

Supply chain transformation:

Setting the stage to improve your bottom line

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Cardinal Health™ Inventory Management Solutions
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Welcome

- Healthcare trends impacting the supply chain
- Why traditional approaches to the supply chain are no longer working
- Alternative ways to manage inventory and clinical efficiency

About Cardinal Health

Recognized leader in healthcare supply chain transformation

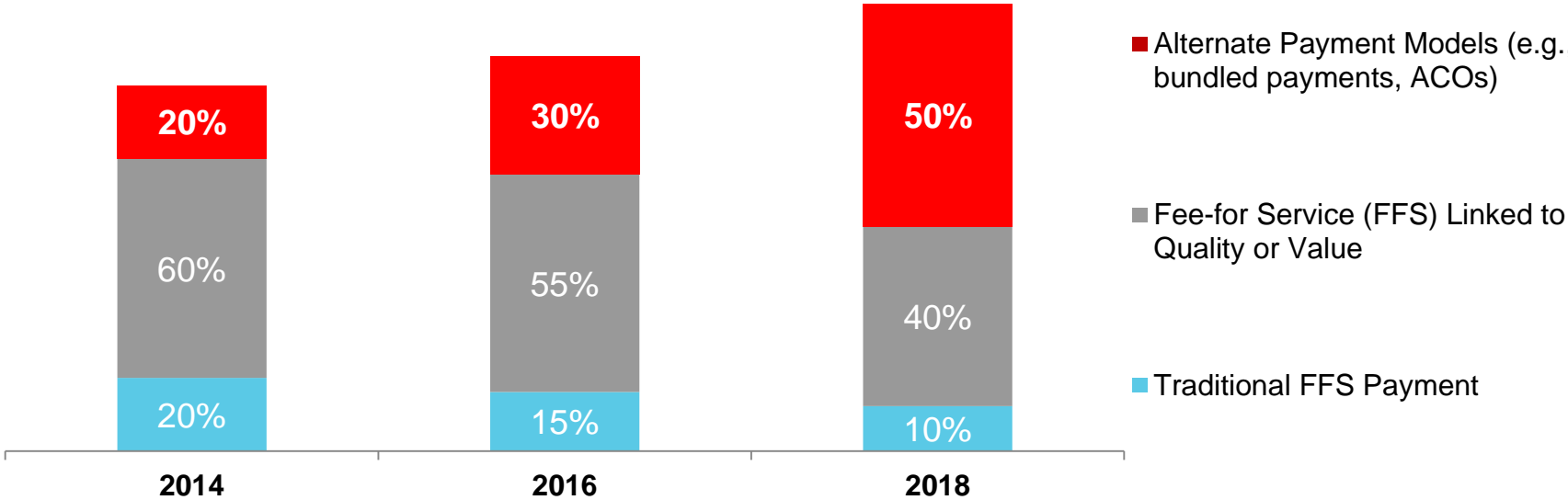
- Ranked #1 by Gartner 2011-2013 for transforming the healthcare value chain to meet new challenges around costs, revenue and outcomes

Unparalleled understanding of healthcare value chain

- Nearly 100 years of experience serving hospitals
- 40+ years of leading supply chain solutions

Shift from pay for volume to pay for value

Health and Human services has set explicit goals for alternative payment models and value based payments

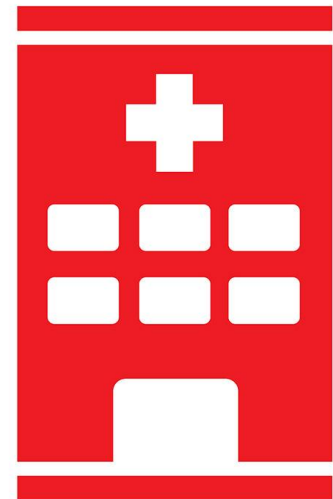


Source: CMS.gov

Impact on providers

What does value-based care mean to providers?

- Pressure to reduce spending while improving quality of outcomes
- Financial risk and costs shifting from payor to provider
- Pressure for providers to demonstrate differentiated outcomes
- Increase in the need for better care coordination and patient care



Source: Deloitte Center for Health Solutions. "The road to value-based care." 2015

A changing landscape

Affordable Care Act (ACA)

Regulatory requirements

- Unique Device Identification (UDI)
- Joint Commission audits

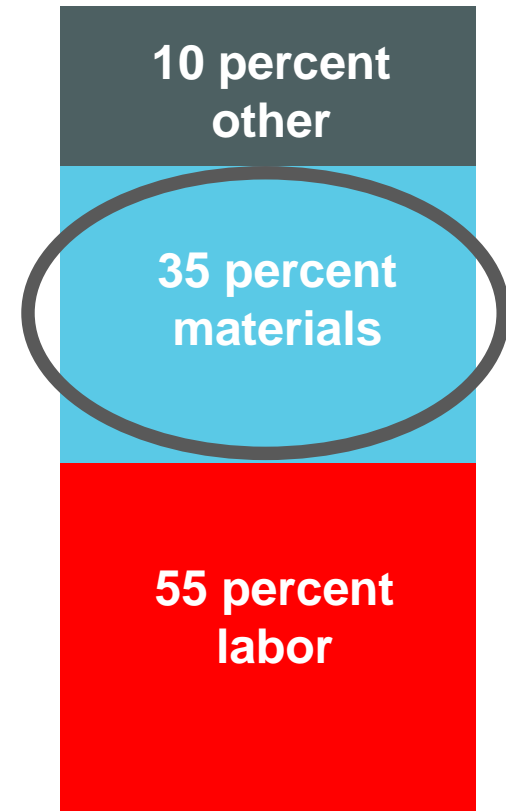
Census and demographics

- 10,000 people turning 65 every day
- 10M Americans over 80
- 20 percent population >65 by 2030

Pressure to reduce costs

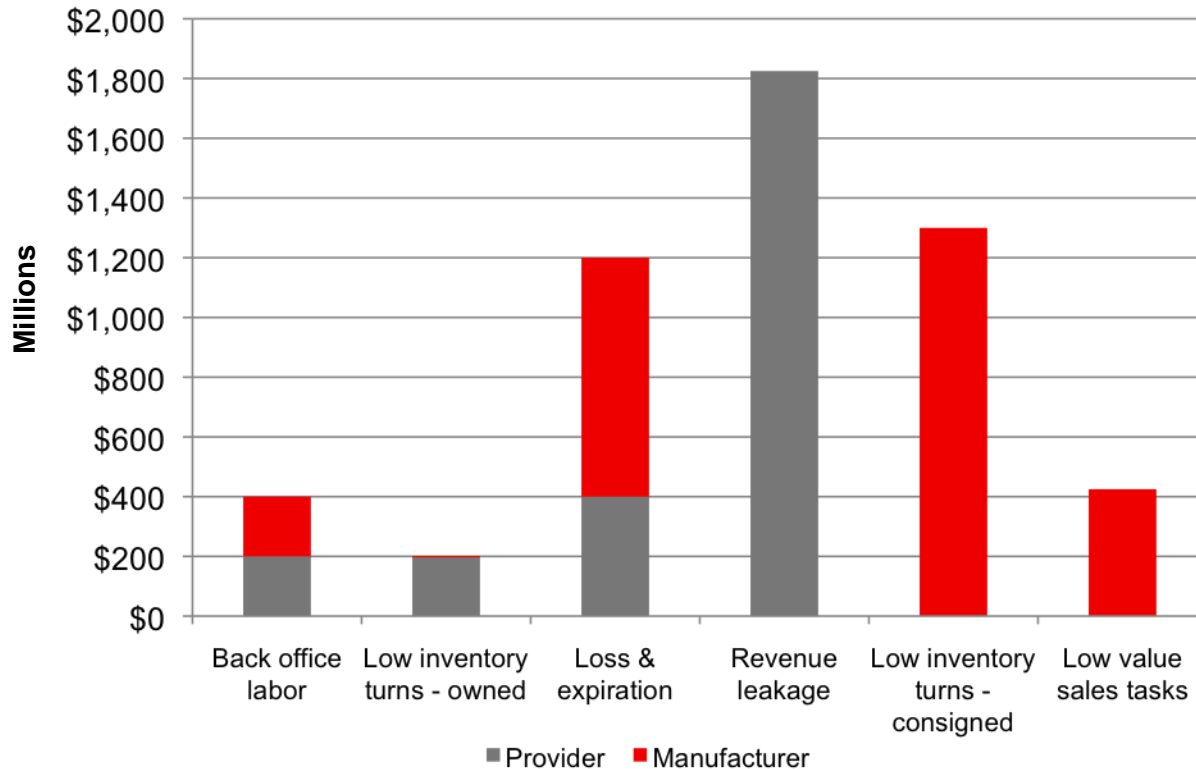
- Reimbursements are declining
- Products are being commoditized

Expenses



Source: The Centers for Disease Control and Prevention (CDC), *The State of Aging and Health in America*, 2013

Immense waste in the supply chain



Does not include indirect costs of:

- Excess time spent by nurses searching for inventory
- Time spent (or patient risk) during product recalls
- Risk of non-compliance to regulations set by Joint Commission

10%-30%¹
Waste in PPI supply chain

\$5,000,000,000²
Estimated loss per year

1- Modern Healthcare "Losing preferential treatment" (February 2013)

2- PNC Healthcare; GHX quantitative research study (August 2011)

• Source also applies to chart

Managing costs within the supply chain



Rising product costs



**Nature
of product stocking**

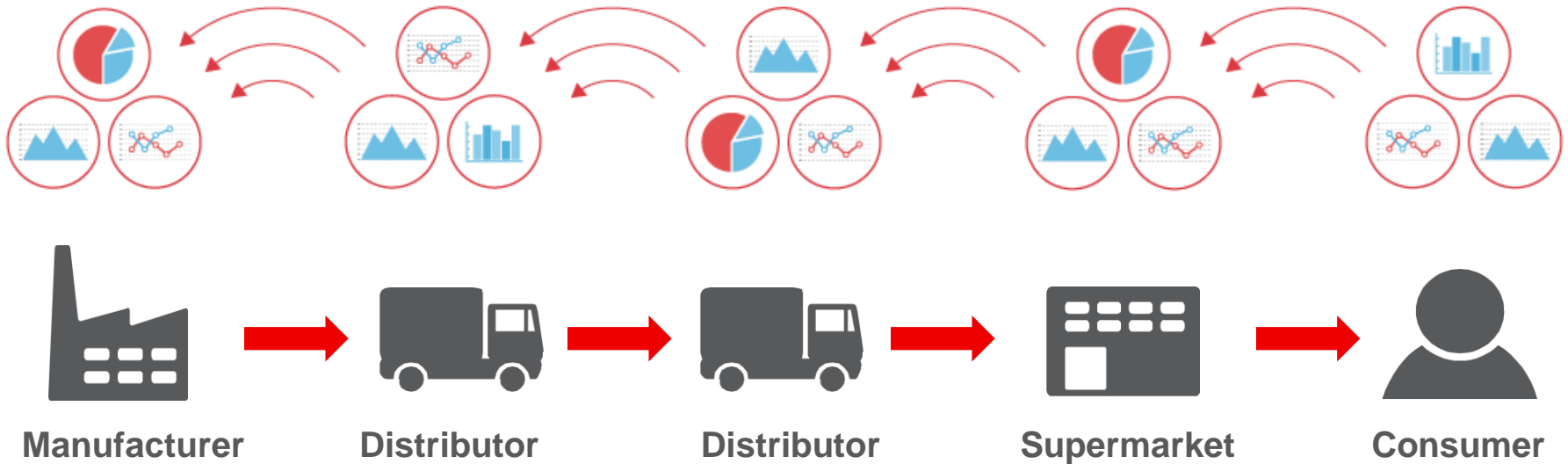


**Manual/multiple
inventory systems**



Barriers to data sharing

How do things work in retail?



...and for a hip prosthesis in the OR



Manufacturer



Hospital



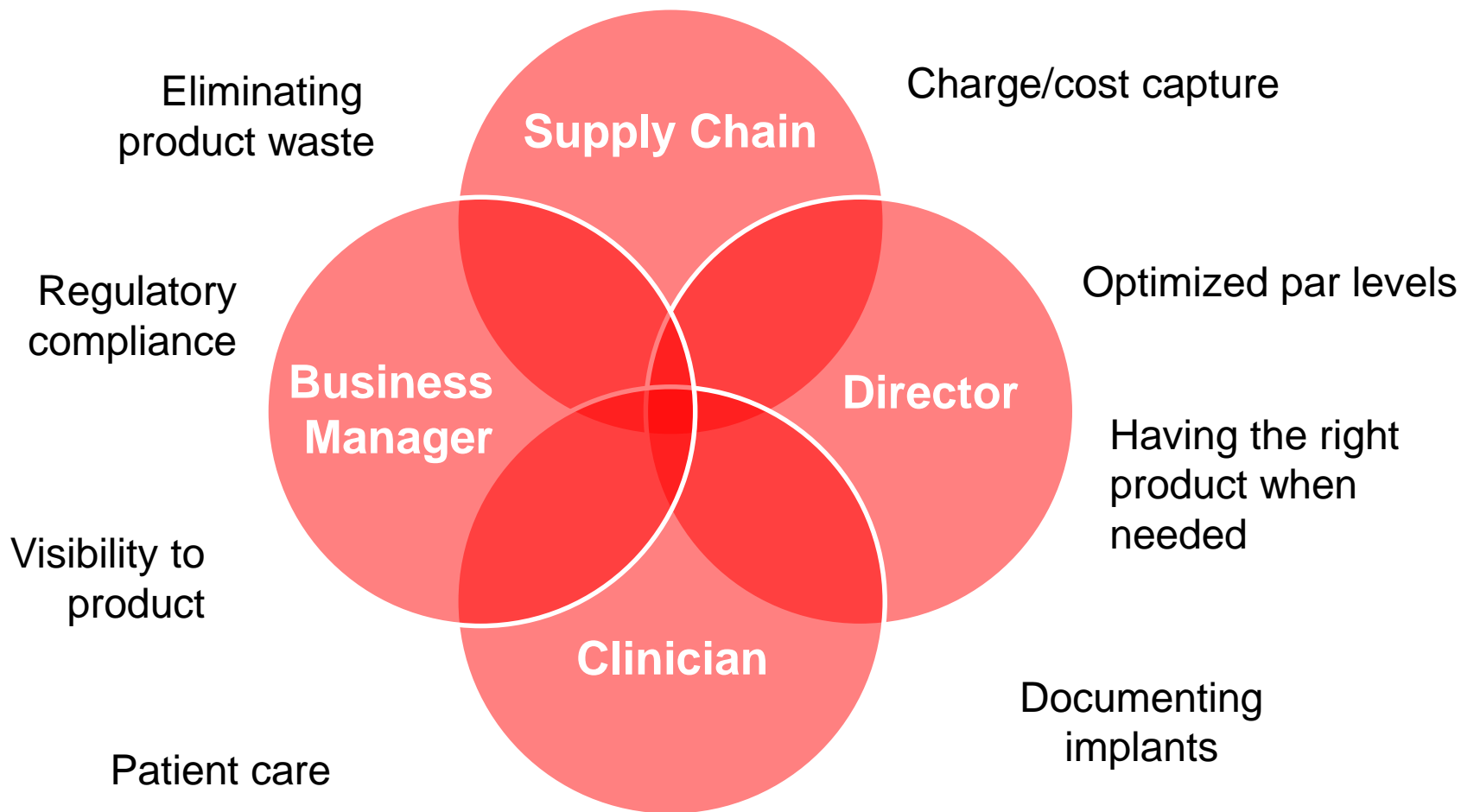
Patient

10 barriers to effectively managing inventory

- 1 Difficulty with charge/cost capture
- 2 Physician preferences
- 3 Diversity of procedures and service lines
- 4 Expiration/Obsolescence
- 5 Limited data
- 6 Consignment
- 7 Duplications
- 8 Lack of automated inventory systems
- 9 Multiple supply categories
- 10 Consignment

Source: Gagliardi, A., *Supply Chain Management Inventory Control: The Basics*, ASCs Conference, 2010

What are the priorities?

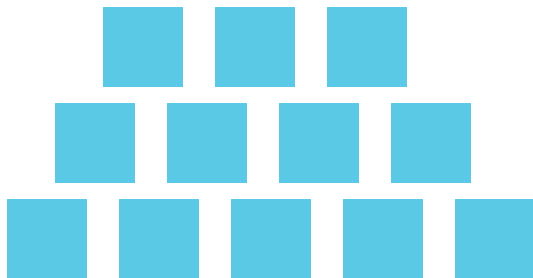


From 12 steps to two

Number of steps within the workflow:

Current manual state:

Number of steps*



**With automated
inventory management:**

Number of steps*



**Process is repeated for each additional item opened during a case*

Where to begin

- Recognize there is a problem
- Agree on the vision
- Build alignment with key stakeholders
- Assess the current state
- Understand automation options and impact on key areas including point of use



Inventory management best practices

Best practice	Reason
Using an RFID-enabled system	<ul style="list-style-type: none"> • Real-time visibility, accurate tracking and intuitive • Unique Device Identification
Using 2-bin Kanban methodology	<ul style="list-style-type: none"> • Used for commodity products
Point-of-care charge/cost capture	<ul style="list-style-type: none"> • Eliminate manual processes • Improve compliance and accuracy
Interface with systems	<ul style="list-style-type: none"> • Integrate inventory management into data analysis system
No cycle counting	<ul style="list-style-type: none"> • High compliance — because it's a reliable, trusted process • Clinicians not involved in PAR level reconciliation
Strong analytics platform	<ul style="list-style-type: none"> • More predictable ordering patterns and ability to use data to optimize purchasing

An ideal inventory management solution



**Integrated
advanced
analytics**

**Low-cost supplies
like gauze
and bandages**

**Low-cost supplies
that require
each-level tracking**

**Surgical packs and
other mid- to
high-cost supplies**

**High-cost
physician
preference items
and implantables**

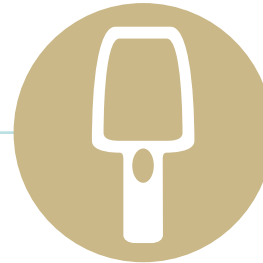
**Low
product cost**



2-Bin Kanban



Barcode



**RFID-enabled
Smart Wand**



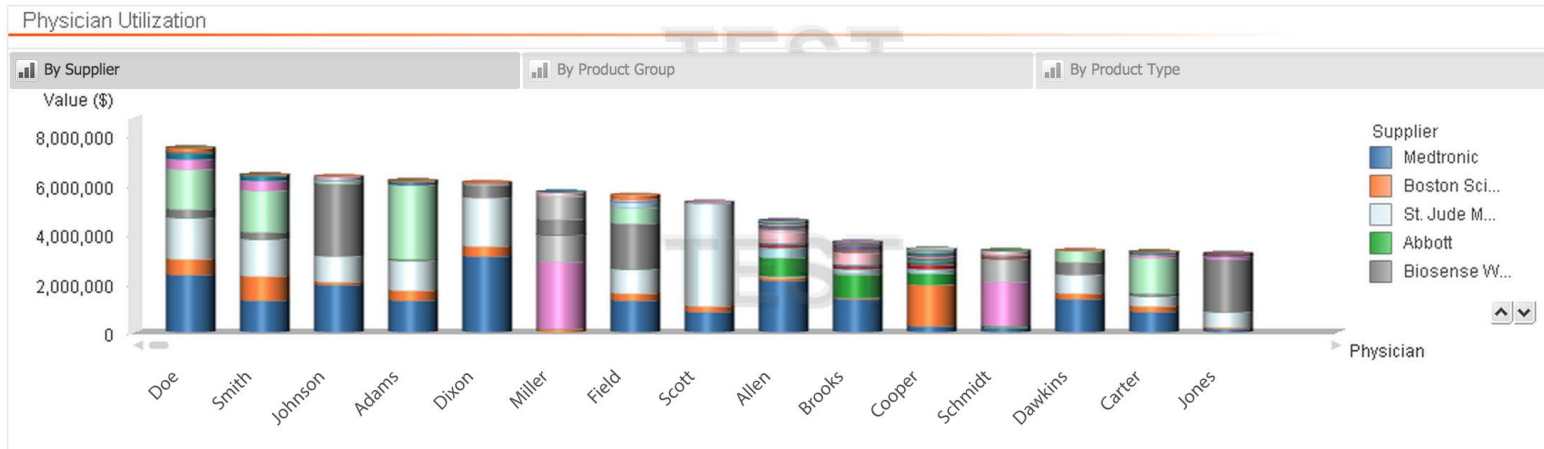
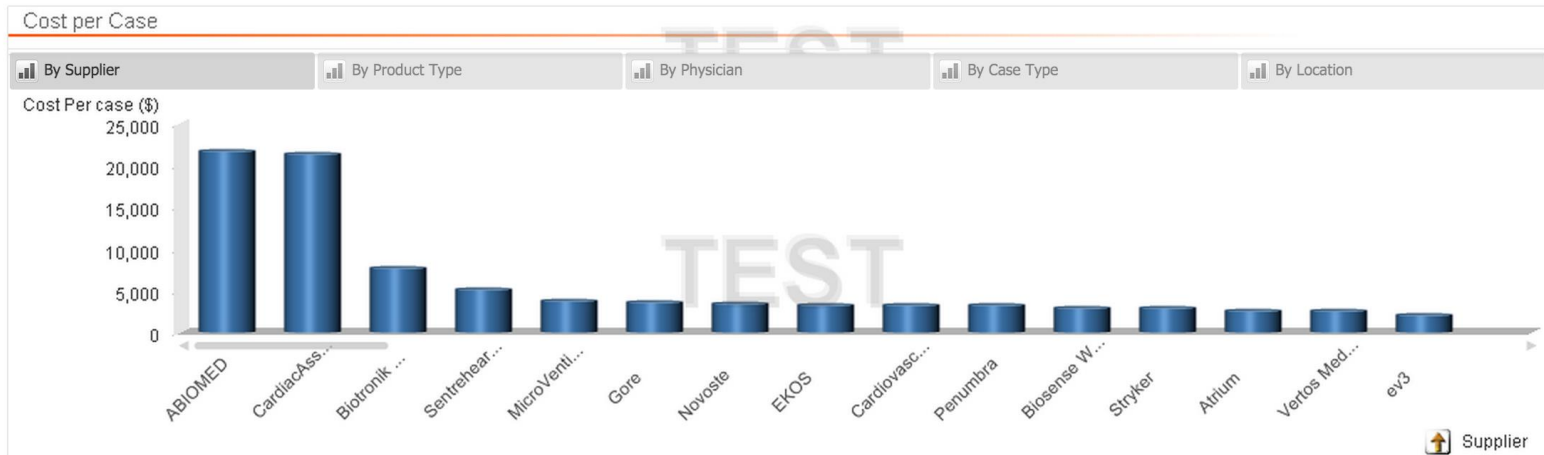
**RFID-enabled
Smart Cabinets**

**High
product cost**

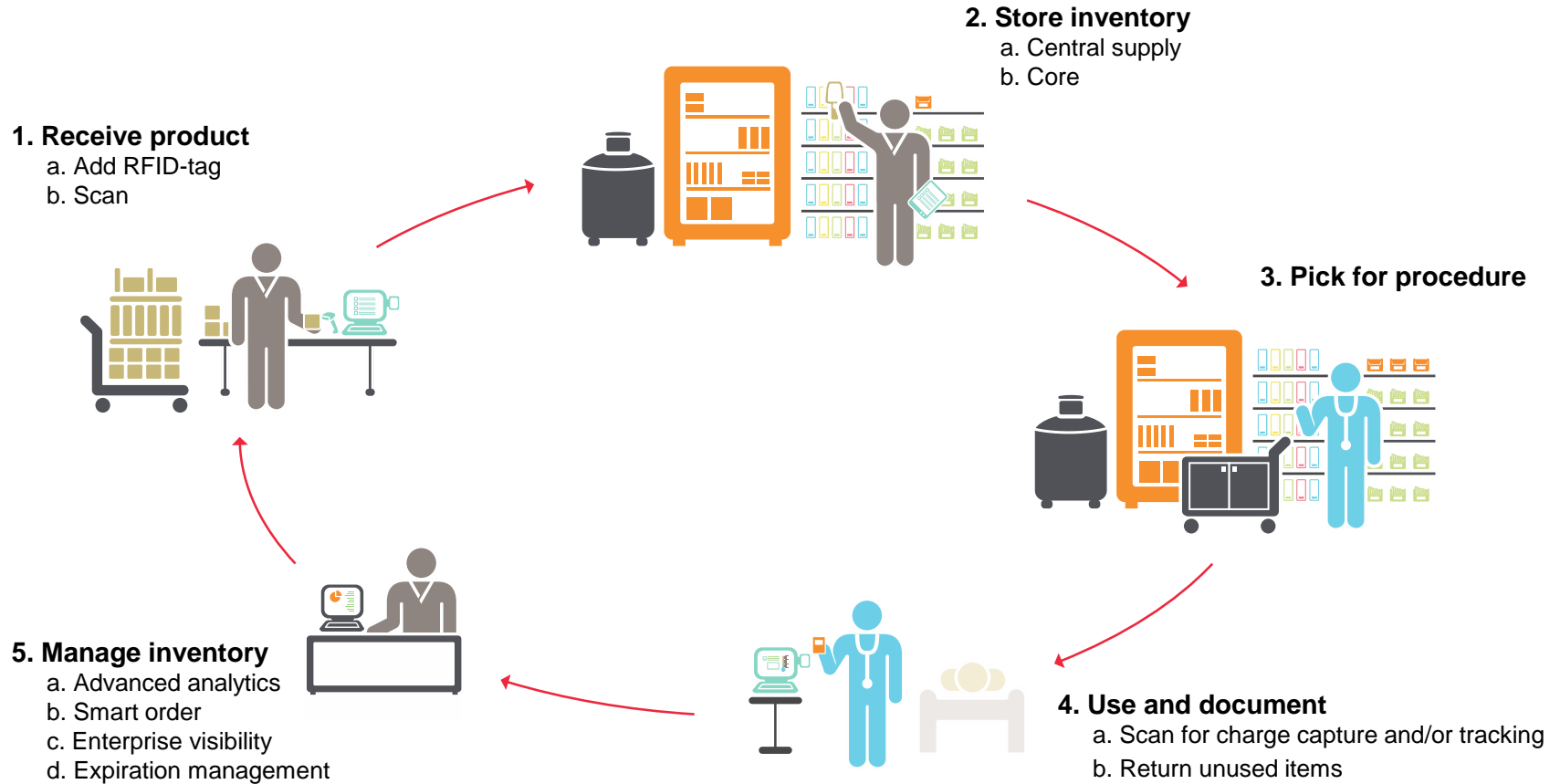
Cost per case

Cost Per Case Summary

Encounters **126,993** Cost per Case **\$2,305**



Cardinal Health™ Inventory Management Solutions for the OR



Q&A

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