Lean Enterprise is a systematic approach to identifying and eliminating waste (non-value-added activities) through continuous improvement by flowing the **product at the pull of the customer in pursuit of perfection.

**Product = Process, Information, Service, Patients
Definition of Value Added

• **Value Added**

  Any activity that increases the form or function of the service. These are the things for which our patients would be willing to pay.

• **Non-Value Added**

  Any activity that does not add form or function or is not necessary. These activities should be eliminated, simplified, reduced, or combined.
Lean is not...

a job reduction strategy
The tools of Lean will allow you to:

- provide better service
- with less waste
- with improved quality
Lean = Eliminating (8) Wastes

Value-Added

Non-Value-Added
- Defects
- Overproduction
- Waiting
- Not Utilizing Employees
- Transportation
- Inventory
- Motion
- Excess Processing

Typically 95% of all lead time is non-value-added.
Anything that adds cost or time without adding value as defined by the primary customer is WASTE.
Defects

- Medication error
- Wrong procedure
- Wrong patient
- Missing information
- Paperwork doesn’t match
- Information entered incorrectly
- Incompatible software
- Lack of standard work

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Overproduction

- Making **more** than is required by the next process
- Making it **earlier** than is required by the next process
- Making it **faster** than is required by the next process

- Pills given out early
- Multiple bosses & multiple jobs cause wrong order of jobs
- Duplication of tests
Waiting

- For bed assignments
- Discharge,
- Testing results
- Approvals
- Equipment
- Couriers
- People…
The waste of not using people’s abilities (mental, creative, physical, skill)

- **Causes of People Waste**
  - Incompatible hiring practices
  - Politics
  - Corporate culture
  - Improperly trained employee
  - Old guard thinking
  - Business culture

- **Examples**
  - Bypassing procedures to hire a favorite candidate
  - Start using system software without prior training
  - Qualifications unclear
  - Not providing opportunity for growth
  - Temporary workforce
  - Flawed suggestion system
Transportation

- Moving same patient, specimens, or supplies,
- Defects/rework
- Poor layout
- Poor scheduling
Excess Inventory

Any supply in excess of a one-piece flow through your process

- Pharmacy stock
- Supplies (discount)
- Specimens waiting for analysis
- Files, manuals
- Patients…

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Any movement of people or machines that does not add value to the product or service

- Searching for patients, needed meds right charts, supplies
- Common items stored on top or bottom shelves.
Excess Processing

Effort that adds no value to the product or service from the customers’ viewpoint

- Retesting
- More paperwork. Printing, mailing, faxing emailing same document
- Duplicate procedures, forms
- Use of different software in different departments

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Waste becomes accepted

That's just the way work is done around here

It's the system
Lean Building Blocks

- Continuous Improvement
- Pull/Kanban
- Cellular/Flow
- Teams
- POUS
- Quality at Source
- Quick Changeover
- Standardized Work
- Batch Reduction
- TPM
- Visual
- 5S System
- Layout
- Value Stream Mapping

Continuous Improvement
Value Stream = All steps, both value added and non value added, Required to complete service/widget from beginning to end
Current Value Stream Map

**Patient arrival with care needs**

**Triage**
- Vitals
- Patient History

**Registration**
- Patient History

**RN Exam**
- Patient History

**Provider Exam**
- Patient History

**Provider Orders**

**RN Collects Lab**

**Completions of Labs and Req**
- Lab sent Therapy Begins

**Dashboard**

**Registration info entered into DB**

**DB tells RN patient has arrived**

**DB notifies MD of patients arrival**

**Labs collected are shown on DB**

**Lab info entered on DB**

**Patient departure shown in DB**

**Lead Time = 165 minutes**

**NVA=119**

**VAT=46**
Facility Layout:

Figure 1. Traditional racetrack configurations distance staff from their patients and one another and increase time spent on non-patient activities.
Facility Layout:

Figure 2. Adaptable spaces create efficient workplaces that can change as processes and requirements change.
5S Workplace Organization

A safe, clean, neat, arrangement of the workplace provides a specific location for everything, and eliminates anything not required.

- Sort
- Set in Order
- Shine
- Standardize
- Sustain
5S Workplace Organization

Store room before:
Visual Controls

Simple signals that provide an immediate understanding of a situation or condition. They are efficient, self-regulating, and worker-managed.
Visual Controls

Must be clear!
DEFINITION:
The process / method to be used every time by everyone to do a task safely based on the best known work practices.
Benefits of Standard Work

Keystone of continuous improvement

Standardized Work Sustains Improvements

Continuous Improvement Efforts

Time

Keystone

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Point of Use Storage (POUS)

- Material is stored at workstation where used.
- Vendor Managed Inventory (VMI) is best!
Lean Workforce Practices (Teams):

- Patient Care Teams – with rotation of highly specified jobs.
- Cross-trained and multi-skilled employees.
- Continuous improvement mindset.
- Process quality, not inspection.
- Participatory decision-making.
- Leadership at all levels.
Definition: The time between the last good output from the current task and the first good output from the next task at speed.

- Do changeovers occur in the office?
  - One set of documents are put away and replaced by another set
  - Office equipment has to be reset for the next job
  - Computer files are closed down and others retrieved
  - Associates go to the Boss for their next assignment
  - Visits to the supply cabinet for needs
  - Reconciliation of regulatory paperwork
A3 Problem Solving Reports

- 11” x 17” sheet of paper used to show the status of a problem or project.
- Use pictures and graphs versus text
- Follows the PDCA model.
Kaizen

Rapid Change for the Better
OR
Rapid Continuous Improvement

“Kai” = Take Apart “Zen” = Make Better
Questions???

Thank you
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