


PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES





**LEAN
HOSPITALS**
Improving Quality, Patient Safety and Employee Satisfaction

MARK GRABAN
Senior Lean Consultant
OCD ValuMetrix Services

"Engaging Employees to Embrace Lean and Energizing their Creativity"

Mark Graban
Senior Lean Consultant
OCD ValuMetrix Services


Author, ***"Lean Hospitals: Improving Quality, Patient Safety, and Employee Satisfaction"***
(Productivity Press, 2008)



What Lean is Not: Just Tools



© 2000 Toyota



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Old Habits in Healthcare

- Silo-ed organization structures
- Lack of patient focus
- Equating better quality with higher costs
- Focus on costs and budgets
- Using layoffs to cut costs
- Top-down decision making
- Lack of patient & leadership training
- Workarounds and band-aids
- "Blame the patient, shaming, and blaming"

Old Habits + New Tools = Same Results

ValuMetric
SERVICES

Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

Ortho-Clinical Diagnostics
a Johnson & Johnson company

How do we measure Lean success in the long term?

ValuMetric
SERVICES

Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

Ortho-Clinical Diagnostics
a Johnson & Johnson company

One Key Measure:

**How many new
employee ideas are
implemented each
week?**



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Suggestions = Success

Toyota

- 17.9 per employee per year
- 90% are accepted

General Motors

- 0.84 per employee per year
- 23% are accepted

**How does the typical
hospital stack up?**

Note: 1990 data



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



What Lean Is:

1. Continuous improvement and the elimination of waste



2. “Respect for humanity”



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Before Lean:

***“With all of the automation,
I feel like a robot.”***

- Medical Technologist, 25 yrs



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Lean Team Member (RN)

“I’ve worked here for six years and this is the first time anyone has asked me what I think about anything.”



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



***This team member
left for a new job
shortly after making
this comment***



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Lean Team Member Quote (RN)

- “I looked at all this three years ago. I collected data. I was branded a ‘troublemaker.’
- I was told to just do my job and to quit wasting my time on that analysis stuff.
- I was ‘creating a negative work environment.” It said that in my performance review.”

– RN, 15 years experience



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution-Rev. 06/19/2007



“Lean Teams”



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution-Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Videotaping and Working With Staff



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Respect and Engagement of Staff

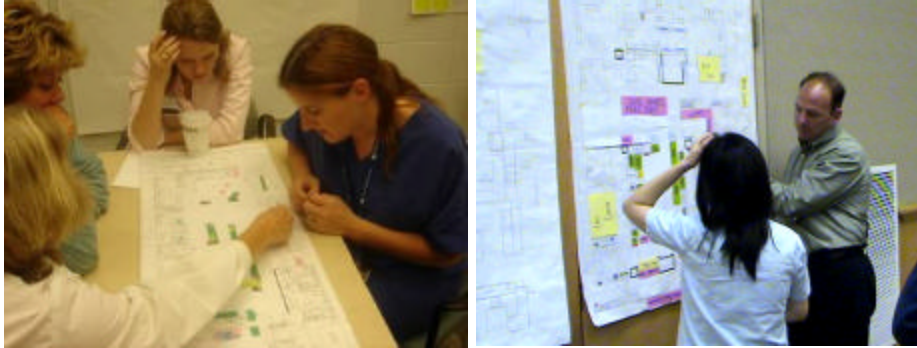


Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Employees Have the Answers



Employee Knowledge + Lean Concepts = Kaizen

“We’re finally being asked what we think”



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



A Common Question

- “How do I get my _____ to buy in to Lean?”

Employees

Managers

Physicians

Executives



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



UK Pathology Project Goals

1. To improve the turnaround time and quality of service for patients and clinicians.
2. To improve the working life of pathology staff members.
3. To equip the department to use lean techniques as continuous and standard working practice after the life of the initial lean implementation.



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Start by Defining “Why?” - Micro

- **Improve service (quality & response time)**
 - All: Take better care of children
- **Determine proper staffing levels**
 - Employees: Not be overburdened
 - Clinical director: Provide the right testing
 - Hospital: Not overspend on staffing
- **Reduce overtime**
 - Employees: Want to go home on time
 - Hospital: Wants to reduce OT costs



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

From Lean Project to Lean Culture

- **Cannot stop just after our project implementation is done:**
 - Daily Metrics
 - Stand Up Meetings
 - Idea Boards
 - Kaizen Wall of Fame

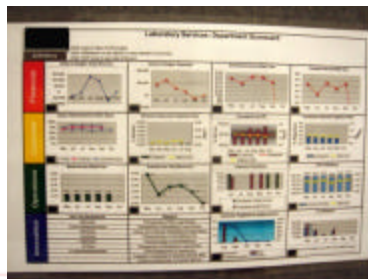


Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



The Problems With Typical Metrics

- Monthly
- High-level financial metrics
- Away from the workplace
- Long lag times



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Daily Visual Metrics



Third



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Daily Standup Meetings



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Daily Standup Meetings

- **Standing meeting (keeps it short, 5-10 min)**
 - Have a timer, be strict on your time limit
- **Hold at consistent time each day (each shift)**
 - Ideally at start of shift, or in first hour
 - Not at peak busy time
- **Hold meeting IN lab, in front of metrics/audit board**



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Daily Standup Meeting Agenda

- **Highlight any safety issues or have a “safety item of the day”**
 - Always start with safety – sends a strong and consistent message
- **Staffing – any absences, needs for rotating or covering? Discuss only exceptions to the staffing plan**
- **Review yesterday’s performance, highlight key metrics**
- **Review any problems that have been resolved on the tracking board**
- **Let employees ask questions, make suggestions, or raise issues**
 - Quick items only, save issues for detailed discussion later
- **Share a success story or positive item for the team**
 - Try to end on a positive note



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Daily Standup Meeting Quick Items

- **Do NOT problem solve in the stand up meeting.**
- **Do NOT let the meeting turn into a gripe session.**
 - It is important to listen, but if you have to say “let’s talk about that 1-on-1, that’s OK, too. Capture issues for appropriate follow-up and tracking.
- **Can the issue be solved by that employee on their own?**
 - If yes, push them to come up with a solution and implement it.
 - If not, capture the issue on the board and go through the problem resolution process.



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Kaizen at Toyota:

- **On a Toyota line, kaizen is not a bureaucratic process**
 1. Associate has an idea
 2. Talks with team leader
 3. Experiments with idea
 4. If idea works, standardize it and share the idea with others



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Kaizen Philosophy

- **Everyone must contribute to change**
- **Most improvements require little or no cost**
- **Change is necessary to remain competitive**
- **Many small improvements far outweigh that of a few major changes over time**
- **Continuous improvement is a long-term cultural change**
- **Do not let best get in the way of better**



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

The Problem with Suggestion Boxes



- Why is the box locked?
- Box = Batch
- Box = Slow
- Box = Anonymous and indirect handoff



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



The Problem with Ignoring “Respect for People”



Found posted in a hospital lab
(during Lean assessment)



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

As Leaders...

- **To encourage kaizen:**
 - Encourage people to report problems, waste, and frustrations
 - Challenge them to come up with solutions
 - Ask for root cause solutions
 - Don't be satisfied with surface fixes
 - Don't respond negatively to ideas
 - There are no "dumb" ideas



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

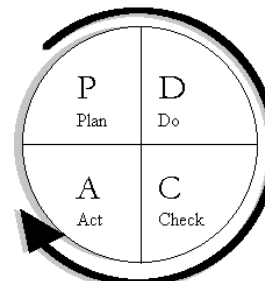


Kaizen Tracking Form

<p>Kaizen / Continuous Improvement Tracking Form</p> <p>Problem Statement: What's being fixed? (Must be going wrong)</p> <p>Suggestion / Solution: What change is being put in place? (What is the expected outcome?) <input type="checkbox"/> Safety <input type="checkbox"/> Quality <input type="checkbox"/> Reduced Time <input type="checkbox"/> Cost</p> <p>Who Was Consulted About Change? _____ Is: Supervisor / Manager / Director / Sublight</p> <p>Planned Period of Time to Pilot Change: _____</p> <p>Documentation of Communication to Other Shifts / Employees: _____</p> <p>What were the Outcomes from the Change?</p> <p>Is the Change being Accepted as the New Process? <input type="checkbox"/> Yes <input type="checkbox"/> No Explanation: _____</p> <p>Documented Communication of Change: Make sure everyone (20%) / Read all Risk / Success / Feedback</p> <p>Is the Change being committed to other facilities?</p>	<p>P</p> <p>D</p> <p>C</p> <p>A</p>
---	---

• "PDCA" Cycle

- Plan
- Do
- Check
- Act



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Idea Card Format

The image displays the 'Idea Card Format' with two sides: 'FRONT' and 'BACK'. The 'FRONT' side has fields for 'Problem', 'Suggestion', 'Date Originated', 'By:', 'Expected Benefits', and 'Input Needed From'. The 'BACK' side has fields for 'Implementation Steps', 'Results Verified?' (YES / NO), 'New Method Standardized?' (YES / NO), and 'Completed Date'. Two red callout boxes provide clarification: 'Not just a "complaint" (requires an idea)' points to the 'Problem' field, and 'Not just an idea (requires a problem statement)' points to the 'Suggestion' field. Logos for ValuMetric SERVICES and Ortho-Clinical Diagnostics are at the bottom.

Not just a "complaint" (requires an idea)

Not just an idea (requires a problem statement)

FRONT

BACK

ValuMetric SERVICES

Ortho-Clinical Diagnostics
a Johnson & Johnson company

Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

Ideas vs. Suggestions

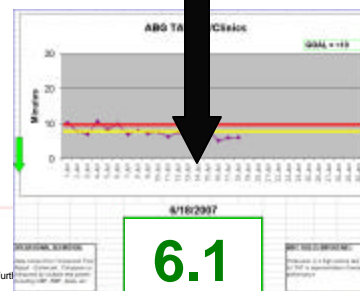
“Suggestions are things I think you should do.

Ideas are things that I can do. ”

PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Kaizen and Metrics

- Teams have asked “why are we using so much colored ink?”
- **Kaizen:** print colored text on white background



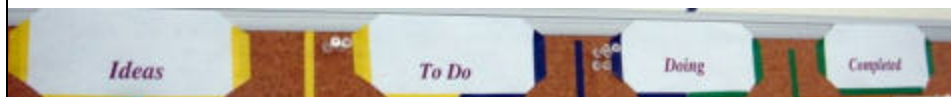
Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution

6.1

ostics
company

Visual Tracking of Ideas

- Visual board shows four sequential stages:
 1. New ideas to be reviewed (NEW)
 2. Reviewed and waiting to implement (TO DO)
 3. Implementation in progress (DOING)
 4. Completed (DONE)

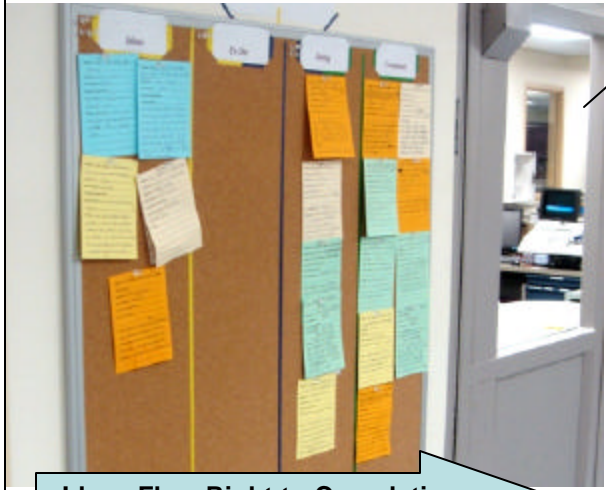


Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Visual Tracking of Ideas



Posted right in the Lab

Ideas Flow Right to Completion

ValuMetric SERVICES

Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

Ortho-Clinical Diagnostics
a Johnson & Johnson company

Generating Cards

- **Ask staff to:**
 - Bring them to team meetings
 - Bring them to supervisors for discussion
 - Tack them up on the board
- **Avoid:**
 - Anonymous “complaints” dropped into a box

ValuMetric SERVICES

Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

Ortho-Clinical Diagnostics
a Johnson & Johnson company

PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Kaizen ✍ Standard work

- **After improvement has been accepted:**
 - Update Documentation
 - Communicate Change



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Dealing with “Bad” Ideas

- **Treat each idea as a gift**
 - Don't be disrespectful to anybody's idea, ever
- **If an idea seems impractical**
 - Make sure there is a clearly defined problem statement
 - Discuss other ways of solving the problem



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Documenting Kaizen Successes

- “Kaizen Wall of Fame”



- A method for:

- Documenting changes
- Celebrating improvement
- Sharing ideas across departments



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Wall of Fame Sheet Example

Area: STL	Kaizen Wall of Fame	Date: 5/31/07
What was the Problem? For disposal of pipette tips, the only containers we had were "sharps" containers. This Adds extra disposal cost, as the tips are not sharp. The container hole was also Hard to get tips into.		
What was changed, improved, implemented? Create biohazard bag holders out of urine jugs, cut the tops off.		
Photo/Diagram: 		
What were the benefits? Safety? Quality? Time? Waste? Cost? Reduces cost since we aren't doing unneeded sharps disposal and we aren't throwing the containers away each time. No safety risk. Easier to get tips into container (less motion and less arm strain, since the Container is lower and easier to get into). Tips can be dumped into a larger Biohazard bin or we can replace the bag.		
Who was Involved? Gretchen, Beth, Janie, Franke		

- What was the problem?
- What was changed, improved, or implemented?
- What were the benefits?
- Who was involved?



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Not a Static Wall...

- **After a few months:**
 - Be sure that new sheets are being added
- **Lots of little changes**



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Lab Director Quote

- **“People were gratified to see how these changes were actually making a difference. That helped morale and motivated the folks in the processing area to look for other improvements they could make.”**
 - Jim Adams, *Senior Director, Laboratory Operations, Children's Medical Center Dallas*



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

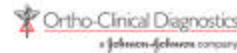
Executive Quote

“It can be incredibly empowering for a bench tech to come up with an idea that changes the way the entire laboratory does work. This is the kind of thing that makes sure these changes are sustainable rather than just a flash in the pan.”

– Brett Lee, PhD, FACHE
Vice President, Children's Medical Center Dallas



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Executive Quote

“The people doing the work are improving the process. That’s exciting. I don’t have all of the answers... nor do your managers.”

– Hospital Sr. VP (Chief Operating Officer)



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Employee Quote

“This is the best thing we’ve done in my 20 years. We’re finally fixing things.”



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



Concluding Thought

- **Implementing Lean tools is not enough**
- **Engaging staff in a Lean culture will:**
 - Increase staff satisfaction
 - Reduce turnover
 - Lead to continual process and quality improvement
 - Prevent backsliding from Lean improvements



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007



PROCESS EXCELLENCE EXECUTIVE SEMINAR SERIES

Contact Info

- **Mark Graban**

- mgraban@its.jnj.com
- www.valumetrixservices.com
- www.leanhospitalsbook.com



Ortho-Clinical Diagnostics, Inc. Confidential - Not for Further Distribution - Rev. 06/19/2007

