

Patient Flow:

A multidisciplinary challenge to control access, patient safety and cost throughout the world

Richard A. Molteni, MD,FAAP

JCI Consultant

Rome, Italy

October 18, 2019

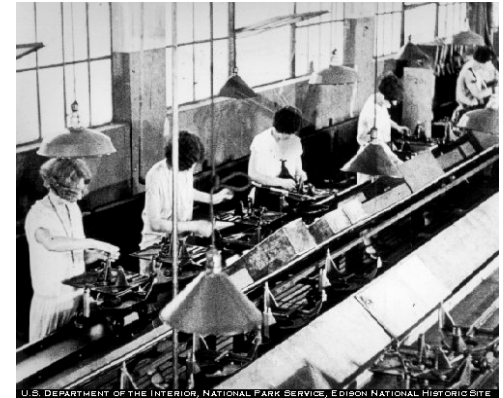


Defining the Challenge



A Hospital Not Only ED Challenge!!

- Patient flow management is a **TOOL** to:
 - Rapidly match the patient to needed services
 - Protect patient safety
 - Maintain safe patient/provider ratios
 - Improve patient and room turnover rates
 - Limit “boarder” status patients in the ED
 - Minimize outpatient area backlogs
 - Reduce the costs of care
 - Improve patient satisfaction, also
 - **Meet JCI Standard ACC2.2.1:** “The hospital develops a process to manage the flow of patients throughout the hospital”



icensed under

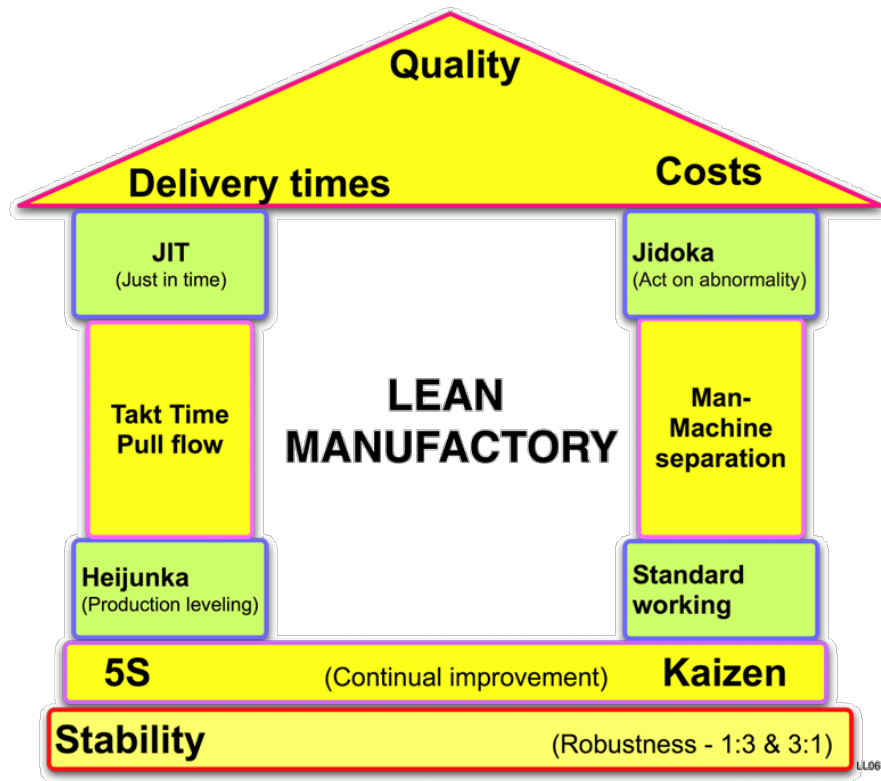
So Who's Responsible to Assure Success??

- Ultimate responsibility belongs to **LEADERSHIP**
 - Safety, cost, staff time, \$\$, IT, utilization, satisfaction
- **Operational responsibility** to **ALL** clinical departments' leadership teams, inpatient, outpatient, OR, procedural areas, imaging, lab and all ancillary services working in harmony.
- Success requires eliminating clinical competition and “blame” and development of a **multidisciplinary patient flow taskforce and management team**
- Team's decisions must trump existing clinical area, service line decision making as it relates to patient location ,admit/discharge norms, and importantly individual physician placement decision making.

Can We Learn Anything from Other Businesses?

Toyota Production System (TPS)

LEAN science and tools have been adapted by many international hospitals to control flow, quality and costs



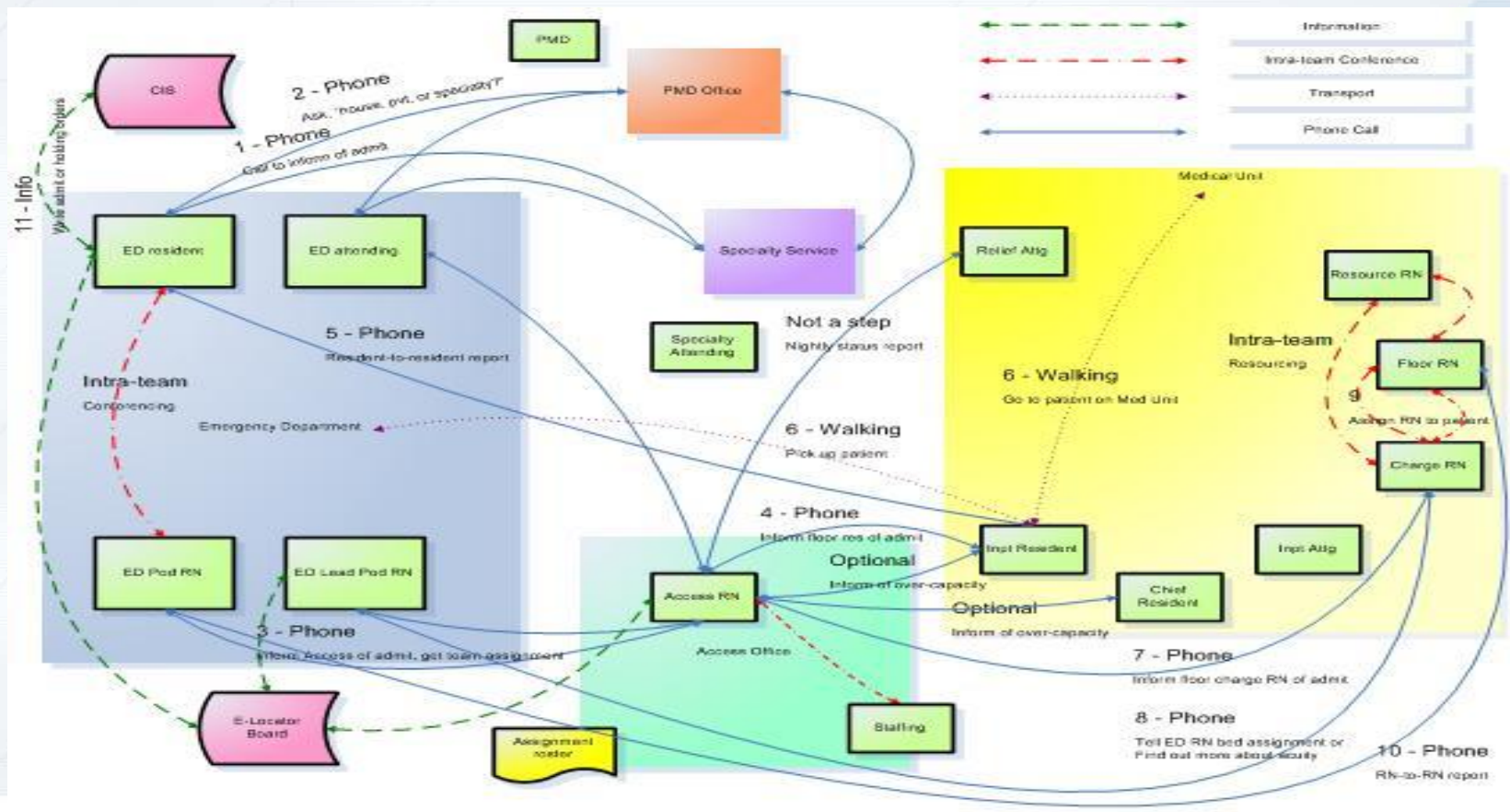
What LEAN principles apply to FLOW

- **Standardize** all processes- remove all variability
 - Managing flow decisions are **centralized**
 - Unit and department practices adapted
- Remove all **waste** (“muda”) or low value processes
 - Reevaluate value of each step in admit/visit process
 - Pre-visit evaluation, paperwork completion online
 - Match patient need with resources required – not more
- Decisions meet **customer** (patient) – not staff expectations
 - Staff “tradition” and convenience gives way to efficiency/safety
- **Errors** are identified and corrected before progressing
 - “Stop the Line”- No “inspections” ; “Poke-yoke”- fail safe
- **CONTINUAL** process improvement everyone’s\ role

icensed under

Hospital Challenges are Real!!

Communication to Admit One ED Patient



Quality Challenge: Reduce the Error Rate



10^{-6} to 10^{-7}



10^{-2} to 10^{-3}

Where are the Primary Obstacles to Smooth Patient Flow??

Patient Flow Critical Clinical Sites

– Outpatient

- Emergency dept.
- Clinics
- CT/MRI/Ultrasound
- Laboratory
- Cardiac cath
- Interventional rad
- Endoscopy
- CT/MRI
- Day surgery
- Pharmacy



– Inpatient

- Emergency dept.
- Medical wards
- Surgical wards
- Cardiac monitoring
- Critical Care Units
- Surgery suite
- Pharmacy
- Medical Imaging

Emergency Dept Plays Central Role

Exacerbate flow

- ↑ ER Visits
- Unnecessary visits
- No after hour clinic care
- No sick/urgent care space
- Limited to 5-day clinic care
- No clinic urgent walk in care
- Specialty clinic backlogs
- Left without treatment pts
- Long imaging waits
- No ED behavioral health
- No care coordination
- Poor medication education

Improve flow

- Urgent care triage area in ED
- Walk in sick clinic care
- Specialty clinic same day care
- Nursing protocols
- Inpatient/ED observation beds
- Full time ED behavioral health
- Satellite imaging (CT & U/S)
- Satellite lab
- ICU & Med Surg “Held” Beds
- ED Clinical pharmacist
- Follow-up phone calls

Impatient Med Surg Floors

- Establish “bed control center”
- Manage observation care bed area
- Disease specific clinical guidelines and care maps used
- Begin evening and morning discharge rounds
- All lab & studies completed evening before discharge
- Formal discharge order written the evening before
- Discharge waiting area created
- Pre-discharge contact with PCP
- Pre-discharge pharmacist patient/family med education
- Discharge planner/Social Worker sees all new admits
- Clinic chronic care coordinator (e.g. COPD, CHF, DM) involved
- Clinic visit scheduled within 72 hours
- Follow-up phone calls (floor or clinic)

Outpatient Clinics

- Establish same day appointments (work down backlog)
- Staff urgent/sick care clinic (in clinic or ED)
- Initiate evening clinic hours
- Clinic based behavioral health provider
- Pharmacy consultative clinic- polypharmacy patients
- Chronic disease management nurse (e.g. COPD, CHF, DM)
- Post discharge visits within 72 hours
- Home health visitation program

Specialty Clinics

- Clinic specialty consultant for ED/Med Surg with open schedule blocks
- Evening/weekend appointments until backlog worked down
- Same day appointments

Intensive Care Units

- City/region/system wide on-line live bed logs- coordinate with EMS
- **STRICT** admission and discharge criteria
- Pre-admit ICU consults in the ED
- Pre-discharge step down area (patient/family education)
- MD/RN consultative service to Med Surg floors
- Specialized areas: surgery, neuro-stroke, cardiac
- Unit based clinical pharmacist
- Large units: satellite pharmacy and laboratory
- Uniform ventilator weaning protocols introduced
- Central line placement teams
- Patient/family nursing educator
- Ethics rounds and consultations
- Afternoon review of elective surgery cases scheduled for next day

Operating Theatre- Procedural Areas

- Pre-operative nursing/nurse practitioner clinic- history/education
- Preoperative anesthesia clinic- testing completed
- Telephone, email reminders
- “Flatten” elective scheduling to create even flow 5 days a week
- Separate day surgery rooms/suite for rapid turnover cases
- Open weekend cases to work down backlogs (e.g. endoscopy)
- Satellite pharmacy – prophylactic antibiotic protocols
- Frozen section lab on site
- Uniform case packs
- Pre-printed consents for all common procedures- all elements
- Pre-printed discharge instructions for all common procedures
- Anesthesia, nursing, housekeeping participate in room turnover
- Post-surgery phone calls, Wound clinics

Questions:

