Improving The Hospitalized Patients' Experience Through Physician Workflow

Washington State Government Lean Transformation Conference

Daniel Hanson MD

October 15, 2013

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Today's Goals

- Share Our Experiences, Challenges and Solutions
- It's about People (Not Healthcare)
- Demonstrate Use of Lean Tools (VSM, One Piece Flow, PQ Analysis, Standard Work, Level Loading, Visual Control).
- Leave Inspired to Try Things!
- What About You?

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How Do We Know We Are Doing A Good Job?

- RN Communication
- MD Communication
- Responsiveness
- Pain Control

- Medication Lists
- Environment of Care
- -Clean and Noise
- Discharge Instructions
- Overall Impressions

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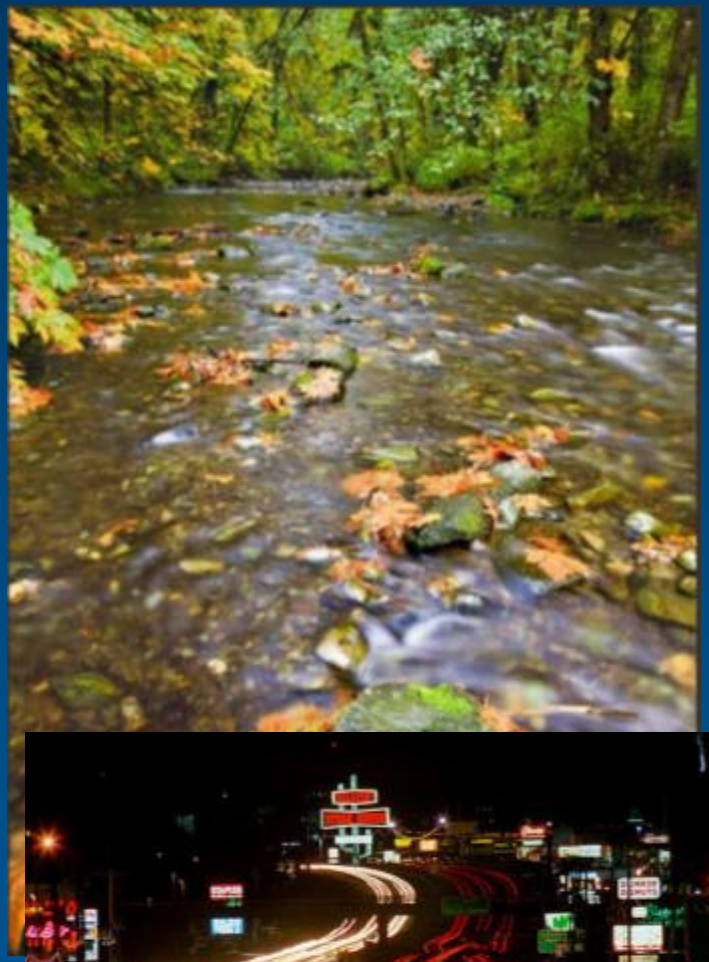
GOT FLOW?



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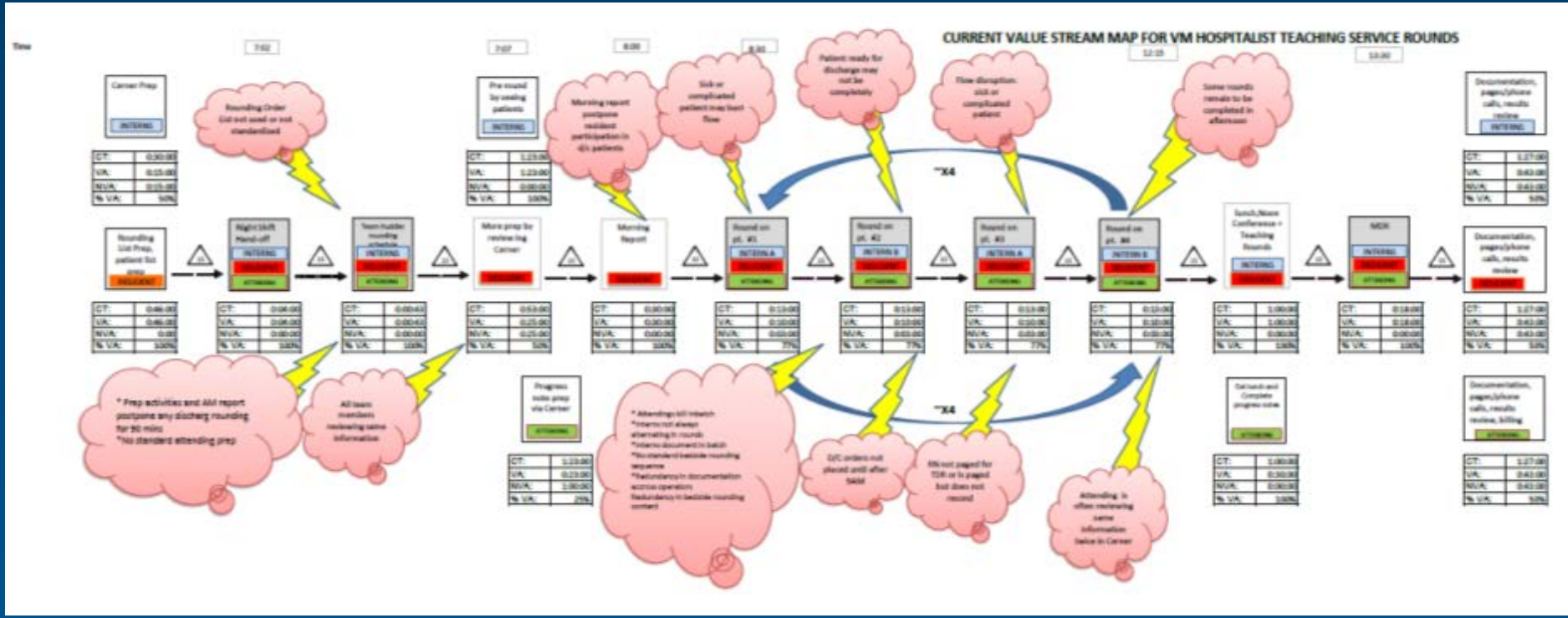
Value Stream Mapping



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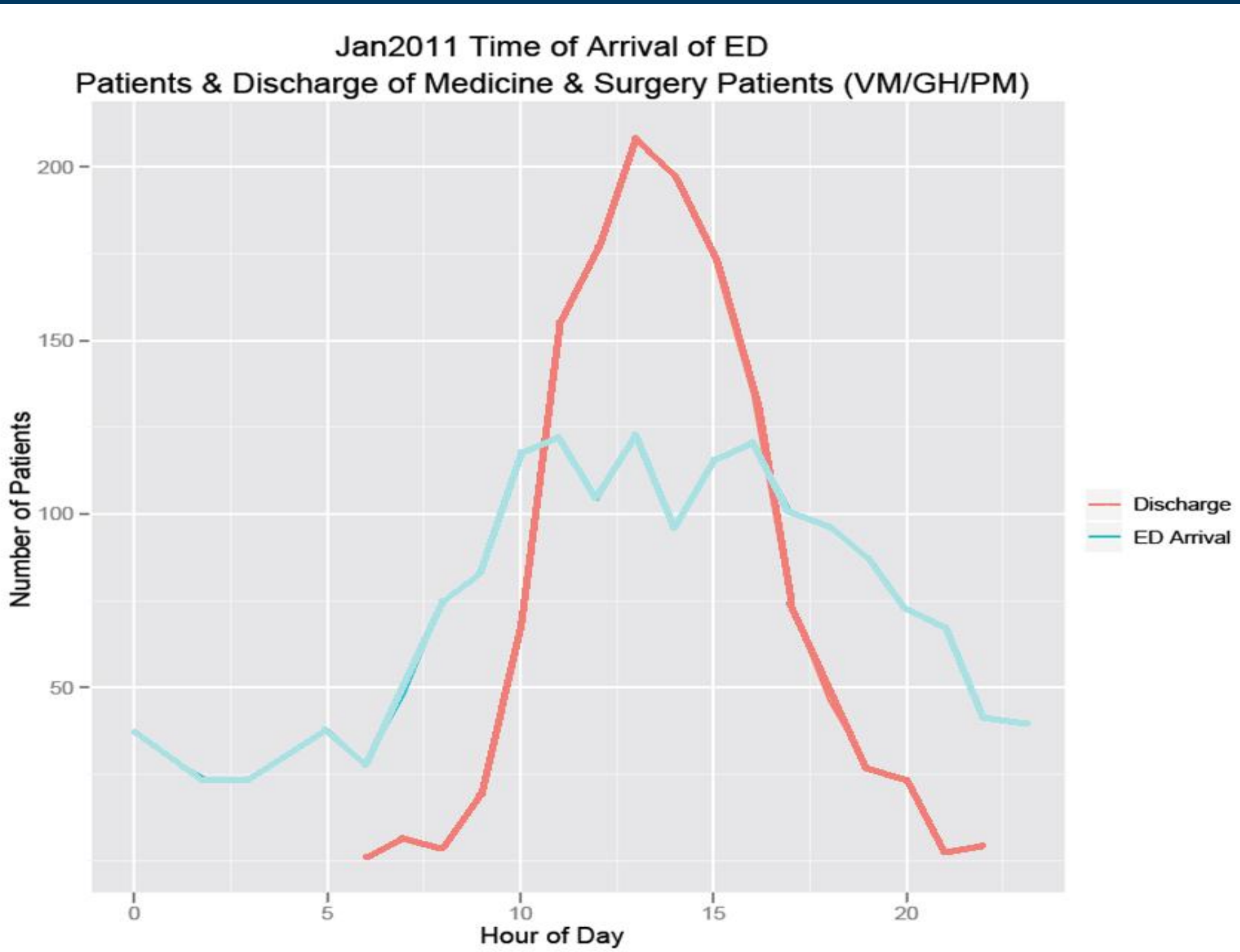
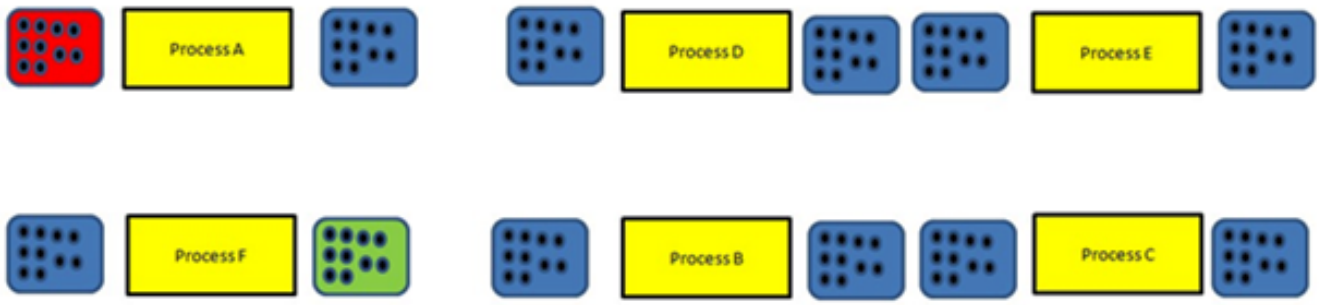

Jan2011 Time of Arrival of ED
Patients & Discharge of Medicine & Surgery Patients (VM/GH/PM)
Number of Patients
200
150
100
50
0
5
10
15
20
Hour of Day
Discharge
ED Arrival

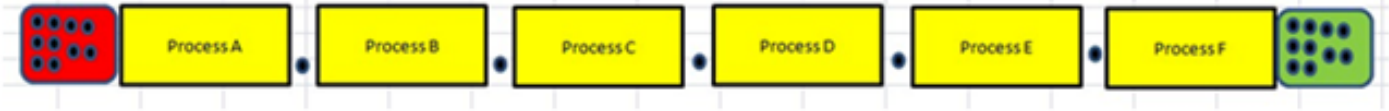
One Piece Flow

Six Common Disjointed Processes Producing in Batches of 10



Example B One Piece Flow

Six Common Joined Processes Producing in One Piece Flow



In both examples each process takes 1 minute to complete 1 part.

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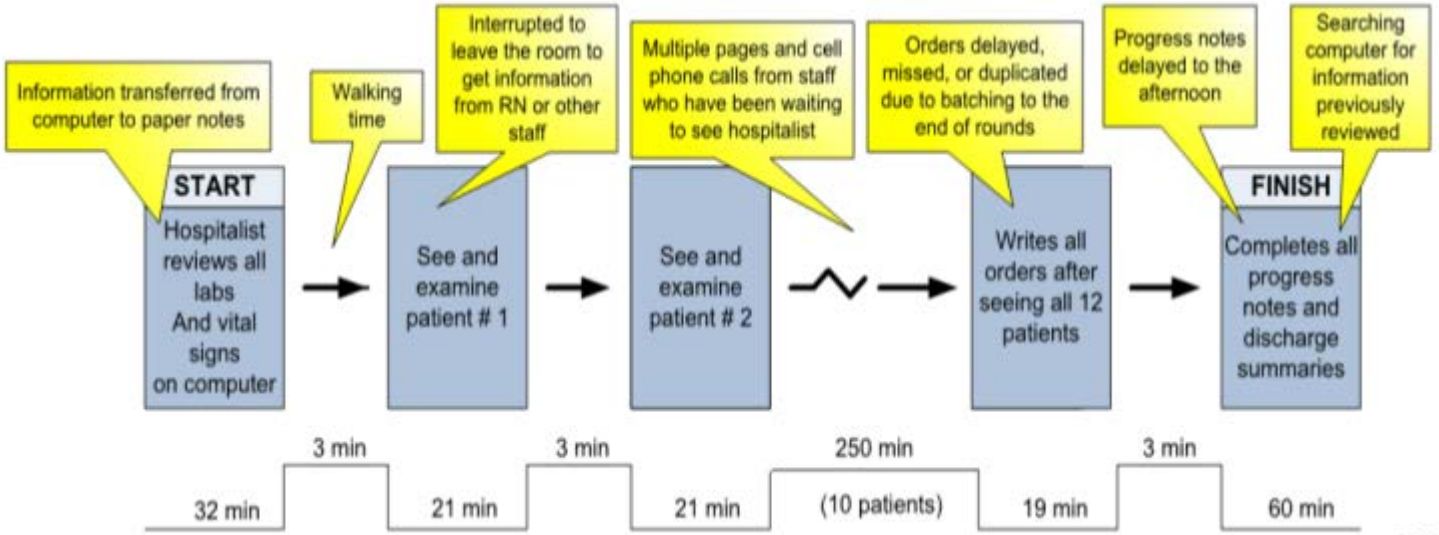
Value Stream Map of Hospitalist Rounds (batching method)



							TOTALS
Value added work	15 min	20 min	20 min	200 min	15 min	25 min	295 min (71%)
Non-value added work	20 min	4 min	4 min	50 min	7 min	35 min	120 min (29 %)

Lead Time (Time from start of process to finish) = 415 min (36 min/patient/day)

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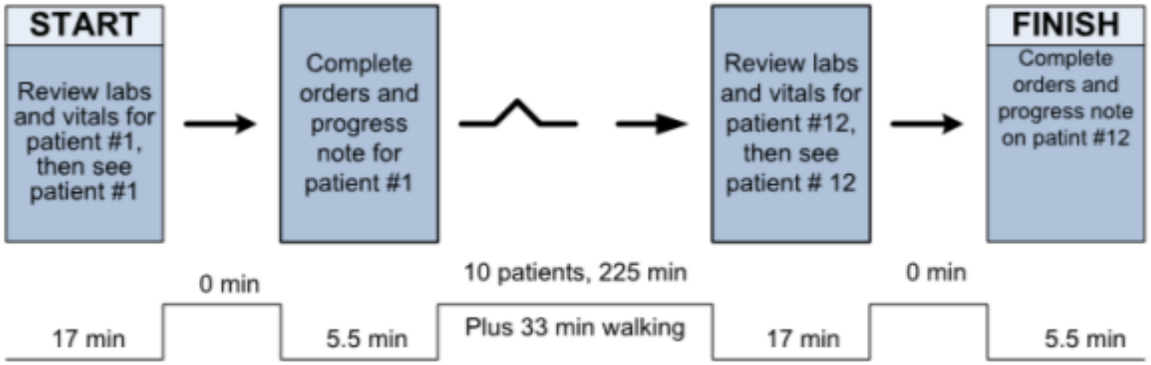
Value Stream Map of Hospital Rounds (Using One Piece Flow)



Rapid Process Improvement Workshop Progress Report

Team Name: Hospitalists

Process Summary: Reduce the non-value added time in the Hospitalists daily rounds through creation of one piece flow, standard work and elimination of interruptions.

Metrics	Baseline	Target > 50%	Day 2	Day 3	Day 5	Final	Percent Change
Lead Time – Time it takes to complete rounds on 12 patients	415 min	350 min	270 min	320 min	290 min	270 min	35%
Quality – Percent of patients w/ completed rounds by 12PM	66%	100%	80%	90%	100%	100%	34%
Quality – Number of defects (interruptions, unnecessary pages, delayed progress notes and orders.	14	7	8	9	5	5	64%
Walking distance – Hospital daily walking distance	2.09 miles	1 mile	1.9 miles	1.9 miles	1.9 miles	1.9 miles	9%

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Notable innovations

FLOW ROUNDING

Each Intern seeing one patient at a time.

Complete the work for each patient before moving to the next patient.

The attending and resident “toggling” from one intern to the other.

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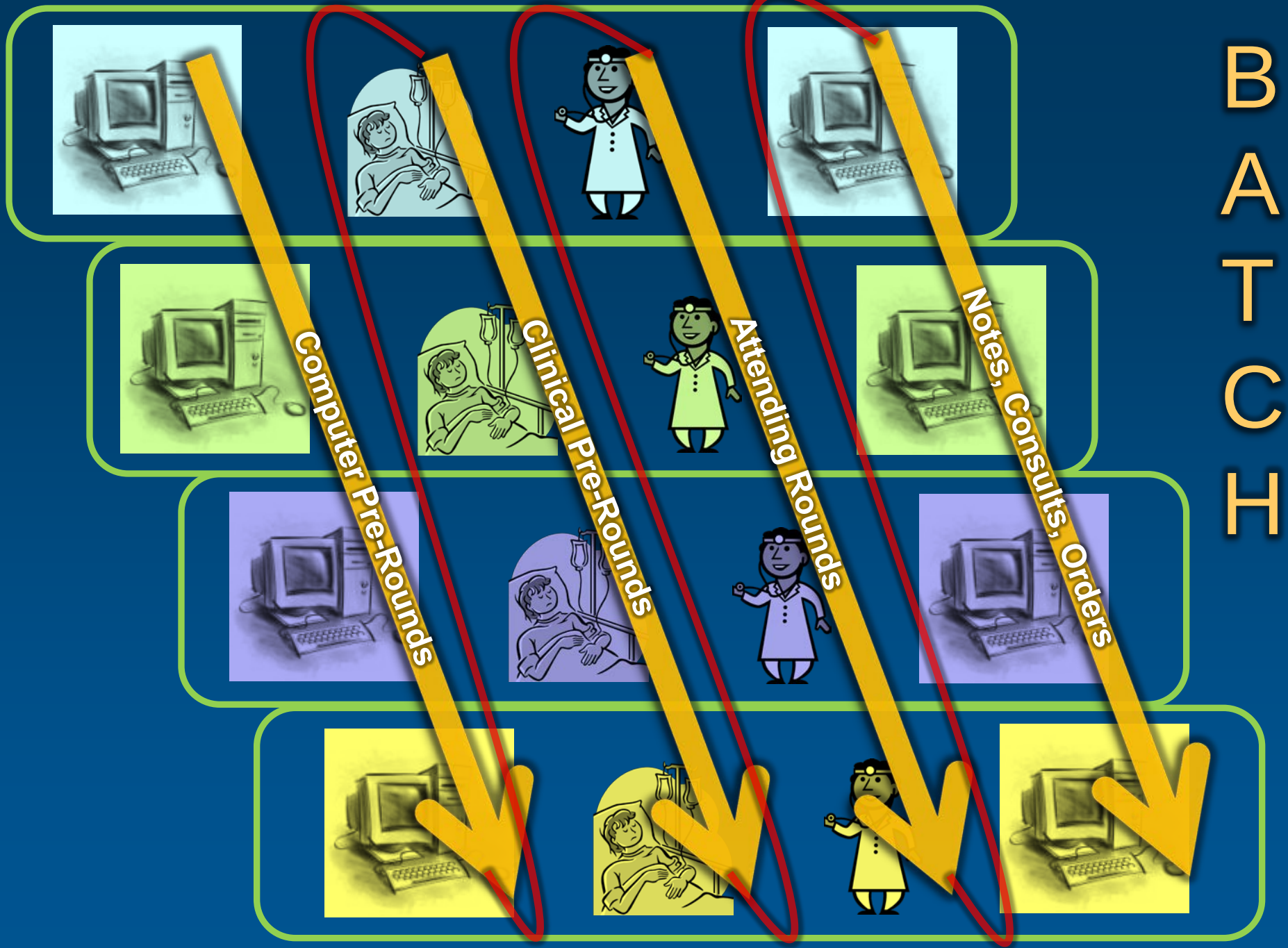

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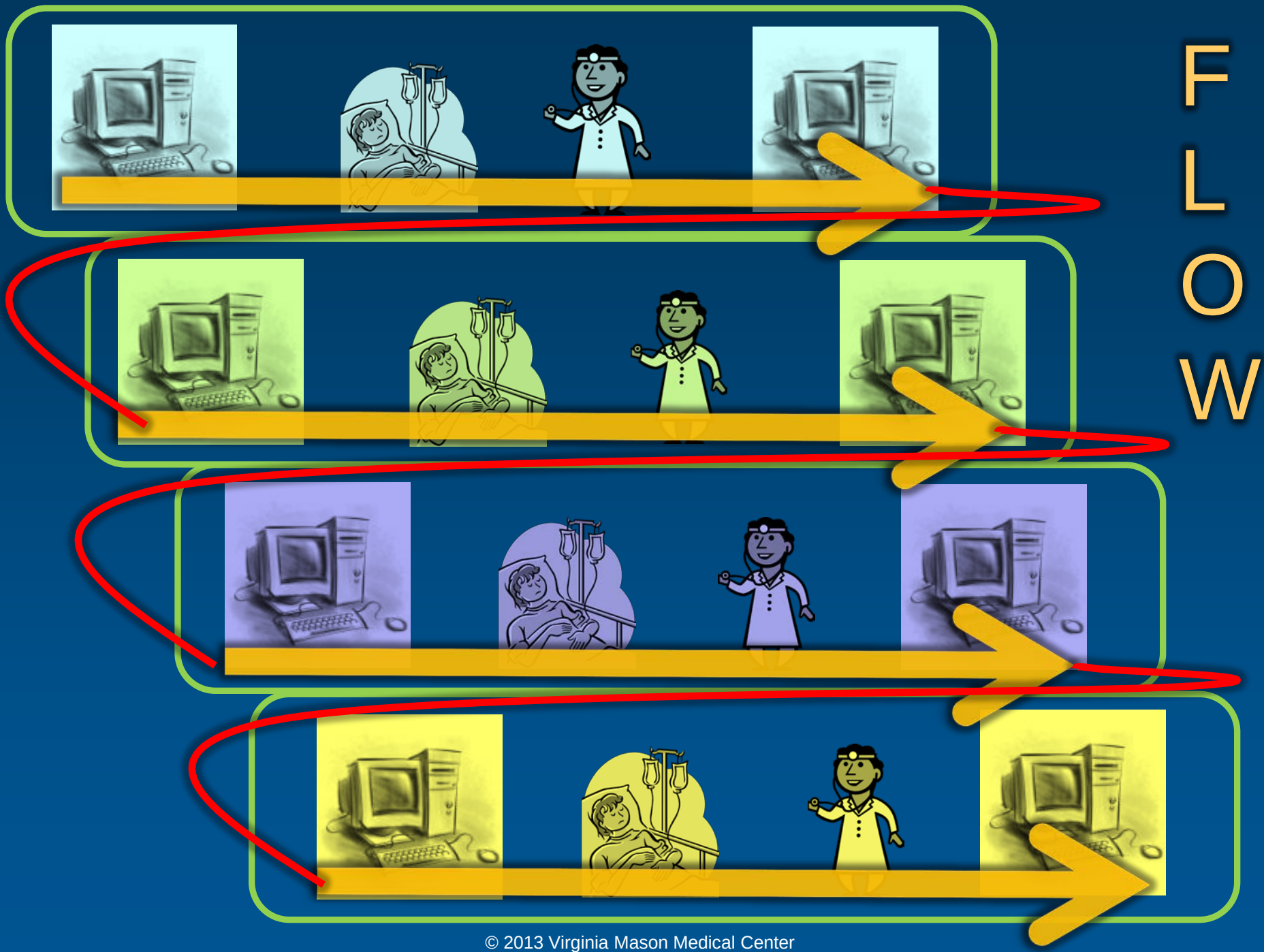

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DOCTOR AND PATIENT | SEPTEMBER 26, 2013, 12:01 AM | 106 Comments

Easing Doctor Burnout With Mindfulness

By PAULINE W. CHEN, M.D.

(……try one thing at a time!)

Joshua Bright for The New York Times

> "I had walked into the exam room to listen to this patient; but my mind was a few steps behind, as I struggled with thoughts about the colleague who'd just snapped at me over the phone because she was in no mood to get another new consult, my mounting piles of unfinished paperwork, and the young patient with widespread cancer whom I'd seen earlier in the day. Thoughts about my new patient jumbled in the mix, too, but they came into focus only after I had pushed away the fears that I might have neglected to order a key test on my last patient, that I'd forgotten to call another patient and that I was already running behind schedule."

nurse's note, the patient
ean bill of health from his
ly a few days before, so I
see his request for a
He stared intently at my
walked into the room, then nodded his head at each
me as I introduced myself.

upward to my face, he said, "I'm here, Doc, to make sure I

DOCTOR AND PATIENT
Dr. Pauline Chen on medical care.

Doctor Patient

Standard Rounding Checklist

Team	Observation Date: _____ Observations By: _____	Intern: (circle one) A B Med Stud Rm# _____ **Patient #1**	Intern: (circle one) A B Med Stud Rm# _____ **Patient #2**	Intern: (circle one) A B Med Stud Rm# _____ **Patient #3**	Intern: (circle one) A B Med Stud Rm# _____ **Patient #4**
MS3 or INTERN Intern A: _____ (name) **Intern B:** _____ (name) **Med Stud:** _____ (name)	• **HOLDS BEDSIDE ROUNDS (AS APPROPRIATE)**	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Introduces team, updates names on white board	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• **ASKS FOR RN INPUT WHEN AVAILABLE**	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Presents patient in SOAP format	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Solicits resident/attending feedback	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• **EXPLAINS PLAN OF CARE SUMMARY TO PATIENT**	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Finishes documentation (after bedside rounds)	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
Resident: (name) _____	• Pages RN to join rounds	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• **ACTIVELY LISTENS TO PRESENTATION (NO INTERRUPTING)**	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Provides presenter with guidance/feedback	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Examines patient	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Use "One minute preceptor" when applicable	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Additional teaching pearl on related topic when able	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Places orders in Cerner (after bedside portion complete)	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Reviews MAR (after bedside portion complete)	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
Attending: (name) _____	• **ACTIVELY LISTENS TO STUDENT/ INTERN AND RESIDENT, WITHOUT INTERRUPTING**	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Provides guidance/feedback on plan	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Use "One minute preceptor" when applicable	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Additional teaching pearl on related topic when able	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐
	• Finishes documentation and billing (after bedside portion complete)	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐	OBS:☐ DNO:☐

OBS = Action Observed **DNO = Did Not Observe; Unknown**

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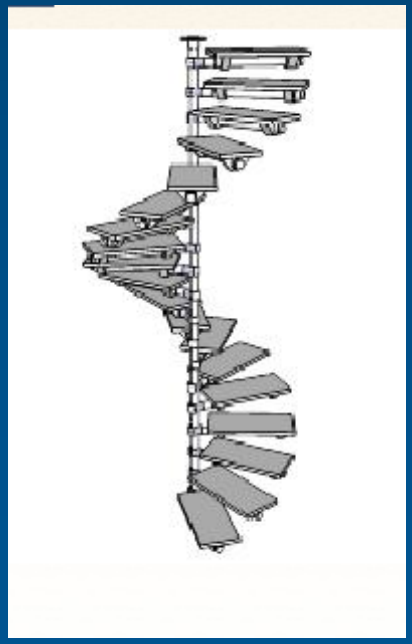
Standard Work

- Putting down in writing, an agreement, that tells everyone where we are at a point in time.
- We cannot improve, or know we have improved, without a standard.
- Makes it visible to know
  abnormal from normal
  or expected from
  unexpected



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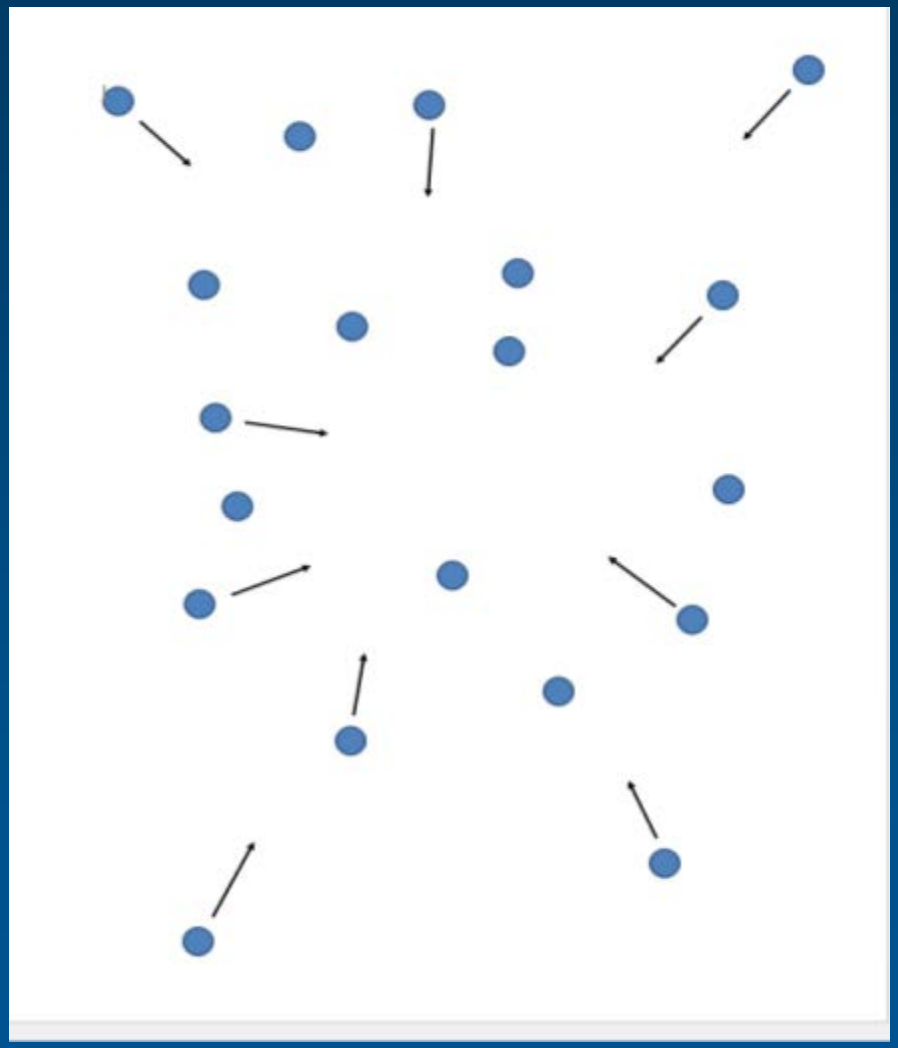
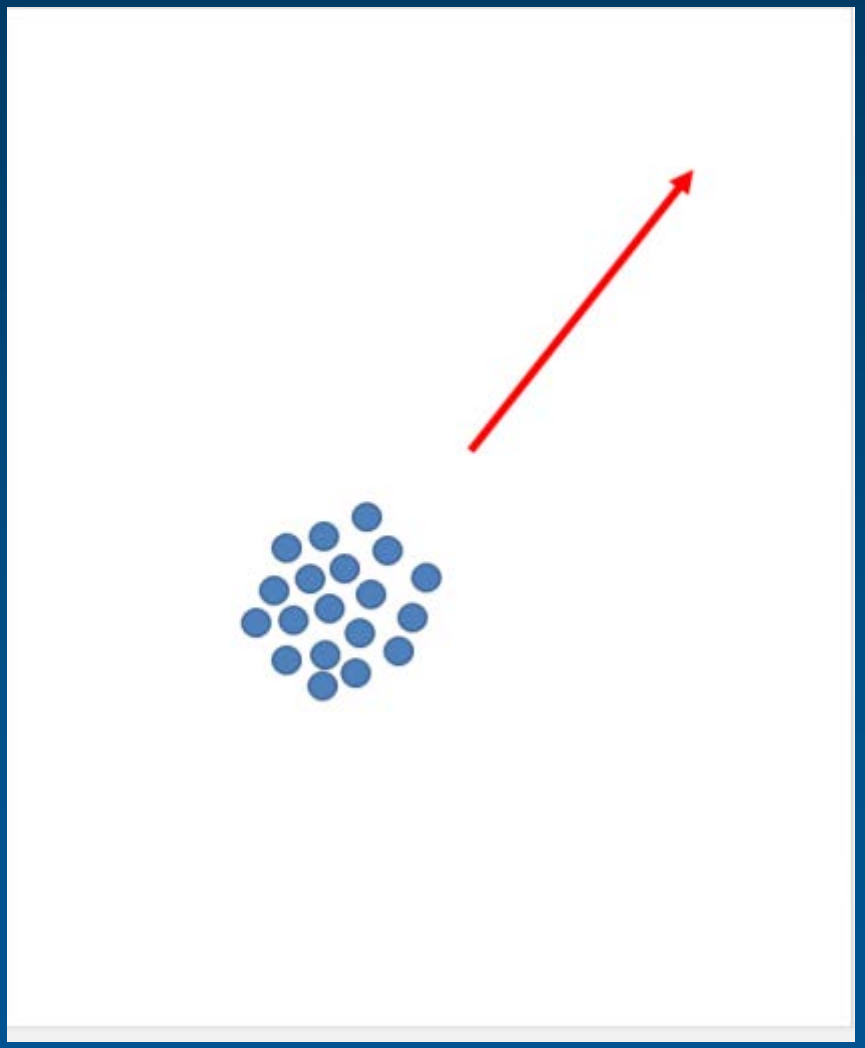
Standard Work





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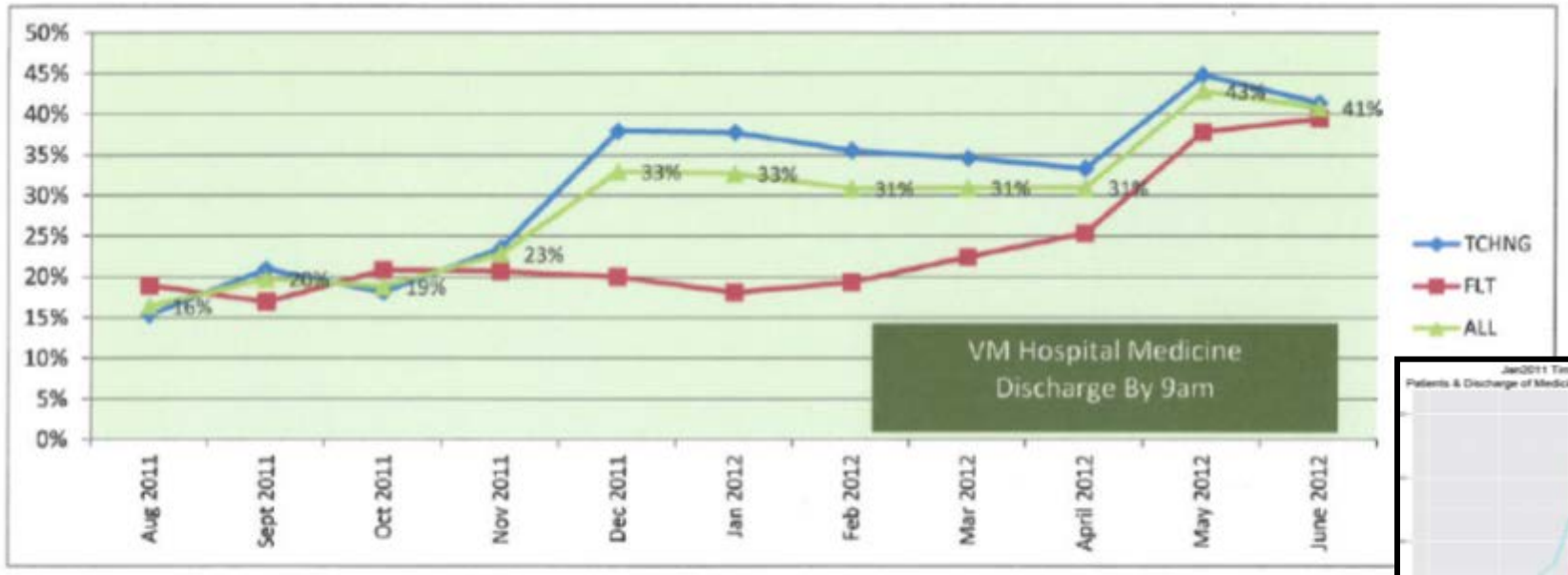
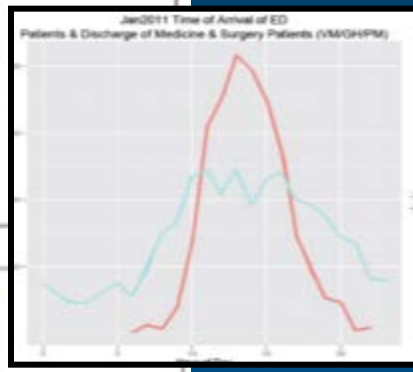
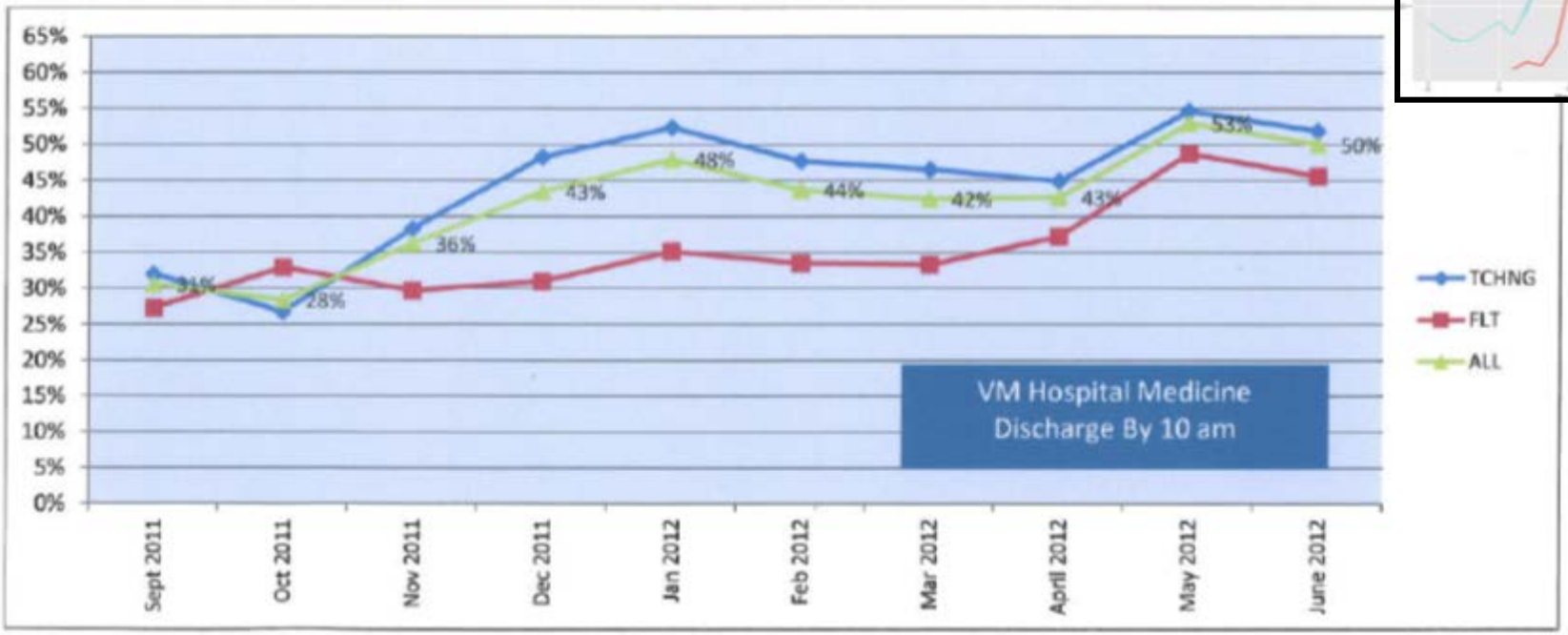
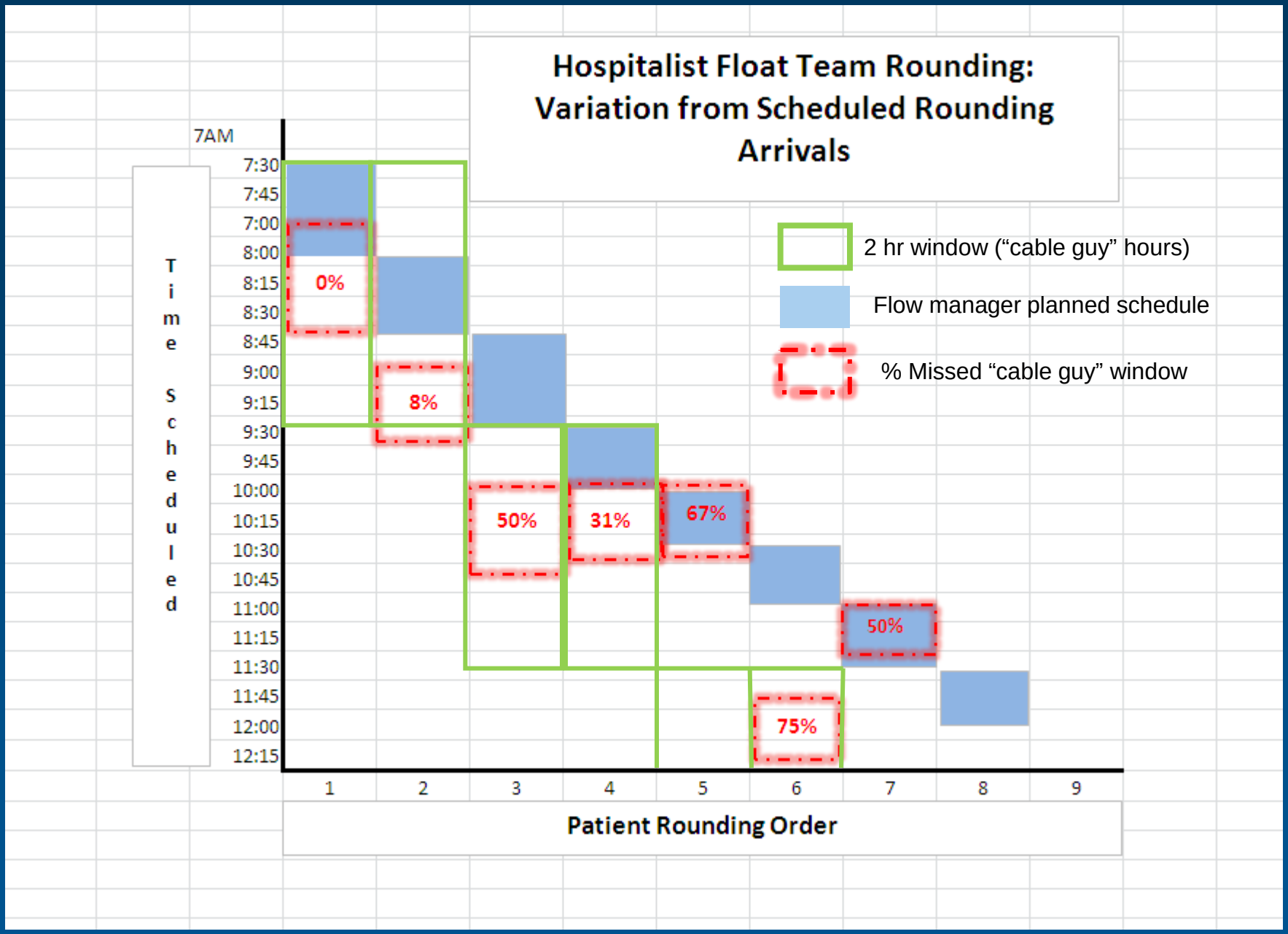
HOSPITAL MEDICINE DISCHARGE ORDERS - THRU JUNE 2012









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PQ Analysis

Definition

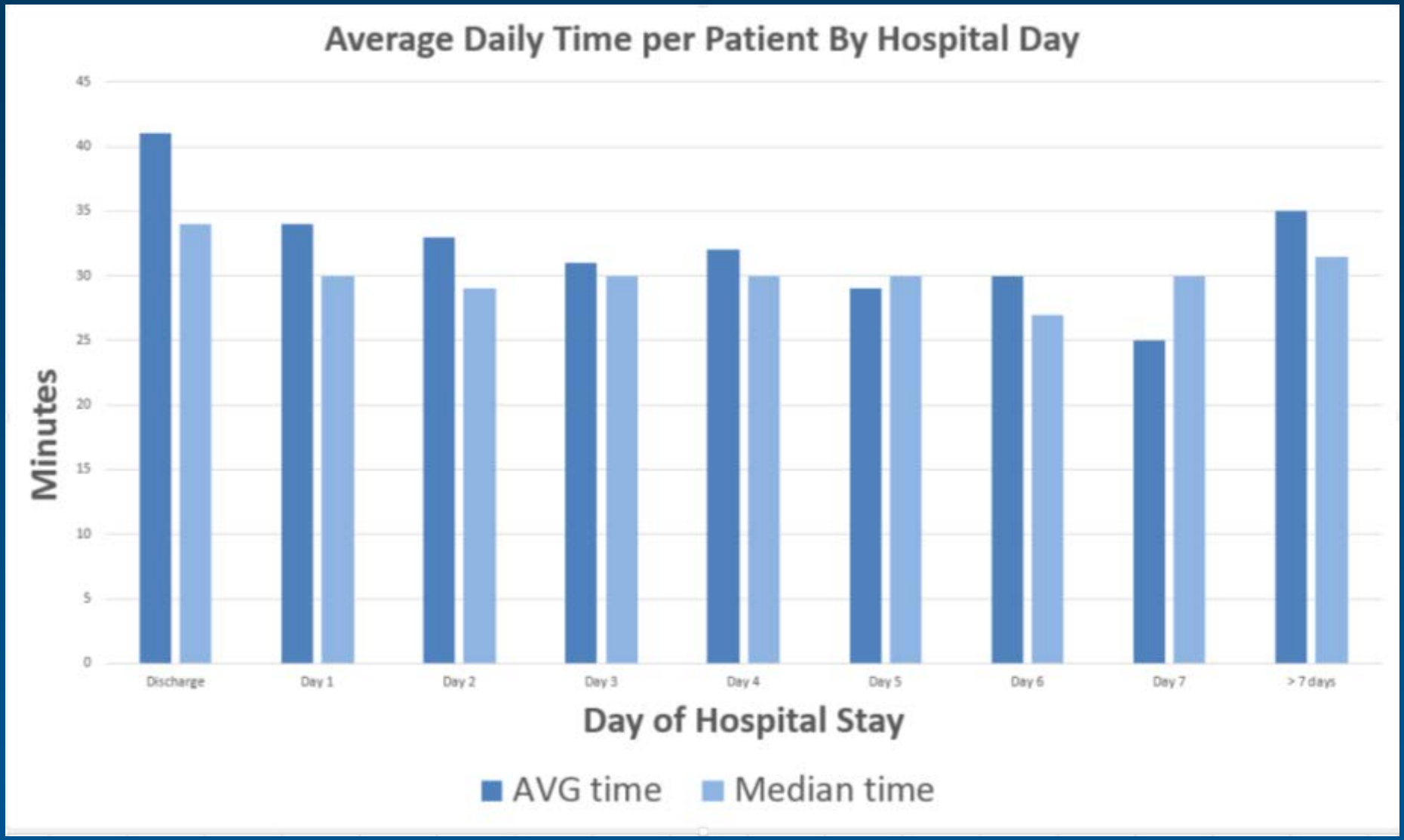
Product-Quantity (PQ) Analysis is a method that allows you to categorize your demand into specific families of products or services.

PQ Analysis

Benefits

PQ Analysis allows you to:

- clarify your demand
- see where processes intersect
- reveal opportunities for efficiency gains
- understand how your resources are over and under utilized
- more effectively target your improvement efforts
- have more effective implementation of better solutions



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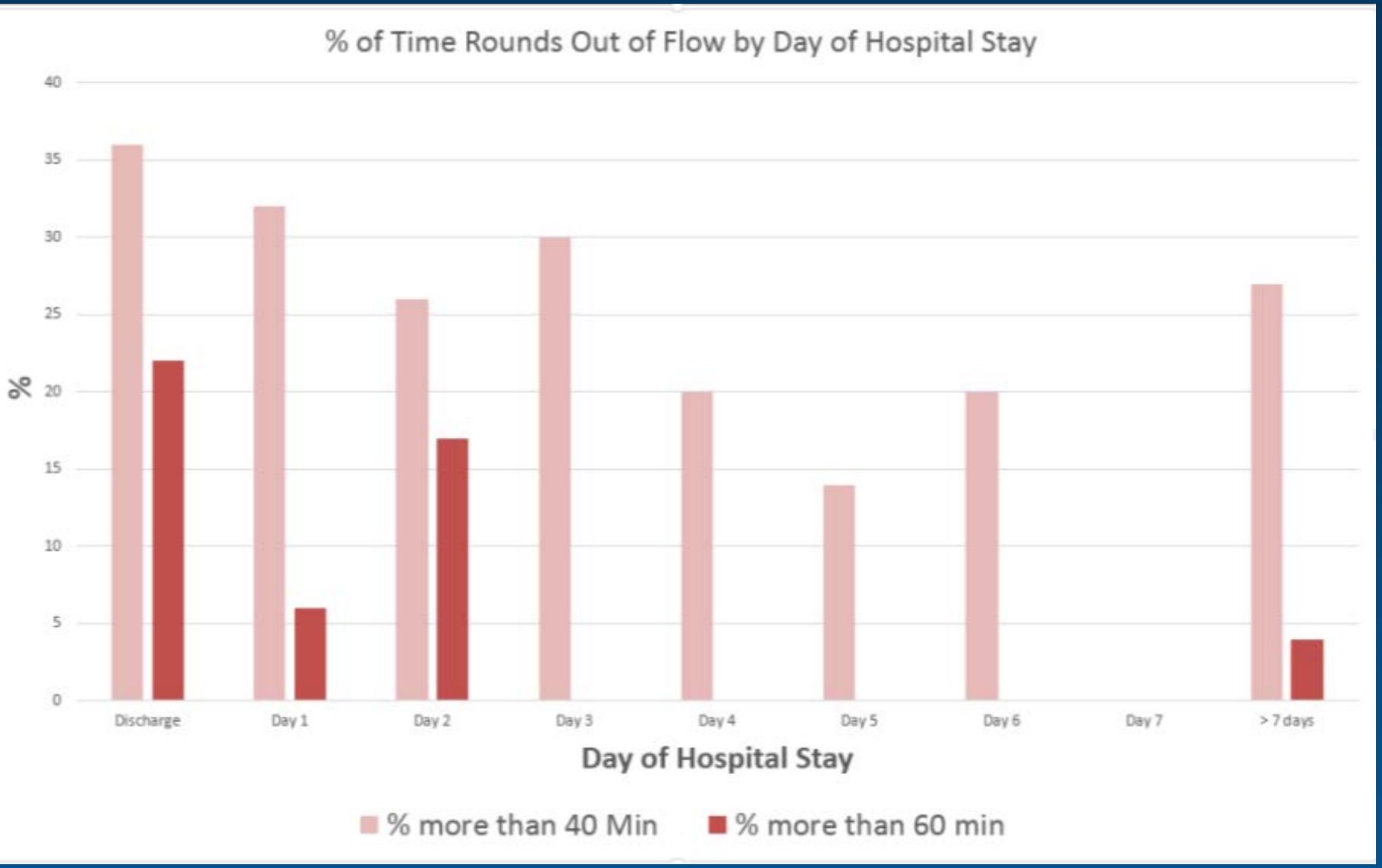

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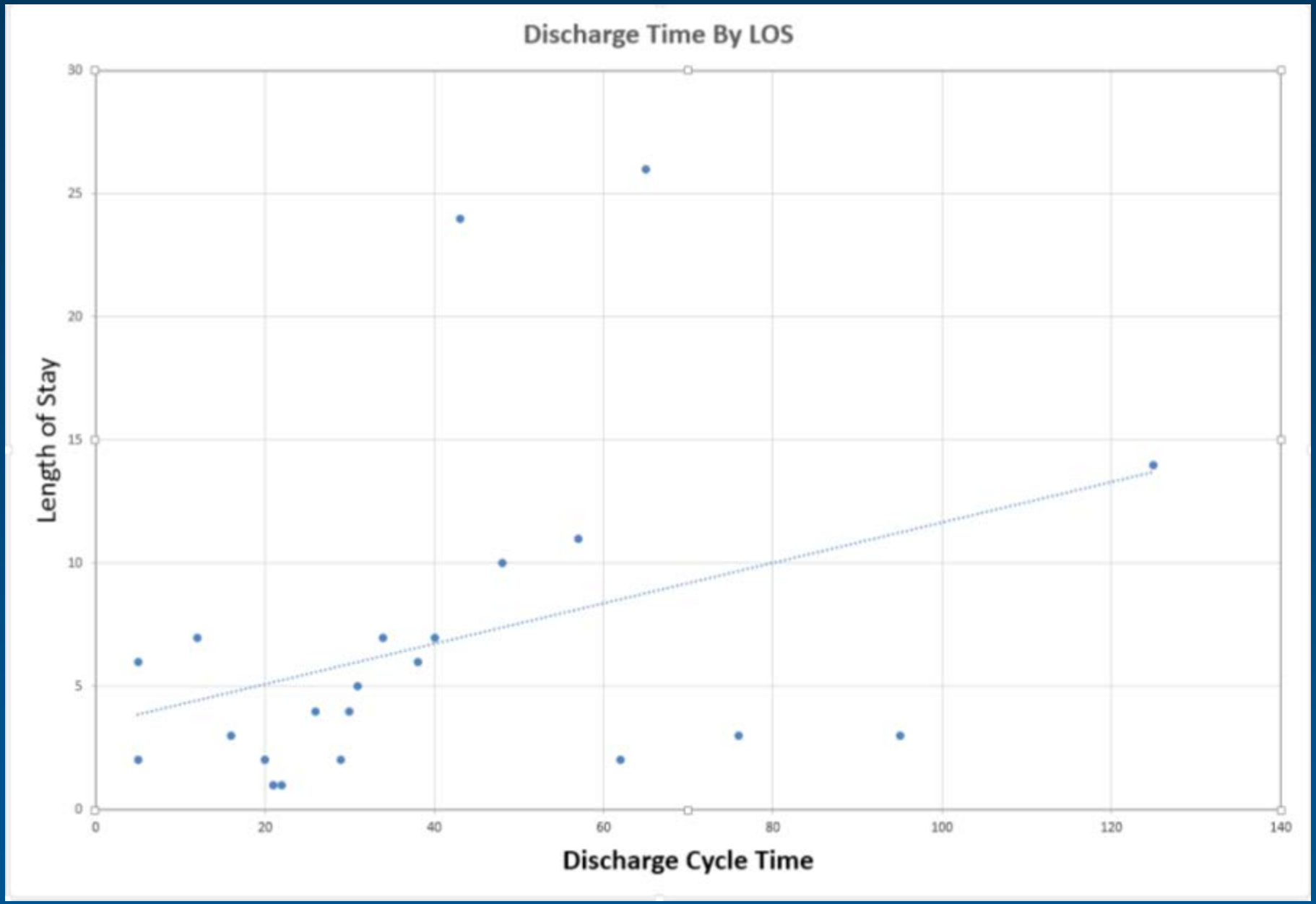

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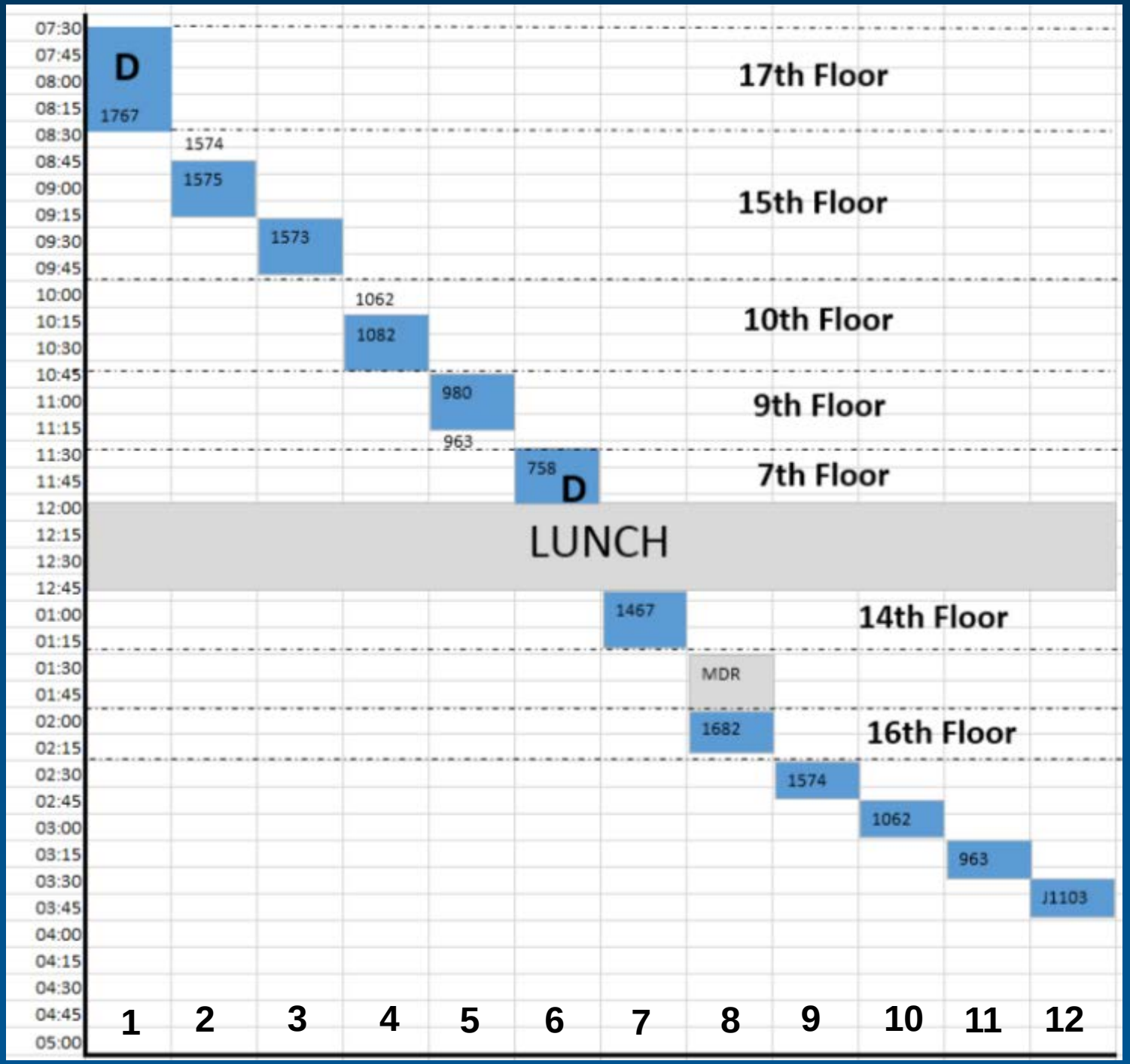
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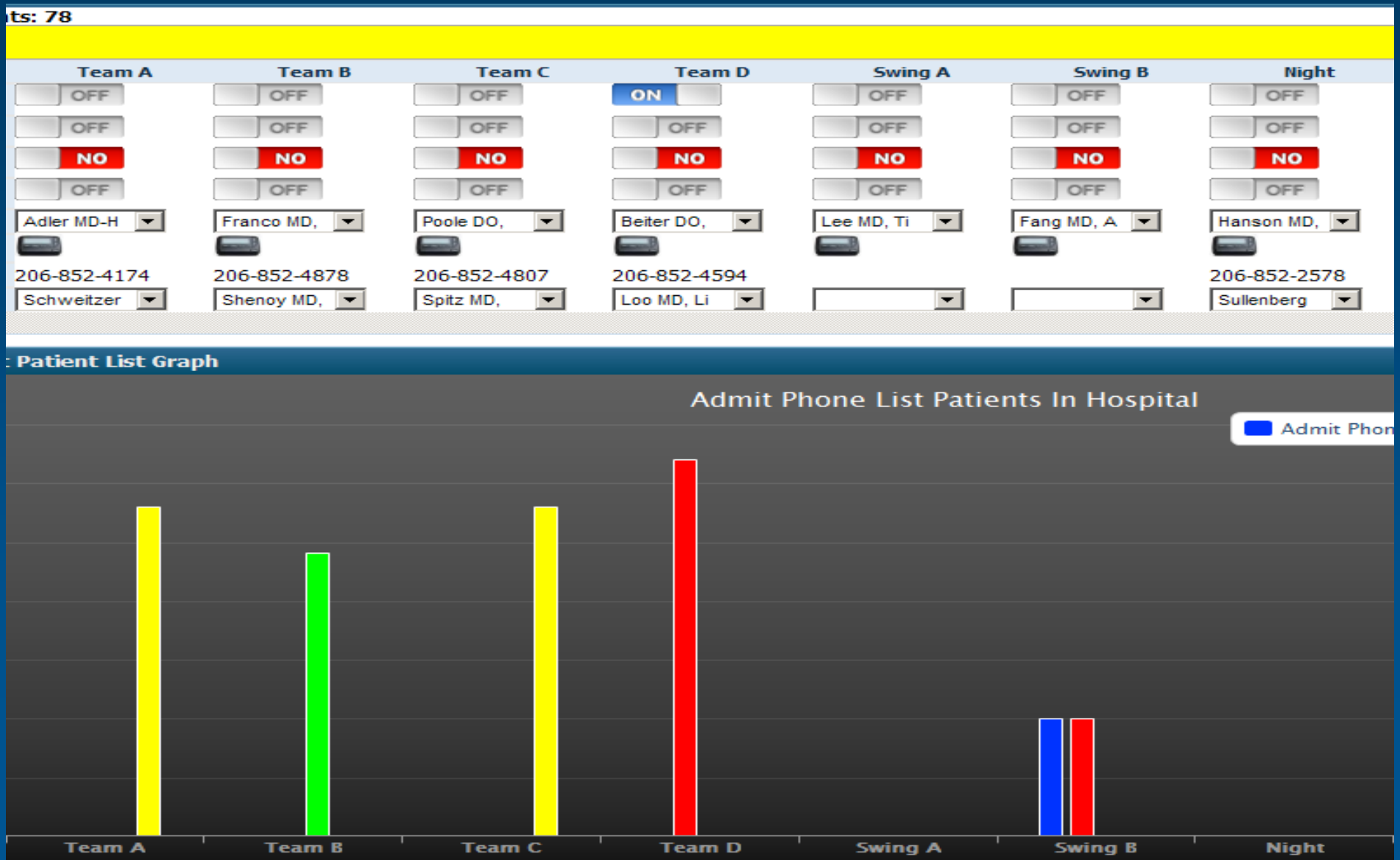
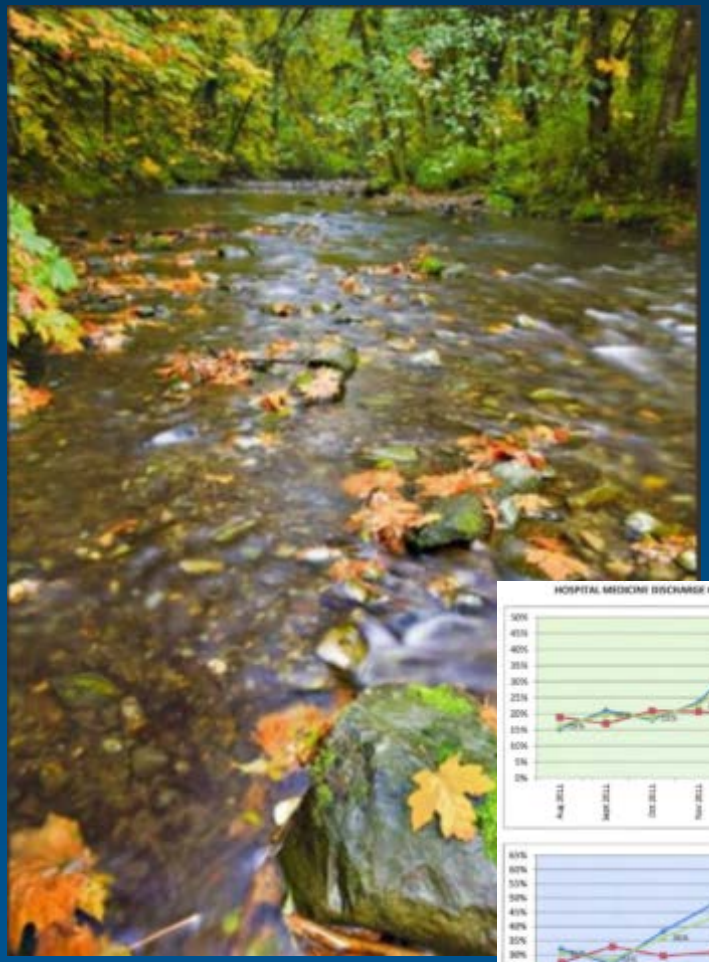
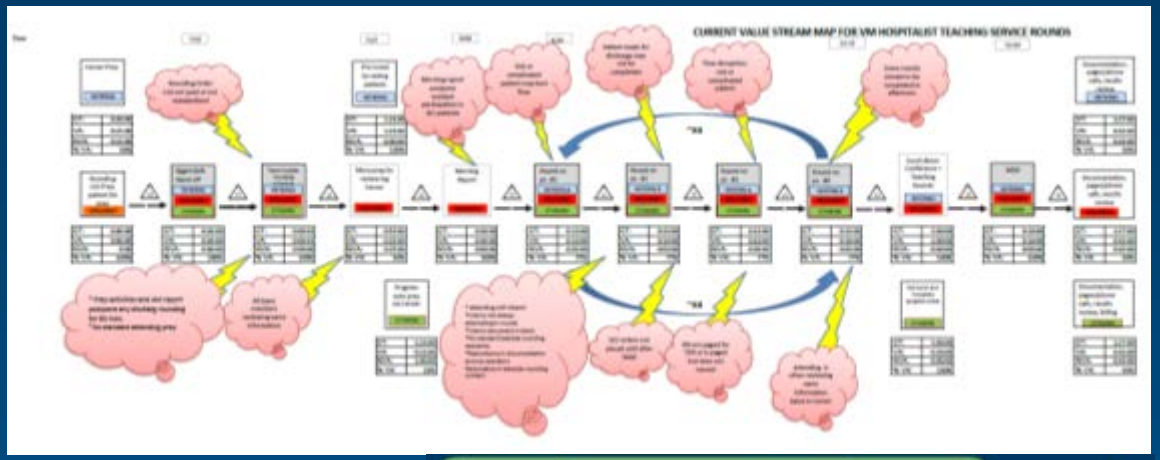
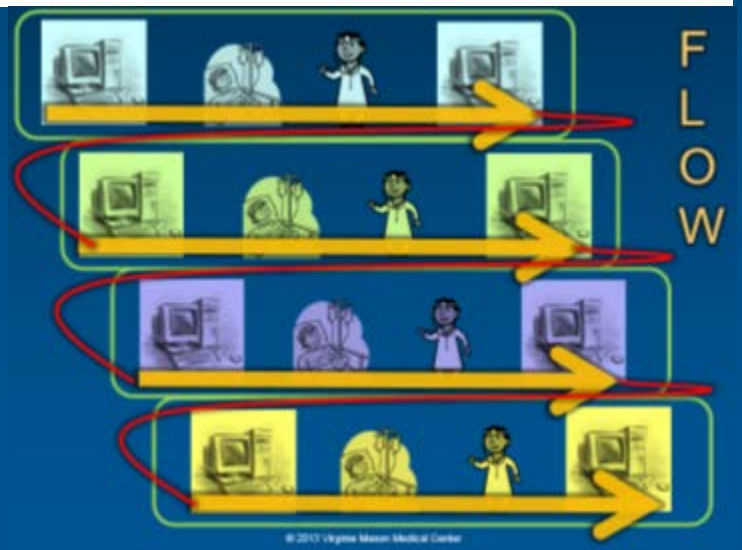
Level Loading & Visual Control



GOT FLOW?







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How Did We Do?

- Share Our Experiences, Challenges and Solutions
- It's about People (Not Healthcare)
- Demonstrate Use of Lean Tools (VSM, One Piece Flow, PQ Analysis, Standard Work, Level Loading).
- Leave Inspired to Try Things!
- What About You?

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Who Are Your Customers?