Traceability System & Productivity

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Sheikh Khalifa Medical City
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Sheikh Khalifa Medical City
- 568 Beds Acute Care Hospital
- 125 Beds Behavioral Science Pavilion
- 14 Specialized Outpatient Clinics
- 1 Urgent Care Center

http://www.skmc.ae/en-us/medicalservices/SpecialistCare/Surgery/Pages/default.aspx
Objectives

• Background ..... Our Journey
• Discuss the issues we faced
• Tools used to raise above the challenge
• Benefits from the tools we used
• Conclusion
Our Journey.... In
2007........

• 30 CSSD Techs
• 7 Inventory Clerks
• 3 Supervisors
Total of 40 FTEs :24/7 shift
• 1 CSSD Manager

• Average Monthly Production +/- 48,373 units
• 70% Operating Rooms
• 30% Other customers
• Includes Case Cart System
• 12 Operating Rooms
Bernanke: 2008 Meltdown Was Worse Than Great Depression

By Pedro Nicoleli da Costa

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Former Federal Reserve Chairman Ben Bernanke, a prominent student of the Great Depression, contends that the 2008 financial crisis was actually worse than its 1930s counterpart.

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Financial Crisis Hits Health-Care Companies

By Robert Gold, Jeffrey Englander, CFA and Philp Seligman | November 28, 2008

Health-care facilities, medical equipment, and managed health-care companies have all been affected.

From Standard & Poor’s Equity Research As the collapse of the housing market and the related financial crisis have continued to unfold, the numbers of those struggling to meet mortgage payments, newly unemployed, or simply in financial distress due to lower home equity values or stock market values have continued to grow. These forces have affected consumers’ economic well-being, and one by-product of this economic weakness has been a pullback in consumers’ use of non-essential health care services.

It has also hurt their ability to pay for health care services they do incur during these times, resulting in increases in the incidence of health care-related bad debt. While in past periods of economic weakness health care was fairly resistant to downturns given the increased influence of managed care and higher amount of cost sharing in the form of co-pays and deductibles, this appears to be less the case now. These factors have begun to ripple through the health care system, impacting hospital, medical equipment, and managed health care companies.

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http://blogs.wsj.com/economics/2014/08/26/2008-meltdown-was-worse-than-great-depression-bernanke-says/


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“We face a severe financial crisis of unprecedented dimensions in a world that has never before been so closely connected and interdependent. The consequences are global. The situation is volatile. The current financial crisis is rapidly becoming an economic crisis and threatens to become a social crisis in many countries.”

Statement by WHO Director-General Dr Margaret Chan 12 November 2008

1100 Job Cuts

Health insurer Cigna, “a business of caring,” cares enough about its employees to cut 1,100 jobs, or about 4% of its workforce, and consolidate certain operations as it responds to the economic meltdown.
The company expects record quarterly job cuts, dropping to about 100,000 in Q4 2008.
Health insurers are suffering from falling enrollment as employers cut staffing, investment losses and worries about their balance sheets.

The Cigna news follows a similar announcement last month from health insurer Aetna, which said it would cut 1,000 jobs, or about 3% of its workforce by the end of 2008.

UnitedHealth Group, the largest US health insurer, said in July that it was cutting some 4,000 jobs, or about 5% of its workforce, over the course of a year.
Cigna said it expects the job cuts to be completed by mid-year 2009.

The company’s shares rose 2% to close at $18.15 on the New York Stock Exchange before the job cuts were announced.

“Right sizing is reducing the organizational numbers will initially improve productivity figures.”

“Downsizing plans increase profitability and productivity”

Initial right sizing
- immediately lost 6 staff
- From 40 to 34

Continuously lost staff – Vacancies were not replaced
- From 34 to 28
- From 28 to 15 (2014)

“Today’s healthcare enterprises must react quickly to changes, and at the same time improve productivity and quality and reduce cost”
• Operational Budget
• Increasing Surgical Volumes
• Increase Loaner Sets
• Additional Specialties
• OR, ER, PICU service expansion
• Additional responsibilities

Our Challenges

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**Staff shortages** are a major disruption causing **productivity** issues

- Unanticipated increase in demand for products and services
- CSSD FTE calculation
- Recruitment & Retention Strategy
- New Project Initiatives

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**Staff Shortage**
“A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable” — The Wisdom of Teams: Creating the High Performance Organization

Invest & Create a GREAT Team 37.5%

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CSSD VISION

Our aim is for CSSD Technicians to be recognized as Specialists in Decontamination and Sterilization techniques of reusable medical devices thru continuing education opportunities. CSSD continually strives to excel and achieve best practice standard to ensure patient safety.

To be the Center of Industry Processing Practice - Model of Excellence in the country.

% Production over Total Production 2013 (10/10/13)

Operating Rooms 69%

BSP and external customers 1%

Miscellaneous 2%

Internal Customers (Medical and Surgical Pavilion) 8%

Outpatients Specialty Clinic 20%
• Training & Development. Staff Empowerment

To maximize staff potentials

• Technology. Implementing a Traceability System

TOOLS to INCREASE PRODUCTIVITY

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1. Training and development
2. Promote a culture of Accountability
3. Promoting a Just Culture
4. Promoting Quality – CQI
   1. Focus on Safety & Quality

Staff Development & Empowerment
A good traceability system should not just trace product, it should provide *Value Added attributes* – provides data for meaningful *benchmarking*, *continuous process improvement* and *root cause analysis*.
• Assess Workflow to Identify Waste
• Finding Bottle necks
  • Procedural Issues
• Incorporated Lean & Six Sigma Concepts
  • To reduce defects by minimizing process variation
• Instrument Path
  • Manual information flow – time consumed
  • Electronic Information

Workflow Assessment
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Address gaps
• Policies and Procedures
• Pack on Screen
• Standardize tray assembly
• Adding special instructions
  • Alerts and triggers
  • Manufacturer’s written Instructions

Improved Workflow

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- Standardized products
- Perform regular physical count
- Eliminate Obsolete products
- Developing adequate par levels for supplies to avoid stock-outs
- Inventory Turns Ratio (KPI)

Control on Supplies and Consumables

Develop traceability systems to assure the right supplies are on the shelf when needed but not in excess

Turns Ratios is a benchmark to help measure what you have on hand. It is the relationship between the value of the inventory on hand and the annual supply expenses. Inventory turns ratio = annual expense / value of the physical inventory.
• Improved Communication
  • Instrument Repair Module
  • Incomplete Tray – with Missing Label
• Web Module
  • Assign Fast Track Code
• Minimized Staff hours wasted

FAST TRACK Plan
Urgent – 3 hours required to be FAST Tracked in 3 hours – due to low inventory and that the schedule is back to back or that more than one surgeon requiring the item at the same time
Priority – 6 hours items listed due to its low inventory or one of its kind and used on urgent cases such as trauma. This is an SOP for CSSD regardless whether or NOT it is requested by OR.
Standard – 10 hrs not on the Priority list nor requested to be Urgent

Improved Communication
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Identified and Eliminate Non-Value Added Activities

- Surgeon’s Picklist not updated
- Location of instruments & supplies
- Low Inventory & Patient scheduling
- Incomplete Trays
- Fast Tracking items not required
Track Fast Tracks (3-4 hours)

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• Data of products processed
• Spaulding Classifications
• Review Manufacturer written Instructions
• Collaborated with Infection Prevention & Control Team
• Eliminated 87% of non-critical items

Assessed the Products we Process

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“Doing More with Less”

- Use of “Production per Function Per Hour” Trends
- Align staff roster with the trend
- More staff during peak hours

Consider:

- Unpredictable days
- Delivery of loaner sets after hours without advice
- Adjust work patterns to cope with peak hours and work volumes

Volume Trends & Staff Scheduling

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Use “Product Complexity” Tool
Gradually train and enhance staff competence.
Assess Errors or Non-conformances

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“Instrument Complexity”
-Maybe a tool to calculate true CSSD staffing ‘FTEs’ based on the tasks they perform.

Tasks performed by CS Techs
- Default Estimated time to complete a task – or Real Time
- Assign Complexity for the task performed e.g.
  - **Complexity 20**: 10 - 20 mins; steripeels; holloware
  - **Complexity 50**: 30 - 45 mins; Power Tool

Staffing Calculations

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• Measuring productivity is a part of a scorecard/KPI in our organization
• Productivity is all about saving time, money and resources.

Productivity is never an accident. It is always the result of a commitment to excellence, intelligent planning, and focused effort.

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Benchmark Staff Productivity

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Measuring personal productivity is important since in such a way it's possible to reveal the best performing employees and reward them.

Reward & Recognition

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• Assign price or cost for each product
• Adding “usage cost” processing cost

Cost Center → Revenue center

Tool to Generate “Revenue”
• Justify operating budget

• We can manage our department as a business entity with revenue

• Justify Staff Salary Increases

Potential Revenue Center
• Supervisor & Manager:
  • Production Overview
  • Machine Overview
  • Audit Trail
  • Stock Module

• Staff:
  • Info overview – staff
  • OR Dashboard

• OR
  • Web Module

Excellent Communication Tool

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Machine Overview
KNOW WHAT IS REQUIRED IN 3 HOURS
Assurance NO Instrument are left unattended
0% Instrument delays

Info Overview

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<table>
<thead>
<tr>
<th>MRN</th>
<th>Current Stage</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>SK00-840-648</td>
<td>Patient in PACUI</td>
<td>11:40:00</td>
</tr>
<tr>
<td>SK00-845-194</td>
<td>Anesthesia Stop</td>
<td>14:48:00</td>
</tr>
<tr>
<td>SK00-851-653</td>
<td>Patient in PACUI</td>
<td>14:48:00</td>
</tr>
<tr>
<td>SK00-853-495</td>
<td>Anesthesia Stop</td>
<td>13:19:07</td>
</tr>
<tr>
<td>SK00-859-272</td>
<td>Anesthesia Stop</td>
<td>14:05:00</td>
</tr>
<tr>
<td>SK00-861-753</td>
<td>Anesthesia Stop</td>
<td>14:25:00</td>
</tr>
<tr>
<td>SK00-871-123</td>
<td>Patient in PACUI</td>
<td>12:16:00</td>
</tr>
<tr>
<td>SK00-873-619</td>
<td>Patient in PACUI</td>
<td>09:35:00</td>
</tr>
<tr>
<td>SK00-882-644</td>
<td>Patient in PACUII</td>
<td>14:08:00</td>
</tr>
<tr>
<td>SK00-885-879</td>
<td>Anesthesia Stop</td>
<td>15:06:24</td>
</tr>
<tr>
<td>SK00-886-599</td>
<td>Patient in PACUI</td>
<td>11:30:00</td>
</tr>
<tr>
<td>SK00-887-406</td>
<td>Patient Out Staging Area</td>
<td>13:35:00</td>
</tr>
<tr>
<td>SK00-071-617</td>
<td>Surgery Start</td>
<td>14:41:00</td>
</tr>
<tr>
<td>SK00-091-103</td>
<td>Patient in PreOp</td>
<td>15:06:00</td>
</tr>
</tbody>
</table>
Provides information Instrument Availability

- Minimize or eliminate OR delay due to unavailability of instrumentation
- Order Fast Tracking to expedite trays required in a timely manner

OR Manager, Specialty Team Leaders, OR Staff Nurses, Surgeons

- Ability to open the tray (remotely) while in OR (using a Web Module)

OR can assign someone preferably OR Scheduler to have access to Fast Tracking Request using the WEB module

Web Module

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http://corskmapv031/EXEC
• Data provided a meaningful Benchmarking
  • Staff Competency
  • Staff Productivity
  • Monthly KPIs
• Enhanced Infection Prevention & Control Initiatives
• Reinforced Continuous process improvement Initiatives
  • Reduced turnaround times
  • Improved product & services; and safe patient care
• Provided information for Root Cause Analysis
  • Reduced errors
  • Safeguard Patient Safety
• Provided a tool to measure profitability/revenue
• Optimizing work flow & Improved efficiency - elimination of many unnecessary steps
• Building effective communications and team work – real time communication e.g. instrument repair, info overview, etc
Having the right tool – Traceability system in place – enhanced productivity efforts in getting the products of a highest quality and services to our customer in a timely manner.

Traceability has significant IMPACT in Sterile Processing work flow:
improved throughput, staff utilization, job satisfaction, customer and patient satisfaction, enhanced patient safety, enhanced staff accountability, enhanced cost saving efforts, increase productivity ……….

CONCLUSION

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(RIGHT PEOPLE + RIGHT SKILLS + RIGHT ATTITUDE) + RIGHT TOOLS X (EMPLOYEE ENGAGEMENT) = INCREASED EMPLOYEE PRODUCTIVITY = HAPPY TEAM: A PRODUCTIVE TEAM
“Thanks Myrna for your Leadership and for developing such a highly regarded department. CSSD is not only recognized by us, but by one of the most respected accrediting organizations in the world”.

Best to you and the team,
Ben Frank
CEO, Sheikh Khalifa Medical City
Thu 2014-02-20 11:25 AM
“….sometimes the most constructive change takes place not because of problems but because of opportunities.”

Thomas S. Bateman and Carl P. Zeithaml: Management: Function and Strategy

Competitive healthcare markets and rapidly evolving technology force businesses to respond in order to survive.
Thank You!

Děkuji!