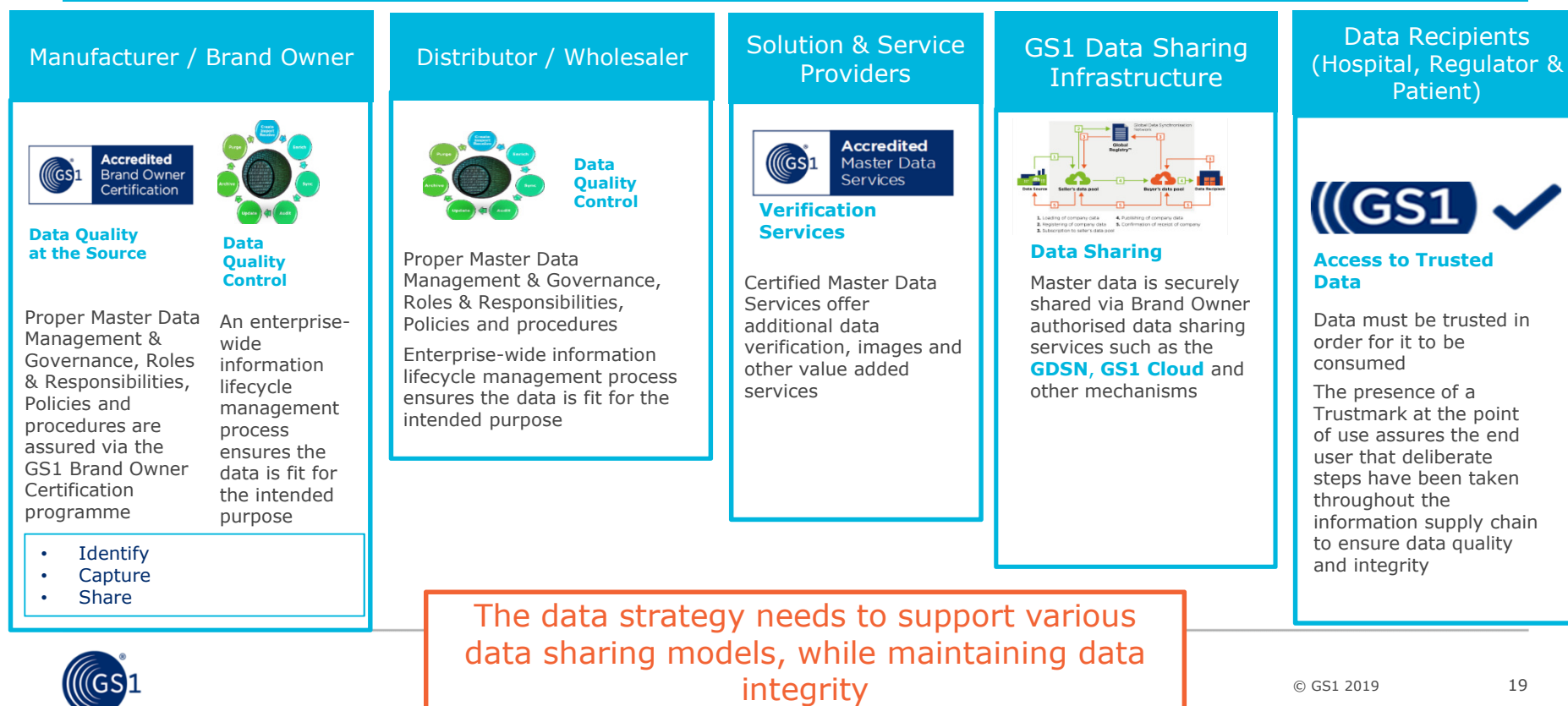- One source for up-to-date, accurate data
- Continuous synchronisation

Standards-based

- Standard identification keys
- Consistently formatted information
- Complete information

Roles in master data sharing in healthcare

Manufacturer / Brand Owner	Distributor / Wholesaler	Solution & Service Providers	GS1 Data Sharing Infrastructure	Data Recipients (Hospital, Regulator & Patient)

Manufacturer / Brand Owner

Data Quality at the Source

Data Quality Control

Proper Master Data Management & Governance, Roles & Responsibilities, Policies and procedures are assured via the GS1 Brand Owner Certification programme

An enterprise-wide information lifecycle management process ensures the data is fit for the intended purpose

- Identify
- Capture
- Share

Distributor / Wholesaler

Data Quality Control

Proper Master Data Management & Governance, Roles & Responsibilities, Policies and procedures

Enterprise-wide information lifecycle management process ensures the data is fit for the intended purpose

Solution & Service Providers

Verification Services

Certified Master Data Services offer additional data verification, images and other value added services

GS1 Data Sharing Infrastructure

Data Sharing

Master data is securely shared via Brand Owner authorised data sharing services such as the **GDSN**, **GS1 Cloud** and other mechanisms

Data Recipients (Hospital, Regulator & Patient)

Access to Trusted Data

Data must be trusted in order for it to be consumed

The presence of a Trustmark at the point of use assures the end user that deliberate steps have been taken throughout the information supply chain to ensure data quality and integrity

The data strategy needs to support various data sharing models, while maintaining data integrity

Master Data Management and Governance

Data Governance

Roles and Responsibilities

Enterprise wide Data Management

Data Quality

The quality of the data starts at the data source

Information lifecycle management

1. **Create, Import or Receive**
   - *Collect, Create, Receive & Capture*
2. **Enrich/Validate**
   - *Data Quality*
3. **Sync/Activate**
   - *Push to users*
4. **Audit/Evaluate**
   - *Routine Monitoring*
5. **Update/Maintain**
   - *Maintain, Protect & Preserve*
6. **Inactivate/Archive**
   - *Remove from active use*
7. **Purge**
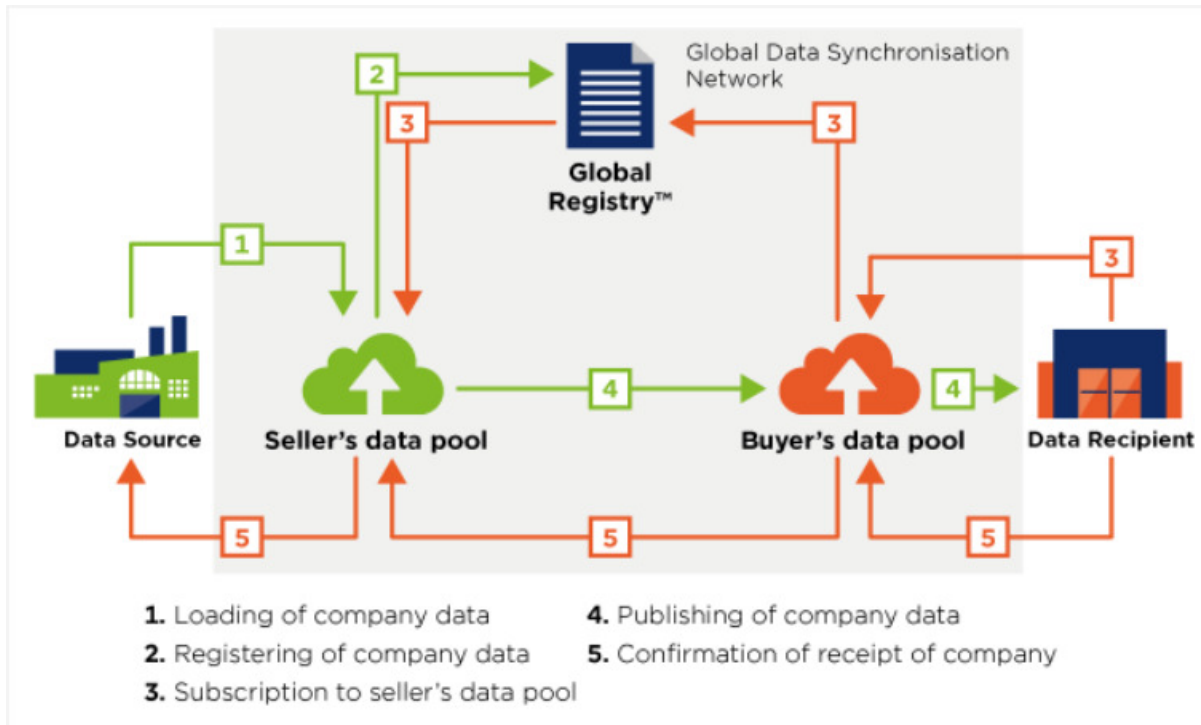   - *Delete from system*

Data Sharing

Managing data: Locally & globally

- Use **global data standards** in order to reduce barriers to data sharing and allow for scalability as the demand for data increases

- Find a technology partner who supports global data standards and can **connect you globally**

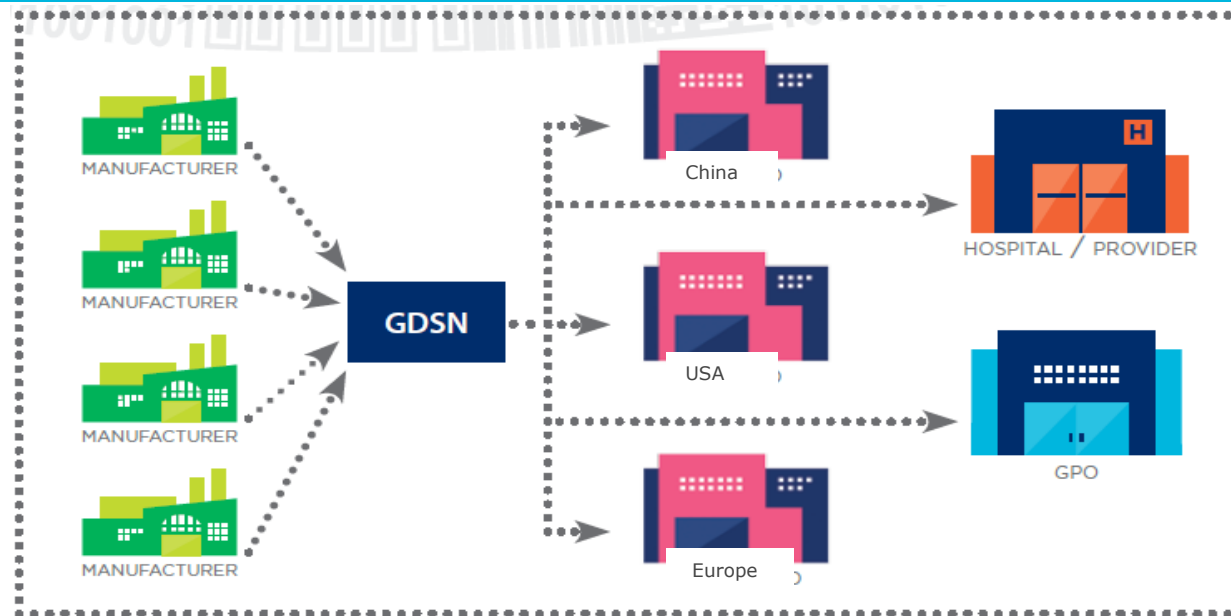- Define ALL regulatory and commercial attributes (**Super Spec**)

The Global Data Synchronisation Network

1. Loading of company data
2. Registering of company data
3. Subscription to seller's data pool
4. Publishing of company data
5. Confirmation of receipt of company

The right data for the right product to the right recipient

Manufacturers can register their product data in the GDSN and make it available to all of their customers worldwide, in secure and trusted environment. At the same time they can direct their Data Pool to register the appropriate data in regulatory databases anywhere in the world via a single connection.

Safer, more efficient care starts with a simple scan

And accurate, complete, trusted data is needed through the whole chain so that every barcode scanned looks up an accurate database