LEAN PROCESSES IN HEALTHCARE

What is Lean?

Eliminating waste

The foundations of Lean is…
Kaizen (Continuous Improvement)

TAIICHI OHNO

- Toyota Executive
- The Grandfather of Lean
- Created the Toyota Production System to:
  - Identify and eliminate waste
  - Create standard work
  - Reduce defects
  - Mistake-proof

VIRGINIA MASON MEDICAL CENTER

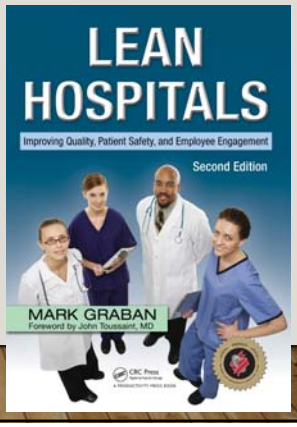
- Late 1990's Virgina Mason was in trouble
  - Losing Money
  - Medical Mistakes
  - Bad Moral
  - Staffing issues
  - Increase medical costs

CHANGE OR DIE

- 2001 Virginia Mason committed to their Lean Journey
- Sent Key Executives to Japan to train a Toyota
- CEO decided rather than just improve efficiency, they were going to:
  - **Transform Health Care**

LEAN IN HEALTH CARE

- Most major medical centers have adopted Lean principle



VALUE

- What is Value?
  - Quality/Cost

WASTE

- Effort the client will not pay for
  - Value added waste
  - Non-value added waste

VALUE ADDED WASTE

- Scrubbing a catheter site
- Reviewing or creating medical records
- Walking dogs
- Overhead expenses

NON-VALUE ADDED WASTE

- Waiting for staff, equipment or paperwork
- Walking time
- Repeat work
- Slow computers

7 FORMS OF WASTE

1. Defects
2. Motion
3. Time
4. Transportation
5. Processes
6. Over production
7. Inventory

DEFECTS

- Mistakes in technique or judgement
  - Medical Mistakes
  - Miscommunication or lack of communication
  - Lack of preparation

MOTION

- Unnecessary movement due to:
  - Equipment or supplies too far away
  - Offices or workstations far from patients or work space
  - Lack of organization (items not clearly labeled)

TIME

- Waiting for
  - People
  - Services
  - Equipment
  - Technology

TRANSPORTATION

- Setting up or breaking down rooms
- Moving:
  - Supplies
  - People
  - Equipment
  - Patients

PROCESSES

- Writing medical notes, then re-typing them
- Client giving history multiple times
- Excess paperwork

OVERPRODUCTION

- Producing reports no one looks at
- Creating boxes of hep flushes
- Excess laundry for bedding

INVENTORY

- Excess supplies
- Spoilage
- Managing/storing inventory
- Large amounts of supplies in multiple areas

5S

- Sort
- Simplify
- Sweep
- Standardize
- Self Discipline

THE NUMBER GAME

- Cross off number 1-49
- Time Allowed, 20 sec
- How far did you get

SIMPLIFY

- Eliminate unnecessary items
- Time Allowed, 20 sec
- How far did you get?

SORT

- Recognize the pattern
- Time Allowed, 20 sec
- How far did you get?

SWEEP

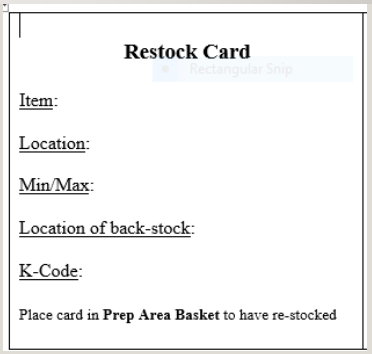
- Find the missing numbers from 1-49
- Follow the pattern you used before
- Time Allowed, 40 sec
- Which numbers were missing?
- 20, 35

STANDARDIZE

- Every item has it's place
- At a glance visualize missing items

KANBON

- A tool to effectively implement just in time inventory
- A visual cue indicating supplies need to be restock



Restock Card

Item:

Location:

Min/Max:

Location of back-stock:

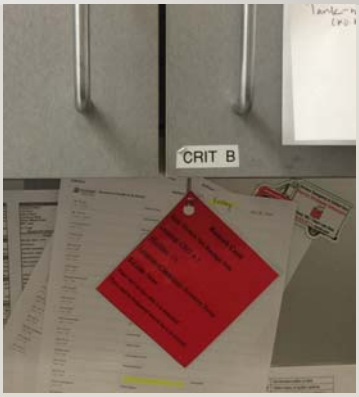
K-Code:

Place card in **Prep Area Basket** to have re-stocked

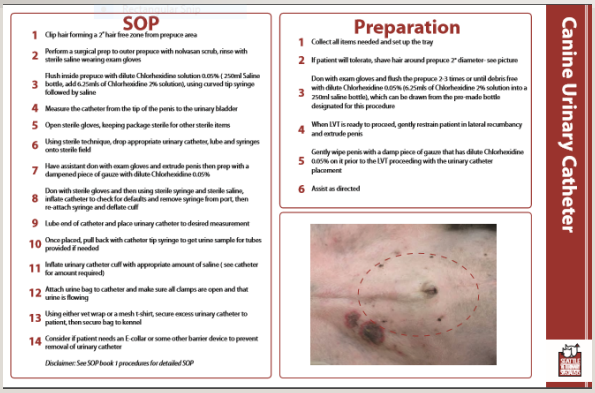
SVS'S LEAN PROJECTS

KANBAN

- Restock system
- Inventory control

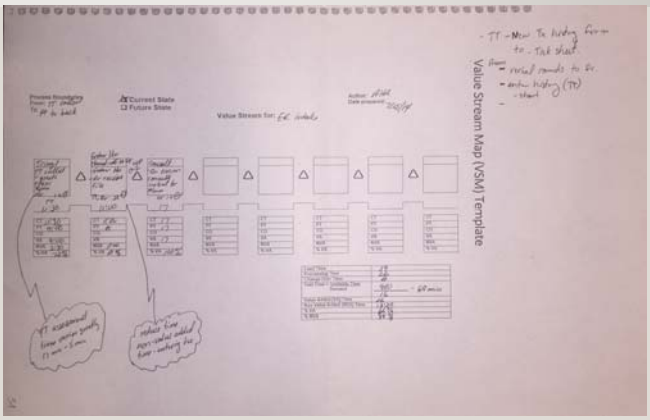


MISTAKE PROOFING & STANDARD OPERATIONS



VALUE STREAM MAPPING

- We realized were we spending 11-15 additional minutes per triage retyping medical notes
- We added computers in the exam rooms
- Improved check-in questionnaires
- Had referral coordinators room patients rather than LVTs



- Virginia Mason Medical Center decide the only way to transform health care was to put the patient first.
- This was a change from doctor centric.

QUESTIONS?