



The Global Language of Business

Master Data Management

Data fit for the intended purpose

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Data needs to be trusted to be used



Johnnie



When trusted data is used



- Patient outcomes improve
- Greater efficiencies
- Lower costs



The Australian data crunch report puts a cost to the problem!



Potential cost of manual checking of unit of measure



Potential cost of manual PRC clarification by hospitals



Potential savings from improved data quality³

By conservative estimates, more than \$100 million in potential savings can be achieved by addressing product data quality issues by making only minor adjustments to existing processes.



Potential cost associated with independently sourcing product weight and dimensions



Potential lost revenue from unclaimed joint replacement prostheses



Potential cost of urgent deliveries due to undersupply



Potential savings for 5 scenarios studied



Conservative potential savings from improved data quality for all business processes met by the NPC data set



The ultimate value



**Improved
lives!**



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 the costs increase, profits fall, (*or a patient is impacted*) does the real impact of bad data become known



1970s



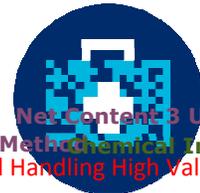
1990s



2000s

Source origin: Gartner

Reality today!



Storage and Handling Unit of Measure
Primary UPC
Issuing Agency
Production Start Date
Container Type
Product Category
Material #
Container Content
Prod Hierarchy
What MRI safety information does the labeling contain?
Gross Weight UOM
Net Weight UOM
Product Size
Business Unit
Item Identifier
Package Marked Returnable
Min Order Qty
CPSC Regulated Indicator
GTIN
Cluster Marketing Wrap
Invoice Item
Product Sub-Group
Country of Origin
Storage and Handling High Value
Nationally Priced
National Account Package Code
Deposit Currency

Storage and Handling Unit of Measure
Max Order Qty
Packing Value
Supplier Stock Number
Serial Number
MFG GLN
Quantity per Package
Medium Product Description
Suppressed UPC
Storage and Handling High Value
Spec Length
Spec Width
Base Unit of Measure
Storage and Handling Type
Merchandise Width
Item Description 1
Brand Owner
Is Security Tag Present
MFG GLN 1
Discontinue Date
Package Name 3
Merchandise Unit
Language Code
Cluster
Package Type
Net Content 2 UOM
Combination Product
Storage and Handling Low Value
Device Count
Virtual UPC Code
Primary DI Number
Multi-Pack Indicator
Labeler DUNS Number
Graphics Specialty
Company Name
Supplier Number
Secondary DI Number
Storage and Handling Type
Product Classification
Environmental Identifier
Registration Status
Storage and Handling Type
Storage and Handling Unit of Measure
Information Provider
Version or Model Number
Kit
Size Text
Vending
Device Packaged as Sterile
Variable Weight
Item Contains Wood
Storage and Handling Low Value
For Single-Use
Commercial Distribution End Date (mm/dd/yyyy)
Product Code Name
Private Label Indicator
FDA Premarket Submission Number
Value
Register with DataPool
Segregation Code
Barcode Derivable
Material Code Agency
Secondary DI Issuing Agency
Pesticide Indicator
Health Category
Requires Sterilization Prior to Use
Special Order Available
Subject to US Patent
Invest Level
Fourth Information Provider
Deposit State
Pallet Stack Height
Base Unit Retail

Over the Counter (OTC)
Package Status
Net Content 3 UOM
Methodical Indicator
Storage and Handling High Value
Device required to be labeled as containing natural rubber latex or dry natural rubber (21 CFR 801.437)
Volume UOM
Net Content 5 UOM
Cancel Date
Package Name 2
Package DI Number
Package Name 4
Storage and Handling Unit of Measure
Item Type
Direct Consumer Delivery
Storage and Handling Low Value
Human Cell, Tissue or Cellular or Tissue-Based Product (HCT/P)
Short Product Description
Order Qty Multiple
Register with GS1
Sub-Department
Shipping Unit
Ordering Unit
Device Count
Catalog Number
Customer Contact Phone
Net Content 2
Deposit UPC
Packaging Material Code
Storage and Handling Unit of Measure
Device labeled as "Not made with natural rubber latex"
Recyclable Package
Selling UOM
Storage and Handling Unit of Measure
Composite Wood Level Cod
Expiration Date
Depth UOM
Large Product Description
Trademarks Family
DM DI Different from Primary DI
Storage and Handling High
Value
Customer Contact Email
Net Content 3 MFG Code
Base Unit UOM
Unit of Measure
Container Specialty
DM DI Number
Storage and Handling Type
Storage and Handling Unit of Measure
Amount/Unit Date
Storage and Handling Type
Storage and Handling Unit of Measure
Donation Identification Number
Special Order Available

Brand
GMDN Preferred Term
Department
Flavor
Primary DI Number
Unit Size
Gross Weight
Device Exempt from Premarket Submission
Platform
Hazmat Classification
Net Content 5 UOM
Trade Item Recall Ind
MFG GLN 5
Bar Code Type
Company Physical Address
Package Name 2
Package DI Number
Package Name 4
Storage and Handling Unit of Measure
Item Type
Direct Consumer Delivery
Storage and Handling Low Value
Supplier Pack Cost
Supplier Pack Cost
Return Goods Policy
Human Cell, Tissue or Cellular or Tissue-Based Product (HCT/P)
Short Product Description
Order Qty Multiple
Register with GS1
Sub-Department
Shipping Unit
Ordering Unit
Device Count
Catalog Number
Customer Contact Phone
Net Content 2
Deposit UPC
Packaging Material Code
Storage and Handling Unit of Measure
Device labeled as "Not made with natural rubber latex"
Recyclable Package
Selling UOM
Storage and Handling Unit of Measure
Composite Wood Level Cod
Expiration Date
Depth UOM
Large Product Description
Trademarks Family
DM DI Different from Primary DI
Storage and Handling High
Value
Customer Contact Email
Net Content 3 MFG Code
Base Unit UOM
Unit of Measure
Container Specialty
DM DI Number
Storage and Handling Type
Storage and Handling Unit of Measure
Amount/Unit Date
Storage and Handling Type
Storage and Handling Unit of Measure
Donation Identification Number
Special Order Available

Brand
Gross Weight
Depth
Width
Volume



We need to understand the hospital's data pain point



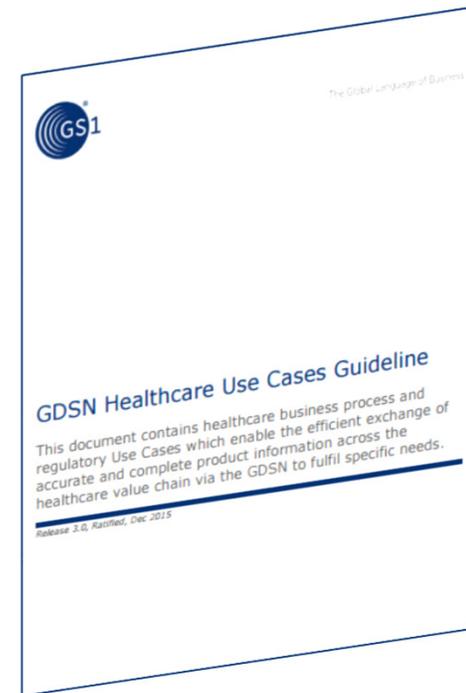
Data Use Case:

- Why is the data needed?
- What are the data requirements?

Industry defined data Use Cases for healthcare



- Tendering and Sourcing
- Contracting
- Procurement
- Order and Invoice Reconciliation
- Reimbursement Codes and GTINs
- Regulated Product Formulations and Target Markets
- Logistics & Logistics for Distribution
- Unique Device Identifier (UDI)
- Medicine Dispensing and Safety



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



We typically don't fully trust...



...what we can't verify

Master Data Management



Data Governance



Roles and Responsibilities



Enterprise wide Data Management



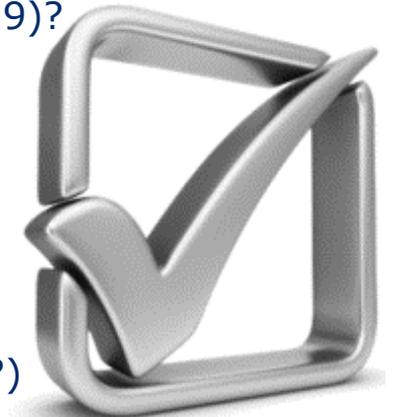
Data Quality

The quality of the data is reflection on the quality of the product

How to achieve data quality



- **Complete**
 - Is data missing?
- **Consistent**
 - Is data consistent across systems for the same field? (zip code - 5 or 9)?
- **Accurate & Timely**
 - Is data precise, correct, and current?
- **Standards Based**
 - Have formatting rules and global standards been applied?
- **Logical**
 - Is data valid or conflicting across data sets? (Does $L \times W \times H = \text{Cube?}$)
- **Integrated**
 - Are there appropriate data linkages between systems?
- **Unique**
 - Are there unnecessary representations of the same data?



Data quality is the result of deliberate actions taken which ensure the data is fit for the intended purpose



Best Practices: <http://www.gs1.org/data-quality>

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What data quality is NOT



Data Quality is not

- a tactical “IT task”
- a one-time solution
- technology specific
- a “thing” – like a program or application



As with beauty, it's in the eye of the beholder!

Trusted data means better collaboration and lowers costs



Collaboration

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



Lower costs



With clinical time back to patient care!



Reduction of human intervention!



What could it mean for you?



- **Manufacturers:** cost optimisation and process improvement



- **Hospitals:** adequately identified medical devices and pharmaceuticals in an integrated system of information management



- **Regulators:** higher levels of market surveillance, more efficient adverse event reports and quicker recall - also across borders

Global data standards enable **safer and more efficient supply chain** to ensure that the **right device or medicine** is available at the **right place** and the **right time** for the **right patient**

GUDID and GDSN points to consider



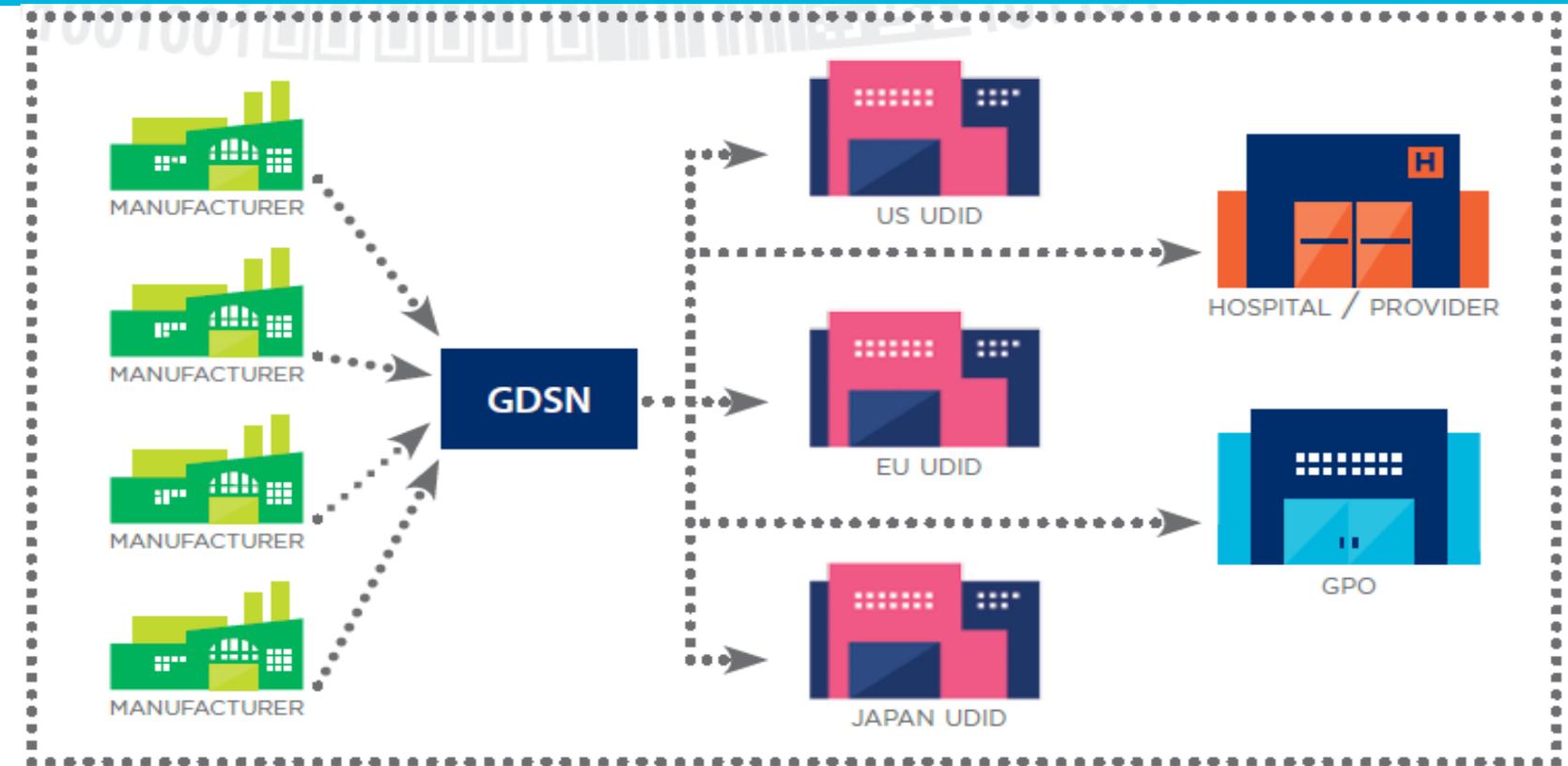
- The Global Unique Device Identification Database (GUDID) implemented by USFDA in 2013 contains UDIs for all medical devices according to the regulation.
- GDSN contains **not only** UDIs for **medical devices** but also **pharmaceuticals, consumable products, weight, dimensions and storage information.**

The GDSN currently contains over 19 million GTINs, of which over 1.5 million are healthcare



“The GDSN has a broader range of product information than the GUDID and with the FDA’s DSCSA, we are required to capture all that information, store it and report on it for six years.” - Sandi Michel, Director of Supply Chain Systems and Quality, FMOLHS, U.S.

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 device data in the GUDID, and any other UDI database anywhere in the world when they come online, [via a single connection](#).

Download the paper <http://www.gs1.org/healthcare/share-data>



"Data is the lifeblood of our business. Leveraging product data for a highly efficient supply chain helps us ensure that every patient has a seamless care experience with a positive outcome."



-Andrew Potter, Group Inventory Manager, Ramsay Health Care, Australia



"In just one pilot, we were able to save \$52,000 a year by not having staff review every single order."



- Sandi Michel, Director of Supply Chain Systems and Quality, FMOLHS, U.S.



"For safe and efficient procedures, the right people—patients and healthcare providers—the right appliances, and the right medical supplies have to come together at the right time and place. The same is true for information about all these components."



- Dr. Hajo Reissmann, Head of Medical Supply Controlling, UMCSH, Germany



"We can learn from the retail experience where it took several years to get GS1 standards embedded into their businesses. And it won't be any different for us in healthcare."



-Steve Graham, eProcurement Lead, Department of Health, UK



"It's a seamless order-to-cash process that can only be achieved with accurate product data provided by the GDSN."



- John Mazzoli, Data Governance Manager, CHRISTUS Health, U.S.



"Data is not 'trusted' until you start transacting with it. With the GDSN, the good news is that, as issues are resolved between supplier and provider, this accurate data is pushed out to every provider. And as data is traded, it gets stronger and stronger with every transaction."



- Kevin Capatch, Director of Supply Chain Technology & Process Engineering, Geisinger Health System, U.S.



"Trusted data enables traceability of care products for patient safety, and ultimately needs to make employees' work easier each day."



ORGANISATIEVERBETERING

- Herman de Smit, Logistic Consultant, Multiple Hospitals, Netherlands



"It's important that hospitals communicate the shared benefits of using accurate product data to their suppliers."



- Paul Broadbridge, Manager eHealth Value Chain, NEHTA, Australia

Contact Information



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Download the paper



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



The Global Language of Business

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



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For more information



www.gs1.org/gdsn

www.gs1.org/healthcare

Lessons along the way



- 1. Data is a powerful asset** for your business.
- 2. Quality of the product data** → quality of the product itself and quality of the manufacturer.
- 3. Automate the order-to-cash process** for better product recall, inventory management and asset tracking.
- 4. Collaborate with suppliers** for mutual benefits. Sharing trusted data → shared responsibilities and shared benefits.
- 5. Attention to details** by breaking it up into manageable pieces and using a cross-functional governance body.
- 6. Communication** with internal stakeholders, executives and suppliers. Share improvements and progress.
- 7. Remember the Benefits** → patients' care, time, costs and productivity.
- 8. Take a long-term approach with a sense of urgency** - determination and patience are key when changing systems and how people work.