Demystifying the Emergency Department

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Triage

- From the French “to sort”.
- Most experienced clinician.
Interruption a Way of Life

- Emergency department workplace interruptions: are emergency physicians "interrupt-driven" and "multitasking"?
- Chisholm CD, Collison EK, Nelson DR, Cordell WH.
 Interruption a Way of Life

- Mean number of interruptions per 180 minute study period = 31
- Mean number of breaks-in-task was 21
- Positively correlated with the average number of patients simultaneously managed.
Emergency Department

- Working in a busy emergency department is like performing CPR on a tight rope.
- The ability to multitask is essential.
- Large variety of diagnostics (Radiologic and Laboratory Diagnostics) available.
Emergency Department

- You don’t always get a definitive diagnosis.
- You need to decide whether the patient is “sick” or not.
- Should they be admitted, observed, or sent home?
Emergency Department

- Follow up is critical/essential for many disease entities.
- Establishing primary care and/or specialty follow-up is key!
Case #1

- 34 year old male going off road with friends.
- Riding a street bike through the woods.
- Friends catch up and find him wrapped around a tree sitting up.
- He is not breathing and pulseless.
- They call park rangers
- Should an air ambulance be dispatched?
Transition From The Field: Case #1

- Importance of report in route
- Trauma patient
- Motorcycle versus tree
- Traumatic arrest
- CPR ongoing
- Code three response
Arrival: Case #1

- Arrival in the emergency department.
- You enter the trauma room.
- Team consisting of Trauma Surgeon, Emergency Physician, Trauma Nurse, Trauma Nurse 2, Laboratory Technician, Respiratory Therapist, and Radiology Technician waiting.
- The patient is transferred quickly from the gurney to bed.
Evaluation in the Emergency Department Case #1

- A rapid ABCDE examination is performed.
- CPR still being performed.
- Bilateral thoracostomy is performed.
- Packed RBCs are infused through the peripheral IVs started while in route.
- Should a FAST examination be performed?
Initial Critical Care: Case #1

- No x-rays are performed yet.
- After 4 units of blood infused no response.
- Lab studies are pending.
- CPR still on going.
- Can’t use the Lucas or Autopulse Device.
- Massive Transfusion Protocol initiated.
Trauma Room Continued: Case #1

- Decision is made to “crack the chest”.

Trauma Room Continued: Case #1

- Left lateral chest incision made and rib spreaders used.
- Trauma surgeon inserts his hand.
- A tear in the aorta if found and resuscitation efforts stopped.
A. The pleural cavity is entered through a limited incision in the 5th intercostal space, through which the lung mass and enlarged lymph node are removed.
Case #2

- 68 year old male complaining of substernal chest pain
- Started 1 hours ago with diaphoresis and nausea
- No prior history of cardiac disease or COPD
- Found sitting on the side of the bed
Transition from the Field: Case #2

- Importance of report in route
- Chest pain patient
- ASA given in the field
- EKG performed and transmitted
- IV established
- NTG given
- Blood pressure bottoms out to 60/42
- Code three response
Arrival: Case #2

- Arrival in the emergency department.
- Waiting are a nurse and Emergency Physician in a room 2.
- Repeat EKG done immediately upon transfer from gurney to bed.
- Fluids still running wide open since blood pressure unchanged.
- You are requested to help establish second IV.
Emergency Stabilization: Case #2

- IV fluids running wide open.
- Three liters have been infused.
- Vasoactive agent being considered for persistent hypotension.
- Repeat EKG demonstrates Acute Inferior Wall MI.
- Cardiac alert called.
- Chest x-ray performed.
- Labs are drawn.
Emergency Department: Case #2

- History evolves upon further questioning.
- Patient now admits to using Viagra and not telling prehospital providers.
- Chest pain continues to worsen.
- Cath lab team coming down to get patient.
Patient goes into cardiac arrest.
CPR is started until they can defibrillate.
Resuscitation efforts continue while the patient is being taken to cath lab.
The culprit artery is opened in the cath lab and patient survives.
Case #3

- 2 year old male child with fever to 102.4
- Not wanting to eat or drink because of sore throat
- On going past three days
- No cough, nausea, vomiting, diarrhea, complaining of mild headache
- Fine rash all over body
Transition From Field: Case #3

- Importance of report in route
- Child with fever and rash
- IV Established
- Child unwrapped like Christmas present
- Rash is non-petechial/hemorrhagic
- Complaining sore throat
- Code two response
Arrival: Case #3

- Arrival in the emergency department.
- Upon arrival you are requested to put the child in triage room.
- You take the child and place them upon the bed.
- The Mother thanks you for your care.
Triage: Case #3

- Nurse takes vital signs: temp 102.8, heart rate 132, respiratory rate 18, and blood pressure 82/46.
- Child (per mother) is still wetting diapers.
- Rash has been getting worse last two days.
- No medications or allergies.
- No prior hospitalizations.
Emergency Department: Case #3

- Child and Mom are placed in bed 5.
- Doctor hurriedly comes to evaluate.
- Ears look fine.
- Posterior pharynx and Tonsillar pillars are red and have some exudate.
- Lungs are clear.
- Abdomen is soft and non-tender.
Emergency Department: Case #3

- Doctor orders a rapid strep test and culture taken.
- Nurse gives oral Tylenol.
- The child is given fluids.
Emergency Department: Case #3

- Rapid strep test comes back negative.
- Child tolerating fluids.
- Fever is down to 100.4.
- Differential Diagnosis.
- Child is to follow-up at primary care clinic in two days.
- Instructions are given when to return to the emergency department.
Emergency Department: Case #3

- Give fluids.
- Give Tylenol.
- Return worsening rash or looks like bruising.
- Return decreasing level of consciousness.
- Return not tolerating fluids.