



Today's Healthcare System

- Enormous pressure to reform itself
- Legislating universal coverage/cost-cutting
 - unlikely to produce desired result
- Systemic upgrades in effectiveness (and efficiency) of services
- Pathway to "real" reform:
 - Simultaneous improvements in clinical quality, cost-effectiveness and financial profitability



Yuma Regional Medical Center

- 333 licensed beds 20,000 Admissions 65,000 ER visits
- Service lines
 - Open heart surgery
 - Renal dialysis
 - Multimodality cancer therapy
- Lean Six Sigma Culture
 - 1st pilot project Laboratory
 - 2nd pilot project now starting in ER



Lean Journey at YRMC

- Began in the clinical laboratory
- Spread to the histopathology lab
- Inspirational leadership from Chief of Pathology
- <u>Results:</u> pathology operations improved using Lean framework to integrate new technology
 - Pathology information system upgraded version
 - Barcode-driven, voice-enabled workflow
 - Improved TAT: 95% cases reported in 1 day
- A new issue was then driven to the forefront







- Initial documentation of job steps developed jointly by supervisor and histology lab staff.
- One-on-one training of new hire by supervisor using a 4-step JI-like process.
 - Prepare the worker
 - Present the job/task
 - Let the worker try it
 - Check back regularly



	tion. Assemble Equipment for Oxygen Tent.	
HUPORTAUT STEPS IN TIP OPENATION Step: A logical segment of the operation when scatting happens to ADVAICE the work	HIT POINTS Rey Point: Anything is a step that might Bais or French the job Take the work soler to do, i.e., "Irand," "trick," Special timing, hit of general itming, hit of	
1. Flace oxygen tank om truck .	Truck - safety "Crack" - task Knack - sound	
2. Apply reducing valve	Pressure gauge # 9 Liter gauge # 0	
3. Inspect tent	Foles Cleamliness	
4. Connect tank to test	Errog.	
5. Fut los in ice chamber	Size of chunks	
6. Put adda line in a. 1. elember	Check indicator tap	

•	Verify patient name
•	Verify insurance for O.P. cases
•	Verify specimen information/ name
•	Align specimens/triage (no like
	specimens placed back to back)
•	Place decal gall stone jars
•	Verify primary physician & cc physicians
•	Distribute samples (fluid/tissue), fix w cytolyte [to lab]; follow cyto-protocol
•	Verify & order additional histology orders (ex. CD-8, special stains, IHC)
•	Create cytology slip if required
•	Organize paperwork for login
•	Verify D.O.S.
•	Verify spelling of specimen
•	Distribute Dr's gross vs. Chuy's gross
•	Verify ICD-9 bone marrows; Note BM
	logged in by histo-techs
•	Verify at login for special studies orders, done at reference labs (RPMI, fetal chromosome, Oncotype, etc.)
	chromosome Opcotype etc.)
	chroniosonic, oncotype, etc.)

Verify requisition to specimen



- Other expert staff contribute knowledge of order entry job
- "What's Bugging You?" Board



Rose Will Monroe. She was a riveter building B-29 and B-24 clanes at the Willow Run Aircraft Factory in Ypsilanti, Michigan when she was asked to star in a promotional film about the war effort



Cases reviewed in December 2003 Total cases reviewed = 673 Total errors = 226 Error rate = 33.5%	<u>8</u>	
Incorrect data	<u>Cases</u>	<u>% of Errors</u>
Omitted physicians	79	11.7%
Incorrect specimen name	16	2.38%
ncorrect/omitted acct. #	6	0.90%
ncorrect patient name	13	1.93%
ncorrect date of birth	2	0.30%
Incorrect date of service	53	7.87%
Incomplete/incorrect cytology	57	8.46%

Order Entry: Ne	w Trainiı	ng Culture
<u>Cases reviewed in February 2</u> Total cases reviewed = Total errors = Error rate =	2 <u>009</u> 1526 63 4.13%	88% improvement
Incorrect data	Cases	<u>% of errors</u>
Omitted physicians	20	1.31%
Incorrect specimen name	21	1.37%
Incorrect/omitted acct. #	3	0.20%
Incorrect patient name	5	0.33%
Incorrect date of birth	1	0.06%
Incorrect date of service	6	0.39%
Incomplete/incorrect cytolog	ςγ 7	0.46%

Cases reviewed in March 2009		
(Feb 25 – March 26, 2009) Total cases reviewed = 1496 Total errors = 51 Error rate = 3.41%	17% improvement	
Incorrect data	<u>Cases</u>	<u>% of Errors</u>
Omitted physicians	20	1.34
Incorrect specimen name	11	0.74%
Incorrect/omitted acct. #	1	0.07%
Incorrect patient name	10	0.67%
Incorrect date of birth3	0.20%	
Incorrect date of service	5	0.33%
Incomplete/incorrect cytology	1	0.07%

Order Entry: New	Training	Culture
<u>Cases reviewed in April 2009</u> (March 27 – April 27, 2009) Total cases reviewed = 1529 Total defects = 40 Defect rate = 2.62%	23% improvement	
Incorrect data	<u>Cases</u>	% of Defects
Omitted physicians	13	0.85 %
Incorrect specimen name	19	1.24%
Incorrect/omitted acct. #	0	0%
Incorrect patient name	0	0%
Incorrect date of birth1	0.06 %	
Incorrect date of service	5	0.32%
Incomplete/incorrect cytology	2	0.13%













Training the Staff

- More than "seats in a room"
- Knowledge vs. "engages with ..."
- Does creativity come from fore-knowledge?
- Unleashing people's passion and enthusiasm
- Has people be self-generating (vs. motivation)
- Most organizations do not train this way









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