

**Project:** Ghana Emergency Medicine Collaborative

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# EMS definition

- Definition - extension of continuum of emergency care into pre-hospital setting: home, street, work, school

# Treatment Protocols

- Should:
  - include a baseline set of national protocols & additional local ones as dictated by local needs
  - be realistic in terms of training and equipment and interface with hospital
  - be a consensus product with multiple MD specialty (EM, Peds, OB, Trauma) input

# Suggested Treatment Protocols- Kumasi

- RTA' s –
- rapid response
  - accurate hx
  - limited, pertinent px exam (VS' s,O2 Sat, GCS, head/neck, truncal and extremity injuries)
  - limited field Rx-airway /breathing: adjuncts,BVM,O2
  - circulation: Trendelenberg for shock, direct pressure to bleeding site, bandaging, tourniquets
  - splinting of neck and extremities (ex: Hare traction splint for fem fx' s)
  - head elevation for isolated head trauma
  - needle decompression for suspected tension PTX
  - short on scene time: goal of 10 min
  - rapid transport to hospital with call ahead on radio/phone if significant trauma (immediately life threatening trauma would prompt emergency medicine to call to trauma service/theater as well)

# Protocols (contd)

Thermal Burns - H<sub>2</sub>O, cool compresses, dry sterile dressings

Acid /Alkali burns - copious irrigation

# Protocols (cont.)

Chest pain: O2, ASA

Acute cardiogenic pulmonary edema: O2, nitro

Shock: Rx - stop external bleeding, O2, position (Trendelenberg), immobilize femur fx' s

Hypoglycemia:

recognition with glucometer

Rx-oral sugar, IM glucagon

# Protocols (contd)

- OB - deliveries
- Asthma - O2, albuterol
- Anaphylaxis - O2, IM epinephrine (EpiPen)



# Inter-facility transport

- Probably only useful place for IV' s and advanced airways (like LMA' s)

# What I would not concentrate on initially

- CPR and AED' s
- IV' s (at least within the city)
- Advanced airways

# Training

- Initial curriculum should:
  - reflect knowledge & skills to be used
  - be problem based
  - include simulation
  - include MD input ,teaching & oversightbe standardized across region and, if possible, nation
  - exams/certification should be standardized across nation
- Continuing education should:
  - emphasize field problems
  - include MD led case review

# Communications

- Universal access: 193

Phone assessment should:

follow a scripted algorithm

address and call back #

nature of complaint

priority dispatch – depending on nature of complaint may get no ambulance or ambulance with slow response or one with rapid response; may get fire and/or police as well depending on nature of call; pre arrival instructions - burns, delivery, etc

# Disaster Response

- Consider likely scenarios – gas explosion, bus accident, flood
- Plan with hospitals & other agencies – police, fire, national disaster agency, public works, public health
  - written policies
  - agreed upon chain of command
  - stockpile supplies
- Common means of communication
- Multiagency and hospital drills

# Communications in disasters

- EMS control center can serve as hub of communications
  - Should have redundant systems (e.g. radio and phone) and priority in cell phone use
  - What is nature of event? # of victims? Where? When?
  - May direct patients to different facilities
  - Ex: some may go to district hospitals; minor cases to outlying facilities by bus
  - Assess need for additional resources – more ambulances, fire police, public works, public health, regional disaster aid, national disaster aid
- For big enough disaster will need an off site command center with representatives from multiple agencies and on site command post for at least public safety

# Medical Director

- Practicing MD – if not an emergency physician, needs to work closely with EM
- Creates protocols – in concert with other specialties; ideally as part of regional or national group of counterparts who meet as a standing body
- Oversees training – both initial and ongoing
- Oversees standardized testing and certification
- Provides continuing quality improvement
- Audits scene care
- Participates in disaster planning & care
- Champions EMS

# Public education

- Call 193
- Appropriate use of EMS
- Encourage Helmets
- Discourage sitting over edge of backs of trucks, fire safety & first aid, mosquito netting, etc.
- Train taxis in basic first aid



# Surveillance

- EMS may be first to detect epidemic
- EMS may have best record of disease/injury prevalence and incidence