Lean Healthcare
SHIP Lean Training
Waste Walk Exercise

RE-THINKING HEALTHCARE
IMPROVING PATIENT CARE THROUGH DESIGN

Defects	Overproduction	Waiting	Non-Utilized Talent
Efforts caused by rework, scrap, and incorrect information.	Production that is more than needed or before it is needed.	Wasted time waiting for the next step in a process.	Underutilizing people's talents, skills, & knowledge.

Transportation	Inventory	Motion	Extra-Processing
Unnecessary movements of products & materials.	Excess products and materials not being processed.	Unnecessary movements by people (e.g., walking).	More work or higher quality than is required by the customer.

Waste Walk Exercise

Before you can fix a problem, you must first see it. However, the longer you're in the same place, the more difficult it is to see the waste around you. Taking a "waste walk" is one way to make the waste visible again. (A waste walk is different than a Gemba Walk) It is a planned visit to where work is being performed to observe what's happening and to specifically look for waste.

What is Waste?

Anything that does not add value is considered waste or Muda. Taiichi Ohno, founder of the Toyota Production System, identified seven (7) wastes. Another waste was added at a later date. We call these the Eight Wastes in Healthcare:

Time:
- Waiting for people or services to be delivered; Time when people, processes or equipment are idle

Defects:
- Waste related to costs for inspection of defects in materials and processes, customer complaints and repairs

Motion:
- Unnecessary movement or movement that does not add value.
- Movement that is done too quickly or too slowly

Transportation:

- Conveying, transferring, picking up, setting down, piling up and otherwise moving unnecessary items.

Inventory:

- Excessive amounts of supplies, materials, or information for any length of time.
- Having more on hand than what is needed and used.

Processing:

- Unnecessary processes and operations traditionally accepted as necessary.

Overproduction:

- Producing what is unnecessary, when it is unnecessary, and in unnecessary amounts.

Underutilization of People:

- Failure to fully utilize the time and talents of people; lack of training; no avenue for suggestions

Samples of Waste in Hospital:

Types of Waste	Brief Description	Hospital Examples
Defects	Time spent doing something incorrectly, inspecting for errors, or fixing errors	Surgical case cart missing an item; wrong medicine or wrong dose administered to patient
Overproduction	Doing more than what is needed by the customer or doing it sooner than needed	Doing unnecessary diagnostic procedures
Transportation	Unnecessary movement of the "product" (patients, specimens, materials) in a system	Poor layout, such as the catheter lab being located a long distance from the ED
Waiting	Waiting for the next event to occur or next work activity	Employees waiting because workloads are not level; patients waiting for an appointment
Inventory	Excess inventory cost through financial costs, storage and movement costs, spoilage, wastage	Expired supplies that must be disposed of, such as out-of-date medications
Motion	Unnecessary movement by employees in the system	Lab employees walking miles per day due to poor layout
Overprocessing	Doing work that is not valued by the customer or caused by definitions of quality that are not aligned with patient needs	Time/date stamps put onto forms, but the data are never used.
Human Potential	Waste and loss due to not engaging employees, listening to their ideas, or supporting their careers	Employees get burned out and quit giving suggestions for improvement

Learning Objectives:

- To introduce the concept of Lean and how the eight wastes are associated with it.
- To introduce the concepts of Waste – inventory, lost time, movement, transport, etc.
- To energize staff to understand the benefits of removal of waste
- To explain how to identify and eliminate waste
- To practically examine the benefits of removing waste and the potential savings
- To practice identification of the 8 wastes in your organization.

Direct Observation

Direct observation is the best way to see how the work happens or to see how patients, materials and information flow through a process. Its best to walk through the entire process quickly, then go back and do direct observation to develop detail by following a patient, materials/equipment and information through the entire flow.

Observation in Lean IS:

- First Hand
- One person at a time
- A structured process, with a framework
- Documenting the work exactly as it is being performed
- What "is" vs. what "should be" (or what the policy manual states)

Observation in Lean IS NOT:

- Following/Shadowing a Patient/Staff Member
- Monitoring/Evaluating
- Interviewing
- Necessarily Statistically valid

‡ Observation is CRITICAL in Lean to:

- See the reality
- See from the patient's perspective
- Expose the hidden costs
- Quantify waste in the way work is done
- Understand the root causes to problems
- Generate ideas to truly eliminate the root causes
- Create a continuous improvement culture

Waste Walk Guidelines

Taking a "waste walk" is one way to make the waste visible. In other words, after learning about waste in an organization you will see your hospital with "new eyes." A waste walk is simply a planned visit to where work is being performed to observe what's happening and to note the waste. Here are some suggested guidelines:

1. Huddle with your team members:

    a. Describe the purpose,

    b. Review the various forms of wastes and examples,

    c. Pass out copies of the "Identifying Waste – Worksheet" and,

    d. Assign areas to walk to your team. It's usually better to have each individual work on their own for their assignment.

2. Go out on your waste walk and look for examples of each waste.

3. Move to areas in the individual assignments, and study the areas for 30–45 minutes.

4. Do NOT explain to the people in the area of observation that you are looking for "waste" but that you are observing how things flow through the hospital. We want to observe the process in its most natural setting. However, it is important to say if someone asks, *"I'm not checking on you to see how you are doing your work, but we are here to honor your work by seeing how the process works. We want the process to be the best it can be for our staff and our patients"*

5. As you see work that appears to be waste, jot down the example you see on your *Identifying Waste – Worksheet.*

6. End the walk when all team members have successfully identified at least eight examples of each of the eight wastes.

7. Return to the team and discuss what you have seen. One by one, have each team member describe their waste. Generate ideas to eliminate the wastes that have been identified.

8. Do this once per week with your team over the next three weeks. Vary the times and the days to get a better picture of what is really happening in the hospital. Vary the flow or processes you are observing.

9. On the fourth week, bring your team together and review the previous three weeks' worth of information. Draft your Waste Walk

"Lessons Learned Report" and submit on Moodle by answering the following questions:

a) Report the types and kinds of wastes you identified.
b) What was the cause? Was it a symptom or a root cause?
c) How were the customer and/or staff impacted?
d) What bottlenecks or obstacles in the process flow (value stream) did you identify?
e) What ideas did you come up with for eliminating or reducing the waste?
f) What was the most difficult part of identifying waste? What was the easiest?
g) What would you do differently the next time you go on a waste walk?
h) What are the greatest opportunities to reduce or eliminate waste that you observed?

Remove Waste
Revamping processes for least waste

Value-Add	Business-Non-Value-Add	Non-Value-Add
Activities that the customer is willing to pay for and that change form, fit or function.	Activities that must be performed for legal or regulatory requirements.	Activities that the customer would be unwilling to pay for.
Optimize	*Minimize*	*Eliminate*