



# Lean Training

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## Quick Changeover



# The tool

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- What is it?
- What's it for?
- How does it work?
- When do you use it?
- What's an example?



# What is it?

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- Quick Changeover is also known as Set-Up Reduction or SMED (single minute exchange of dies)
- It refers to changing or resetting a process for the next run or occurrence



# What's it for?

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- Quick changeover is used in instances where usage of an area or set of equipment is turned over frequently
- Examples include an operating room, an inpatient or ER room, a CT or MR scanner
- When done well, quick changeover can result in increased usage, which means better customer service and increased revenue



# How does it work?

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- Changeover activities are designated as “internal or “external”
  - Internal activities are performed while the machine is shut off (or the room is unused)
  - External activities are performed while the machine is running (or the room is in use)



# So to reduce changeover time

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- Minimize or eliminate internal time
- Eliminate unnecessary movement
- Convert internal time to external time



# When do you use it?

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- Quick changeover is most effective when used in high turnover situations
  - Capacity is restricted
  - Waiting is excessive



# What's an example?

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1. Machine is turned off as scan ends
2. IV is removed from the patient
3. Patient is moved off of scan bed
4. Patient is removed from CT scan room
5. New patient is identified off of CT scan schedule
6. New patient is brought into CT scan room
7. Patient identification is verified
8. CT scan procedure is explained to patient
9. Type of scan is verified from physician order
10. IV is started on new patient
11. Patient is placed on CT scan bed
12. CT scan machine is turned on and scan begins

*Identify the possible external setup elements in this process*



# Quick Setups in Practice: RIE



36% ↓

**The OR Staff understands the importance of Quick Setup. OR is the most expensive “real estate” in the hospital, yet setups are still inefficient. In the Quick Setup event above, the average “turnaround time” was reduced from 22 to *consistently* less than 14 minutes.**

# Quick Turnover in Practice



## ROOM CLEANING: DISCHARGE

## Standardized Work

	Process Steps	Time per Work Step min sec		Running Clocktime min sec	
		min	sec	min	sec
1	Put on Gloves. Prepare to enter room.		16		16
2	Set down clean equipment, c/c cupboards, strip discharge		70		86
3	Hi Dust		60		146
4	Clean Closet		85		231
5	Bedside stand, O2, Phone		76		307
6	Menu		22		329
7	Sharps, Gloves, Chair, Window, Register		44		373
8	Clean Bed		213		586
9	Empty Trash & Clan Can		10		596
10	Over Bed Table		48		644
11	Bathroom, Door Knobs a & Trash		105		749
12	Door Knobs- removing cleaning equipment		30		779
13	Linen, Remove Gloves.		70		849
14	Make Bed		141		990
15	Replace Trash bag, Dust Mop		80		1070
16	Mop. Prepare Mop		80		1150
		<b>Total Time</b>		<b>19 min 10</b>	

**Changing over an ICU treatment room. Time is critical for both patient care, capacity and cost. Here, Patient Room turnover was reduced from 38 minutes to *consistently* below 20 minutes.**

**47% ↓**

**Q: How do we know it's *consistently* below 20 minutes?**



Questions?

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