



The LEAN System: Be More Efficient Without Cutting Corners

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Products made in Japan 50 years ago evoked images of mass-produced, low-quality goods. Today Japanese brand names such as Toyota, Lexus, and Honda signify quality and durability. How were the Japanese automakers able to improve quality and reduce cost? Did they just get lucky? No, they got Lean!

While Lean started in manufacturing, Lean processes translate to service industries too. There are tremendous opportunities for the use of Lean in healthcare. A study of human healthcare facilities concluded that the facilities spent 75% of their time on non-patient tasks related to communicating, coordinating, and documenting care. In addition, a 2003 report by the New England Journal of Medicine reported a 45% defect rate in human healthcare. The overall goal of applying Lean strategies in healthcare is to initiate a process of continuous improvement to improve patient outcomes while lowering costs.

Several human healthcare facilities have used these statistics as a lever for implementing Lean. The results are impressive. ThedaCare, a Wisconsin-based health system, reduced inpatient total cost of care by 25% while improving patient satisfaction to nearly 100%. Seattle Children's new surgery center reduced nonoperative time by 50% versus the main campus surgery center.

Lean defines waste as any activity clients view as not adding value to their experience and not meeting their needs. By focusing on activities which meet the needs of the client, you will realize benefits such as:

- Improved patient care
- Improved client satisfaction
- Improved staff satisfaction
- Reduced inventory
- Improved flow of patient care
- Reduced expenses

Waste goes beyond expired medications. Lean identifies seven areas of waste.

- Unnecessary services. Are you doing things that don't need to be done, such as inadequate patient work-ups (running lab test A when you needed lab test B)?
- Mistakes. Does your staff regularly need to redo work and correct errors?
- Delays. Do equipment failures and wait times for charts or medications happen frequently?
- Unnecessary motion. Could you increase efficiency by moving equipment or supplies to reduce or eliminate wasted effort?
- Over-processing. Review your protocols and processes on a regular basis to determine if they are still relevant and provide value.
- Excess inventory. This goes beyond the products stocked for retail sale and doctor use. For example, too many files leads to the need for more cabinets and more floor space. Do you have files and equipment you have not used for months cluttering your work area?
- Excess transport. Do you juggle patients and clients among rooms?

Wasting the creative and technical skills of your employees is an additional area that practice owners may not consider. Let your staff shine! Look for opportunities to tap their skill sets. Ask your team to identify opportunities to eliminate waste and present plans to implement their ideas. The traditional top-down management style places stress on the owner to lead initiatives and ensure implementation. Lean processes empower employees to inspect their own work and redesign processes and protocols to maximize efficiency. The result: staff members have newfound enthusiasm for their work and more time to practice medicine.

One of the strengths of Lean is its focus on action. You can get started right away with a small project, see immediate results that excite you and your staff, and leverage this momentum to take on a larger project. The first step - designate a Change Agent. The leader of your Lean initiative must have an open mind about change and be able to make things happen. He or she can seize upon a frustrating experience and turn it into an opportunity to start a Lean project. For example, a staff member may struggle to find needed medical equipment in a storage area. The Change Agent can use this experience as an opportunity to rearrange the storage area in a way that makes items easy to find and reduces frustration and wasted time.

The Change Agent begins the Lean project by implementing the 5S System for the targeted area of improvement. While originally 5S was used as a tool for maintaining clean work areas, it has evolved into a systematic method for reducing costs, improving work flow, and empowering employees to assist in reducing waste. The staff members closest to the service now have the authority and tools needed to improve work processes or work areas.

Once the first Lean project has been identified, begin by taking photographs or video of the area of focus. Before and after pictures are a powerful tool for showing staff members the benefits derived from Lean initiatives. Next, utilize the 5S steps.

1) Sort

- Eliminate unneeded items within the target area. Dispose of items that aren't needed. Fight the urge to hold onto items because you might need them in the future.

2) Set-In-Order

- Current State. During this step, document the location of each item and the current work flow. Create a map of the area to outline it, identify the large items, and map the flow of patients, clients, employees, and paperwork. Label all significant items, so they are easily identifiable to staff members. This process, called mapping a value stream, creates a one page picture or flow chart of the current process, and helps identify redundant steps and unnecessary motion.
- Future State. With the current state mapped, now create a future state value stream map. How can you eliminate waste identified in the current state value stream map? What is the ideal flow for completing a task? Brainstorm with your staff to create an area which has great flow, is well ordered, and reduces unnecessary movement. Items are now well-labeled and anything can be found within seconds. Everything has a place and there is a place for everything.

3) Shine

- Inspect, clean, organize, and de-clutter the area and items within the area. Repair or replace frayed cords, bad bulbs and batteries, and worn-out parts.

4) Standardize

- Create standards and visual controls such as signs and checklists to improve efficiency and reduce errors. Signboards and color code indicators provide important information at a glance.

5) Sustain

- Teach employees your Lean processes and protocols, so everyone understands the benefits. Continue to evaluate additional Lean opportunities.

As with any change, you may encounter staff resistance. People may not understand the need for change, may fear it will lead to more work, or may not understand that they will be playing a key role in determining the changes. Commit to the program, explain the need for the changes, and address the fears of the resisters. Unfortunately about 10% of the workforce might remain resistant to the change and leave. But those who embrace Lean will enjoy improved safety, work flow, and reduced costs that

lead to increased customer satisfaction, employee engagement, and practice profitability. Don't wait to realize the benefits of Lean. Implement Lean in your practice now!