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RFD JOURNAL LIVE!

Using GS1 standards and RFID technology to improve the Supply Chain

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Meeting a customer request

Identified opportunity



- Examined outcomes
- Identified areas where RFID could be used as solution
- Studied requirements for large scale implementation and built on experience



Started pilot in Japan Global Orthopaedics DC

Demonstrated how RFID could improve loaner kit replenishment process

0 | 0 | 0 | 00RFID labeling1 0 0 0 | 0 | 00process

- Determined how to be GS1 compliant
- Learned GS1's EPC tag data standard could be followed
- Developed standard to use system



Created technology framework

- Determined where in process to apply RFID tag (applied to sterile packaged implants)
- Interfaced RFID scans with sterile implant kit management system
- Built technology to deliver high read rate accuracy for kit
- Delivered value through integration with business processes



RFID improves Japan supply chain

2018

sterile implants introduced RFID tagging

Proof of Concept Goals

Process efficiency Leverage GS1's EPC tag data standard for encoding RFID tags





RFID tagging proof of concept

GS1 results – alignment with EPC tag data standard for encoding

Adopted UHF frequency (EPC UHF Gen2 Air Interface Protocol)

Tag data standard compliant (GS1 TDS)

- EPC memory bank \rightarrow SGTIN
- User memory bank → packed data objects (GS1 AIDC Translator Library)

	GTIN AI: (01)	GS1 Date Expiration Date AI: (17)	ata Lot# AI: (10)	Serial# AI: (21)	Encoding Method
EPC Memory (128 bits)	\checkmark			\checkmark	SGTIN-96
User Memory (512 bits)		 ✓ 	\checkmark		Packed Objects



RFID tagging proof of concept outcomes

Approved for implementation

Operational goals met

99.96%

highly accurate read rates

80%

super fast time reduction

70%

easy to use faster exception handling

More agile

customer

experience



Serialization

based solution

created for

each device



Improved

set

availability



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Standardization helps end-to-end supply chain

With standardization

Reduces infrastructure customer costs

Enables end-to-end supply chain efficiency

Promotes data sharing environment that has value beyond RFID

Secures the supply chain

Efficient recording of product information for health records at customer site

Streamlines product inventory cycle

Without standardization Х Costly to all Impedes customer adoption Multiple radio frequencies (UHF or HF) No standard tag data Not customer centered supply chain focused Customer specific inventories Less secure supply chain Barcode scanning dependent



Drivers for RFID expansion





Leveraging an innovative solution





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