Improving ED flow

A work in progress

How does your ED measure up?

Objectives

- At the end of the session the participant will be able to identify:
  - a starting place for improving ED flow
  - the key players for sustainable change
  - length of process toward completion
- How one ED improved flow:
  - Microsystem (emergency department (ED)level)
  - Mesosystem (ancillaries, pharmacy, any department that supports ED) level
  - Macrosystem level- (hospital and health system level)

Objectives cont.

- Dos and Don’ts of improving flow
- Applying “lean” to ED
- Implementing ***original*** Scribe System
- Relationship of Complexity, Systems, Chaos, Queuing Theories to sustainable change in ED flow
  - Cause and effect relationships for change

One ED's Experience

Background

- Urban community hospital
- 24-bed ED
- Apprx. 40,000 annual census
- Avg. 110 pt./day
- Avg. arrival is 6pts./hr.

Significant change

- ED Process improvement committee (Macro/hosp. level)
- ED Quality Improvement committee (micro)
- IT (able to measure change)
- Provider at triage
- Physician leadership
- EPs' commitment to change

Incremental change

- Quick registration
- Immediate bedding
- Phlebotomist in ED
- Tests of change-lab results
- Re-org of rooms for improved productivity
- ISTAT in ED for select labs
- Physicians discharging patients

Changes in progress/future

- Applying queuing theory to scheduling
- Reconfiguring ED and waiting room
- Bridging orders
- Code for immed. decommpression of ED
- Implement Original Scribe Sx.
  - Proactive preparation of all pts.
  - Two teams with scribe per EP

March 2009		January 2010	
All pts. to provider	66 min.	All pts. to provider	15 min.
Non admit		Non admit	
◦ PAT to EP/PA	41 min.	◦ PAT to EP/PA	26 min.
Admitted pts. to provider	52 min.	Admitted pts. to provider	10 min.
LOS	3:15	LOS	2:38
ALOS	5:37	ALOS	4:47
LWBS	2.70%	LWBS	.89%
Pt. Sat.	83%	Pt. Sat.	90%

10 months later

Ancillaries

March 2009	(min.)
Xray	52
Ultrasound	80
CT w/o contrast	80
CBC	45
UA	78
Comp. panel	65
Troponins	66

March 2010	(min.)
Xray	49
Ultrasound	84
CT w/o contrast	67
CBC	45
UA	108
Comp. panel	64
Troponins	67

Reasons for improvement

- Desire for real change
  - Improve throughput
  - Improve process
  - Improve morale
- Provider at triage
  - Addition of provider staff
- Standardizing procedures at front end
- Provider education and awareness
- Familiarity with IT…discharging pts.
- Accountability
- Staff involvement

	January 2010	March 2010
All pts. to provider	15 min.	41 min.
Non admit		
◦ PAT to EP/PA	26 min.	44 min.
Admitted pts. to provider	10 min.	30 min.
LOS	2:38	2:56
ALOS	4:47	5:00
LWBS	.89%	2.30%
Pt. Sat.	90%	80%

Month 12

What happened?

My Recommendations For

SUSTAINABLE CHANGE

Don't

- Begin significant change process without commitment/support of administration/health system
- Run the process from a conference room
- Expect change with a culture of "can't"
- Expect change with an environment that censors ideas
- Expect change immediately
- Expect change without authority and budget

Group Effectiveness Model

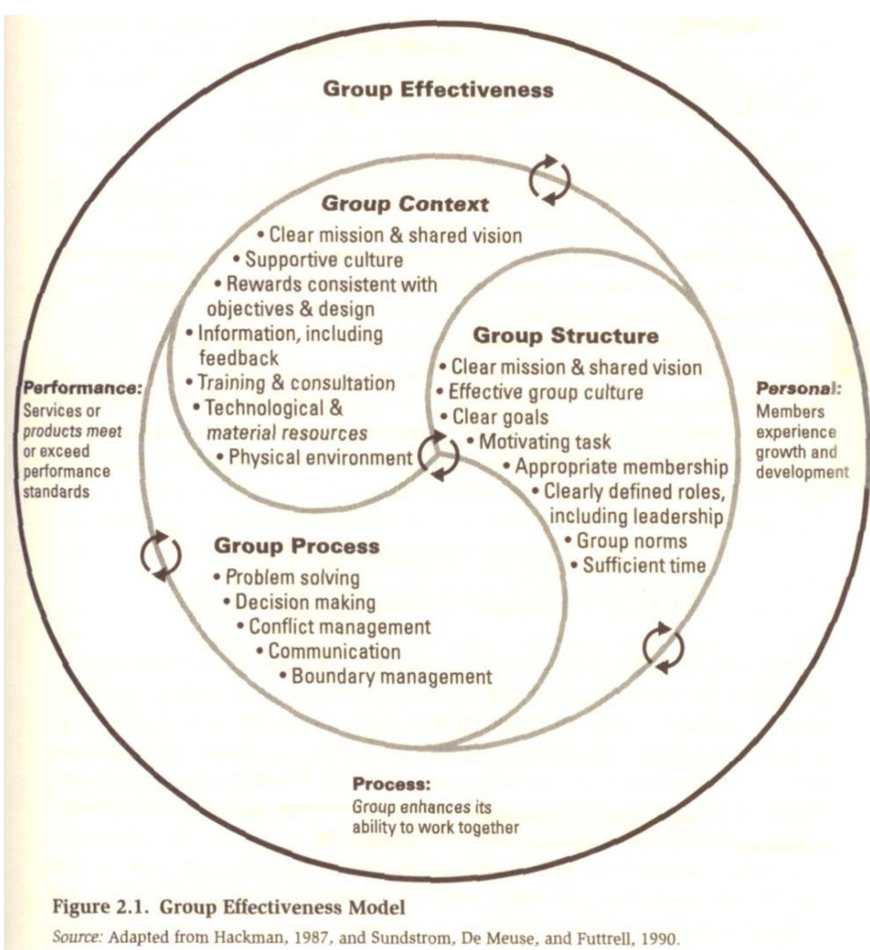

Figure 2.1. Group Effectiveness Model

Source: Adapted from Hackman, 1987, and Sundstrom, De Meuse, and Futtrell, 1990.

The Skilled Facilitator, Roger Schwarz, 2002, p. 19

Do

- Include every person that touches the ED patient in the process!
  - True <u>shared</u> vision and mission
- Need a culture that embraces change
  - "how can we make it happen!" attitude
- Communicate, communicate, communicate!
- Need strong physician leadership and solidarity among emergency physicians
- Strong nursing leadership
- A "champion" representative at every level of ED staff

Do

- Implement "lean" processing
  - Examine every process and get rid of waste
  - Get rid of any process that doesn't add value
- Apply Queuing Theory
  - Determine the appropriate staff and make sure you are staffed fully at all times
- Most important=Systems Theory
  - Look for cause and effect
  - Interrelationships of everything you do

Do

- Have the money budgeted before significant change
- Break down barriers with collaboration
- Build into the budget a project manager
- Build *esprit de corp… raise the bar from the middle to the top performers*
- Utilize a problem solving process
- Implement ***original*** Scribe System (as described by Dr. Nakfoor)

“Original” Scribe System

- Developed late 60s early 70s at St. Lawrence Hospital, Lansing, MI
- 60k annual patient census
- Most efficient system I’ve seen/worked
- Scribe was pivotal point of ED flow
- Entire ED passed information to and took information from scribe via EP
  - 2 providers= divide into teams with 2 scribes

“Original” Scribe System cont.

- All patients were prepped with every detail proactively prepared

- Scribe did more than write/order

- Scribe System at work
  - Patient with laceration
  - Patient with eye injury

More information

- Original Scribe System
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