



The Global Language of Business

Evolutionary implementation of GS1 standards in the area of medical devices in the University Clinical Center in Gdańsk

Mrs Joanna Nowak, Master of organization and management, Head of Medical Procurement Unit, Gdańsk Hospital, Poland

Thursday 15th March 2018



Welcome and thank you for attending!



- Welcome to our March 2018 webinar.
Thank you to our guest speaker mrs. Joanna Nowak, Master of organization and management, Head of Medical Procurement Unit, Gdańsk Hospital, Poland
- Some housekeeping for today:
 - All attendees will be on mute
 - If you have questions during the presentation, please type them into the questions area and these will be monitored then answered at the end of the call
- After the webinar:
 - Within a week, the recording will be posted to: http://www.gs1.org/healthcare/hpac_webinars
 - All previous webinars are also posted to this location, so please feel free to use this resource and share the link

The GS1 Healthcare Provider Advisory Council (HPAC)



Focus is on thought leaders and adopters of GS1 Healthcare Standards from the global clinical provider environment. Their final goal is to improve patient safety, cost efficiency and staff productivity through implementation of GS1 standards.

A forum for sharing and discussion

Identification of projects and case studies

A source of expertise and advice

- About the practical realities of implementation of GS1 Standards in the care giving environment in regards to the impact on clinical care and patient interaction
- That support the adoption of GS1 Standards in healthcare providers and retail pharmacies
- For publication, presentation and sharing
- To those involved in GS1 standards development, the wider Healthcare stakeholder community and senior executives/decision-makers to gain their buy-in and support for implementation of GS1 Standards

HPAC Activities



Webinars

- Monthly webinars open to all stakeholders interested in learning about GS1 standards implementation in the care giving environment.
- http://www.gs1.org/healthcare/hpac_webinars

Awards

- Twice per year
- Provider Best Case Study Award
- Provider Recognition Award
- The prize is travel / accommodation to attend the next GS1 Healthcare conference
- <http://www.gs1.org/healthcare/hpac>

GS1 Healthcare also holds two global conferences per year. The next conference will be in Bogota from April 10-12, 2018, with significant Healthcare Provider participation on the agenda.

Evolutionary implementation of GS1 standards in the area of medical devices in the University Clinical Center in Gdańsk

Joanna Nowak

15-03-2018

University Clinical Center in Gdansk



- One of the largest hospitals in Poland, was established in 1945;
- 33 medical departments, different laboratories;
- 60 outpatient clinics;
- Over 1,100 hospital beds;
- Over 120,000 patients annually.

University Clinical Center - a modern hospital



- In 2012, the Invasive Medicine Center with an area of 32,000 m² was opened;
- by 2020, the Center for Non-Invasive Medicine will be put into use, with an area of 75,000 m²;
- we plan further development of the Pediatric Medicine Center.

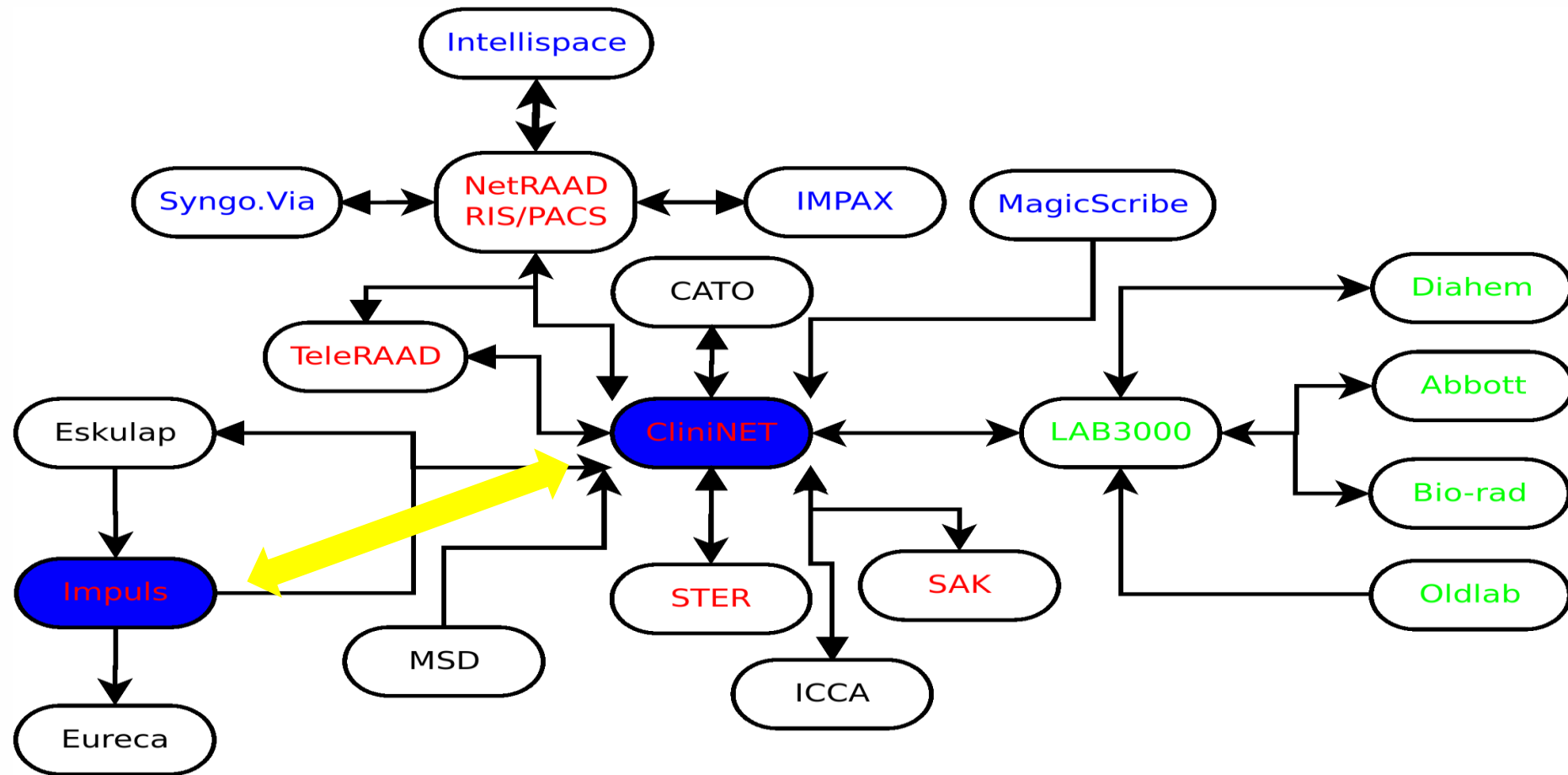
Medical supply department

We organize the purchase and supply of medical devices for the Hospital through:

- Preparation of tenders,
- Implementation of contracts,
- Send orders to suppliers,
- Accept deliveries,
- Process invoices,
- Distribution of products in the hospital.



Structure of IT systems in our hospital



IT systems in our hospital - Area of medical devices

- **CliniNET** is a Hospital Information System:

It has already collected the data of 1 million patients, including:
about 20 million laboratory tests, over 200 million diagnostic images;

Impuls is a system of Enterprise Resource Planning, in the area of
warehouse management and accounting.

Both systems are integrated using the HL7 data exchange protocol for
warehousing.

Medical devices in the hospital

- A very large range of needs, from simple medical devices, through elements of small equipment, various disposable, reusable and implantable products
- Every year, the number and types of medical procedures increase
- The costs of purchasing and maintaining stocks are going up
- The costs of administrative support related to purchases are going up
- In the past, we incurred losses due to the loss of product expiration dates



How to save on medical materials/devices?



Deposit warehouses

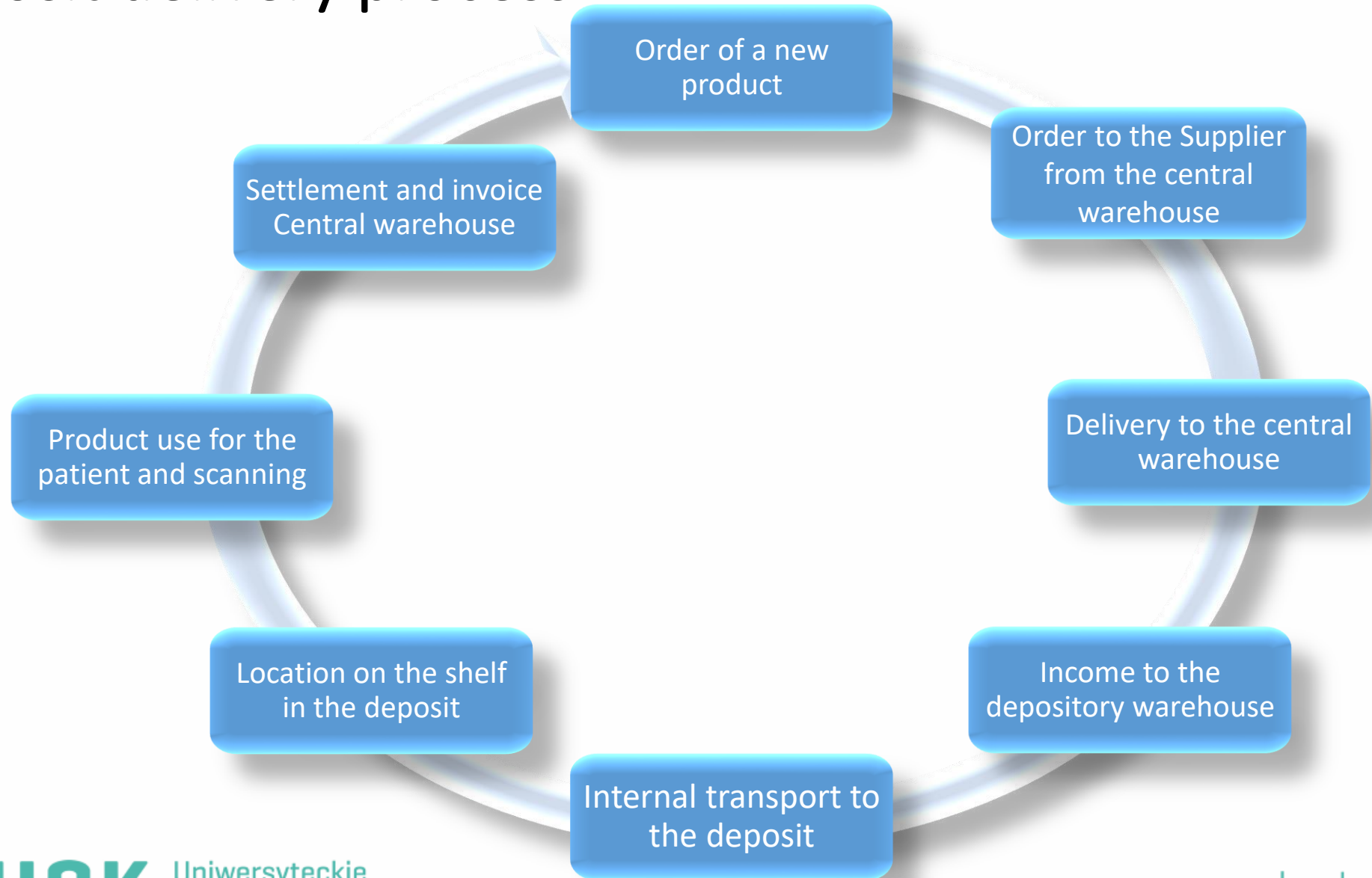
- We have established that there is a large group of products of many types, sizes, most often highly specialized disposable medical devices or implanted ones;
- To perform an operation, you need to have products in a full range of types, sizes and appropriate quantities;
- Initially, we were interested in products which were not cheap;
- There were products in this group with expired dates, which generated considerable loss for the hospital...

The first deposit warehouse in the Department of Cardiac Surgery

- At the beginning, heart valves were selected, which are needed in many types and sizes,
- The process was determined,
- A tender was prepared,
- The contracts were signed,
- The first orders were placed,
- Deliveries started ...



Deposit delivery process



First difficulties in deposit

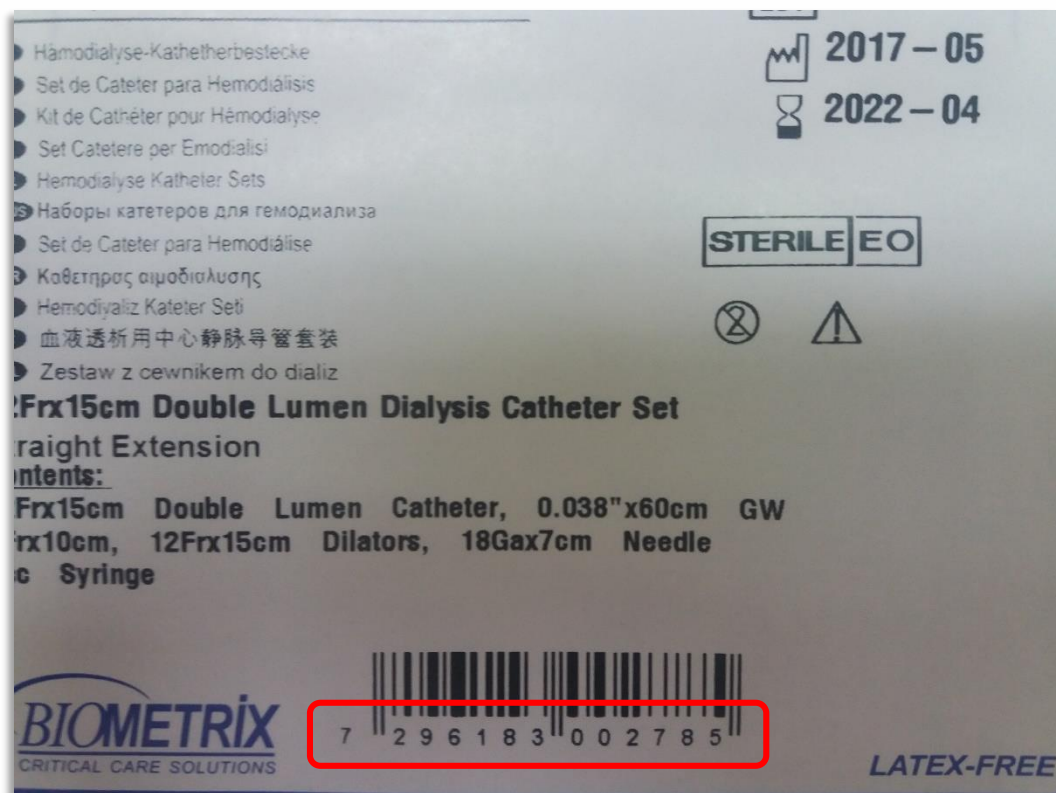
There were a lot of products to be handled simultaneously so the questions appeared:

- How should we accept them so that the identification is fast and error-free,
- How should we assign them to a given patient, to know the costs of treatment and have information about the product, type, expiry date, and serial number in the IT system?
- How to quickly handle the actual consumption, or how to notify suppliers about the need to issue an invoice,
- How to top up the product on deposit quickly?

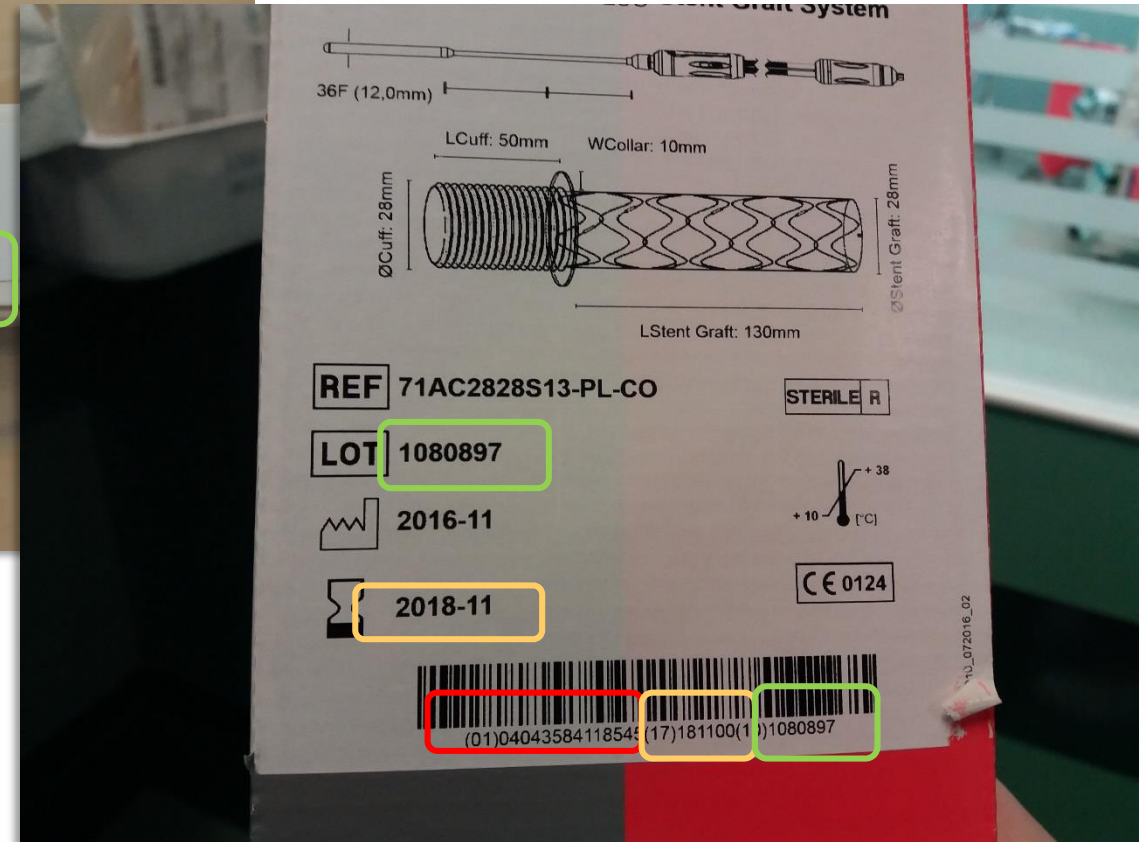
Barcodes on the packaging of medical devices

- By analyzing the codes on the packaging of individual medical devices, an idea appeared - to facilitate the process of entering data into the system,
- After all, in the medical industry, as in large stores, you can scan products and speed up processes,
- We started looking for knowledge about the codes used on the products,
- We gained a lot of information from publications of GS1 Poland, webinars, and the experience of other hospitals.

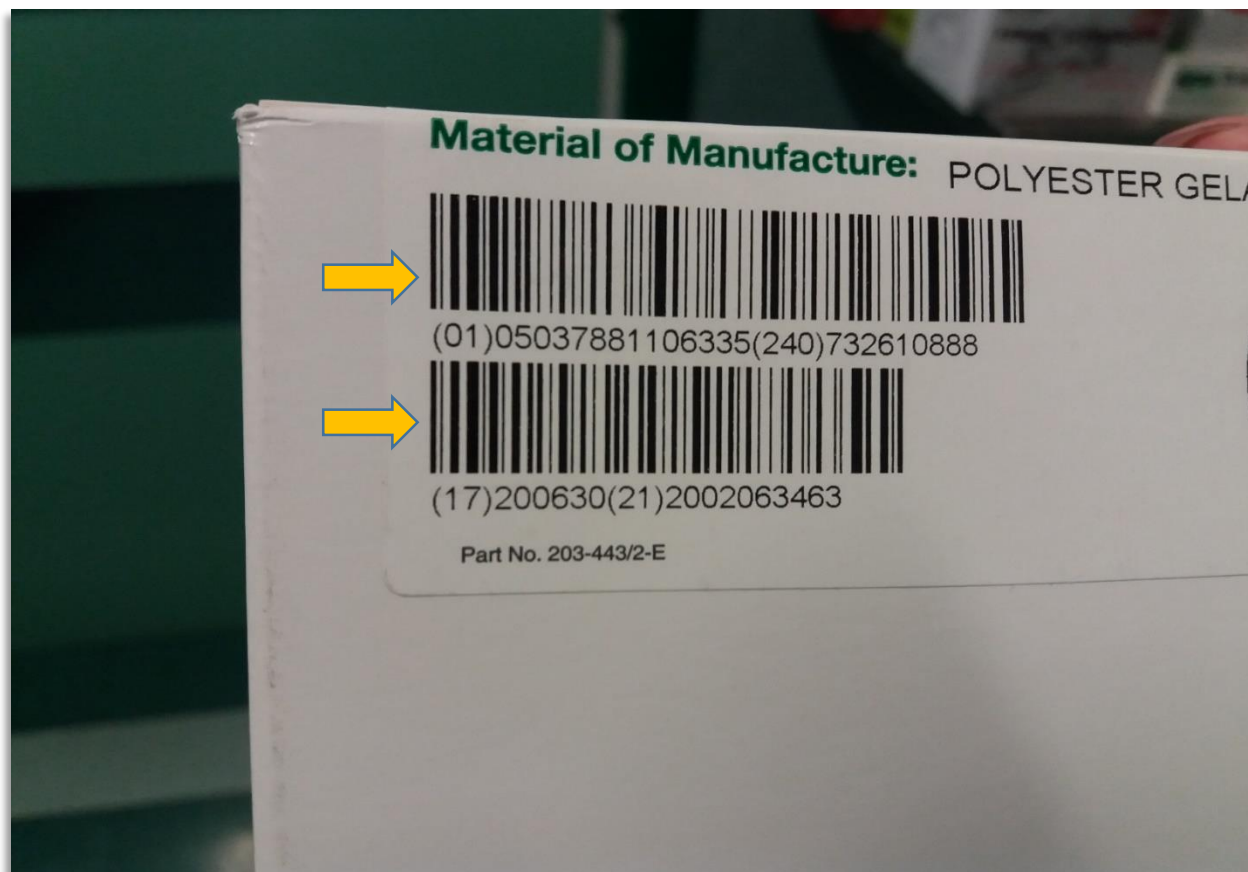
Types of barcodes – GTIN



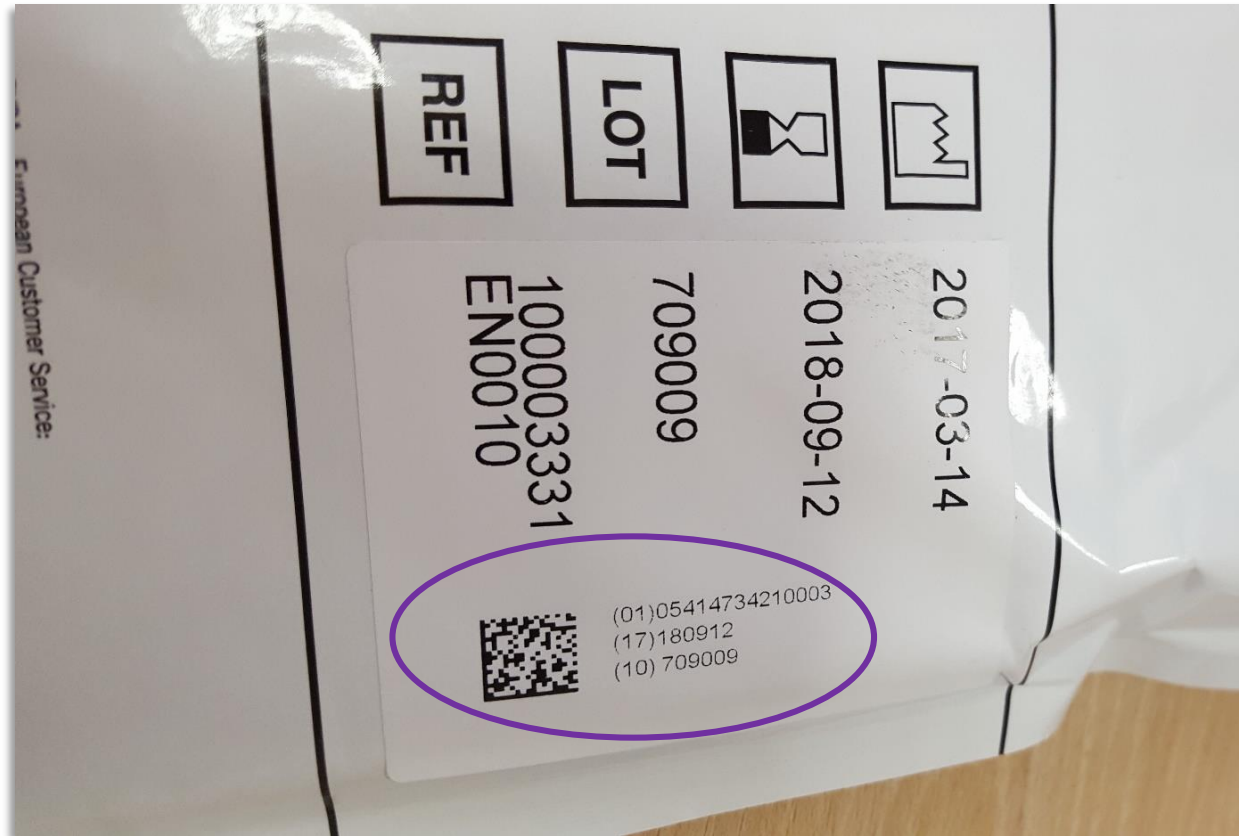
Types of bar codes - GS1 128 linear



Types of bar codes - GS1 128 linear

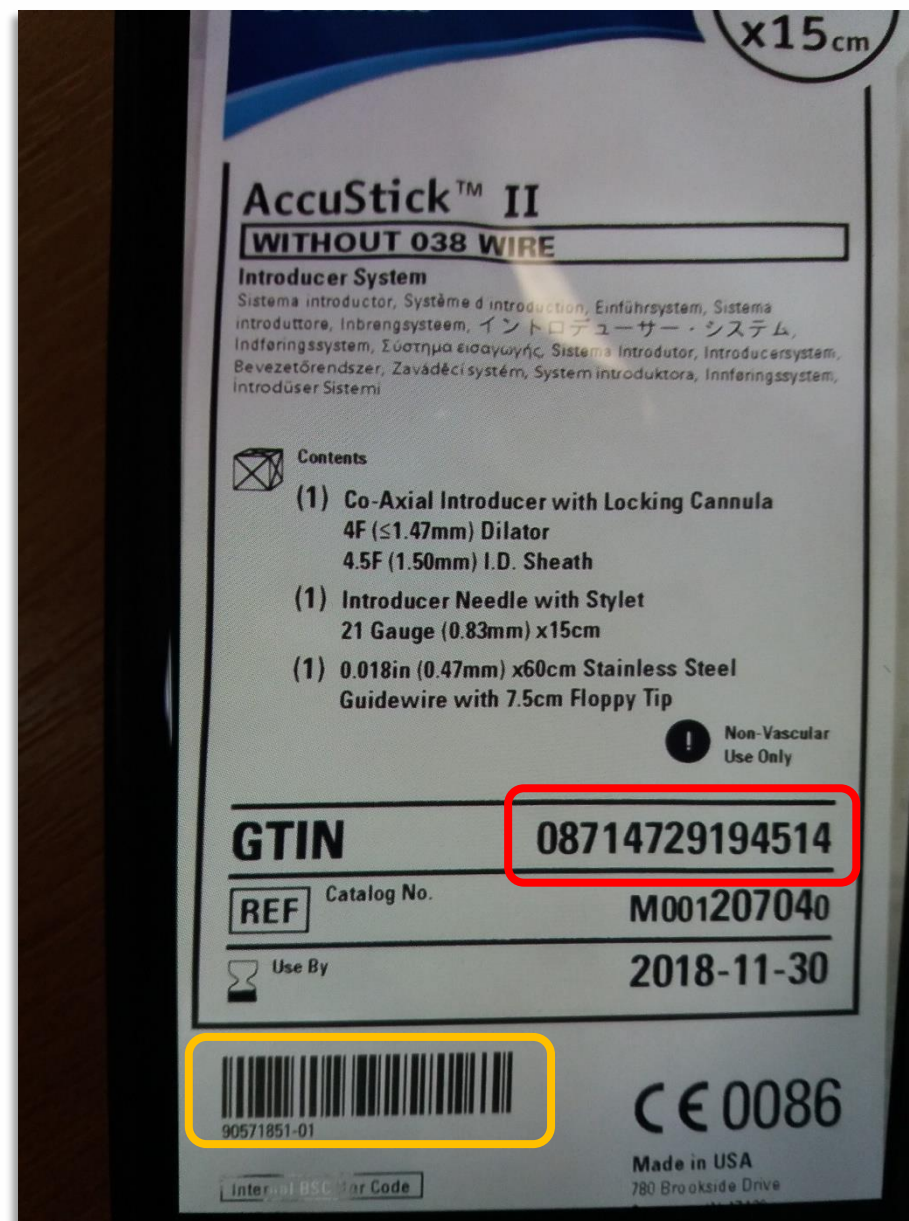


Types of bar codes - GS1 DataMatrix

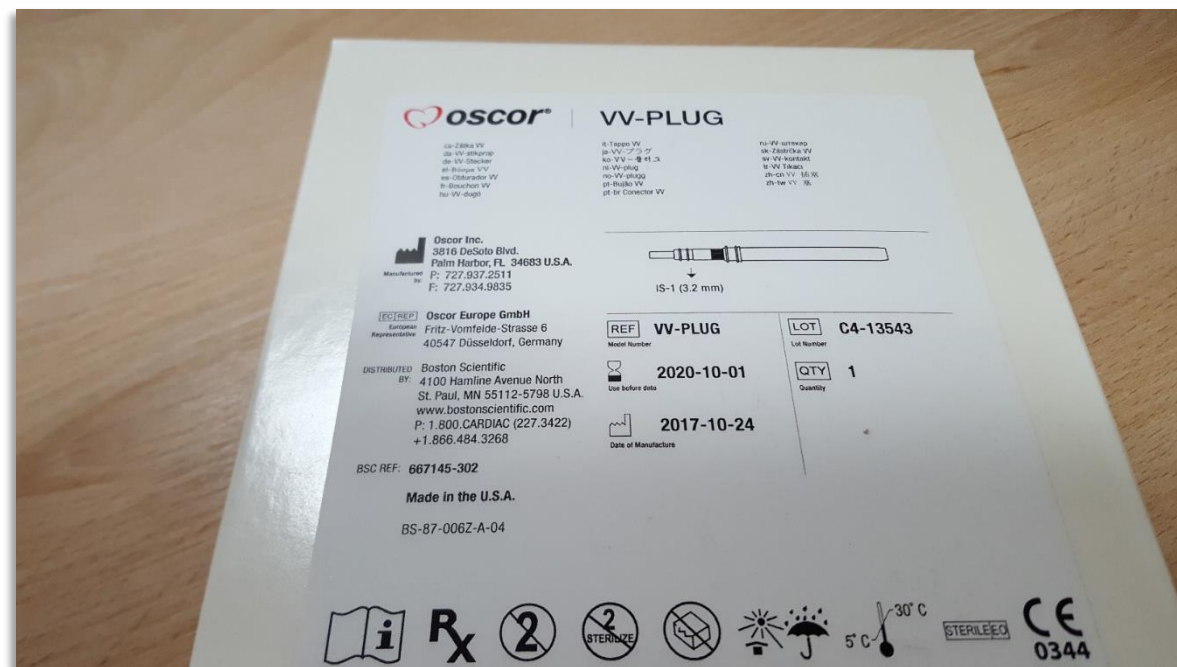


Types of bar codes

Internal manufacturer's codes

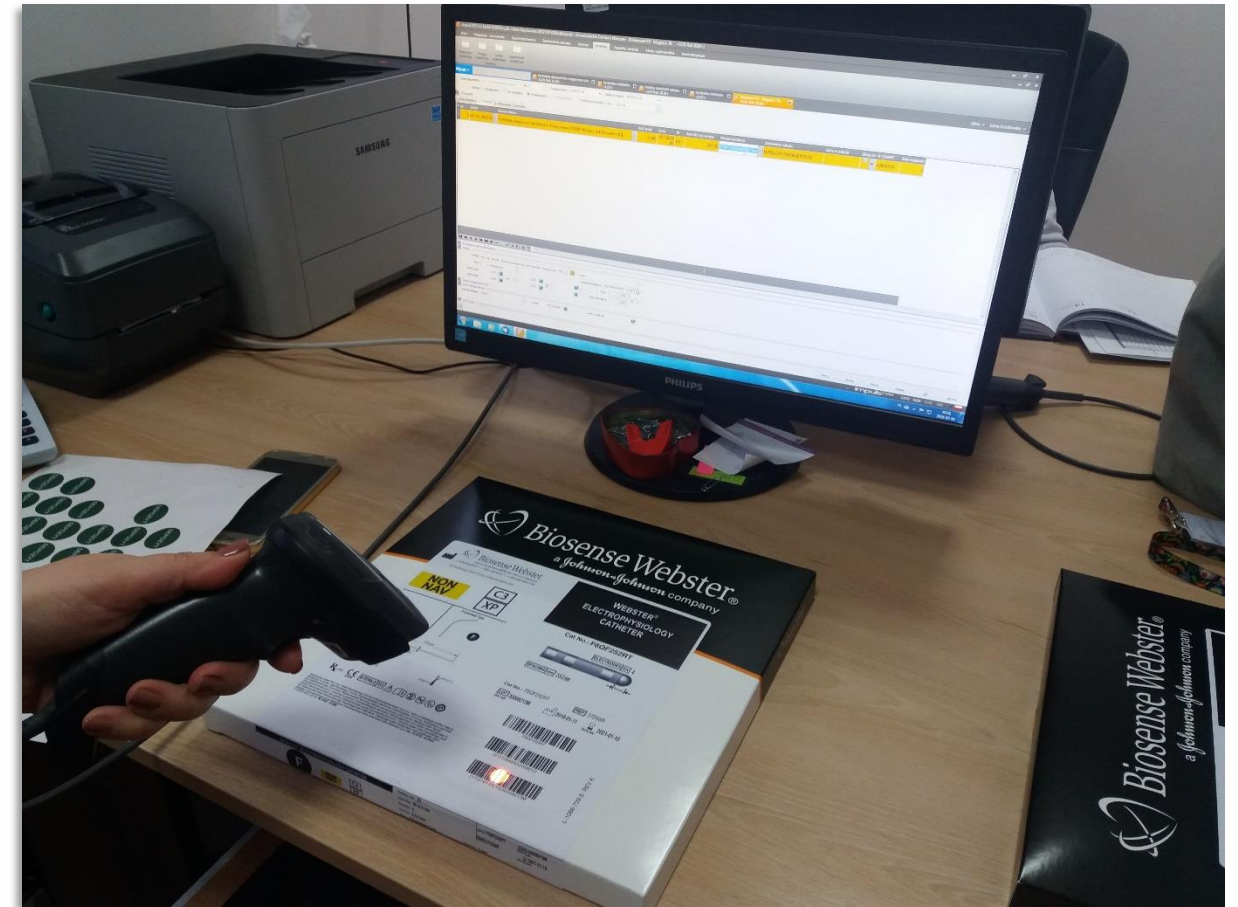


Missing barcodes on medical devices



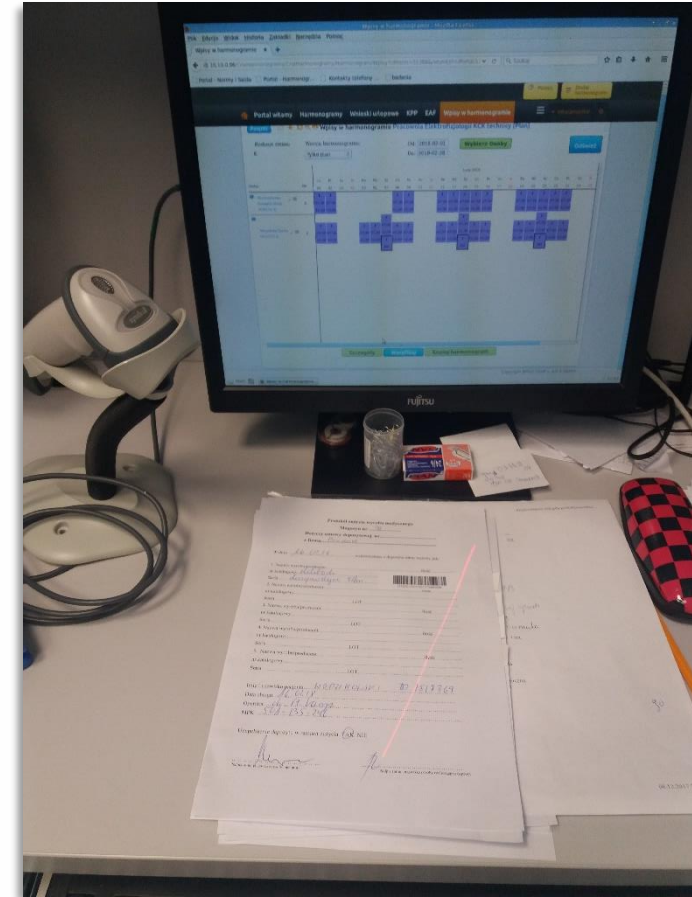
Stages of barcode implementation

- Initially, we had the idea to rewrite the manual information under barcodes to the information system,
- Then we bought the first code reader to the warehouse which was reading barcodes from the products.



Stages of barcode implementation

- Later, we created electronic warehouses with the flow of information between the Impuls storage system and the Clininet medical system,
- Currently, after the product is used, the goods are assigned automatically to the patient by scanning the product code or sticker from the packaging and the patient's code.



We have chosen GS1 as the leading standard

- important information on the product for one beep

- GTIN – Global Trade Item Number, defines each type of product individually, but it is not enough to fully identify medical devices,
- Application identifiers (IZ) perfectly define important information such as (17) - expiry date, (10) LOT number or production batch, (21) serial number.
- The GS1 standard is the most universal and the most common code used on medical devices.

Benefits for the hospital

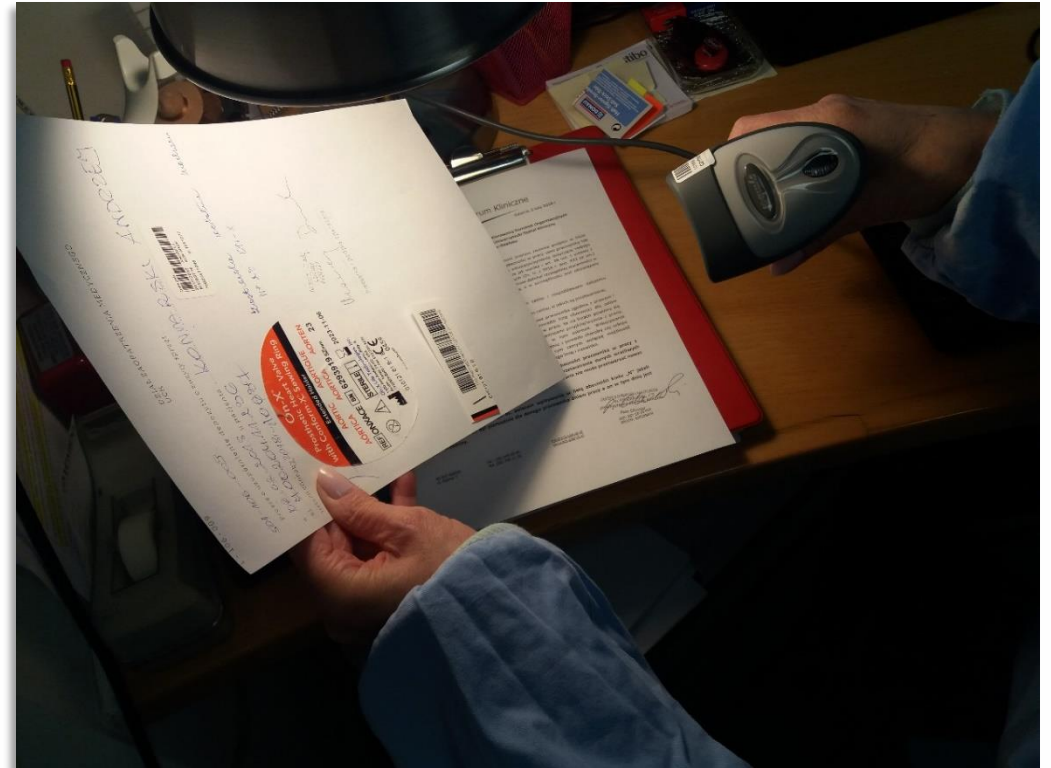
- Deposit warehouses for medical devices were created in subsequent places in the hospital;
- We currently have 15 different deposit stores;
- Inventory maintenance costs were reduced by 60%
- Thanks to the codes on the products, information about what was used in the treatment process is stored in the IT system.



Product scanning - an example from the Department of Cardiac Surgery

The team of perfusionists is responsible for keeping the deposit and dispensing the products for surgery:

- Stickers from products used for the patient are entered in the implantation protocol,
- The sticker with the patient's barcode is also attached to the protocol,
- We add the date of the procedure,
- The report goes to the medical secretary who enters data into the IT system by scanning a patient's and product's codes.



Product scanning - an example from the Department of Cardiac Surgery

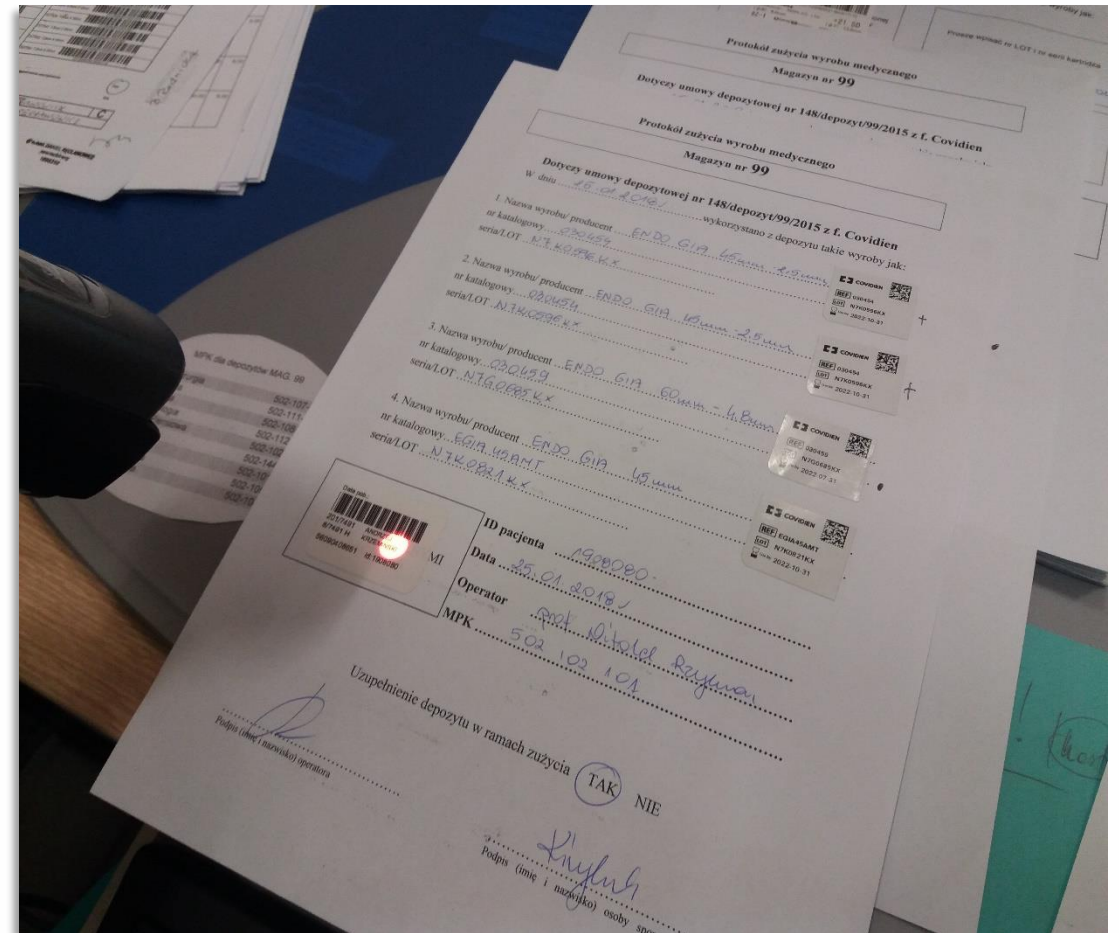
As a result, an out-of-print document is created in the CliniNET system, and thanks to HL7, this document goes to the Impuls warehouse system.

The data is processed on the order to the supplier based on the tender contract and is sent electronically in PDF for delivery. Then we are just waiting for the invoice ...



Product scanning - an example from the Operational Block

- There are barcodes on the labels attached to medical devices,
- in the operating room, stickers from products are applied to the implantation protocol,
- a sticker with patient data is attached - with a barcode,
- the medical secretary scans the codes to the Clininet system.



Product scanning - an example from the Department of Radiology

Products deposited in a warehouse



During the procedure or shortly after, protocols supported by radiology technicians are created



Product scanning - an example from Stimulation Cardiology

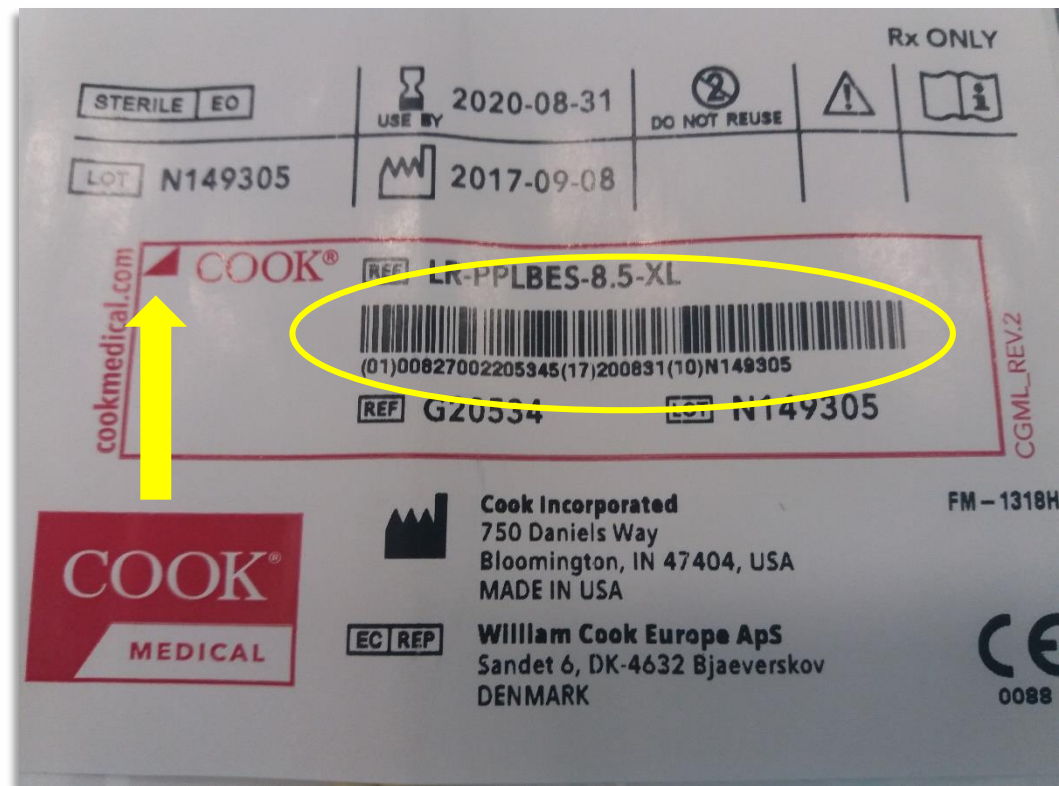
The products are in the treatment room

Nurses take care of deposit products

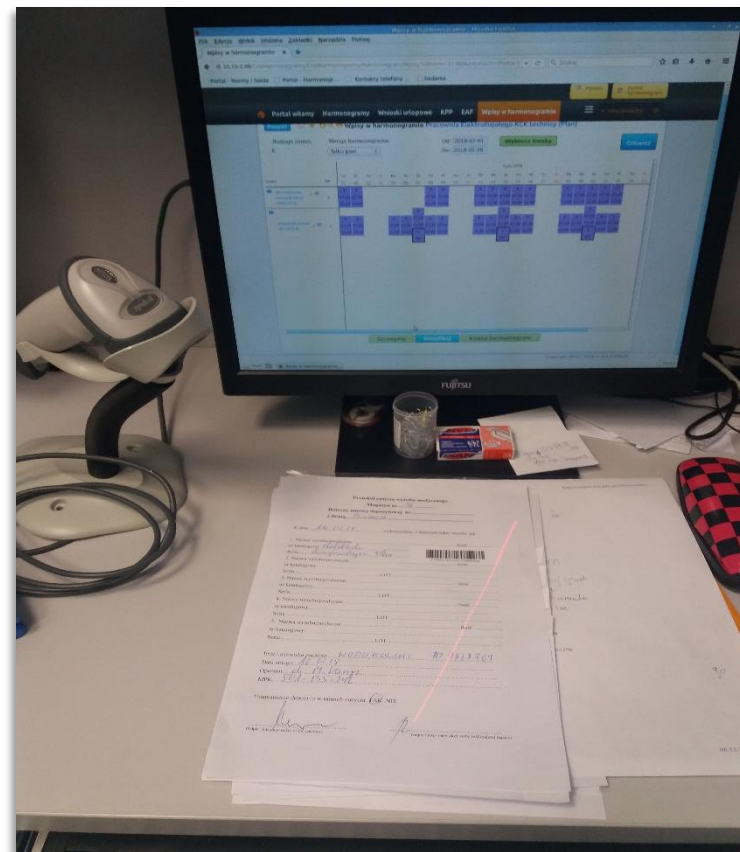


Product scanning - an example from Stimulation Cardiology

During the treatment, stickers from used products are attached to the patient's protocol



After the procedure, based on the protocol, the nurse scans the data to be entered to the IT system



Tenders for medical devices

We observed that not all products were marked in the GS1 standard.

So we decided to encourage Suppliers to place the GS1 standard on primary packaging of products by introducing additional points in tenders for products that are barcoded.

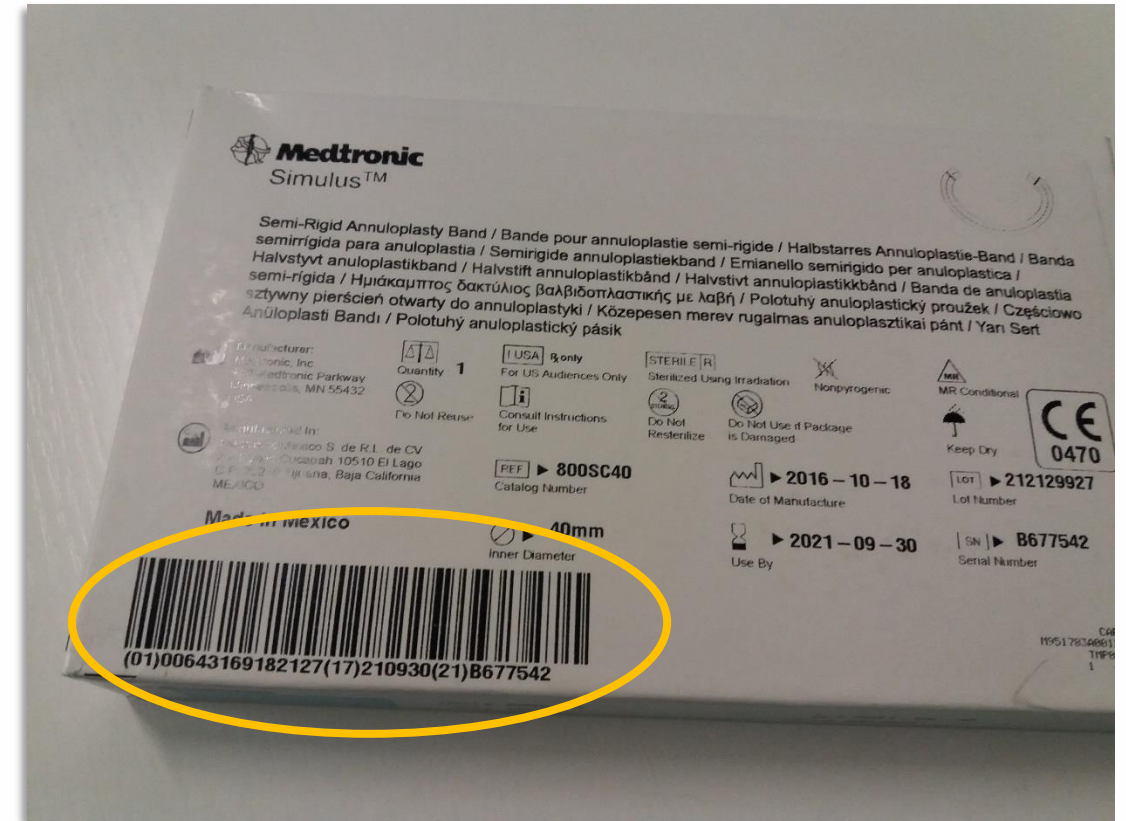
Tenders for medical devices

Quality in tenders is additionally scored:

- the product has a GTIN number in a barcode that can be scanned;
- the product has data such as Expiry date and batch number with the option to scan them;
- the contractor assigns the GTIN number to the product's catalog code;
- on the products there are stickers to be included in the documentation, preferably with the code in the GS1 standard.

Tenders for medical devices

For verification we request the suppliers to attach photos of product packaging or product samples.



Tenders for medical devices

Some suppliers, with the tender documentation, attach a list of product code numbers with GTIN numbers with the option to scan a number

We can enter data easily into the IT system.

Numer katalogowy	Kod GTIN	Srednica stentu	Dlugosc	GTIN14 (GS1-128)
RONYX35034X	00643169115215	3.50	34	(01)00643169115248
RONYX35038X	00643169115231	3.50	38	(01)00643169115231
RONYX40008X	00643169115224	4.00	8	(01)00643169115224
RONYX40012X	00643169115217	4.00	12	(01)00643169115217
RONYX40015X	00643169115200	4.00	15	(01)00643169115200
RONYX40018X	00643169115552	4.00	18	(01)00643169115552
RONYX40022X	00643169115545	4.00	22	(01)00643169115545
RONYX40026X	00643169115538	4.00	26	(01)00643169115538
RONYX40030X	00643169115521	4.00	30	(01)00643169115521
RONYX40034X	00643169115514	4.00	34	(01)00643169115514
RONYX40038X	00643169115507	4.00	38	(01)00643169115507
RONYX45012X	00643169115491	4.50	12	(01)00643169115491
RONYX45015X	00643169115484	4.50	15	(01)00643169115484
RONYX45018X	00643169115477	4.50	18	(01)00643169115477
RONYX45022X	00643169115460	4.50	22	(01)00643169115460
RONYX45026X	00643169115453	4.50	26	(01)00643169115453
RONYX45030X	00643169115446	4.50	30	(01)00643169115446
RONYX50012X	00643169115439	5.00	12	(01)00643169115439
RONYX50015X	00643169115422	5.00	15	(01)00643169115422
RONYX50018X	00643169115415	5.00	18	(01)00643169115415
RONYX50022X	00643169115408	5.00	22	(01)00643169115408
RONYX50026X	00643169115392	5.00	26	(01)00643169115392
RONYX50030X	00643169115385	5.00	30	(01)00643169115385

Za zgodność z oryginałem
Specjalista ds.
Beata Marczak
01.12.2012
Medtronic Polska
00-633 Warszawa
tel. 22 465 69 00 fax 22 435 03 00

Order to the supplier with the GTIN number of the product

Uniwer Uniwer Poczta 16-02-20 X Roszcze Użyj lub (49) 432 Buy QR Wirtuali Kuchni file W Global Scandii Uniwer Poczta

https://raguel.uck.gda.pl/SOGGo/so/76753/Mail/0/folderINBOX/36351/2/16-02-20 Szukaj

1 z 1 Skala automatyczna

75792 Gdańsk, dnia 16.02.2018

MZDOS/04/00001627/2018/ Strona 1/1

Wniosek o realizację zamówienia z umowy nr: 159-12/D-ZP/PN-M-ZM/2017 zawartej od dnia 31-01-2018 do dnia 30-01-2020

Kupujący UNIwersyteckie Centrum Kliniczne 80-952 Gdańsk ul. Dębinki 7 POLSKA NIP 957-07-30-409 REGON:000288640 DZIAŁ ZAOPATRZENIA MEDYCZNEGO Telefon:(58) 349 20 31 lub (58) 344 38 47 Fax:(58) 349 26 73 Adres dostawy: Dębinki 7, budynek 9 Dział Zaopatrzenia Medycznego	Dostawca Biotronik Polska Sp. z o.o. 61-655 Poznań Murawa 12-18 POLSKA NIP 779-21-21-615 Telefon:061 868-14-65
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Data zamówienia:16.02.2018
Sposób płatności:Przelew (60 dni)

Prosimy o dołączenie naszego numeru zamówienia z nagłówka.
Zamawiający: MAGAZYN MEDYCZNY

Lp.	Nazwa / Ilość zamówiona	Jm	Cena netto	Stawka VAT	Cena brutto	Wartość brutto
1	Koszulka zabiegowa zbrojona Fortress 4F dł.45 358814/ ContractMedical					
	2,000	szt	390,00	8,00	421,20 PLN	842,40 PLN
	4251244500013					
Razem:		2,00	szt	Razem:		842,40 PLN

Stickers with and without GS1 standard

Micro Catheter

A	2.8 F .94 mm	B	145 cm
C	2.8 F .94 mm	D	.027 in .69 mm
E	150 cm	F	2.8 F .94 mm
G	.67 ml Dead Space Volume	H	.021" (.53mm) Max. Guidewire .053" (1.35mm) compatible Guiding Catheter I.D.

70360-001 Rev. 06/07

Rebar™-027 Micro Catheter

Microcathéter
Mikrokatheter
Microcatetere
Micro Catéter
Mikrokateter
Microkatheter

Microcateter
Mikrokatetri
Mikrokateter
μικροκαθετήρας
Mikrokatétr
Mikrokateter

Микрокатетер
Mikrocewník
Mikro Kateter
Mikrokateter
Mikrokatétr
Microcateter

ма이크로 카테터
جهاز لقسطرة دقيقة

REF 105-5082-145 LOT A543215

2019-10-21 CONTENTS 1X 1X

Rebar™-027 REF 105-5082-145 LOT A543215
(01)00847536026896(17)191021(10)A543215

Rebar™-027 REF 105-5082-145 LOT A543215
(01)00847536026896(17)191021(10)A543215

Rebar™-027 REF 105-5082-145 LOT A543215
(01)00847536026896(17)191021(10)A543215

STERILE EO 2 Rx ONLY

Micro Therapeutics, Inc.
d/b/a ev3 Neurovascular
9775 Toledo Way
Irvine, CA 92618 U.S.A.
Phone: +1-949-837-3700
Fax: +1-800-637-9775

EC REP Medtronic B.V.
Earl Bakkenstraat 10
6422 PJ Heerlen
The Netherlands

Boston Scientific
Dynamic XT™
2/6/2mm x 6F (2.00mm)
GTIN 08714729877622
REF M0042011020
LOT 21366737

Boston Scientific
Dynamic XT™
2/6/2mm x 6F (2.00mm)
GTIN 08714729877622
REF M0042011020
LOT 21366737

Boston Scientific
Dynamic XT™
2/6/2mm x 6F (2.00mm)
GTIN 08714729877622
REF M0042011020
LOT 21366737

90700256-01
Internal BSC Bar Code
91003995-02A

10108714729877622 6S1

17120110810121366737 6S1

CE 0086

Tenders for medical devices

The effects of introducing additional scoring for the GS1 standard on a single package of the medical device in the tender:

1. Educating market participants;
2. Increasing the number of suppliers using such solution on their products;
3. More efficient logistics of the process;
4. Quick identification of products, whether the product evaluated in the tender is actually the one that reaches us with the delivery.

Apparently one standard but there are some problems ...

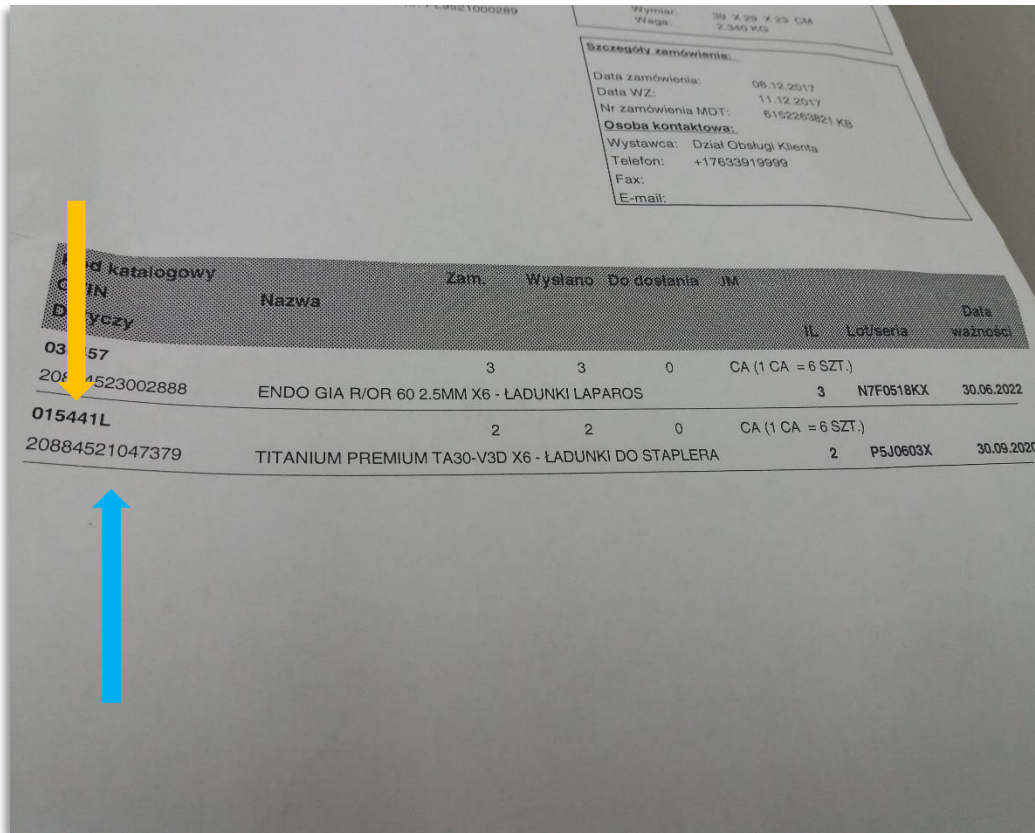
The basic problem that currently exists are products packed in collective packagings.

To reach the codes from the inner packaging, you need to open the packaging.

Delivery documents often do not include GTIN number from single packages.

Apparently one standard but there are some problems ...

Delivery document



Wymiar: 39 x 29 x 23 CM
Waga: 2.340 KG

Szczegóły zamówienia:

Data zamówienia: 08.12.2017
Data WZ: 11.12.2017
Nr zamówienia MDT: 6152263821 KB
Osoba kontaktowa:
Wystawca: Dział Obsługi Klienta
Telefon: +17633919999
Fax:
E-mail:

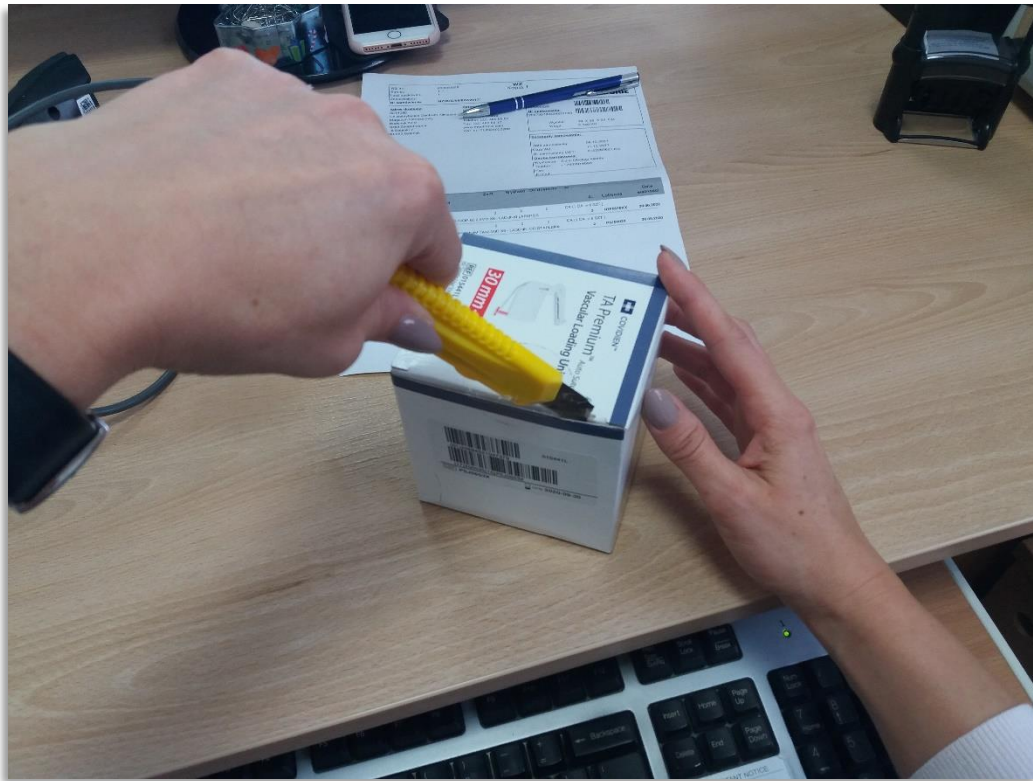
Identyfikator katalogowy	Nazwa	Zam.	Wysłano	Do dostania	JM	IL	Lot/seria	Data ważności
03157		3	3	0	CA (1 CA = 6 SZT.)	3	N7F0518KX	30.06.2022
20884523002888	ENDO GIA R/OR 60 2.5MM X6 - ŁADUNKI LAPAROS							
015441L		2	2	0	CA (1 CA = 6 SZT.)	2	P5J0603X	30.09.2020
20884521047379	TITANIUM PREMIUM TA30-V3D X6 - ŁADUNKI DO STAPLERA							

Packaging of 6 pieces of the product



Apparently one standard but there are some problems ...

You need to open the package



To scan a GTIN with 1 piece of the product



Apparently one standard but there are some problems ...

Scanning a GTIN number allows you to search for your order and product in IT system



Scanning the DataMatrix code allows you to enter details, in addition to the GTIN, expiration date and the batch number



Apparently one standard but there are some problems ...

In the warehouse it is better and easier to work on collective packaging, but the medical staff needs data from a single item.

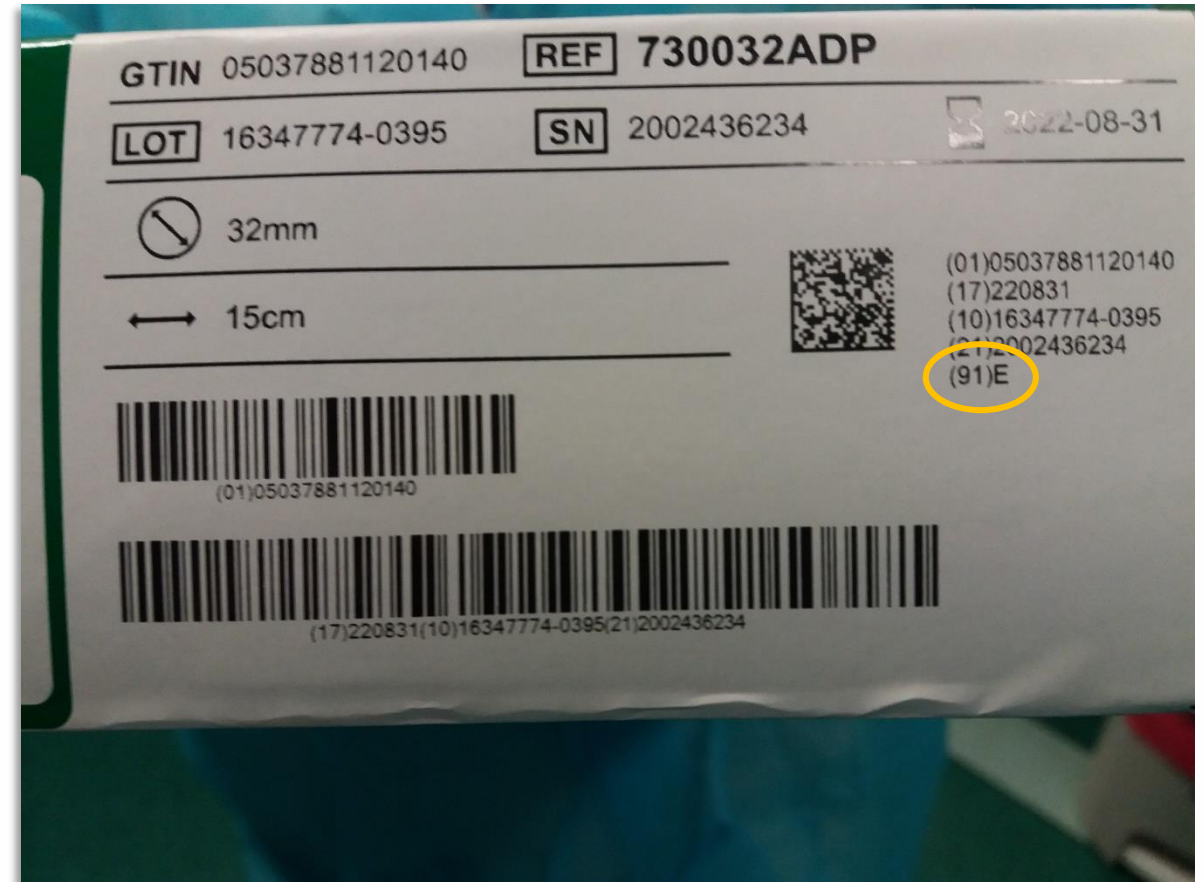
In collaboration with our largest suppliers and developers of our IT system we are currently looking for a better solution .



Apparently one standard but there are some problems ...

Some manufacturers or suppliers place several types of codes on their products that differ in their content.


Depositors must check which code is entered into the IT system, which is a real nuisance.



Other bar code applications

Together with our suppliers,
we have developed new
treatment protocols with the
GTIN number for
neurosurgical or orthopedic
implants.

Creating orders is faster and
fewer mistakes are made.

Data pob.: 

Medtronic
Medtronic Poland Sp. z o.o.
ul. Polna 11
00-633 Warszawa
tel 22 4656900
fax 22 4656917

SOLERA SEXTANT
Centrum Medycyny Inwazyjnej
Ul. Smoluchowskiego 17
Gdańsk

PRĘTY WYGIĘTE KOD	KOD GTIN 14 (GS1-128)	ZUŻYTA ILOŚĆ
1475005030 30mm CoCh	(01)00613994609588	
1475005035 35mm CoCh	(01)00613994609595	
1475005040 40mm CoCh	(01)00613994609601	
1475005045 45mm CoCh	(01)00613994609618	
1475005050 50mm CoCh	(01)00613994609625	2 nt
1475005055 55mm CoCh	(01)00613994609632	
1475005060 60mm CoCh	(01)00613994609649	
1475005065 65mm CoCh	(01)00613994609656	
1475005070 70mm CoCh	(01)00613994609663	
1475005075 75mm CoCh	(01)00613994609670	
1475005080 80mm CoCh	(01)00613994609687	
1475005085 85mm CoCh	(01)00613994609694	
1475005090 90mm CoCh	(01)00613994609701	
1475005095 95mm CoCh	(01)00613994609708	

SRUBY WIELOKĄTOWE KOD	KOD GTIN 14 (GS1-128)	ZUŻYTA ILOŚĆ
54840015535 5.5mm x 35mm	(01)00613994592811	
54840015540 5.5mm x 40mm	(01)00613994592828	
54840015545 5.5mm x 45mm	(01)00613994592844	4 nt
54840015550 5.5mm x 50mm	(01)00613994592132	
54840016535 6.5mm x 35mm	(01)00613994592378	
54840016540 6.5mm x 40mm	(01)00613994592385	
54840016545 6.5mm x 45mm	(01)00613994592392	
54840016550 6.5mm x 50mm	(01)00613994592408	
54840016555 6.5mm x 55mm	(01)00613994592415	
54840017530 7.5mm x 30mm	(01)00613994593382	
54840017535 7.5mm x 35mm	(01)00613994593375	
54840017540 7.5mm x 40mm	(01)00613994593368	
54840017545 7.5mm x 45mm	(01)00613994593351	

BLOKERY KOD	KOD GTIN 14 (GS1-128)	ZUŻYTA ILOŚĆ
5440430	(01)00613994790729	4 nt

DRUTY PROWADZĄCE	KOD GTIN 14 (GS1-128)	ILOŚĆ
8670001 -DRUT TĘPY	(01)00721902293115	2 nt
8670002 -DRUT OSTRY	(01)00721902293139	

Proszę o uzupełnienie asortymentu: ☒ TAK ☐ NIE

MPK 502-107-101

The effect of scanning codes from medical devices

- Traceability of products at every stage of "hospital stay",
- Traceability of products after implantation - we know who has been given what,
- Reducing errors when entering data into the system,
- Reduction of errors when entering data about the product after the procedure (the right patient - the right product),
- The solution is cheap and doesn't generate errors, data loss, mistakes,
- Patient safety.

And what's next?

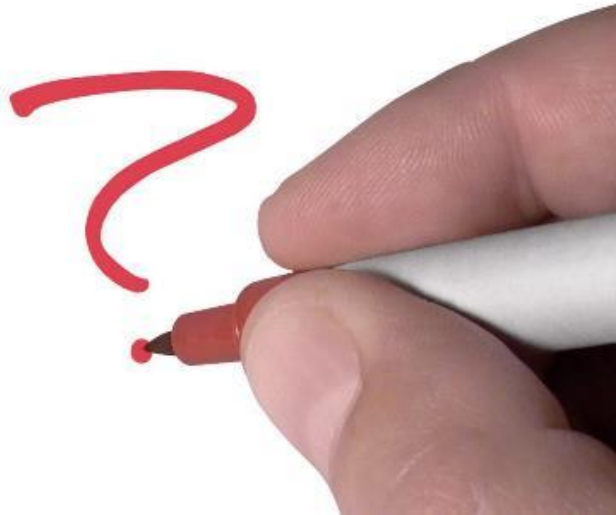
In the near future, we would like to:

- launch an electronic data exchange in the field of e-catalogs with the transfer of GTIN numbers and other necessary information,
- purchase and implement a modern WMS system that allows the improvement of receptions and issues based on mobile storage service,
- simplify and shorten the paths in handling individual warehouse processes,
- implement electronic data exchange based on orders, delivery and invoice notice (EDI).

Thank you for your attention



HPAC Questions and contact details



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