สถาบันรับรองคุณภาพสถานพยาบาล
(องค์การมหาชน)

Thai Patient Safety

Emergency Response vs Emergency Room Safety

L E

ine, tube, catheter

Emergency response

นพ.พัฒธพงษ์ ประชาสันติกุล
เวชศาสตร์ฉุกเฉิน

Clean Care is Safer Care

Safe Surgery Save Lives

Global Patient Safety Challenge

Clean Surgery
Safe Anesthesia
Right Patient, Site, Procedure

Safe Medication

Safe from ADR
Safe from Med Error
Safe from Transition Error (Med Reconcile)

Proper Diagnosis & Response

Patient Identification
Effective Communication (SBAR)
Proper Diagnosis
Rapid Response to Clinical Un-stability

High M & M Conditions

Sepsis
Acute Coronary Syndrome
Maternal & Neonatal

this evening that Mr. Cuomo had telephoned

The New York Times/William F. Sauro

Patients waiting in the emergency room at Lincoln Hospital in the Bronx.

Emergency Rooms: The New Wards

By LYDIA CHAVEZ

On a recent evening at Lincoln Hospital in the Bronx, a woman who had undergone heart bypass surgery and had been readmitted with chest pain asked her doctor how long she must remain in the hospital's emergency room. "Awhile," he answered.

"What you call awhile?" she shot back.

"Awhile," it turned out, might mean five days, depending on how quickly beds became available in the hospital's intensive care or cardiac units.

The woman and about 50 other patients would wait in a cramped emergency room staffed for a fraction of that number, according to doctors. Some lay on cots, and others sat swaddled in sheets, their heads slumped forward. Some moaned, others watched as the admitted patients received meals and visits from family members. In an adjoining waiting room 40 to 50 less seriously ill patients awaited admittance.

Some in Critical Condition

The scene at Lincoln Hospital in the South Bronx is typical of what is happening in hospitals throughout New York City. Increasingly, because of overcrowding throughout the hospitals, emergency rooms are being used as makeshift wards. Patients admitted to the hospitals — some of them in critical condition — wait up to five days before being transferred to appropriate units, according to doctors and administrators.

The overcrowding, after years of a seeming oversupply of hospital beds in the city, is due in part to the worsening epidemic of AIDS; many patients with the disease have relatively long hospital stays. In addition, there has been an upswing in asthma and other pulmonary illnesses that health officials have noted but are puzzled by.

"We have too many patients, both critical and noncritical, and we're understaffed," said Dr. Joel Gernsheimer, the medical administrator on duty the other night at Lincoln Hospital.

"Look," he said, pointing to one patient in

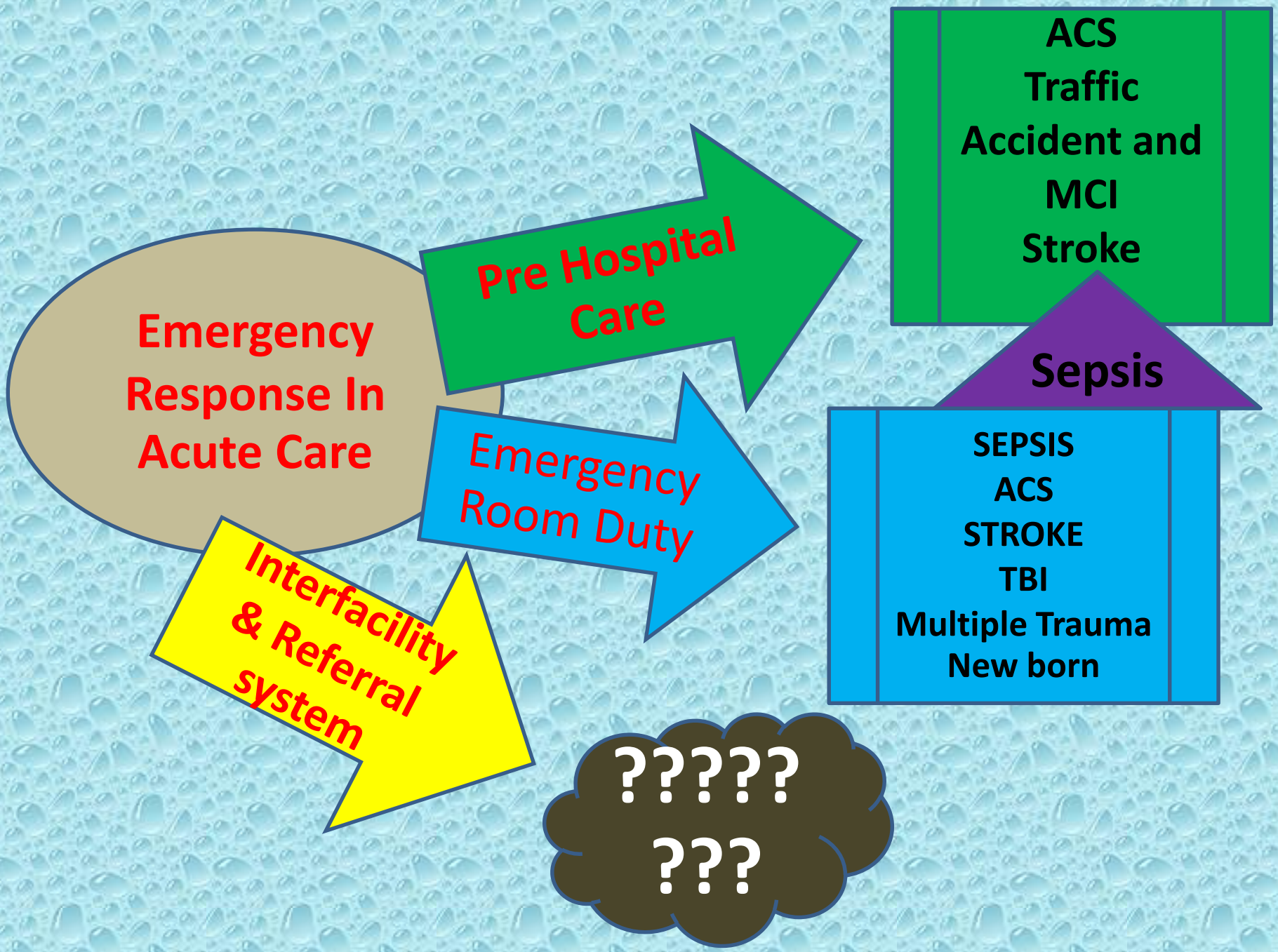
Continued on Page B2

Properly categorize the problem

- EMTALA
- the poor
- the safety net
- The unnecessary visit – who else complains?
  - Subtext – the poor
  - SHOOT THE MESSENGER
  - What's the SCIENCE??
- Temporary problems

… or …..

- Too many inpatients in the ED !!!!


Emergency Response In Acute Care
Pre Hospital Care
ACS
Traffic Accident and
MCI
Stroke
Emergency Room Duty
Sepsis
SEPSIS
ACS
STROKE
TBI
Multiple Trauma
New born
Interfacility & Referral system
?????
???

SEP-1

TO BE COMPLETED WITHIN 3 HOURS OF TIME OF PRESENTATION † :

1. Measure lactate level
2. Obtain blood cultures prior to administration of antibiotics
3. Administer broad spectrum antibiotics
4. Administer 30ml/kg crystalloid for hypotension or lactate ≥4mmol/L

† *"time of presentation" is defined as the time of earliest chart annotation consistent with all elements severe sepsis or septic shock ascertained through chart review.*

Evaluating Severe Sepsis

- **Q1: Suspected infection - clinical judgment to determine if there is a *new* potential site of infection.**
- **Q2: Signs of SIRS – two signs and symptoms of SIRS based on vitals and recent lab results.**
- **Q3: Organ dysfunction – often discovered by an abnormal serum lactate value**

PRE-HOSPITAL CHARACTERISTICS OF SEVERE SEPSIS HOSPITALIZATIONS COMPARED WITH THOSE HOSPITALIZED WITH ACUTE MYOCARDIAL INFARCTIO OR STROKE

Variable	Hospitalizations with Severe Sepsis (*n* = *13,249*)	Hospitalizations with AMI (*n* = *9,069*)	Hospitalizations with Stroke (*n* = *8,981*)
Age, yr: mean (SD)	71 (16)	71 (14)	75 (14)
Female sex, no. (%)	6,149 (48)	3,863 (44)	4,826 (55)
Level of EMS care, no. (%)			
ALS + BLS	7,114 (54)	6,562 (72)	2,625 (29)
BLS only	6,135 (46)	2,507 (28)	6,356 (71)
EMS severity, no (%)*			
Life-threatening	1,822 (19)	1,566 (21)	656 (9)
Urgent	4,990 (51)	4,552 (61)	4,298 (60)
Nonurgent	2,876 (30)	1,378 (18)	2,231 (31)
Pre-hospital time interval, min: mean (SD)			
Responding to scene time	4.7 (3.6)	4.3 (3.3)	4.6 (3.4)
Total scene time	34.8 (18.3)	34.4 (17)	26.9 (14)
Scene-to-hospital time	12.6 (10.5)	12 (9.3)	13.1 (10.2)

Abnormal pre-hospital vital signs, no. (%)			
Systolic blood pressure ≤ 90 mm Hg	2,485 (21)	938 (12)	285 (4)
Respiratory rate > 36 breaths/min	1,790 (16)	681 (9)	
Glasgow Coma Scale score ≤ 11	1,699 (14)	381 (4)	
Sa_{O_2} < 88%	1,369 (10.3)		
Heart rate ≥ 120 beats/min	2,771 (24)		
Pre-hospital critical illness risk score, mean (SD)†			
Pre-hospital procedures, no. (%)			
Supplemental			
Bag va			
Endotrac			(6)
ECG monito			2,543 (28)
Peripheral intra		5,311 (59)	1,438 (16)

EMS personnel care for a substantial and increasing number of patients with severe sepsis, and spend considerable time on scene and during transport. Given the emphasis on rapid diagnosis and intervention for sepsis, the pre-hospital interval may represent an important opportunity for recognition and care of sepsis.

Definition of abbrevia acute myocardial infarction; BLS = basic life support; EMS = emergency medical services; Sa_{O_2} = arterial oxygen saturation.

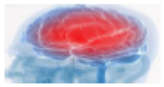
*Determined by first arriving

†Calculated as an integer score ranging from 0 to 8, using a previously published risk model (21).

‡Peripheral intravenous access does not include placement of central or intraosseous catheters.

COURSE OBJECTIVES


About Stroke


Stroke Policy Recommendations


Stroke Protocols and Stroke Hospital Care

Stroke Assessment Tools


Pre-Notification


Stroke Treatment

EMS POLICY RECOMMENDATIONS

- Support ABCs: airway, breathing, circulation – give oxygen if needed
- Perform prehospital stroke assessment
- Establish time when patient was last normal
- Rapid transport to the nearest Primary Stroke Center, Comprehensive Stroke Center or GWTG-Stroke Hospital
  - EMS can bypass hospital without stroke resources if the stroke center is within reasonable transport range
- Alert receiving hospital as soon as possible of potential stroke patient "CODE STROKE"
- Check glucose level if possible

CONSUMER ASSESSMENT OF STROKE

Face Drooping - Ask the person to smile. Does one side of the face droop or is it numb?

Arm Weakness - Ask the person to raise both arms. Is one arm weak or numb? Does one arm drift downward?

Speech Difficulty - Ask the person to repeat a simple sentence, like "the sky is blue." Is the sentence repeated correctly? Are they unable to speak, or are they hard to understand?

Time to call 9-1-1 - If the person shows any of these symptoms, even if the symptoms go away, call 9-1-1 and get them to the hospital immediately.

http://www.strokeassociation.org/STROKEORG/WarningSigns/Warning-Signs_UCM_308528_SubHomePage.jsp

Criteria for rapid transfer to ED using Emergency Services System

- Any deterioration in the injured person's condition
- Unconsciousness, or lack of full consciousness††
- Any focal neurological deficit‡‡
- Any suspicion of a skull fracture or penetrating head injury§§
- Any seizure (i.e., 'convulsion' or 'fit') since the injury
- A high-energy head injury***
- Suspected neck injury
- The injured person or their carrer is unable to transport the injured person safely to the ED.

ED review needed but could be transported by a Competent Adult

- **Any loss of consciousness as a result of the injury, unless trivial, apparently resolved and alternative observation available**
- **Amnesia for events before or after the injury**
- **Persistent headache since the injury**
- **Irritability or altered behaviour**
- **Any vomiting episodes since the injury**
- **History of bleeding or clotting disorder**
- **Current anticoagulant therapy**
- **Current drug or alcohol intoxication**
- **Any previous cranial neurosurgical interventions**
- **Suspicion of non-accidental injury**
- **Age 65 years and older; one year or younger**

Life threatening condition

- หยุดหายใจ (**apnea**)

A

B

- ภาวะหายใจล้มเหลว
  - เขียว
  - หายใจช้า **< 10** ครั้ง
  - หายใจเร็ว **>35** ครั้ง
- **Sat O_2 < 90**

- ผู้ป่วยหัวใจหยุดเต้น (**cardiac arrest**)
- ผู้ป่วยที่อยู่ในภาวะช็อก
  - **SBP < 90 mm.Hg** ในผู้ใหญ่
  - **SBP < 80 mm.Hg** ในเด็กอายุ **< 5** ปี

C

D

- **GCS ≤ 8**
- ชัก หรือ ไม่รู้ตัว

ผู้ป่วยทางเดินหายใจส่วนบนอุดกั้น (**upper airway obstruction**) เช่น มี **stridor** หรือ **drooling**

ผู้ป่วยที่เสี่ยงต่อการมีภาวะหายใจล้มเหลว (**severe respiratory distress**)

- หายใจเร็ว **> 30** ครั้ง/นาที
- **Sat O_2 < 95**
- หายใจโดยใช้ **accessory muscle** หรือมี **chest wall retraction***

ผู้ป่วยที่เสี่ยงต่อการเกิดภาวะช็อก

- ตัวลาย หรือ **capillary refill > 2** วินาที
- ชีพจร **< 50** ครั้ง/นาที หรือ ชีพจร **> 150** ครั้ง/
- เสียเลือดมาก(**> 750 cc**)

Glassglow coma score <

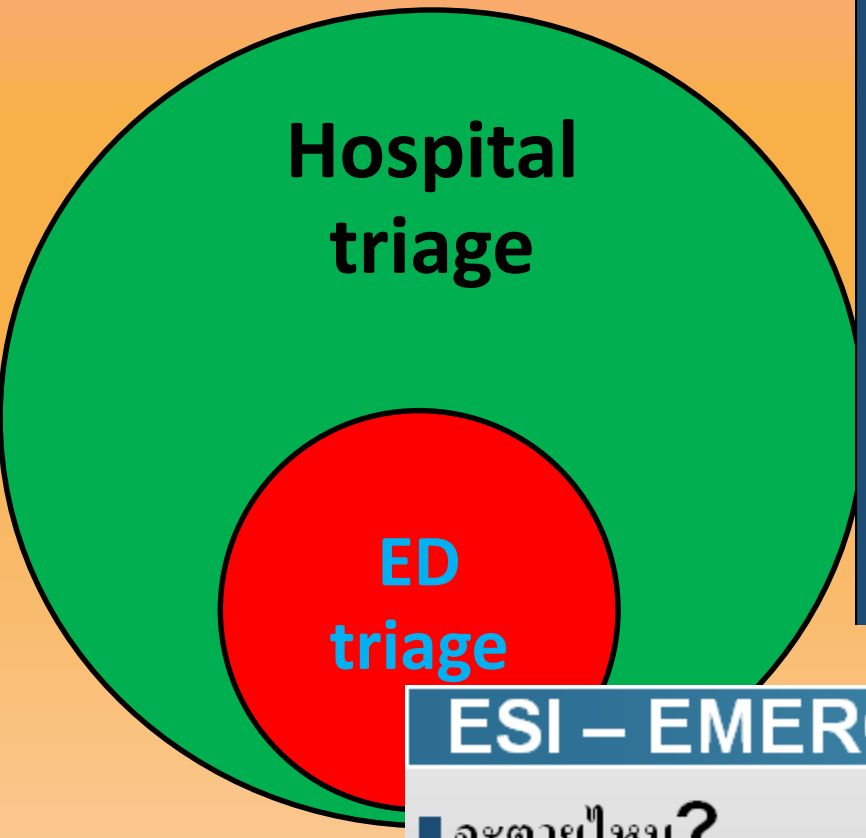
- ผู้ป่วยเจ็บหน้าอกที่สงสัย
- ผู้ป่วยที่มีอาการปวดรุน
- ผู้ป่วยที่มีภาวะน้ำตาล

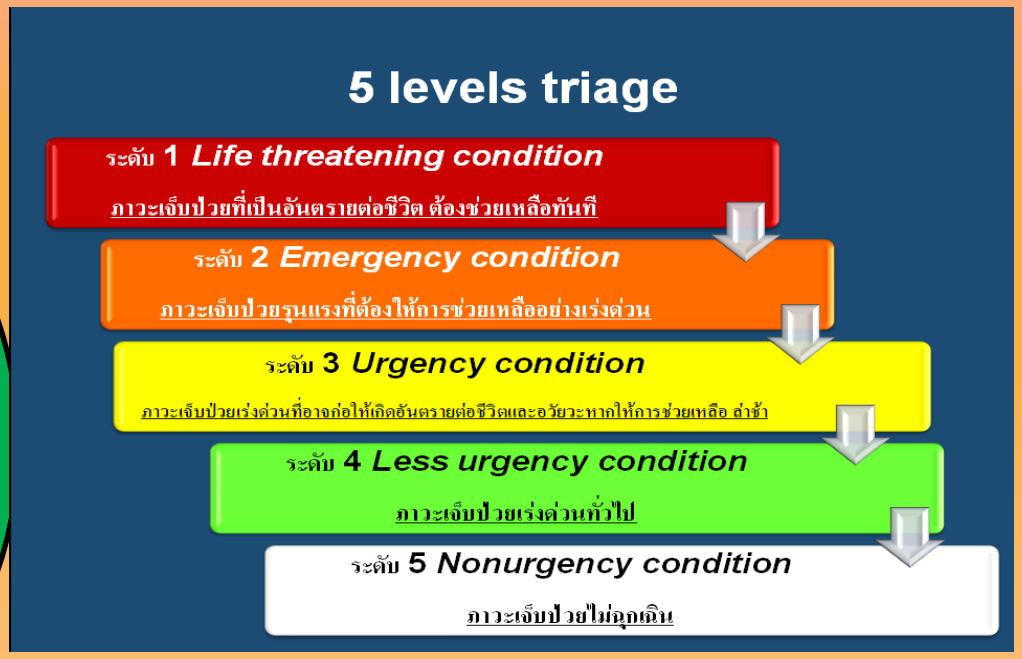
DTX < 60 m

- ผู้ป่วยที่มีอาก
- ไข้สูง **≥ 39 °c** ใ ในผู้ใหญ่
- ตัวเย็น **body temp.< 36 °c**
- ผู้ป่วยถูกกรดด่างกระเด็นเข้าตา
- ผู้ป่วยบาดเจ็บตาที่มีปัญหากับการมองเห็น
- ผู้ป่วยอุบัติเหตุ บาดเจ็บมากกว่า **2** ระบบขึ้นไป
- ผู้ป่วยอุบัติเหตุ บาดเจ็บเฉพาะที่แบบรุนแรง เช่น แขนขาขาด กระดูกชิ้นใหญ่หัก
- ผู้ป่วยที่สงสัยได้รับพิษ หรือ กินยาเกินขนาด*
- ผู้ป่วยที่ถูกสัตว์มีพิษรุนแรงกัด*
- ผู้ป่วยจิตเวช หรือพฤติกรรมเปลี่ยนแปลงที่มี พฤติกรรมรุนแรงเสี่ยงต่อการบาดเจ็บของตัวเองและผู้อื่น

POTENTIAL LIFE LIMB ORGAN THREATENING

Hospital triage

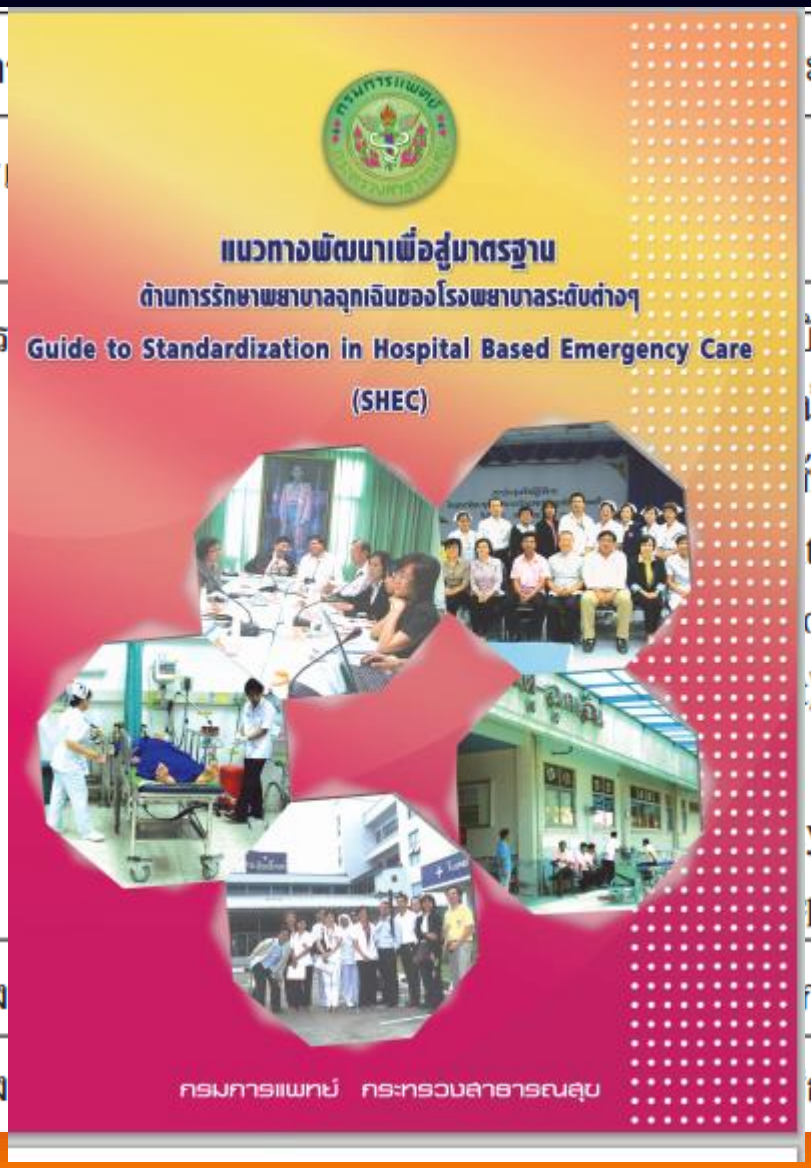




ESI – EMERGENCY SEVERITY INDEX V.4

- จะตายไหม?
- รอได้ไหม?
- ใช้ทรัพยากรมากน้อยแค่ไหน ?

ประเด็นกา	ะเมิน
ส่วนที่ 1 ด้านทรัพยากร ผู้บังคับบัญชา	
ส่วนที่ 2 ด้านการบริหาร	ัติ (Assignment) น้าที่ (Operation) ปฏิบัติ t) ตามการปฏิบัติตาม on)) ตามผลงานที่เกิดขึ้น ysis & Evaluation) port)
ส่วนที่ 3 ด้านความพึง	กร (Personnel Satisfaction)
ส่วนที่ 4 ด้านความพึง	การ (Customer Satisfaction)



ขอบคุณครับ