

ED to Inpatient Medicine Bed Value Stream Map A3

Owner/Date	MZ & RW 8/13/09	MZ & RW 11/30/09	MZ & RW 1/12/10	MZ & RW 2/4/10	MZ & RW 2/11/10
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I. Background

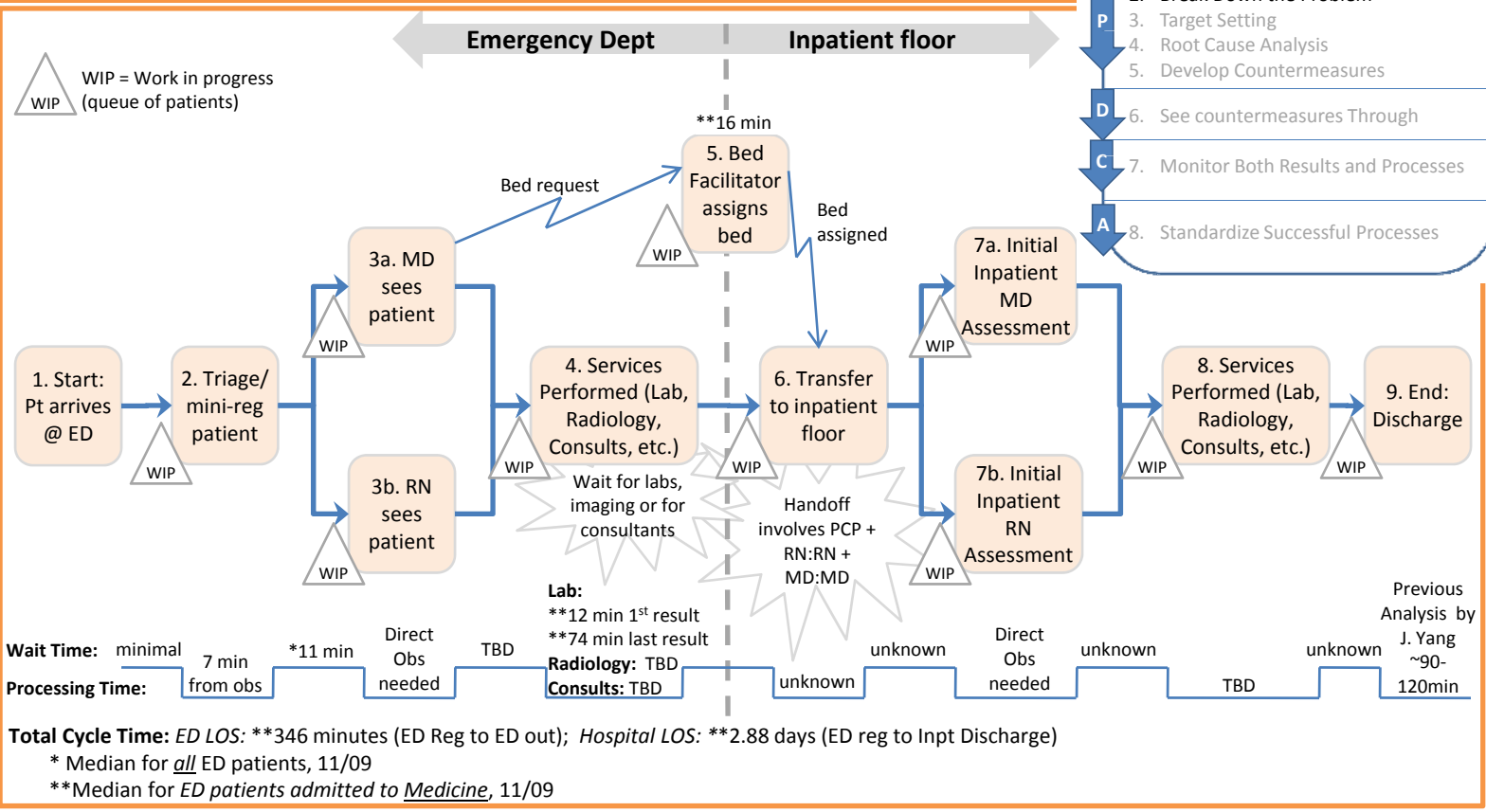
BIDMC admits ~11,000 patients per year to medicine floors via the Emergency Department (ED). Optimizing flow for these patients is critical to maintaining hospital access, avoiding ED overcrowding, facilitating medicine floor workflow, and improving patient satisfaction. Early analysis suggests current ED length of stay may exceed that needed to accomplish appropriate stabilization and triage of patients prior to admission to the medicine floors.

- Patients arriving in a "group" early afternoon & going to floor late
- Bedding when patients hit the floor (e.g. 8 patients in 1 hour)
- Queue of patients everyday (WIP=inventory)
- Discharge times batched
- Bed availability
- Large # of patients admitted by night float, 8:30p – 7a (even though patients arriving in day-time & are known to be admits earlier)
- Portion of patients who don't need to be in ED at all

Project Team:

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II. Current Condition



Before Condition

PROBLEMS (re: Patient Throughput)	EFFECTS
1 Patients queue for each step of the process	Patients wait
2 Large # of patients admitted by night float (8:30p – 7a)	Unlevel workflow for inpatient residents
3 Patients admitted to the inpatient floors in batches	Batch processes cascade through the system
4 Unpredictable communication between ED transfer team & Medicine admitting team	Process delays & uneven workflow

III. Target Condition

- Future State Attributes:** "If you were to redesign the process in the next 3-6 months, what would it look like?"
- Better communication around the process
 - Speed up ED Triage
 - Reduce time to accurate disposition for sub-defined population (e.g. trial reducing cycle time for direct admits where a current lack of bed availability = using ED as parking place for safety)
 - Capable of getting tests on floor in timely manner
 - Better understanding of process & cycle times in ED & on floors
 - Regular retrospective reviews (for patients with long cycle times before disposition and consults)
 - Eliminate unnecessary variability
 - Set expectations by communicating directive (i.e. communicate – do only what's necessary for the patient to go upstairs safely. E.g. consults?)
 - Better collaboration between ED & Inpatient staff
 - Create pull processes so that inpatient floors maintain availability
 - Reduce unnecessary waits by optimally managing resources (e.g. MDs on floor)
 - Smooth elective demand (e.g. Queuing analysis; balance inpatient surgical demand)

IV. Goals/Targets

1. Decrease average ED LOS for Medicine patients (need further refinement by chief complaint/diagnosis) to <4 hours
2. Define standardized process for service requests (e.g. CTs to be requested in ED or on Inpt. floor?)
3. Decrease volume of services/tests ordered in the ED
4. Refine standardized handoff process from ED (MD, RN) to Inpatient Floor (MD, RN)

V. Implementation Plan

ED to Inpatient Bed Process – Key Activities/Implementation Plan

	8/31/09 (1 hr)	10/5/09 (1 hr)	10/21/09 (.75 hr)	11/16/09 (1.5 hr)	11/30/09 (1.5 hr)	12/14/09 (1.5 hr)	12/21/09 (1.5 hr)	1/12/10 (1 hr)	1/27/10 (1 hr)	2/5/10 (1.5 hr)	2/26/10 (TBD)	12.25 hrs to date
Define Problem												
Gemba Observations												
	Current State (Detailed) Process Map											
						Uncovered Standardized MD Sign-out procedure						
							Current State (High Level) Value Stream Map					
							ID Ideal State & Barriers					
							ID Future State Attributes					
	Current State Data Analysis											
											Meet with Radiology Stakeholders →	
											Collect & Collate Process Delay Data	
											Design Survey for Front Line Staff	