How does lean work in emergency care

Pamela Mazzocato, PhD
Medical Management Centre (MMC),
Sweden
4 May 2016

10th European Patients’ Rights Day
Reducing waste and inefficiency in the healthcare systems, increasing quality of patient care
BAD NEWS
We do not consistently deliver the best possible care based on the knowledge available

- We use effective methods even in cases when they do not help (overuse)
- We use the right methods in the wrong way (misuse)
- Fail to use the methods that would help a patient (underuse)
GOOD NEWS
Improvement science is pivotal to create value for patients

Professional knowledge
- Scientific knowledge
- Personal skills
- Values

Improvement knowledge
- Knowledge of systems
- Knowledge of variation
- Knowledge of change
- Theory of knowledge

Improvement of diagnostic and treatment procedures

Improvement of processes and systems

Value for patients

Michael Bergström, SKL, Adapted from Batalden
”Every system is perfectly designed to produce the results that it does”

- To improve healthcare we need to change processes and systems

- “...the sequence of clinical decisions and tasks that together result in the solving of a patient’s health problem and the creation of patient relief”.”

Bohmer, 2009
“Lean” is a management practice based on the philosophy of continuously improving processes by

- Increasing customer value or reducing non-value adding activities (MUDA)
- Reducing process variation (MURA)
- Reducing poor work conditions (MURI)

(Radnor et al. 2012)
Lean: from theory to practice

**Danderyd University Hospital**
- 80,000 ED visits/year
- 578 beds

**Karolinska University Hospital**
- 200,000 ED visits/year
- 1,595 beds
Fast track for patients with hip fracture
Timely, Safe, Efficient, and Equitable care for patients with hip fracture at the Danderyd Hospital

- **Timely**
  - Percentage of patients operated within 24 hours: from 47% a 83%
  - Waiting time: from 24.8 to 20.0 hours

- **Safe**
  - Timely access to surgery is associated with improved outcomes (in the literature)
  - Reduction of adverse events

- **Efficient**
  - More efficient use of resources

- **Equitable**
  - No parallel increase of waiting time to surgery for other acute orthopaedic inpatients
Reduce non-value adding time from a patient perspective at the Karolinska University Hospital
The lean intervention focused on six key areas:

- **Way of working**
- **Competence**
- **Free staff**
- **Staffing**
- **Continual Improvement Management meetings**
- **Continual Improvement Visual management**
Reduced non-value adding and variation

Up to 29% relative increase in the % of patients ready to leave the ED in 4 hrs

Up to 56% relative decrease in waiting time to first physician assessment
References

Lean practices...

... the first step towards the development of healthcare organizations that continually learn how to better meet patient needs