# Expediting Quality of Gynecologic Cancer Care through "Lean Management" and " Worker Empowerment"

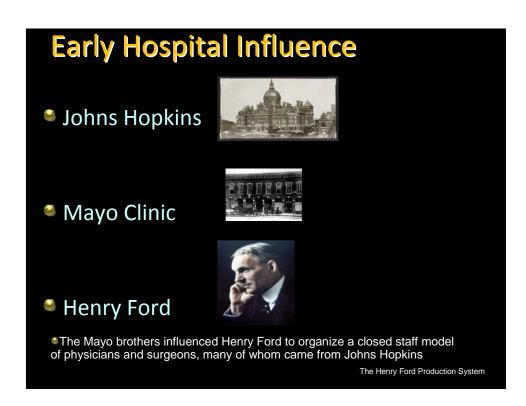


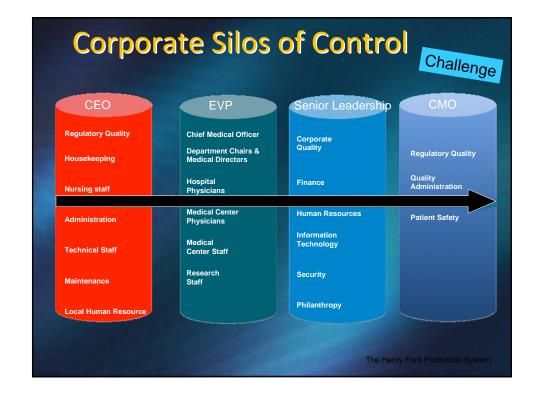
#### A little About Henry Ford Hospital and It's System

- Founded in 1915
- 1806 beds 23,000 employees, 5 hospitals
- 1,200 member Medical Group
- 467,000-member Health Alliance Plan
- 29 primary care ambulatory centers
- A leader in medical education









#### **Current Hospital Practice**

**Current Hospital Practice** Ideal State

goal

**Uninvolved or Disconnected** 

**Physicians** 

**Pockets of Training** 

Silo Structure Empowered employees driving

the path of work

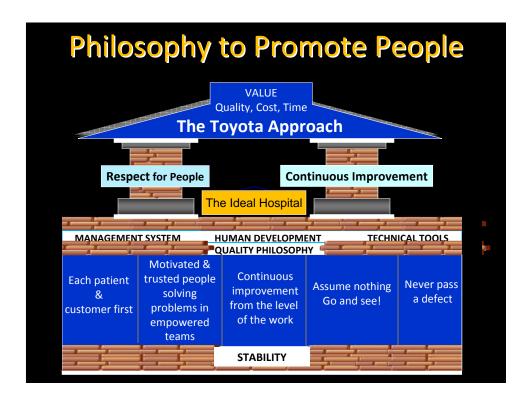
**Continuous improvement training** 

Physicians as team leaders

programs

The Henry Ford Production System

# We NEED Change





#### **Deming Culture**

"In companies that have embraced Deming's vision, management's job is to 'work on the system' to achieve continual product and process improvement.

The Deming-style manager must-ensure

The participation of every employee

The Henry Ford Production System

#### Leadership for Change

I'm in charge- I have the all the answers







You are the 'expert', your empowered, if you need assistance, feel free to ask

# Worker Empowerment

Henry Ford Production System

#### **Empowerment to Create a CI Environment**

- Ability to access information and collect resources
- Ability to consider a range of options from which to choose (not just yes/no, either/or)
- Ability to exercise assertiveness in collective decision making
- Discreet thinking ability to sort out right and wrong

-Wikipedia



SO those who do the work will take responsibility, freely identify daily defects and problem-solve within their teams

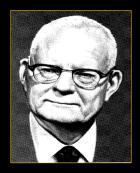




The Henry Ford Production System

## Contribution to Empowerment

# Coming Full Circle W. Edwards Deming 1950 to Present



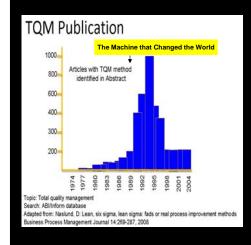
"What we need to do is learn to work in the system, by which I mean that everybody, every team, every platform, every division, every component is there not for individual competitive profit or recognition, but for contribution to the system as a whole on a winwin basis."

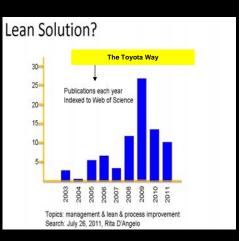
W. Edwards Deming

"All anyone asks for is a chance to work with pride."

The Henry Ford Production System

#### **LEAN Fad or Solution?**





We didn't change our management system

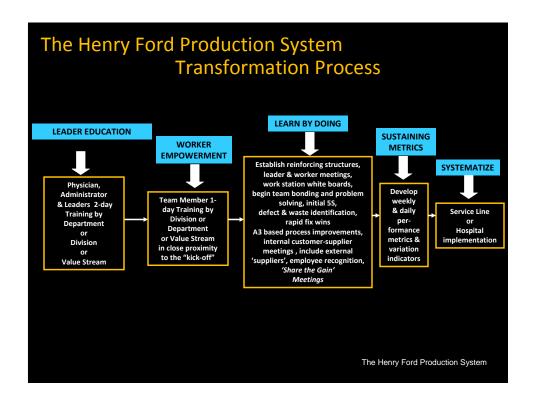
#### HF Lean Journey 2004-2011

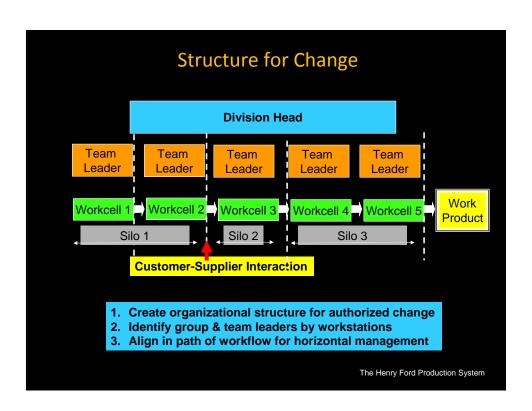
- Cultural change to an empowered workforce
  - Initial TPS training PRHI, Pittsburgh
  - Quality-focused Mission, Vision, Values, Org. Structure
  - Deming management & Toyota (LEAN) work rules
  - Visible, blameless identification of defects by workers
  - PDCA (A3) based solutions at the level of the worker
  - Fix defects in 'real time'
  - Over 800 trained employees- all System lab sites
  - Quality coordinators, Defined Work Teams, Customer-Supplier meetings, Monthly 'Share the Gain' presentations
  - 100s of improvements made each year by autonomous work cells (1392 done in 2010, 900 by 3<sup>rd</sup> Q 2011)
  - Increased productivity, efficiency, cost effectiveness, safety, employee & client satisfaction

The Henry Ford Production System

# LEAN Solution = The Culture of the Empowered Worker







## Continuous Improvement in Clinical

Medicine



The Empowered Workers

Gynecologic Oncology Clinic- Women's Health Services at Henry Ford Hospital

But..... We're Different

The Henry Ford Production System

#### The Beginning

- We enlisted the support of the Chair of GYN
- The leader -frustration
  - defects, waste and inefficiency



Adnan Munkarah, MD

#### Background

- Delays associated with test results
- Defective pathway for follow up appointments
- Departmental silos
- Processes within the clinic lack efficiency
- Lack of process standardization
- Ineffective hand-offs and communication with internal and external customers

The Henry Ford Production System

#### **GYN** –Oncology Goals

To provide an exceptional experience for cancer patients seen within the multi- hospital clinical service of Henry Ford Health System's Gynecologic Oncology Women's Health Services by improving and standardizing the pathways of care through the establishment of a "Lean" culture of empowered workers

GOALS
1.\_\_\_\_2
3.\_\_\_5.\_\_\_5.\_\_\_

## The Goal of Pathology

1.

To create a " Model Line" in Women's Services

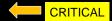
2.

To create a continuous process improvement effort that is currently nonexistent in a clinical setting

The Henry Ford Production System

#### Lean Application in the Clinical Setting

Leader Driven Initiative



- Mission, Vision, Values and Goals
- Created a leadership structure for quality improvement
- Define expectations empowered work force
- Work across the horizontal work stream
- "Model line" Women's Health Services

#### **Objectives**

- To transform this existing culture
- Empower the Worker
- Partner with The Henry Ford Production System (HFPS), an empowered 6 year Lean culture of Pathology and Laboratory Medicine
- To design a flawless patient experience within the clinic at every encounter
- To achieve the goal of the elimination of defects and defective pathways

The Henry Ford Production System

#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Values
  - b. Goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Customer Supplier Meetings
- 8. Process Improvements
- 9. Share the Gain
- 10. Continuous Improvement

#### **Discussion at the Leadership Meeting**

- A value stream from referring physician to the point of entry at surgery
  - Patient is suspected of having a cancer
  - Patient is referred to a specialty
  - The patient makes an appointment
  - The patient is seen in the office of the gynecologic physician
- The office staff of physician, nurses, midwives, fellows, residents, medical assistants, secretaries receive and treat the patient, perform necessary exams and schedule surgery if necessary

"Quality starts in the boardroom." -W. Edwards Deming

The Henry Ford Production System

#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. Goals

#### 2. Kick off Meeting with staff

- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Process Improvements
- 8. Share the Gain
- 9. Continuous Improvement

#### **Kick-Off Meeting**

"There must be consistency in direction."

An Initial kick off meeting with staff was conducted by the Ob-Gyn Chair in, April 2011. During this meeting he:

- Articulated a clear set of directives
- Initiated a culture change of continuous improvement
- Shared the mission, vision, values and the following important key message with staff.

Video

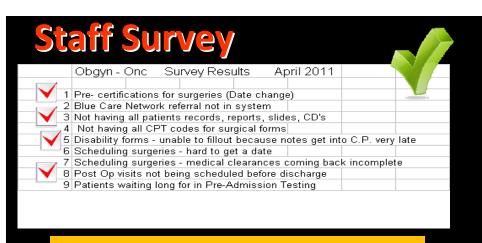
The Henry Ford Production System

# Kick Off Meeting Video

# "The Lean Implementation Plan" goal is to:

- Empower the following employees:
  - Physicians, nurses and technical staff
  - Secretaries and office staff
  - Medical assistants
  - Residents

The Henry Ford Production System



#### List the top 10 things that force you to:

- 1. Stop your work
- 2. Fix the work
- 3. Return work to the sender

#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Values
  - b. b. Goals
- 2. Kick off Meeting with staff

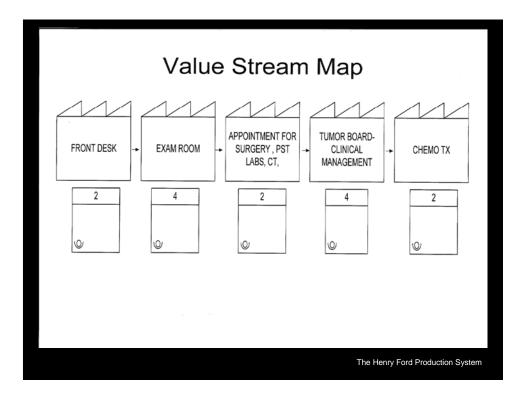
#### 3. Observation Sessions

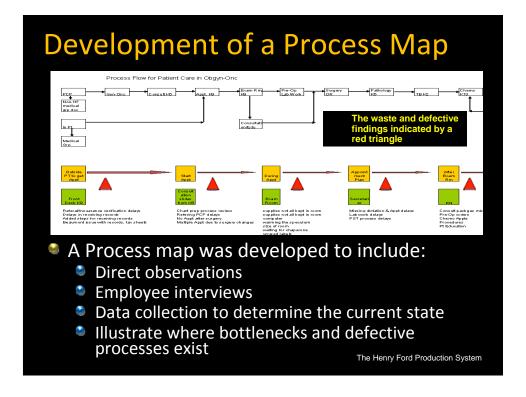
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Customer Supplier Meetings
- 8. Process Improvements
- 9. Share the Gain
- 10. Continuous Improvement

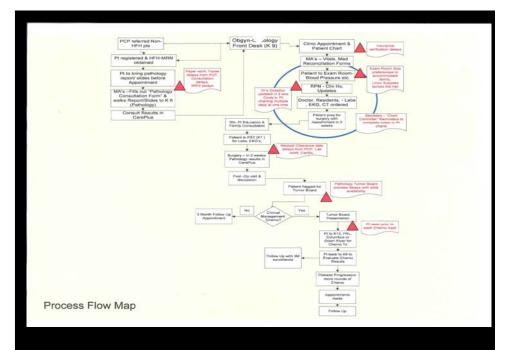
The Henry Ford Production System

# Performed Multiple Observation Sessions

- To define:
  - The current process
  - Roles and Responsibilities
  - Defective processes, waste, redundancy



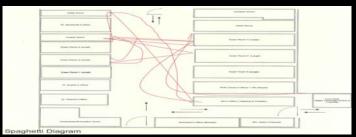




The Henry Ford Production System

## Spaghetti Map

- The current state "Process Map" is depicted by:
  - A spaghetti diagram developed by observing the movement of employees performing their tasks to determine inefficient processes and where the waste exists



The Henry Ford Production System

#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. Goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Customer-Supplier Meetings
- 8. Process Improvements
- 9. Share the Gain
- 10. Continuous Improvement

The Henry Ford Production System

#### Identify Leaders of the Structure

- Identify a leader who has passion for quality improvement
- Identify Lean Champions who:
  - Are open to feed-back and direction
  - Have the respect of their teams
  - Are recognized as leaders within the organization
- Identify area manager to work with physicians

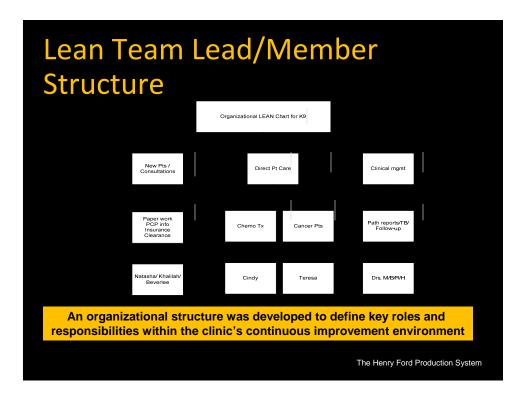
## First Steps- THE LEAN TEAM

Identification of the Lean Team organizational structure to appoint leaders and areas of responsibility

Education: Henry Ford Production System LEAN Training for Healthcare to the clinical

team





#### Challenges

- Primarily No one wanted to step forward and serve as lead
- The lead chosen by the chair was not accepted as the leader – she resided in a separate location

The Henry Ford Production System

#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation

#### 6. Team Lead Meetings

- 7. Customer-Supplier Meetings
- 8. Process Improvements
- 9. Share the Gain
- 10. Continuous Improvement

#### **Team Lead Meetings**

A result of the organizational structure-Weekly team meetings were conducted to discuss continuous process improvements



The Henry Ford Production System

#### Challenges

- Too Busy = a few employees resisted weekly meeting involvement
- 2 employees couldn't relate to process improvement- BODY LANGUAGE!
- Few members engage others check out......



#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Customer-Supplier Meetings
- 8. Process Improvements
- 9. Share the Gain
- 10. Continuous Improvement

The Henry Ford Production System

#### **Customer – Supplier Meeting**

Teams meet to discuss requirements and determine how the supplier can meet those requirements



#### Plan for Success

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Process Improvements
- 8. Share the Gain
- 9. Continuous Improvement

The Henry Ford Production System

## **GYN-Oncology Improvement**

	LEAN Project Tracker for Ohgyn-One Clinic 2011							
	LEAN Project Tracker for Obgyn-Onc Clinic 2011							
Item	Work	Team Leader/	Name of Process	Rapid	А3		Cost	
#	Area	Team Members	Improvement	y/n	y/n	Metrics	Savings	Status/Action Items
		Cindy/Teresa/	Phone Triage: To answer 3rd					
1		Natasha	caller in less than 2 mins	х				Resolved.
2		Teresa/Beverlee	Follow-up Appt at discharge		х			post data collected and to be tabulated
		Drs. Buekers/						multiple C/S mtgs held w pathology,
		Munkarah/Hanna/	Expiditing resection cases for					pathologist- Pilot on July 1st- post data
3		Rasool	weekly Tumor Boards		х			collection and Expo 2011 submission
4		Toni W	Shared Drive Access	х				completed
			Share the Gain presentation					
5		Ruan/Toni	(STG)					In progress, First STG scheduled for Sept
6		Toni W	Consultation packets	х				completed
			Delays in delivery of slide					After hour drop off (post 4:30pm) at K6
7		Natasha/ <b>Kaliliah</b>	consultation cases to KB	х				established
								Observation done at K13 (Carlise/Doneen),
		Cindy/Teresa/						further Inservice w K13 -Heme-Onc done,
9			Chemo Appt from K13		Х			resolutions on going
10			Insurance issues at consults		Х			discussion on going
		Drs. Buekers/						
			Dictation notes in chart within					Pilot on going, connections/pathways
11			72 hrs of clinic visit		х			discussed, to standardize best practice
			Referring physician follow up					
12			letter		х			data collection on going
			Organizational chart for lean &					
13			Project Tracker	Х				Completed and posted IN Shared Folder
			Revising Letter- Head for Gyn-					
14			Onc	X				getting to CPNG
15		Posie	CPNG teams					on going
								to be scheduled (Drs. R/H, Donice, New
16		Toni W	Lean Training for new staff					Nurse, Posie, Michele)

## Challenges

- RESISTANCE-Employees did not want to identify their own process defects
- Perception of extra work



The Henry Ford Production System

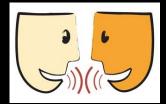
#### Process Redesign by the Empowered Worker



- A clinical process redesign
  - Eliminate the identified delays and inefficiencies that affected patient care
- The empowered workers through the "Team Lean Management" approach initiated the following improvements beginning April, 2011:

#### **Effective Communication**

- Pre-Condition: Effective communication was deficient between the office staff, the management and the clinicians
- Implementation: Consistent weekly team meeting to discuss process improvements and necessary steps forward.
- Result: The clinic went from 0 meetings to 4 meetings per month.

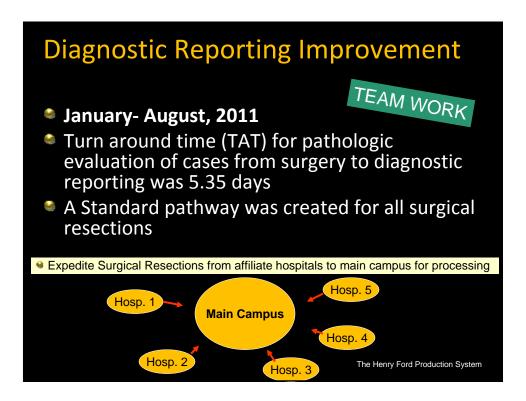


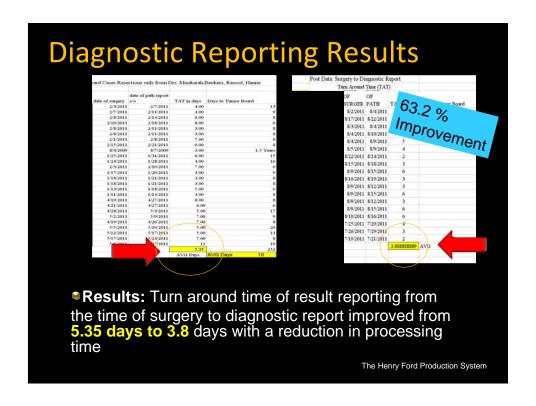
The Henry Ford Production System

#### Weekly Team Lead Meetings

- Improve communication between teams and leadership
- Assist team members to work through A3 problem solving
- Share ideas and concerns within the group as a form of team bonding
- Establish expectations and thresholds for key clinical process



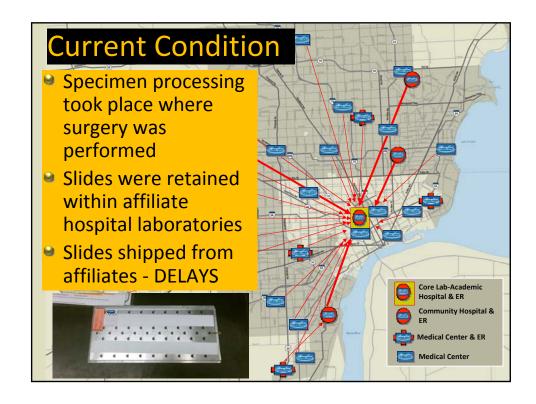




# Tumor Board-Clinical Management of Care

- From Surgery Tumor Board
- Missed or delayed cases not presented in a timely manner
  - Lack of communication
  - No Standardized process
- Currently only 24% of resected cases were presented at Tumor Board within 7 days of surgery

Clinician requirement -100% resected cancer cases presented within 7 days surgery at Tumor Board

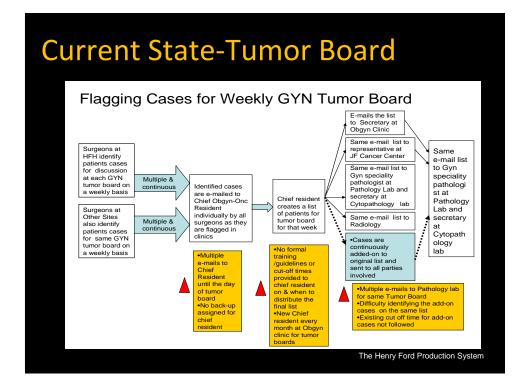


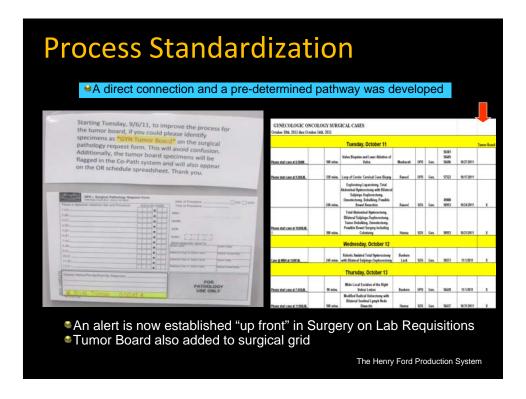
#### Team Approach to Improve

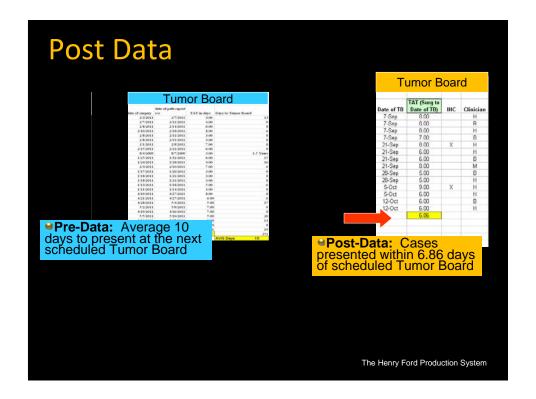
**Tumor Board Process** 

A3 was initiated and a team was formed

- Multiple Customer-Supplier meetings were held between Pathology and Women's Services to discuss requirements
- A process map was developed and findings noted:
  - There was no standard of flagging and/or communicating the cases to Pathology
  - In Pathology, there is no standard process for receiving Tumor Board cases
- A Process Map was created for the Tumor Board pathway to identify waste and redundancy in the process







# Missing Dictation or "Office Notes" in LIS from ObGyn-Oncology Providers

- Encountering significant delays in
- Patient care: scheduling follow-up appt.
- Financial implications for services
- Legal implications
- Follow-up delays with referring physicians
- Patient dissatisfaction

Providers: Drs. Munkarah, Buekers, Rasool Secretaries: Donice & Beverly MA's: Natasha & Khalilah

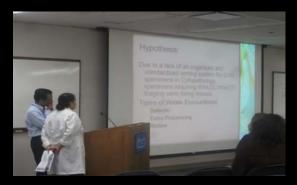
The Henry Ford Production System

#### **Plan for Success**

- 1. Leadership Meeting
  - a. Mission, Vision, Value
  - b. goals
- 2. Kick off Meeting with staff
- 3. Observation Sessions
- 4. Training Staff
- 5. Structure and team formation
- 6. Team Lead Meetings
- 7. Process Improvements
- 8. Share the Gain
- 9. Continuous Improvement

## Share the Gain Presentation

Multi-Division monthly process improvements presented to peers throughout the service line of Pathology and Laboratory Medicine





#### Plan for Continuous Improvement



Out of the box thinkers paved the way to make significant innovations

- Lean implementation is influenced by the culture
- Leadership must drive and support culture change
- Teams are formed and empowered to make process improvement changes along the path of the patient
- Adopt lessons learned from successful initiatives

1921 camping trip. From left, seated: Henry Ford, Thomas Edison, President Warren G. Harding, Harvey S. Firestone and George Christian. The man standing is unidentified. Detnews 8/7/96

The Henry Ford Production System

#### Take Home Message

- Leadership commitment is key
- Communication, effective and often
- Empower the worker to voice ideas and develop improvements
- Customer- Supplier meetings to discuss requirements
- Create a Lean organizational structure so employees understand the framework of success



Gynecologic Oncology Women's Health Services



#### GREAT Example of **PDCA**

cancer patterns seems of the clinical service of Henry Ford Health Systems Gynecologic Oncology Division by establishing a Lean culture of empowered workers.

#### BACKGROUND

This is a physician lead Lean Management initiative that include all empowered workers in the clinic. The improvements targeted in this clinical value stream are multidisciplinary beginning from referring physician to initial outpatient visit for laboratory workup, outpatient surgers, pathology reports. Multi-disciplinary Gynecologic Tumor Board presentation and to definitive therapeutic decision-making. To accomplish this comprehensive initiative, we implemented a Lean management culture centered on Deming management principles of an empowered work force and PDCA problem solving methods to promote a culture of continuous process improvements that previously was nonexistent in this clinical setting.

- Adopting a leadership driven and highly supported Lean initiative to empower physicians, nurses and technical staff for continuous improvement in a clinical setting Creating a new culture and transform our approach to work
- · Establish an effective organizational structure
- Define pathways of work
- Initiate Customer-Supplier meetings
- As a result we fostered a continuous improvement environment from the level of the empowered worker at HFHS Gynecologic Oncology Women's Health Services

#### THE EMPOWERED WORKER





Visual Aides as Standard Work for providers of Office Notes

#### PROCESS IMPROVEMENT TRACKER

tempo/terior terms
the inferred and it to be became
tiges (10) corps take a participal.
ringers. Price set delsy for passe these enters and English State Leaders and
or the of bod & Shed at 18
pring connections bell parties
Charles of the State Course Name

-Process Redesign for Missing Dictation or "Office Notes" in Patients Electronic Medical Records Per-Results - Second (22.7 or (19%) of patients had missing notes in their notical records for month of lane Post Results - Only 11 out of 2.77 or (5%) of patients had missing office notes in Sept. This is AN OVERALL IMPROVEMENT OF 74%.

## "Quality Is Everyone's Responsibility"

W. Edwards Deming



Quality Specialists on a mission!