

*[Where We Started and Where
We're going.....] A Lean Centered Surveillance
and Prevention Program*

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Disclosures

I have received research grant from the
Federal Government.
I have taken antibiotics
I have had infections

Objectives

1. What is Lean
2. The Kaizen system
3. Reduction of waste (Muda)
4. Cost Savings
5. Sustainability of the process

The Way We Were at PHLB

- In years past. It was generally accepted that a well designed Infection Control Program could prevent about 30% of infections acquired in the hospital.
- As long as we are below the national level.
- “Because we’ve always done it that way

The times they are a changing.....
Bob Dylan

Changing.




Remaking
AMERICAN
MEDICINE
HEALTH CARE FOR THE 21st CENTURY
It's Your Health...
You Call the Shots

The Strategic

- Quality and Improvement (PDCA)
- Patient hygiene (The Steiros Algorithm)
- The Environment
- DNV (Accreditation)
- Lean
- We allow the space for people to be creative.





What is Lean?

Every system is perfectly designed to achieve
Exactly the results it gets

The core idea is to maximize **customer value** while minimizing waste. Simply, lean means creating more value for customers with fewer resources.

The term "lean" was coined to describe Toyota's business during the late 1980s by a research team headed by Jim Womack, Ph.D., at MIT's International Motor Vehicle Program.

Purpose, Process, People

Womack and Jones recommend that managers and executives embarked on lean transformations think about three fundamental business issues that should guide the transformation of the *entire organization*:

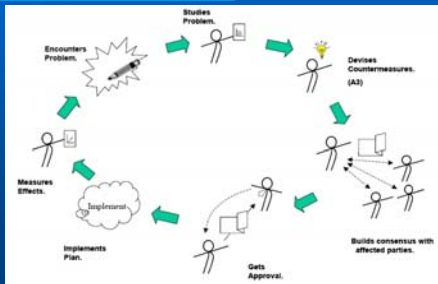
-Purpose: What customer problems will the enterprise solve to achieve its own purpose of prospering?

-Process: How will the organization assess each major value stream to make sure each step is valuable, capable, available, adequate, flexible, and that all the steps are linked by flow, pull, and leveling?

-People: How can the organization insure that every important process has someone responsible for continually evaluating that value stream in terms of business purpose and lean process? How can everyone touching the value stream be actively engaged in operating it correctly and continually improving it?

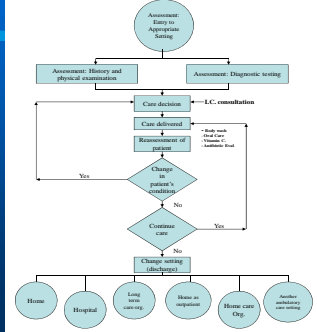
"Just as a carpenter needs a vision of what to build in order to get the full benefit of a hammer, Lean Thinkers need a vision before picking up our lean tools," said Womack. "Thinking deeply about purpose, process, people is the key to doing this."

PDCA is meant to be applied as a cycle: a new way of operating. Visually, it looks like this:

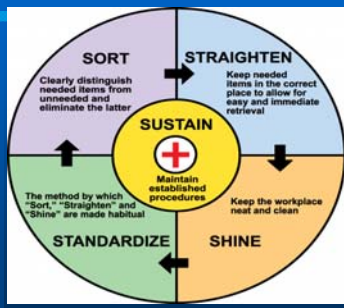


The Lean Approach (5S)

Surveillance, Prevention and Control of Infection
TRACER-FLOW CHART



5S Methodology



The Objectives of 5S





Hygiene [A forgotten Practice]

- Unclean skin favors the development of pathogenic organisms – dead cells that continually slough off the epidermis mix with secretions the sweat and sebaceous glands and the dust found on the skin to form a filthy layer on its surface.

The traditional APIC-CDC-SHEA Infection Control practices focus mainly on Isolation and Hand Washing

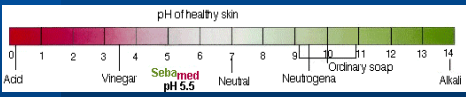
Good Lord, what've I got??

Function of the skin

- Protection
- Sensation
- Heat regulation
- Control of evaporation
- Storage and synthesis
- Absorption

Hygiene .3

- The skin supports its own ecosystem of micro-organisms including yeast and bacteria which can not be removed by any amount of cleaning.



The image shows a pH scale from 0 to 14. The scale is color-coded: 0-4 is red (Acid), 5-6 is yellow (Vinegar), 7 is green (Neutral), 8-9 is light green (Neutrogena), 10 is dark green (Ordinary soap), and 11-14 is blue (Alkal). A red dot is placed at pH 5.5, labeled 'Sebamed'. The text 'pH of healthy skin' is centered above the scale.

The Patient [The Skin is The Source]

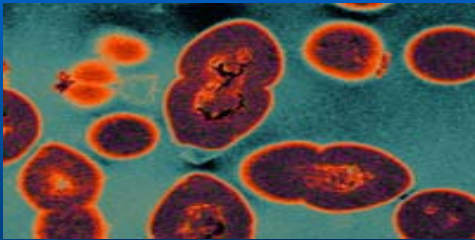


The image contains three photographs. The top-left shows a patient's skin with a large, red, ulcerated lesion. The top-right shows a microscopic view of a biofilm, a complex community of microorganisms. The bottom-right shows a petri dish with a biofilm growing on a surface, with a ruler for scale. The labels 'MRSA' and 'Biofilm' are placed near their respective images.

Bacteria Under Finger nails



Enterococcus faecalis resistant to vancomycin (VRE)





Health care Facilities Environmental Contamination

- Healthcare facilities-acquired infections in most cases, are the results of environmental contamination, and poor patient hygiene during hospitalization, and not how sick the patient were at the time of admission.

The importance of cleaning

The Inanimate Environment Can Facilitate Transmission



Contaminated surfaces increase cross-transmission --
Abstract: The Risk of Hand and Glove Contamination after Contact with a VRE (+) Patient Environment. Hayden M, ICAAC, 2001, Chicago, IL.



Changing Vantage Points

- Infection are not longer considered inevitable consequences of treating older, sicker or uninsured patients.
- Now we hear terms like "zero tolerance", "pursuing perfection", "irreducible minimum", "lean", "six sigma", and Positive Deviance (PD)
- The idea is to aim for perfection rather than match the bench marks set by (NHSN, APIC, SHEA)

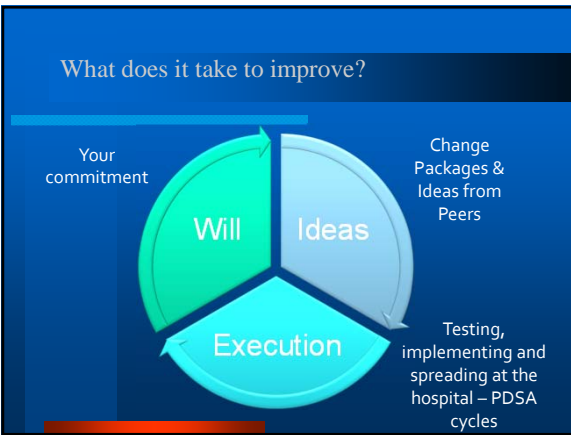
"A pessimist see the difficulty in every opportunity; an optimist sees the opportunity in every difficulty." Winston Churchill



Out-Comes and Savings







Summary

- If not this then what?
- If not us then who ?
- Joe Calvasso CEO Mount Carmel Hospital

Clean Care is Safe Care.....



Steiros – Algorithm a system in place at PHLB and Ernest Health Care LLC. Since 2006, and RCH Since 2010.
