



KAIZEN Opportunities in Women's Health Care

Facilitated by **Christopher Sanderson**, *LEAN Six Sigma Black Belt Healthcare Practitioner*

Learning Objective

- Discuss improvement opportunities in Women's Health
- Participants will share opportunities in Women's Health.
- Discuss how LEAN has contributed to cost saving waste reduction opportunities in healthcare.
- Review KAIZEN healthcare case study and waste reduction best practices.
- Assess our understanding of KAIZEN Opportunities in Women's Health care.



Healthcare Challenge



- "...empty beds are available in the hospital, but there aren't enough nurses to staff them."
- **This is a Value Stream problem!**

Healthcare Challenge



June 14, 2006

Hospitals Move to Cut Dangerous Lab Errors

Improved Specimen Collection And Efficiency Help Increase Accuracy of Medical Testing

June 14, 2006; Page D1

Diagnosed with a deadly neuroendocrine cancer at age 34, Kim Tutt was told she might have just months to live. After five surgeries to excise a cyst under her gum, remove her lower jaw and teeth, and reconstruct her face with bone taken from her lower leg, the Tyler, Texas, mother of two heard some shocking news: The slides from the biopsy of her cyst had been contaminated by cells from another patient, and she had never had cancer in the first place.

“... 3 to 5% of specimens taken each year are defective... blood that isn't drawn correctly... mix-up with another patient's sample”

Healthcare Challenge



About **1 in 25** hospital patients has at least one Healthcare-Associated Infection (HAI).

Estimated **722,000 HAIs** in U.S acute care hospitals in 2011.

About **75,000** hospital patients with HAIs died during their hospitalizations.

More than half of all HAIs occurred outside of the intensive care unit.

Major Site of Infection	Estimated No.
Pneumonia	157,500
Gastrointestinal Illness	123,100
Urinary Tract Infections	93,300
Primary Bloodstream Infections	71,900
Surgical site infections from any inpatient surgery	157,500
Other types of infections	118,500
Estimated total number of infections in hospitals	721,800

Source: Center for Disease Control and Prevention (2011)
<http://www.cdc.gov/HAI/surveillance/index.html>

What are your top 3 opportunities of improvement?



Communication

Lab Test Errors

Patient Transfer / Transport Care

Patient Flow

- OB/GYN
- Emergency
- Imaging
- Surgery
- Flow

Room / Bed Availability

Readmissions

Administrative

- Payroll
- Recruiting/hiring process
- Claims
- Medical Records
- Physician
- Credentialing

Productivity / Efficiency

Medication Errors

Question?

How often do you run into problems with the current layout or patient pathway?

1. 25%
2. 50%
3. 75%
4. 100%



Question?

Who within your hospital/clinic typically gets involved in changing or improving procedures?

1. Administrators
2. Doctors
3. Nurses
4. Staff



What is **LEAN** Six Sigma ?



Focuses on **WASTE** reduction by streamlining a process.

Focuses on preventing defects through problem solving.

LEAN strengthens Six Sigma: Problem solving + improving process delivers greater results.

Improving Quality Patient Care

Create Transparency

Create an open environment where administrators, doctors, nurses, and staff are comfortable learning from, and sharing with, each other.



ASQ Case Study Genesis Health System (GHS)



Taking Process Improvement Beyond the Quality Department

by Janet Jacobsen

At a Glance . . .

- In 2005, Genesis Health System (GHS) adopted the Baldrige criteria as a framework for process improvement.
- Since then, GHS has worked to make processes more systematic by putting quality tools in the hands of employees.
- As its process improvement approach took shape, GHS captured two statewide bronze-level performance excellence awards, and in 2009 it took home the silver award.
- Using improvement tools such as benchmarking and the plan-do-check-act (PDCA) cycle, GHS has achieved continuing success with influenza vaccination clinics for area school children.

A famous Chinese proverb proclaims: *Give a man a fish, you have fed him for today. Teach a man to fish, and you have fed him for a lifetime.* This ancient maxim applies to teaching process improvement skills at Genesis Health System. Here, leaders believe in equipping employees with the quality tools needed to drive process improvement in every facet of this dynamic healthcare organization.

About Genesis Health System

Genesis Health System (GHS) was formed in 1994 with the merger of two large hospitals in the Quad Cities, which encompasses Davenport and Bettendorf in Iowa, and across the Mississippi River in Illinois, Moline and Rock Island. Today, GHS provides a comprehensive array of healthcare services in a 10-county region with 665 licensed beds, 600 physicians, and more than 5,000 staff members.

Adopting the Criteria for Performance Excellence

The formation of GHS presented an opportunity to meld the quality ideologies of the two predecessor hospitals, Mercy and St. Luke's, explains Dr. James Lehman, vice president of quality at GHS. As the director of medical affairs at Mercy Hospital, Lehman had participated in total quality management (TQM) and performance improvement training through the Juran Institute. Prior to the merger, St. Luke's Hospital followed a slightly different quality philosophy. "Through the consolidation process we tried to take the best of both and create our own approach," recalls Lehman.

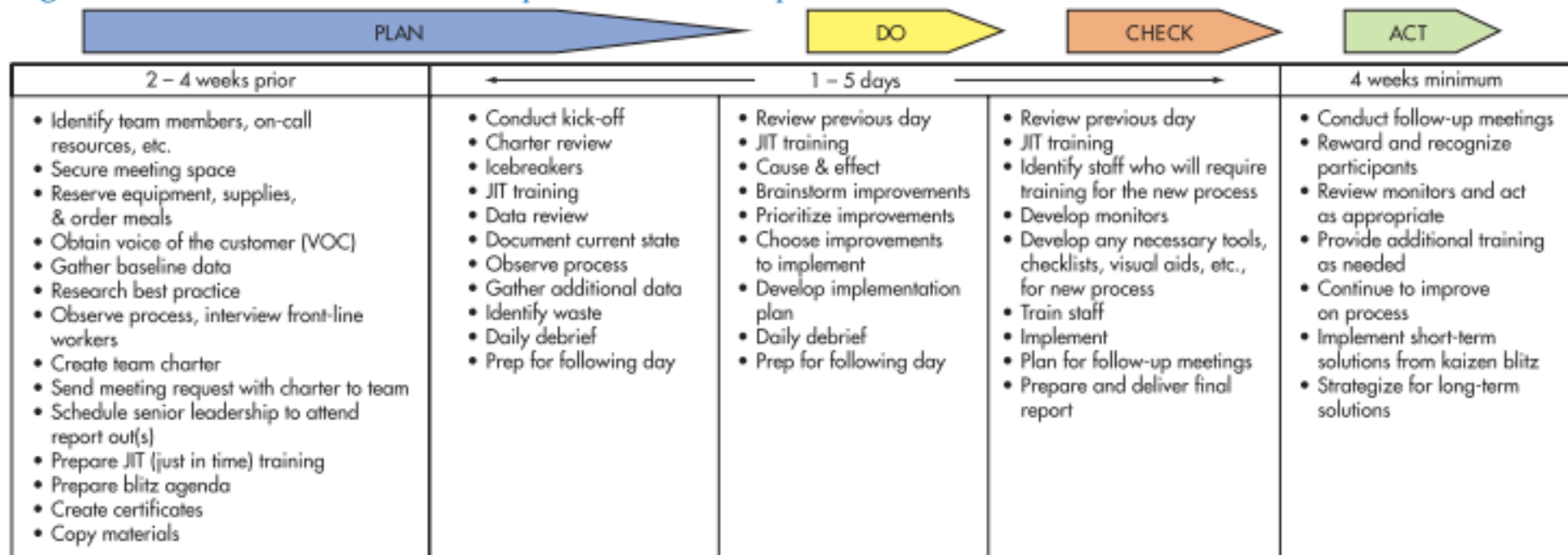
While the Malcolm Baldrige National Quality Award criteria were "on the radar" at GHS, a commitment to following this framework didn't gain traction until 2004 when Lehman attended an American Hospital Association conference. One of the sessions focused on the competitive advantages offered to healthcare organizations that follow the Baldrige criteria. Lehman's boss was intrigued and instructed him to "do whatever it takes" to learn more about the criteria. Soon thereafter Lehman attended a Quest for Excellence conference where he learned that several states offered performance improvement programs based on the Baldrige criteria. "At the time I hadn't realized that Iowa offered such a program," Lehman remembers. He ultimately decided to become involved with the Iowa Recognition for Performance Excellence (IRPE) program because it seemed to mirror the national Baldrige criteria closely, says Lehman, who is board certified in internal medicine and medical management.

Putting Quality Tools in Employees' Hands



ASQ Case Study Genesis Health System (GHS)

Figure 1—GHS kaizen blitz road map to continuous improvement



What is KAIZEN?

KAI - ZEN



KAI = Change



ZEN = Good

Continuous Improvement

KAIZEN Healthcare Event Definition

A two- to five-day focused improvement activity during which a sequestered, cross-functional team designs and **fully implements** improvements to a defined process or work area, generating rapid results and learned opportunities.

iSigma Group

“Building Sustainability First, with People Always!”

8 Kinds of WASTE in Healthcare

- **Laboratories**

 Reducing Turn Around Times and Errors

- **Emergency Departments**

 Reducing diversions, improving flow

- **Outpatient Cancer Treatment**

 Reducing patient delays, increasing capacity

- **Operating Rooms**

 Reducing changeover times, increasing utilization

- **Pharmacies**

 Reducing errors, improving response

- **Food Service**

 Reducing wasted food, improving quality



WASTE in Healthcare is DOWNTIME

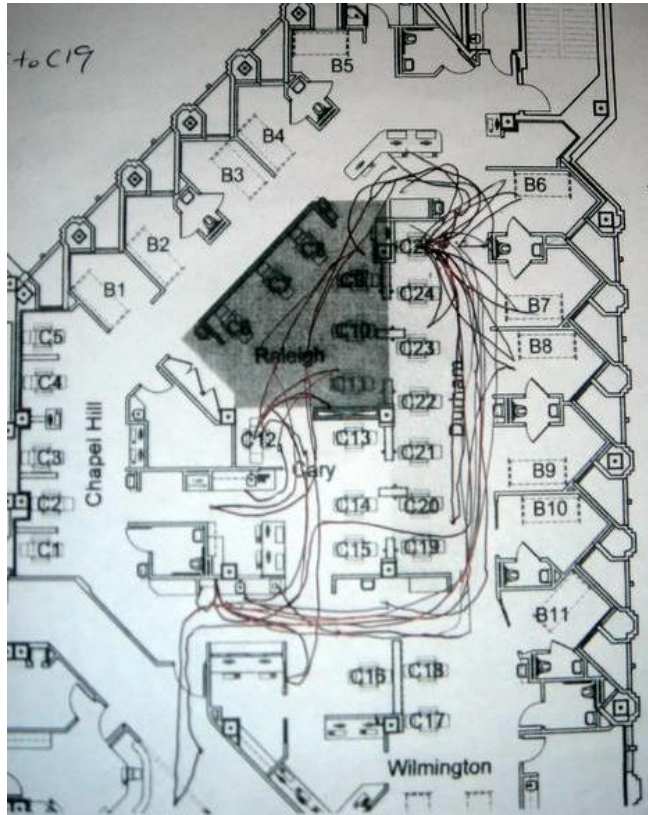
- **Defect**
 - Time spent looking for an item missing from a surgical case cart.
- **Over-Production**
 - Performing unnecessary diagnostic procedures.
- **Waiting**
 - Waiting for lab test, results, and patient reviews.
- **Non-Value Processing**
 - Performing procedures that aren't aligned with patients needs.
- **Transportation**
 - Catheter lab located a long distance from the emergency department.
- **Inventory Excess**
 - Supplies expiring, including out-of-date medications.
- **Motion Waste**
 - Lab employees walking miles per day due to a poor hospital layout.
- **Employee/People Waste**
 - Employees are not engaged, heard or ideas not supported.

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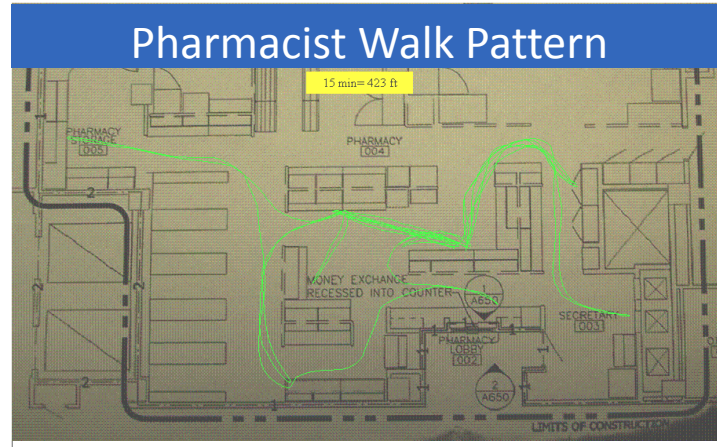


LEAN Healthcare Tools

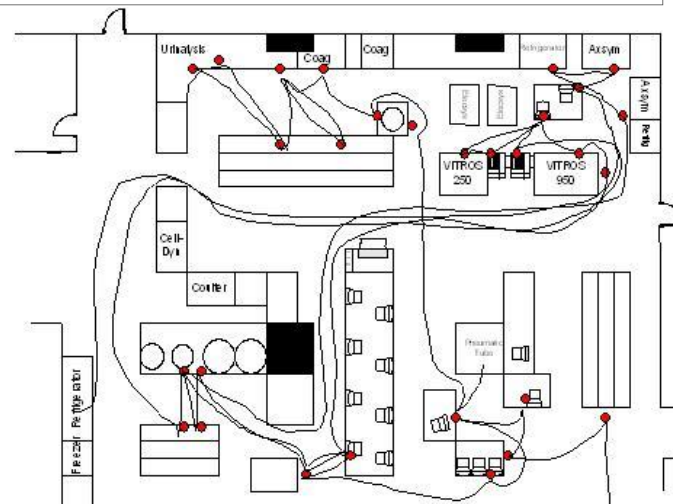
-Spaghetti Chart



Cancer RN Walk Pattern



Pharmacist Walk Pattern



Medical Tech Walk Pattern

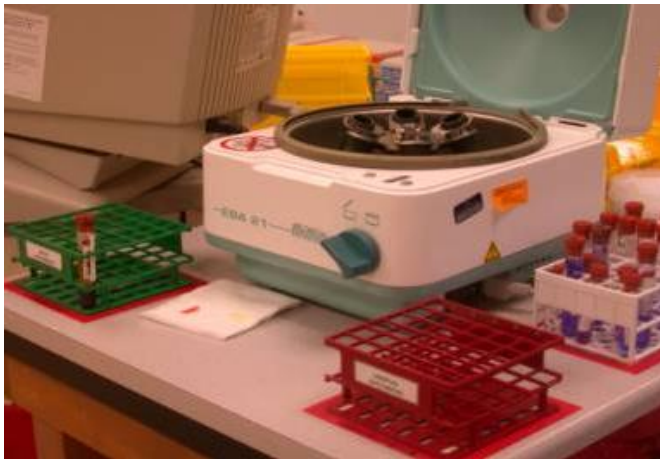
LEAN Healthcare Tools -6S/5S



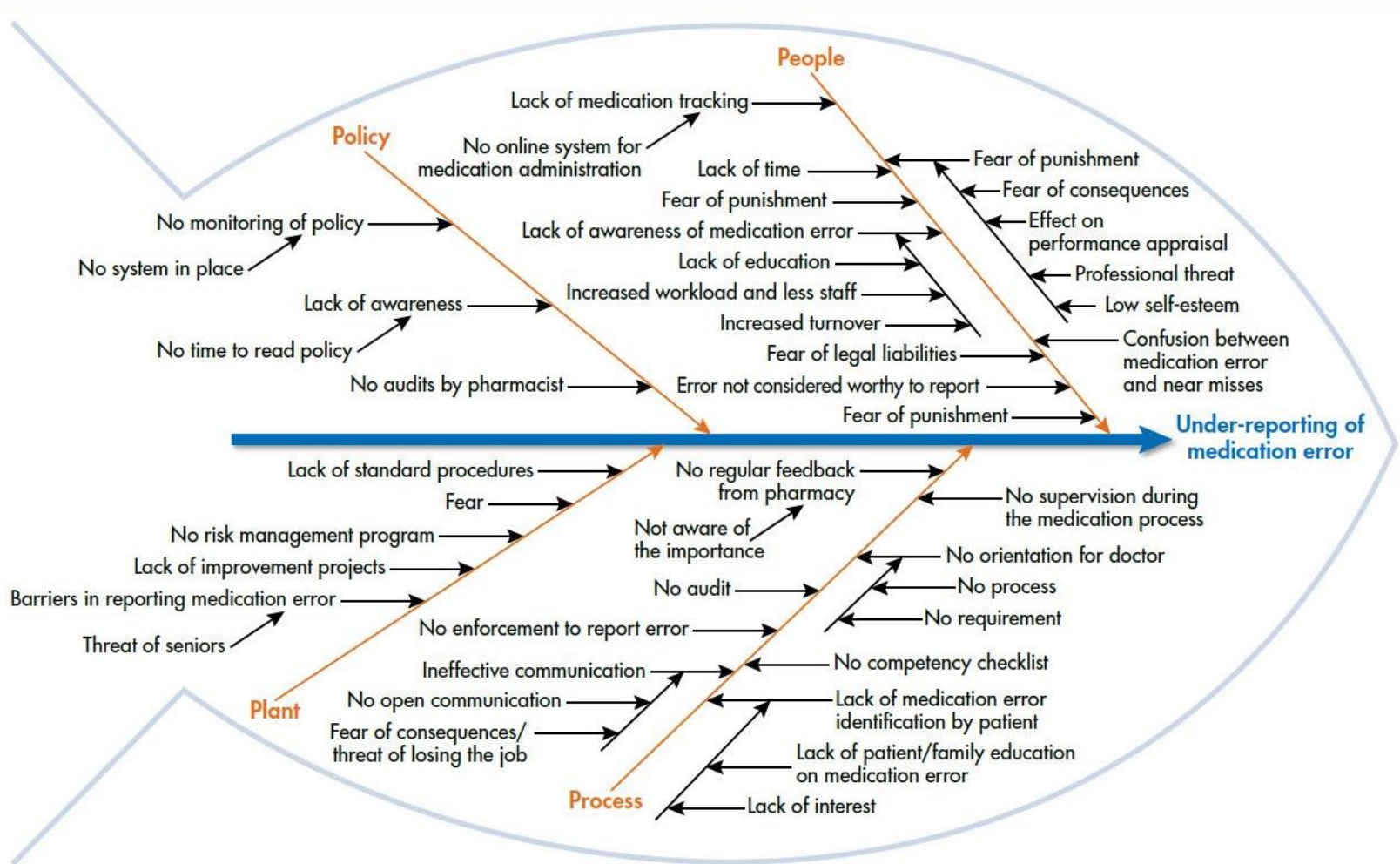
- Unorganized Workbenches
- Product Flow not Obvious
- Time wasted looking for things
- Hoarding of supplies

- Poor Utilization of Space
- General Clutter
- Supply Shortages and “Hidden” Inventories

LEAN Healthcare Tools -6S/5S

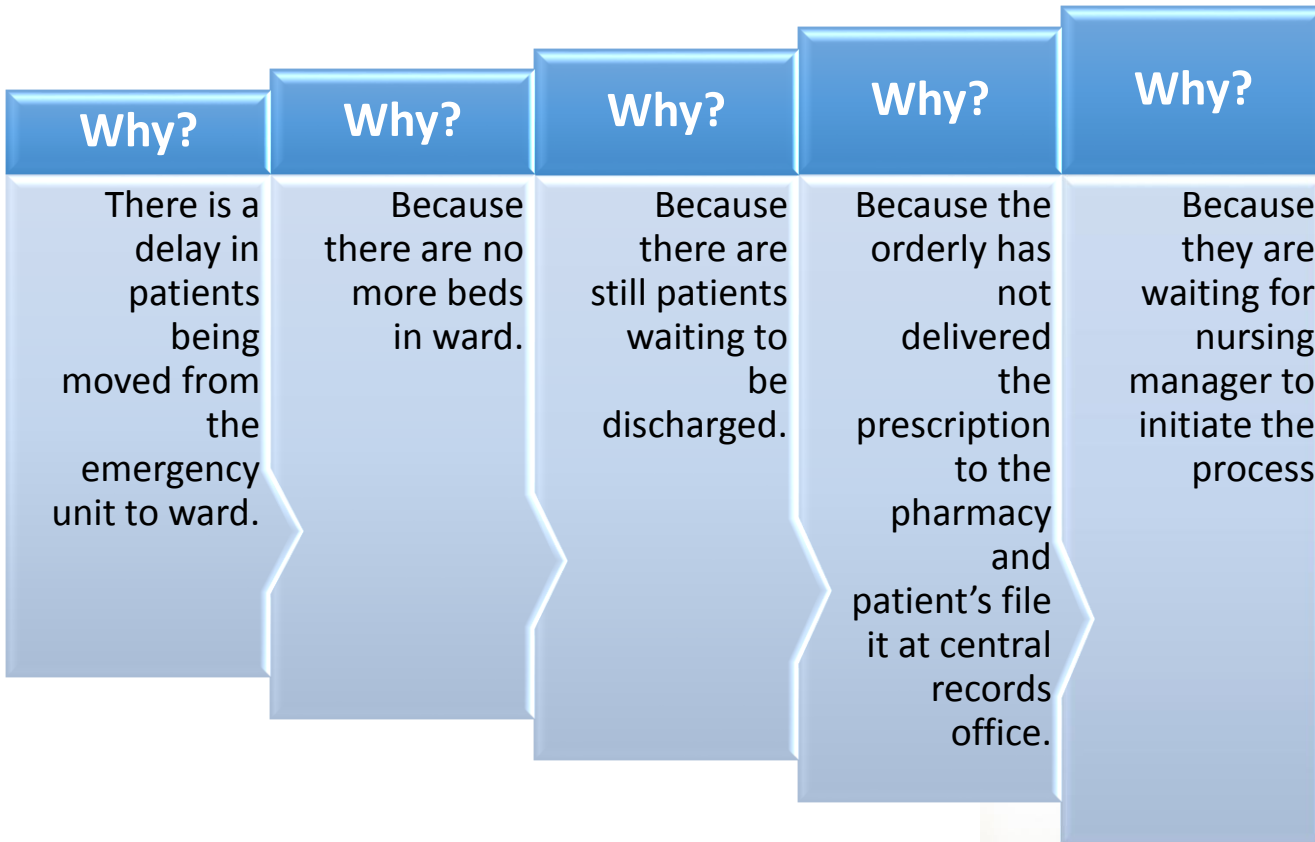


LEAN Healthcare Tools -Fishbone Diagram



LEAN Healthcare Tools

-5 Whys in Root Cause Analysis





LEAN Healthcare Tools -Additional Examples

- Brainstorming
- Check Sheets
- Histograms
- Box Plots
- Scatter Diagrams
- Fishbone Diagrams
- 5 Why's
- Affinity Analysis
- Process Mapping
- Process Flow
- Value Analysis
- Poka-Yoke
- Visual controls
- 6S/5S

10 Things LEAN is Not...



1. A waste reduction principle only.
2. Absent of data
3. Easy
4. Implementing projects having poor management controls
5. Possible without stable processes
6. Just walking the GEMBA, and hey walking it blindly.
7. Mean. Think more than twice if you fired 40% of workforce as a result of your lean efforts.
8. Implementation of LEAN tools without people development.
9. Free
10. An individual or spectator only methodology.

Call to Action

• What can you do?

- Talk to colleagues and share your thoughts on identifying WASTE
- Identify a project sponsor

• Resources:

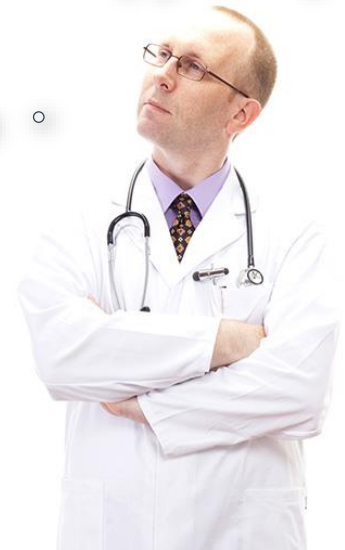
- “Good News... How Hospitals Heal Themselves” (DVD/PBS)
- www.asq.org (American Society for Quality)
- www.ihi.org (Institute for Healthcare Improvement)
- www.leanblog.org (Mark’s lean blog)

How can we continuously improve

What is quality?

How can we achieve best outcomes?

What should we measure



Assessment

LEAN Six Sigma is a reduction in employee initiative?

- True
- False



Assessment

KAIZEN events are long term waste reduction projects that typically take a few months to complete?

- True
- False



Assessment

KAIZEN events should only include Administrators and Doctors?

- True
- False



Acknowledgements



32nd Annual Kaleidoscope Prenatal, Neonatal, and Women's Health Conference





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