Using 3P in Lean Healthcare Facilities Design

Mike Wroblewski
Mike Wroblewski

Row  Bless  Ski
My Blog!

Got Boondoggle?

Author and Creator

www.gotboondoggle.blogspot.com
Background

Hill-Rom

Batesville Casket Company
My Lean Introduction

1985 SMED Lesson
“There are four purposes of improvement: easier, better, faster and cheaper. These four goals appear in the order of priority.”

Shigeo Shingo
Production Preparation Process (3P) is one part of an overall Lean design approach that includes the rapid testing of ideas and the embedding of Lean principles into process and workspace design.
3P Target

Providing from day one of implementation,
100% quality of care,
flowing with no waste,
in a safe and effective manner
When is 3P used?

Production Preparation Process

- Changes in Demand
- New or Improved Processes and Products
- Upgrading or changing equipment
- Building new clinics or spaces
Goals

Remove inefficiencies
Optimal space
Patient safety
Healing environment
Optimal service pattern
More time with patient
Less energy cost
“I could try to think differently”
Some of the Benefits

• Cross Functional Team
• Rapid Testing of Ideas
• Embedding of Lean Principles into process design
Challenge

We don’t challenge the current system, stuck on existing models

Avoid replicating the status quo but only bigger
Why not the conventional way?

Problems overlooked

Function focus, not patient

High costs
Silo Approach

Hospital Leadership

Architects

Builders
Team Approach

Hospital Leadership + Staff + Architects + Builders
Cost Impact

80-90% of cost encountered after construction is directly related to decisions made during the design phase.
Our Quest

We are the Architects of the Future
Our Mission

To fundamentally reinvent the healthcare experience from the ground up – for patients, physicians and staff – to achieve breakthrough results in satisfaction, patient safety, clinical outcomes and operating performance.
Kaizen Alone May NOT Get Us Where We Need to Go

To Succeed, we must do both!

Vision

Evolutionary

Kaiakaku

Revolutionary

Production Preparation Process

Time

Improvement
1. Determine Function
2. Collect “Real” Data
3. Develop “7” Alternatives
4. Evaluate “7” Alternatives
5. Select Better “3” Alternatives
6. Construct Model Operations
7. Simulate “3” Alternative Processes
8. Select Better “1” Design & Process Combination
9. Create Standard Work
10. Develop Equipment Concepts
11. Develop implementation Plan
12. Follow Up!
Understand Customer Requirements

• Marketing spec?
• Design spec?
• Customer surveys, focus groups?
• Customer complaints?
Let our Customer define Value
Collect “Real” Data
Collect “Real” Data
Understanding the current state
Karen’s Ride

Our Customer’s Experience
Seeing through our Patient’s Eyes
Develop 7 Alternatives

Each alternative must be a good workable solution.

Define “what would it take” to make the idea work.

Do not evaluate ideas, focus on what might work!

Consider process steps, not equipment

Do not rely on old or in-house process - select what is best?
Patient Centered

Design around the patient experience
Efficient

Minimize waste and duplication
Timely

No unnecessary waiting
Reduce Steps
Elimination of Patient Handoffs

Move care to patients to minimize patient moves
Fewer Dedicated Spaces

Flexible Space
Select Better “3” Designs

What criteria and evaluations will identify the 3 better alternatives?
# Redesign of an Outpatient Pavilion

## Key Criteria

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<th>Design 3</th>
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Score: 1, 3, 5 (highest) X weight
3P Tools

- 7 flows (Spaghetti diagrams, String Models)
- 7 ways (think like 12 year old)
- Simulation/Modeling (post-it notes)
- Life size mock-ups
String Models
String Model
3P: “Intelligent Design” of our workspaces (mockup, try, practice)
Life-Size Mock up
Be Curious
Kaizen-man

Develop our Kaizen Eyes
Kaizen Mind
Don’t Jump to only one Idea

Start with SEVEN concepts
Condense to THREE
Distill to ONE
3P Guide

• Have defined scope/goal from the start
• Clearly articulate/communicate your scope/goal to team
• Measurement and good data are critical to the process
• Participation from patients is essential
• Standard work is necessary for efficiency
• Flexibility is achieved by breaking down department barriers
• Interdisciplinary groups should always design facilities
• Visualization is a key to understanding flow and processes
• Simulation is enlightening, it changes peoples’ views on flow
“Do not seek to follow in the footsteps of the wise. Seek what they sought.”

- Matsuo Basho
Japanese Poet
Thank you

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