



# **INSTRUMENT TRACKING IN THE UNIVERSITY HOSPITAL OF SÃO PAULO**

**JOÃO FRANCISCO POSSARI**  
Nurse Director of Internal Patients

**Instituto do Câncer do Estado de São Paulo  
“Octávio Frias de Oliveira” - ICESP**

**March 17th, 2010**



## Instituto do Câncer do Estado de São Paulo – ICESP “Octávio Frias de Oliveira”

- **OSS – Social Health Organization, created by the State Government in partnership with the FFM;**
- **Be the largest specialized hospital in the cancer treatment of the Latin America;**
- **ICESP is the result of R\$ 270 million of investments in works and equipment;**
- **Opened in May 6, 2008;**
- **Full operation in December 2010**



# THE QUALITY MUST BE PERCEIVED BY THE USER...



***“Provide multidisciplinary assistance with high complexity of excellence to the cancer patients and collaborate for the diffusion and improvement of the medical knowledge on cancer ”***

***Mission ICESP – FMUSP SES 2008***

# PRODUCTIVITY – ICESP – TOTALLY IMPLANTED

## Operation Room

- 15 OR – Inpatient surgeries
- 7 OR – Ambulatory surg.

## Surgeries

- 16.000 surgeries/year
- 1.300 surgeries/month

## CSSD - Stock

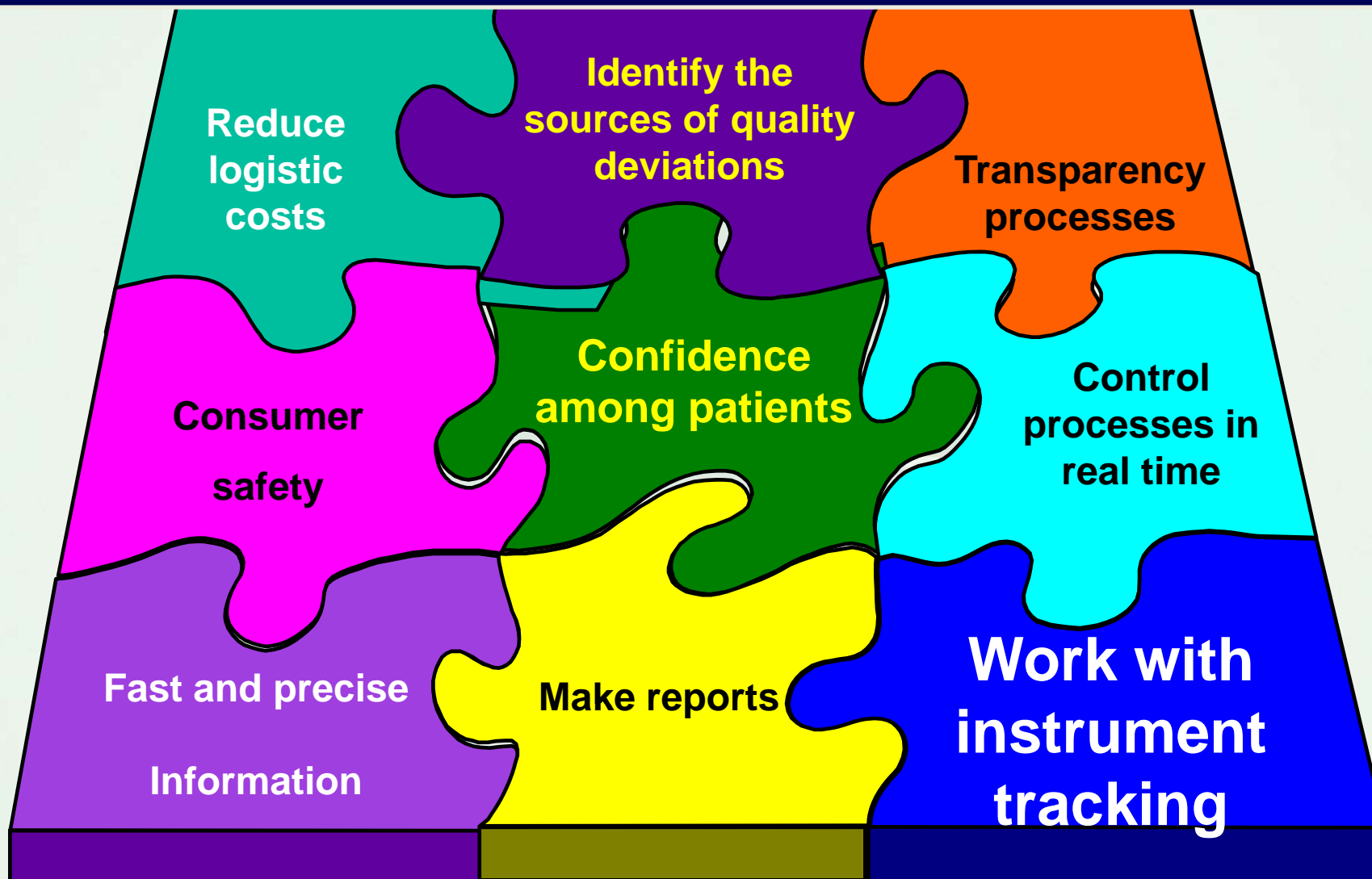
**Surgical Instruments – 23.000 pieces**

– 388 sets

**Investments – 17 million R\$ (ca. 6.8 Mio. €)**



# DATA MANAGEMENT & INFORMATION SYSTEM IN THE CSSD



**Support to the administrative action!!!!**

**Required**

**Characteristics**

**System allows expansion  
(flexibility)**

**System controls all  
process steps**

**System can get information  
in any point of the hospital**

**System emits reports**

**There is support to the  
system and training**

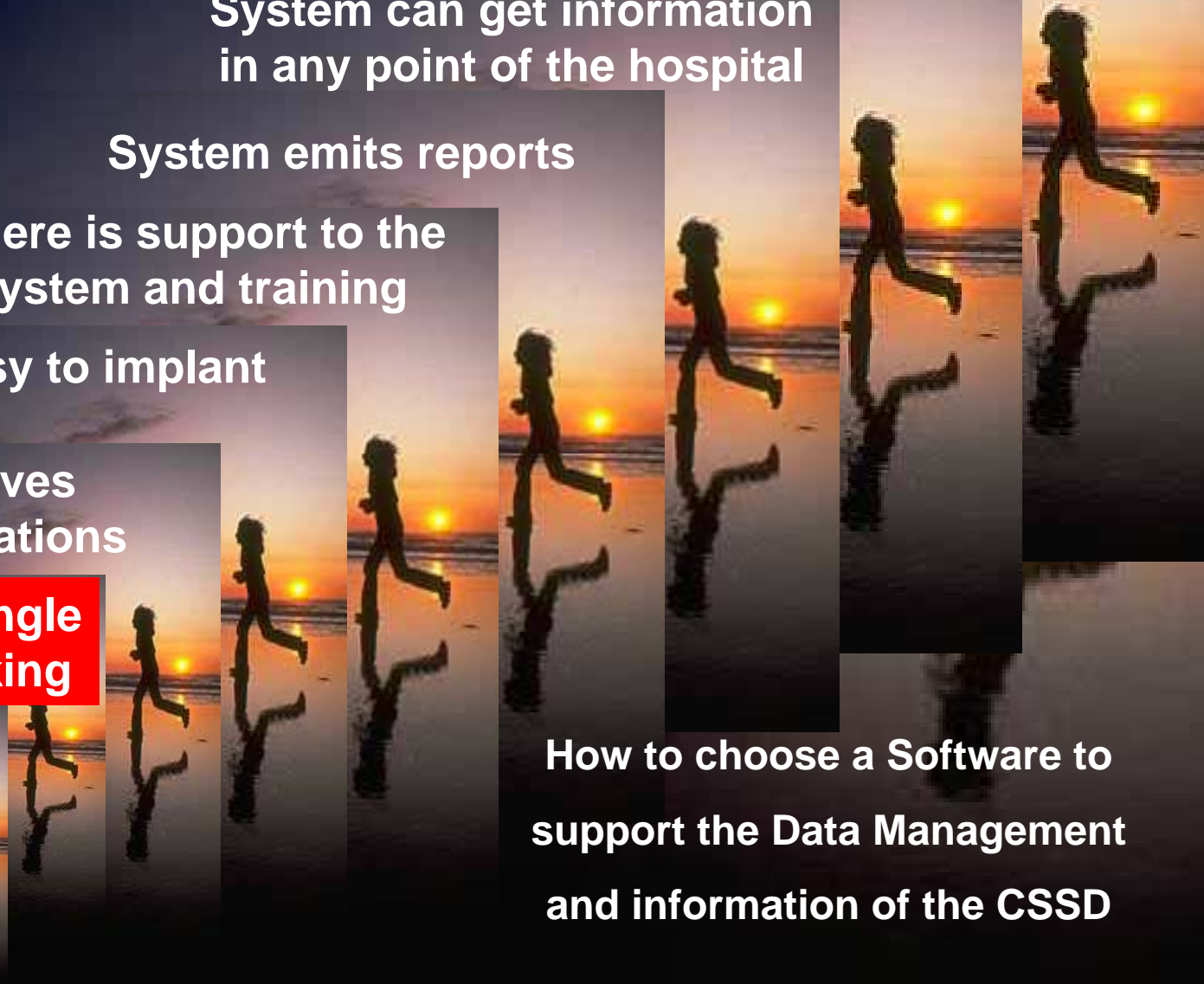
**It is easy to implant**

**System gives  
recommendations**

**Possibility for single  
instrument tracking**

**Instacount  
® Plus  
Software**

**How to choose a Software to  
support the Data Management  
and information of the CSSD**



# Why did ICESP implement the tracking of surgical instruments?

- Inventory management;
- Control the loss of pieces;
- Produce instrument sets correctly;
- Provide fast and precise information in real time;
- User demands;
- Legal Impositions.

- Control the repair of pieces;
- Satisfaction of the users;
- Patient safety;

“they want to know where do their materials come from and how it is reprocessed”

Brazil. RE nº 2606, de 11/08/2006 - reprocessing  
Brazil. RDC nº 8, de 27/02/2009 – microbacterial infect.



DataMatrix



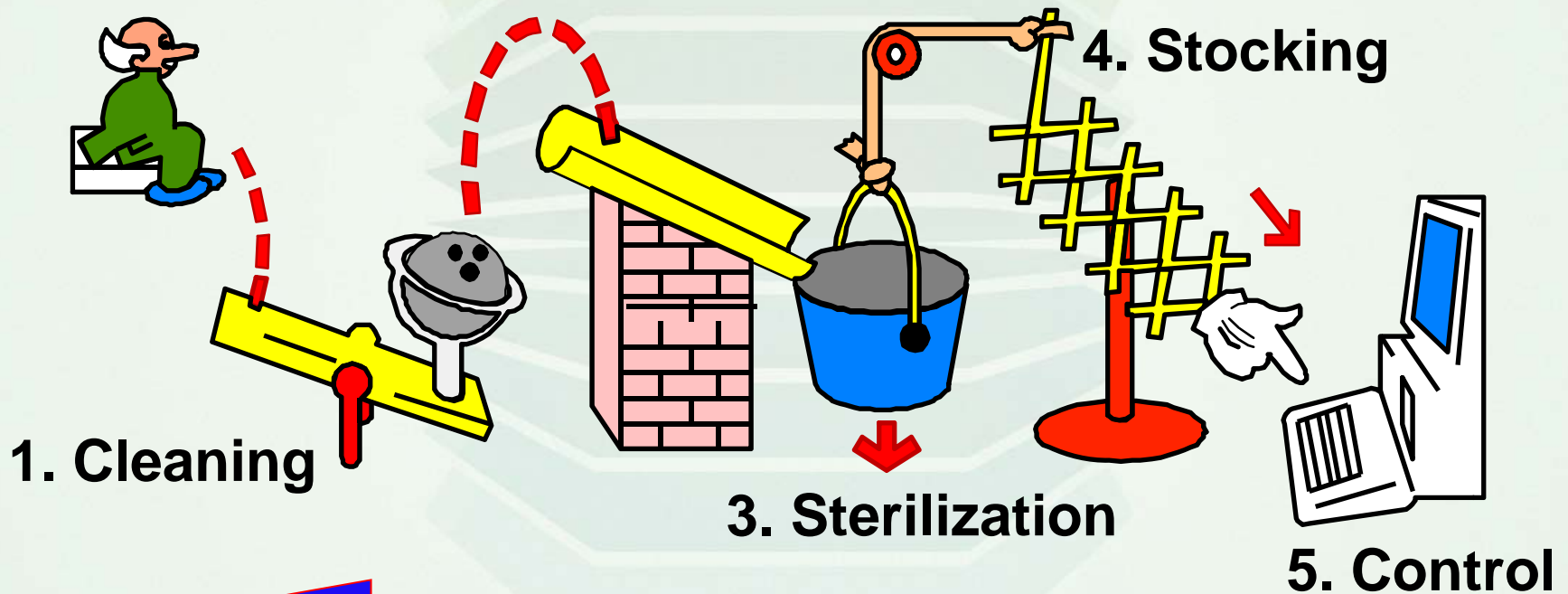
# CHAIN OF TRACEABILITY

CSSD

- From origin to the user -

OR

## 2. Preparation and Packing



OR

- From the user to the origin -

CSSD



## DECONTAMINATION AREA



## PREPARE AND PACKAGING AREA



## BATCH LOAD AREA



## BATCH RELEASE AND STOCK AREA



## ASSEMBLING OF OR-CARTS



## OPERATING ROOMS



# ASSEMBLING OF INSTRUMENT SETS



1. Open the program
2. Read each instrument with datamatrix;
3. Set with 50 pieces – 20 minutes – the time varies from person to person - the time of contact with the system;
4. Recount the quantity of pieces - activity created at the ICESP;
5. Emit the count sheet;
6. Print the identification label of the production – unique number



DataMatrix



# Reports – Repair orders for instruments

MBosteos

## Pedido de Reparo

Nº pedido: 000003-090624-R Roge

Data: 24/06/2009

Pessoa: Rogério H. de Sousa

**Unique instrument identification code (Datamatrix)**

Pos.	Qtde.	Item	Fabricante
1	1	BC581R Tesoura Mayo Harrington Crv.230Mm	Aesculap
N/S:		BC581R-AT0QF Tesoura trincada - Cx. Prostate Ciste 1A	
2	1	BD511R Pinça Adson Fina 1X2D.120Mm	Aesculap
N/S:		BD511R-ATB5Q Cx CA AP Dig. 3A - Ponta torta	
3	1	BD052R Pinça Anat.250Mm	Aesculap
N/S:		BD052R-AT1H8 Cx Prostate ciste 01 - polimento	
4	1	FB404R Pinça Debakey .2,0Mm 240Mm	Aesculap
N/S:		FB404R-AT2HM Cx prostate ciste 01 - polimento	
5	1	BH135R Pinça Arterial Kelly Crv.140Mm	Aesculap
N/S:		BH135R-AT7UG Cx. prostate ciste 01 - Polimento	

5 Posições

5 Itens

# Reports – Missing items

Período: 16/06/2009 - 30/06/2009

Ordenado por: LostDateTime

25/06/2009

Página 1 de 1

## Rastreabilidade de itens perdidos

### Unique instrument identification code (Datamatrix)

Nº item	Descr. item	Qtde.	Preço	Caixa	Ausente em	em	por
Item N/S		Unidade	Total	Centro custo	Ponto controle		
BJ103R	Pinça Diss.Gemini 200Mm	1	0,00	0,00 CPL FIGADO 2, C-FIGADO, 2	16/06/2009	07:46	kati
BJ103R-AT0EY				CME	Estação de montagem		
BH111R	Pinça Mosquito Halsted Crv.125Mm	1	0,00	0,00 CPL COLON-RETO 2, C-CORETO, 2	24/06/2009	12:05	Roge
BH111R-ATAHH				CME	Estação de montagem		
<b>Total:</b>		<b>2</b>	<b>0,00</b>				

**No Instrument  
loss**

**Surgical  
Center**



## At the moment

1. Count the instruments in the OR;
2. During the surgery – instrumentation nurse handles the table;
3. Count the instruments at the end of the surgery;
4. CSSD employee collects and forwards the surgical instruments to CSSD;
5. Cleaning and reaccommodation of the OR (average time 25 min.)

## Important points

1. Instrumentation nurse - nurse team;
2. Identification of the garbage bag with the OR number – the garbage is retained locally for 180 minutes;
3. Permanent Training of the nurse team.

## Next Step

1. Point at the OR – instrument tracking (Data Matrix)

**No Instrument  
loss**

**Surgical  
Center**



## **Demonstrative**

**January 2009 to february 2010**

- 1. Surgeries realized – 3.835 surgeries;**
- 2. Surgery time average – 3,3 hours;**
- 3. Set quantity/surgery = 2 sets;**
- 4. Instruments/sets average = 80 pieces;**
- 5. Amount of pieces handled in 14 months = 613.600 pieces;**
- 6. Loss of pieces – reduced to only 26 pieces**
- 7. Stock ~23.000 pieces – 388 sets.**



**DataMatrix**







## Conclusion

The system and single tracking of instruments permits the fast and regular overview of productivity and quality indicators for the sterilization process, facilitating the management of the CSSD.

Furthermore, it provides more transparent data, ensuring the reliance of the entire process and patient safety.

The success of implementation of a Management System in the CSSD is strongly influenced by the culture of the organization.

## Acknowledgements

Diretoria Geral de Assistência

Diretoria de Tecnologia da Informação

Diretor da Engenharia e Infraestrutura

Diretoria Financeira, Planejamento e Controle

Diretoria Administrativa

Diretoria Executiva

**Pelo Apoio e Incentivo no ICESP**

***MUITO OBRIGADO!!!***

[joao.possari@icesp.org.br](mailto:joao.possari@icesp.org.br)





## The coding of single instruments by BBraun Aesculap

- 17. March 2010

Referent: Markus Weinert

## AESCULAP – A DIVISION OF B.BRAUN

- 1998 : Aesculap AG  
has been integrated as  
**Sparte Aesculap**  
to **B. Braun**  
**Melsungen AG.**

- sales 2008:  
1.098,2 Mio € (+ 7,3%)

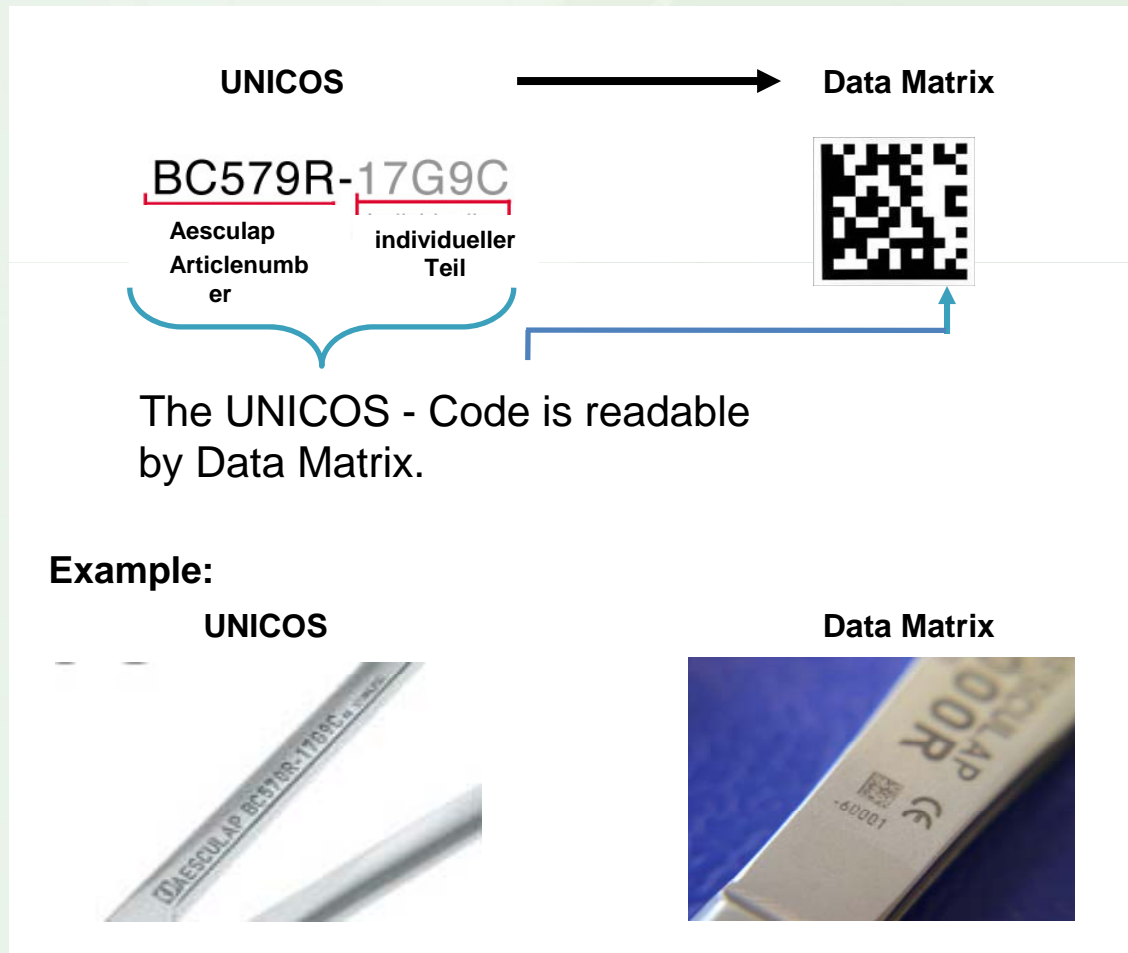
- Area - Investment 2008:



MEDICINA  
USP

GOVERNO DO ESTADO DE  
SÃO PAULO  
TRABALHANDO POR VOCE

# OUR ACTUAL SOLUTION FOR SINGLE TRACKING OF INSTRUMENTS



# AT THE MOMENT



BC579R-17G9C  
AESCULAP Artikelnummer | Individueller Anteil

12-13 symbols,  
alphanumeric



X-Module 0.15 mm

2.5 mm



Symbolsize 16  
(serial/column)

2.5 mm

# GS1 Healthcare DECISION OF 1

Official press release of AIDC: 21.01.2010

**PRESS RELEASE:** GS1 Healthcare announces new standard for patient safety and supply chain improvements  
Enables further effective use of bar codes, RFID and traceability systems in healthcare worldwide

GS1 Healthcare, the global standards organization, today announced the publication of the GS1 standard for the Automatic Identification and Data Capture (AIDC) of medical products. This standard provides industry stakeholders with a common set of data and data carriers for medical products at every packaging level, including specific guidance on the design and use of:  
- Appropriate Product Identification Keys  
- Additional product and production data, for example; lot number, expiration date, and/or serial number (where applicable)  
- Data carriers including; linear bar codes, two-dimensional bar codes and Radio Frequency Identification (RFID) tags

**sGTIN:**



**sGTIN with max. 28 symbols on 2,5x2,5mm**

**Serialnumber – how much ?**

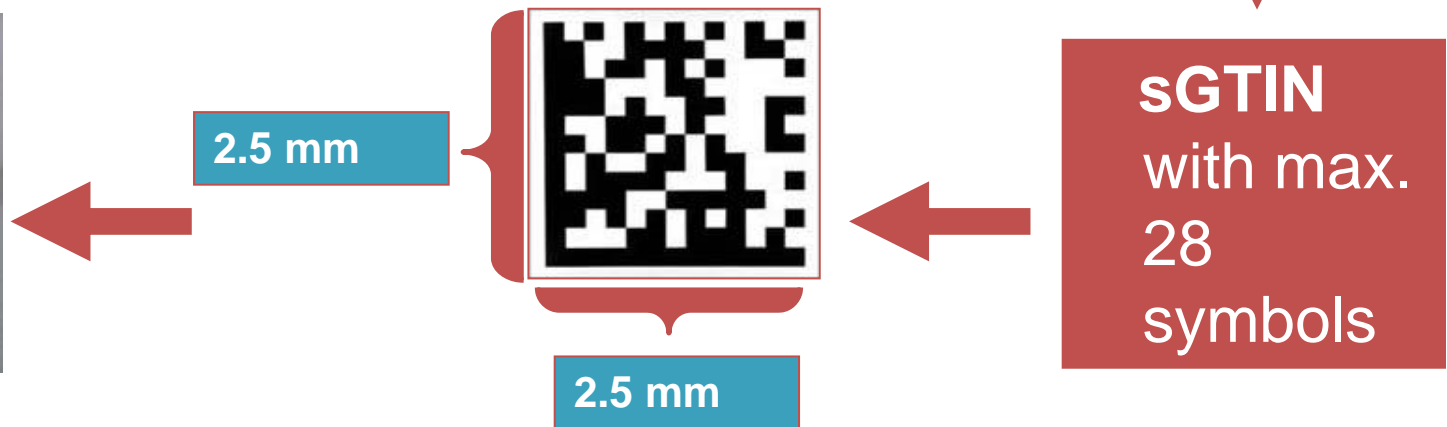
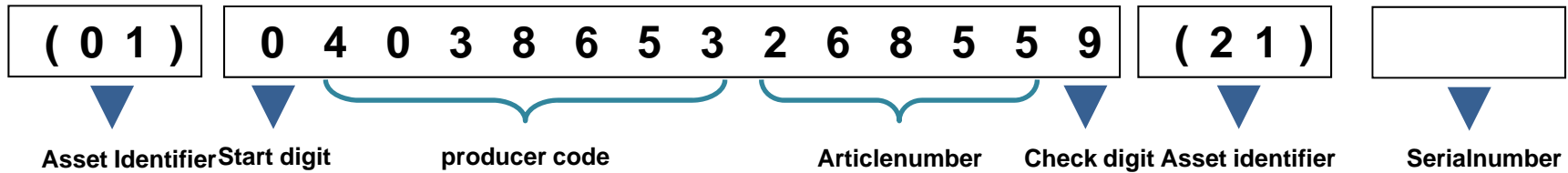
At Aesculap:  
6 symbols alphanumeric  
OR  
10 symbols numeric



# Decision sculap

Decision of February 2010

sGTIN:



FIRST TRIAL IN THE FIELD OF OPTICS!!!





Thank you very much for your attention