



## DIGITALIZACIÓN EN LA CE SISTEMA MÓVIL DE GESTIÓN DE INSTRUMENTAL

Davide D'Aprile

Gerente Proyectos Hospitalarios / SAM-Specialist – ESP, POR, LATAM

## THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley



Top 5 Publicly Traded Companies (by Market Cap)

● Tech
 ● Other





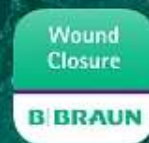
App Catalog



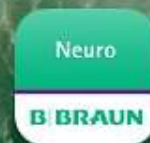
BrandGuideApp



Quick Check



Catalogue



Neuroendo



Surgical



B.BraunBarco...



AESCULAP



CountSheetGe...



TOM



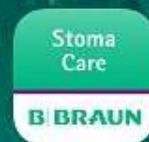
Aesculap



bbraun.com



EasyguideExpert



StomaCareGlo...



Global Products



Productos



3D Technology



Acculan 3TI

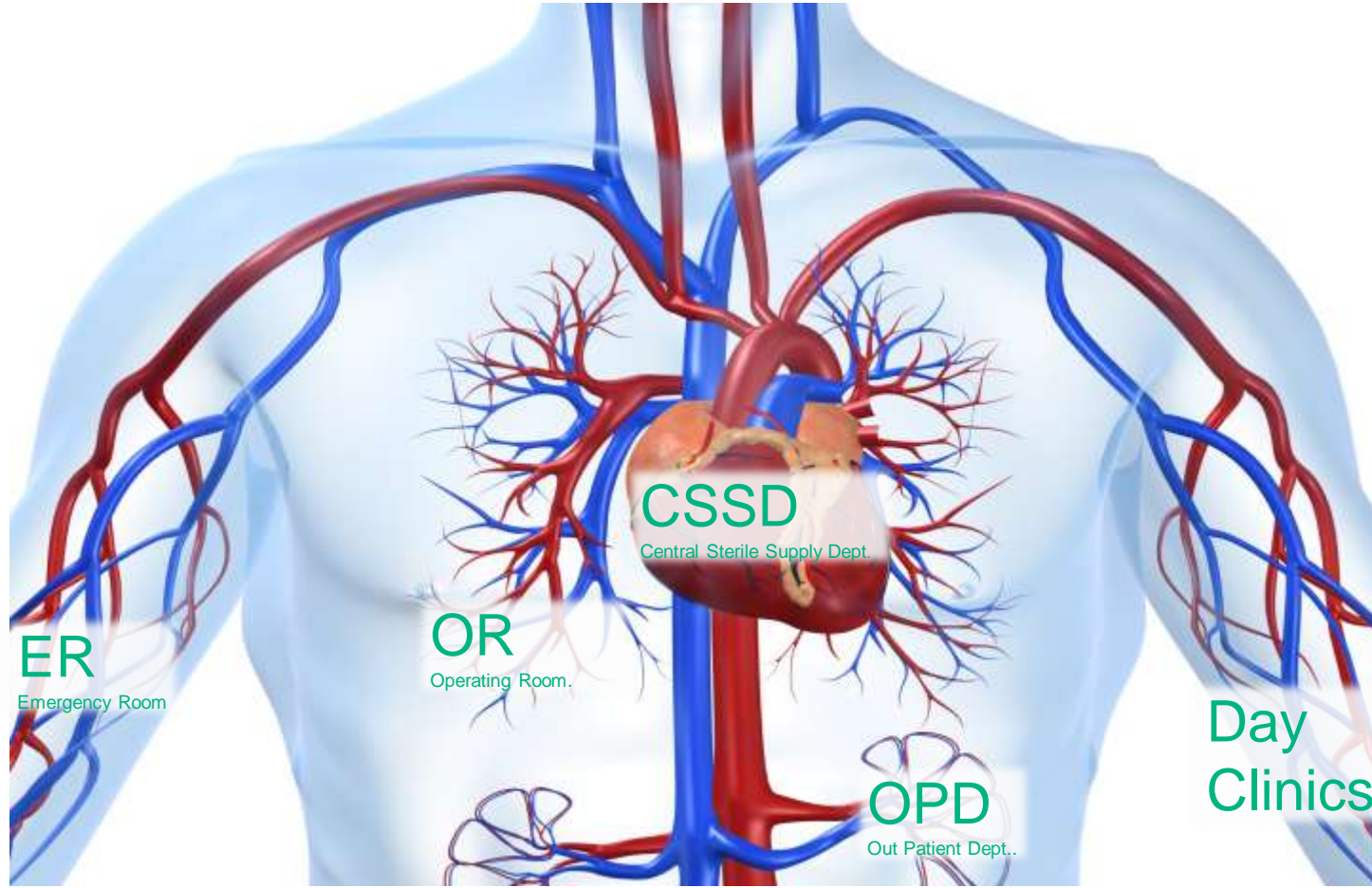


SBO

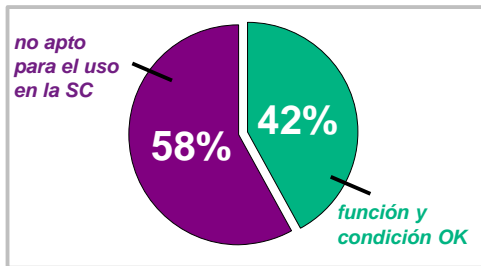


OPM Platform

## Importancia de un proceso estéril adecuado



## Condición de los Instrumentos



### Desafíos en España:

- Sólo el **42%** de todos los instrumentos son **aptos para el uso** en la SC
- Más del **30%** de todos los instrumentos están afectados por **corrosión importante**

### Impacto:

- **Prolongación del tiempo en el Quirófano** debido a instrumentos no funcionales
- Aumento del **déficit de inversión** en los activos quirúrgicos
- La **corrosión** existente **amenaza** las **inversiones futuras**

### Referencias:

**Estadísticas de Aesculap** basadas en 138.000 instrumentos analizados en mas de 20 hospitales españoles diferentes

# Problema

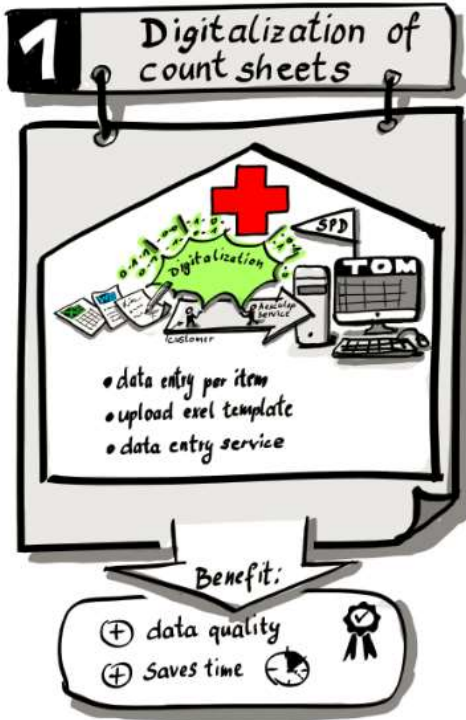


- no tienen establecido un IMS
- inventarios en excel o word
- crea mucho trabajo y papel
- errores durante el montaje de sets
- solución no actualizada

iOS app

TOM  
iOS app

# TOM consiste de 3 componentes



Aplicación en el ordenador

Supervisor de la CE



aplicación iOS

Personal de la CE





# Digitalización de los listados

The image shows a screenshot of a web application interface for 'MOSAIC'. The browser address bar displays the URL: <https://flpnc-ac87455f5.dispatcher.hana.ondemand.com/sites?siteId=12ec5a64-ae46-49fb-b725-9b60a479933d#Shell-home>. The user is identified as 'Matthias Värken'.

The main navigation menu includes: Self Service, Count Sheet Generator, SAM, Optimization, Others, Aesculap Customers, Aesculap Sales, User Management, and Smart Business Alerts.

The 'Count Sheet Generator' section is highlighted with a red box and contains three tiles:

- New Count Sheet**: Represented by a document icon with a checkmark and a stack of papers.
- Count Sheet Overview**: Represented by a document icon with a list.
- Administrate Countsheets**: Represented by a gear icon.

Below this section, the 'SAM' section is visible, containing three tiles for 'QuickCheck-App TEST' with various document and warning icons.


# Digitalización y Carga de los datos maestros

Newco Siebliste

https://fprwec-ac8745515.dispatcher.hana.ondemand.com/sites/?siteId=12ec5a64-ae46-488b-b725-9bb0947f913d#newcountsheet-Display&/SetHeader/295723

### Add Items

Selected Set: ATE Sieb I, NOSE - HNO

Instrument Image: 

Item Code:	Quantity:	Min. Quantity:
bh111r	<input type="text" value="Quantity"/>	<input type="text" value="Min. Quantity"/>
BH111R - Aesculap	Item Description	
BH111R - Downs Surgical	<input type="text" value="Item Description"/>	
BH111R - YDM Corporation	Upload disassembling instructions:	
BH111R - B. Braun Medical Ltd	<input type="text"/> <a href="#">Durchsuchen ...</a>	
BH111RS - Aesculap	Upload care and maintenance instructions:	
	<input type="text"/> <a href="#">Durchsuchen ...</a>	

[Add](#)

Artikel (45)

Position	Artikelnummer	Hersteller	Produktbereich	Produktgruppe	Produkttyp	Benötigte Anzahl	Mindestanzahl	Artikelbeschreibung	Action
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El servicio de la entrada de los listados (Excel) lo hace B Braun para usted

# Gestión de los inventarios

The screenshot displays the MOSAIC web application interface. At the top, the browser address bar shows the URL: <https://fipnwc-ac87455f5.dispatcher.hana.ondemand.com/sites?siteId=12ec5a64-ae46-49fb-b725-9b60a479933d#Shell-home>. The user profile 'Matthias Wårken' is visible in the top right corner.

The main navigation menu includes: Self Service, Count Sheet Generator, SAM, Optimization, Others, Aesculap Customers, Aesculap Sales, User Management, and Smart Business Alerts.

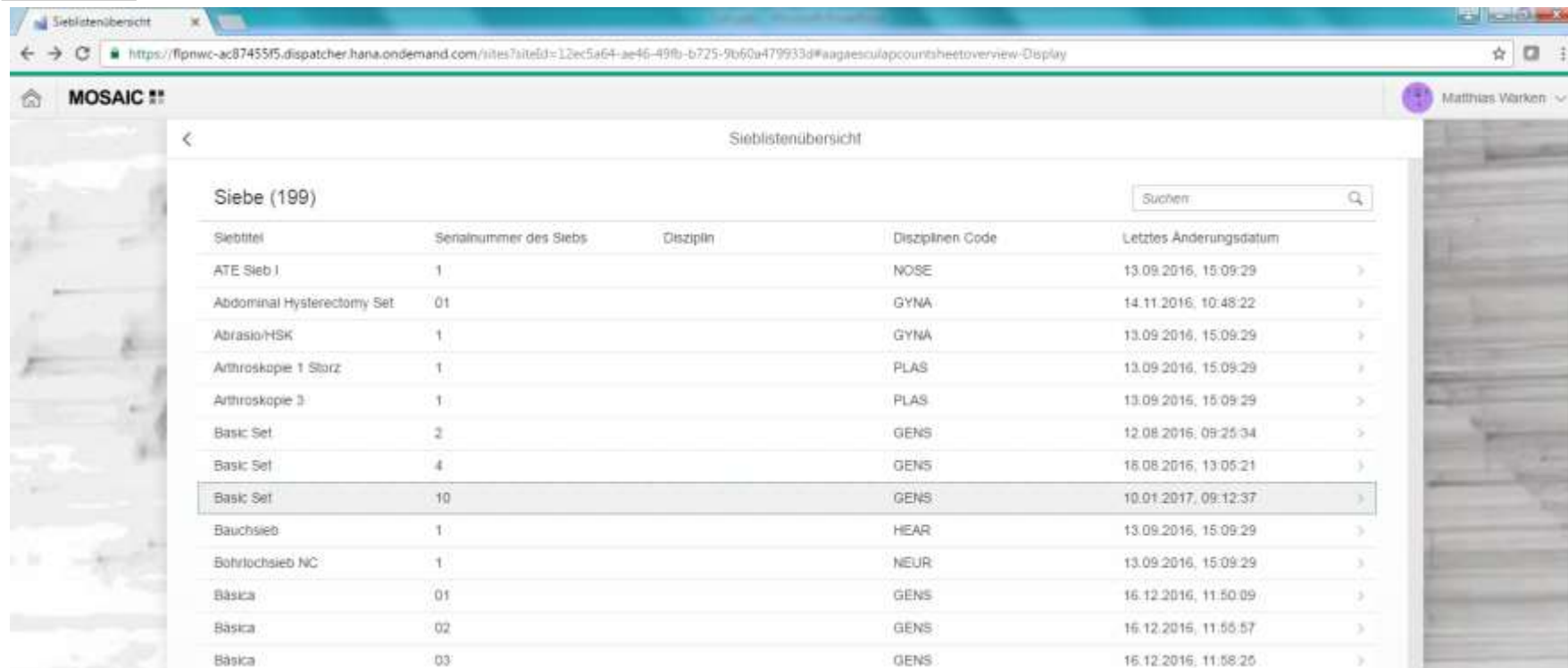
The 'Count Sheet Generator' section is highlighted with a red box and contains three options:

- New Count Sheet (Icon: Document with checkmark)
- Count Sheet Overview (Icon: Clipboard with list) - This option is highlighted with a red box.
- Administrate Countsheets (Icon: Gear)

The 'SAM' section below contains three 'QuickCheck-App' tiles:

- QuickCheck-App TEST (Icon: Document with checkmark)
- QuickCheck-App TEST-Lang (Icon: Document with checkmark)
- QuickCheck-App QuickCheck-App (Icon: Document with checkmark)

# Visión total de todos los títulos de sets



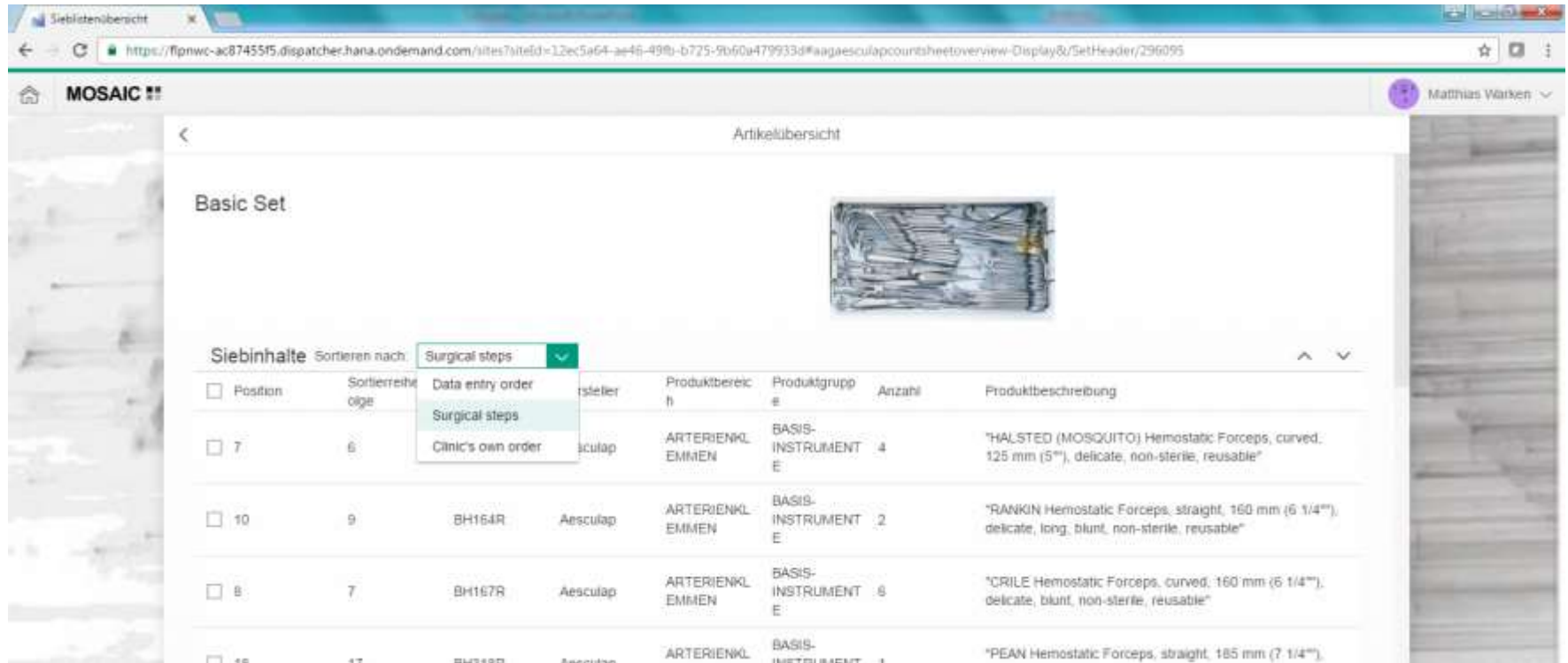
Sieblistenübersicht

Siebe (199)

Siebtitel	Serialnummer des Siebs	Disziplin	Disziplinen Code	Letztes Änderungsdatum
ATE Sieb I	1		NOSE	13.09.2016, 15:09:29
Abdominal Hysterectomy Set	01		GYNA	14.11.2016, 10:48:22
Abrasio/HSK	1		GYNA	13.09.2016, 15:09:29
Arthroskopie 1 Storz	1		PLAS	13.09.2016, 15:09:29
Arthroskopie 3	1		PLAS	13.09.2016, 15:09:29
Basic Set	2		GENS	12.08.2016, 09:25:34
Basic Set	4		GENS	18.08.2016, 13:05:21
Basic Set	10		GENS	10.01.2017, 09:12:37
Bauchsieb	1		HEAR	13.09.2016, 15:09:29
Bohrlochsieb NC	1		NEUR	13.09.2016, 15:09:29
Básica	01		GENS	16.12.2016, 11:50:09
Básica	02		GENS	16.12.2016, 11:55:57
Básica	03		GENS	16.12.2016, 11:58:25

**Informaciones sobre los títulos de sets, Identificación, especialidad y fecha de la ultima modificación**

# Ayuda en el método de montaje



The screenshot shows a web application interface for a 'Basic Set' of surgical instruments. The main content area is titled 'Artikelübersicht' and displays a list of instruments. A dropdown menu is open over the 'Sortieren nach' (Sort by) column, showing three options: 'Surgical steps' (selected), 'Data entry order', and 'Clinic's own order'. The table below lists the instruments with their respective details.

Position	Sortierreihenfolge	Sortieren nach	Hersteller	Produktbereich	Produktgruppe	Anzahl	Produktbeschreibung
<input type="checkbox"/> 7	6	Surgical steps	Aesculap	ARTERIENKLEMMEN	BASIS-INSTRUMENTE	4	"HALSTED (MOSQUITO) Hemostatic Forceps, curved, 125 mm (5"), delicate, non-sterile, reusable"
<input type="checkbox"/> 10	9	BH164R	Aesculap	ARTERIENKLEMMEN	BASIS-INSTRUMENTE	2	"RANKIN Hemostatic Forceps, straight, 160 mm (6 1/4"), delicate, long, blunt, non-sterile, reusable"
<input type="checkbox"/> 8	7	BH167R	Aesculap	ARTERIENKLEMMEN	BASIS-INSTRUMENTE	6	"CRILE Hemostatic Forceps, curved, 160 mm (6 1/4"), delicate, blunt, non-sterile, reusable"
<input type="checkbox"/> 40	17	BH160R	Aesculap	ARTERIENKLEMMEN	BASIS-INSTRUMENTE	1	"PEAN Hemostatic Forceps, straight, 185 mm (7 1/4"),

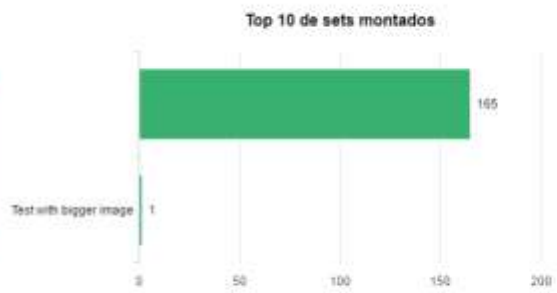
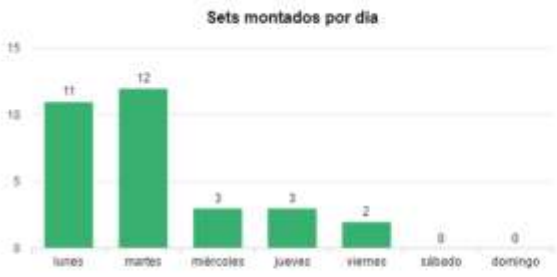
**Definición del orden de montaje según los diferentes metodos (“data entry order”, “surgical steps” or “own order”)**

### Tray Organizing Manager | Tablero

Desde:  A:

KEY PERFORMANCE INDICATOR | RESUMEN DE MONTAJES | HISTORIAL DE DEFECTOS

<b>31</b> TRAYS Cantidad de sets montados	<b>166</b> REPORTS Cantidad de informes de defectos
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# El porque? Visión general de los sets

Set code	Set description	Quantity			Produced items					
		Set title	Sets	Productions	items	this set	in %	No cummulated	in %	
<b>300</b>										
GEN-001	BASIC TRAY		16	3,879	47	182,325	9.4 %	1	182,325	9.4 %
FLR-001	ADULT CRASH CART		59	773	208	160,784	8.3 %	2	343,109	17.7 %
CAR-001	OPEN HEART TRAY		15	1,500	95	142,500	7.3 %	3	485,609	25.0 %
CAR-002	OPEN HEART TRAY		15	1,500	92	138,000	7.1 %	4	623,609	32.2 %
GEN-001	PACEMAKER/AICD TRAY		20	2,204	59	130,036	6.7 %	5	753,645	38.9 %
VAS-001	VASCULAR TRAY		7	606	140	84,840	4.4 %	6	838,485	43.2 %
VAS-002	MINOR VASCULAR TRAY		6	532	124	65,968	3.4 %	7	904,453	46.6 %
GEN-002	LAP CHOLE TRAY (AESCULAP)		9	757	70	52,990	2.7 %	8	957,443	49.4 %
FLR-002	BROSELOW/PEDIATRIC CRASH CART		12	91	466	42,406	2.2 %	9	999,849	51.5 %
VAS-002	A-V FISTULA TRAY		6	363	102	37,026	1.9 %	10	1,036,875	53.5 %
CAR-003	UNIVERSAL VALVE TRAY		10	870	42	36,540	1.9 %	11	1,073,415	55.3 %
VAS-003	VASCULAR ACCESSORY TRAY		12	1,388	24	33,312	1.7 %	12	1,106,727	57.1 %
ORT-001	HAND INNOVATIONS TRAY		2	56	574	32,144	1.7 %	13	1,138,871	58.7 %
ORT-002	SYNTHESS SMALL FRAGMENT LC-DCP SELF		2	69	456	31,464	1.6 %	14	1,170,335	60.3 %
ORT-003	SYNTHESS LOCKING SMALL FRAGMENT LCP		2	52	591	30,732	1.6 %	15	1,201,067	61.9 %
GEN-003	PLASTIC TRAY		17	492	55	27,060	1.4 %	16	1,228,127	63.3 %

10 títulos de sets de 300 suponen una carga de trabajo del 53,5% en la Central

## Detalles de los sets

Set code	SN	Set description	Under-utilization	Productions	Over-utilization	items	Master =Slave
GEN-001		BASIC TRAY		81		47	
GEN-001	01	BASIC TRAY		119	47%	47	Master
GEN-001	02	BASIC TRAY		156	93%	47	100%
GEN-001	03	BASIC TRAY		120	48%	47	100%
GEN-001	04	BASIC TRAY		87	8%	47	100%
GEN-001	05	BASIC TRAY		85	5%	47	100%
GEN-001	06	BASIC TRAY		85	5%	42	89%
GEN-001	07	BASIC TRAY		89	10%	47	100%
GEN-001	08	BASIC TRAY	-100%	0		42	72%
GEN-001	09	BASIC TRAY		89	10%	47	100%
GEN-001	10	BASIC TRAY		90	11%	47	100%
GEN-001	11	BASIC TRAY	-1%	80		50	80%
GEN-001	12	BASIC TRAY		87	8%	55	91%
GEN-001	13	BASIC TRAY		90	11%	47	97%
GEN-001	14	BASIC TRAY	-63%	30		39	83%
GEN-001	15	BASIC TRAY	-100%	0		41	79%
GEN-001	16	BASIC TRAY		87	8%	47	100%

2 sets no han sido reprocesado durante un año. Es necesario activar para un uso más equilibrado.



## Detalles de los sets

Set code	SN	Set description	Under-utilization	Productions	Over-utilization	items	Master =Slave
GEN-001		BASIC TRAY		81		47	
GEN-001	01	BASIC TRAY		119	47%	47	Master
GEN-001	02	BASIC TRAY		156	93%	47	100%
GEN-001	03	BASIC TRAY		120	48%	47	100%
GEN-001	04	BASIC TRAY		87	8%	47	100%
GEN-001	05	BASIC TRAY		85	5%	47	100%
GEN-001	06	BASIC TRAY		85	5%	42	89%
GEN-001	07	BASIC TRAY		89	10%	47	100%
GEN-001	08	BASIC TRAY	-100%	0		42	72%
GEN-001	09	BASIC TRAY		89	10%	47	100%
GEN-001	10	BASIC TRAY		90	11%	47	100%
GEN-001	11	BASIC TRAY	-1%	80		50	80%
GEN-001	12	BASIC TRAY		87	8%	55	91%
GEN-001	13	BASIC TRAY		90	11%	47	97%
GEN-001	14	BASIC TRAY	-63%	30		39	83%
GEN-001	15	BASIC TRAY	-100%	0		41	79%
GEN-001	16	BASIC TRAY		87	8%	47	100%

3 sets han tenido una alta utilización. Por qué se prefieren estos sets?

# Visión general de los tipos de artículos

Item type	Quantity			Manu- facturers	with X-Ref
	Items	Produced items	diff. item types		
Scissors	2,353	20,018	286	43	36
Needle holders	1,784	15,938	104	15	18
Forceps/clamps	11,611	102,167	464	45	126
Retractors / self-retaining retractors/ specula	3,525	27,277	478	55	68
Chisels, osteotomes, raspatory, elevator, bone levers	1,403	9,213	389	48	59
Bone punches, rongeurs	768	6,811	196	28	21

El número de tipos diferentes de instrumentos debe ser reducido para evitar:

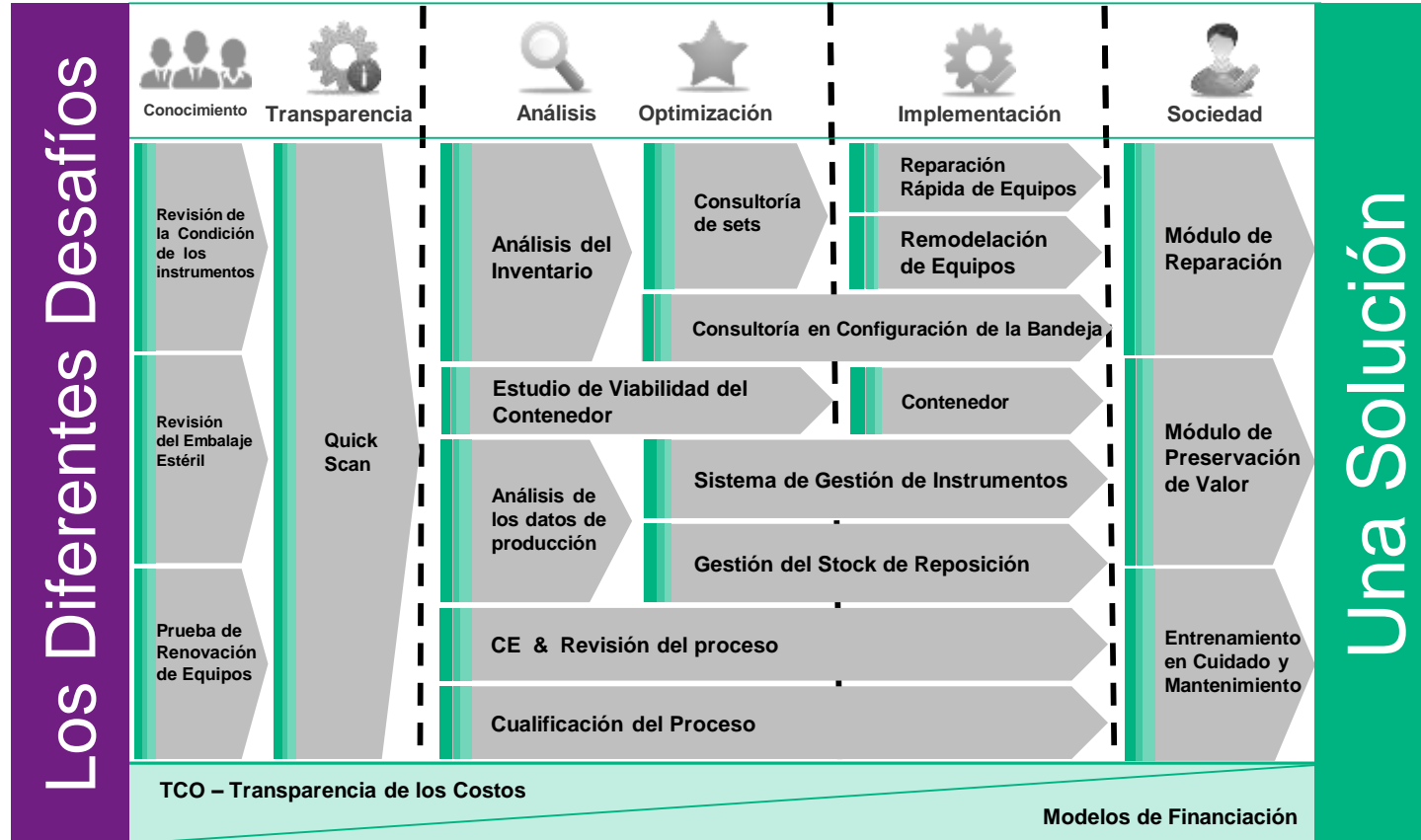
- tiempo más largo de aprendizaje para nuevos empleados en la Central y Quirofano
- falta de instrumentos en el almacén de reposición, por lo tanto sets incompletos

# Detalle articulo: Tijeras

Item no	Manufacturer	Item description	Items	Productions
BC253R	Aesculap	Mayo Scissors Tc 6-3/4" Cvd Beveled	7	606
141452	Pilling Weck	Lahey Scissors 5-3/4" Cvd	7	400
BC163R	Aesculap	Littler Scissors 4-1/2" Cvd	7	385
BC607R	Aesculap	Metzenbaum Scissors 8" Cvd	7	38
461431	Pilling Weck	Duffield Scissors 6-1/2" Cvd S/s	7	31
BC616R	Aesculap	Nelson Metzenbaum Scissors 10" Cvd	7	31
CH3662	V Mueller	Potts Smith Scissors 10" Rt Ang	7	31
460883	Pilling Weck	Lincoln Metzenbaum Scissors 5-3/8" Cvd	6	363
7007-120	Scanlan	Jacobson Scissors 7" Str S/ Flat Hndl	6	336
BC179R	Aesculap	Potts Tenotomy Scissors 8" Cvd	6	227
50-4562	Codman	Bookwalter Mall Retractor Blade 1-1/2x6"	6	123
BC210R	Aesculap	Iris Scissors Tc 4-1/2" Str S/s	6	89
FD043R	Aesculap	Yasargil Micro Scissors 9" Bayo Cvd Blunt	6	21
E3388	Storz	Vannas Scissors 3-3/16" Ang	6	3
7007-206	Scanlan	Mayo Scissors 6-3/4" Cvd Ultra S/ Rnd Bld	5	368
462110	Pilling Weck	Metzenbaum Scissors 10-1/4" Cvd	5	100
BC467R	Aesculap	Mayo Operating Scissors 5-1/2" Cvd S/s	5	100
460821	Pilling Weck	Metzenbaum Scissors 5" Cvd	5	68
N5016	Storz	Joseph Scissors 6-3/4" Cvd Dbl-edge	4	234
OK371R	Aesculap	Cottle Dorsal Scissors 6-1/2" Angular	4	234
RH1690	V Mueller	Fomon Angular Scissors 5-1/4"	4	234
03-0010	Lorenz	Tendon Gouge 6" #1	4	219
105-561	Tiemann	Lahey-connelly Undermining Scissors 5-3/4" Cvd	4	219
BC112R	Aesculap	Iris Scissors 4-3/8" Str S/b	4	219
BC144R	Aesculap	Suture Scissors 5-1/8" Str B/b	4	219
5-189TC	Miltex	Metzenbaum Scissors Tc 9" Cvd Del	4	188
449201	Karl Storz	Nasal Scissors Straight	4	146
449202	Karl Storz	Nasal Scissors Right	4	146
449203	Karl Storz	Nasal Scissors Left	4	146
BC195R	Aesculap	Stevens Tenotomy Scissors 5" Cvd Fine	4	132
342168	Pilling Weck	Debakay Metzenbaum Scissors Tc 11-1/4" Cvd	4	130
ST-SDC-18-R8	ASSI-S&T	Micro Scissors 7" Cvd Rnd Hdl	4	112
40501A	Storz	S-Shaped Distal & Angled Scissors	4	111

Tipos que se utilizan raramente podrían ser reemplazados por un tipo estándar.

# El Método Colaborativo SAM





MUCHAS GRACIAS