Project: Ghana Emergency Medicine Collaborative

Document Title: Proposals for Emergency Medical Services in Kumasi

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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 - H2O, 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 & oversight
  be 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