DISASTER MANAGEMENT MEDICAL CARE

SEESHA – KRCH

Dr. J. Gnanaraj MS, MCh, FARSI, FICS, FIAGES
Phases or disaster

- Disaster phase
- Response phase
- Recovery phase
- Risk reduction phase
Response phase

- Every one helps {including victims}
- Medical aid
- Food
- Clothing / Shelter
Risk reduction phase

- To reduce second disaster or indirect damage
- Disaster syndrome is due to psychological effects
- Counseling is necessary to avert this
AIMS OF FIRST AID

- Preserve life
- Prevent further harm
- Promote recovery
TRIAGE

- French word meaning “to separate”
- Order and priority for emergency treatment
- Started by Jean Larry in Napoleonic wars
Goals of TRIAGE

- Separate to
  - Likely to live regardless of care
  - Likely to die regardless of care
  - Immediate care might make a positive difference in outcome
S.T.A.R.T model

- Simple Triage and Rapid Treatment

- 4 groups
  - Dead
  - Injured need immediate transport
  - Injured needs transport later
  - Minor injuries
Injury Severity Score {ISS}

- Three categories
  - A = Face, head & neck
  - B = Abdomen & thorax
  - C = Extremities

- 0 – 5 from uninjured to critically injured

- Scores squared and added
German triage

- **T1 = Acute or dangerous**
  - **Category:** T1 (I)
  - **Meaning:** Acute danger for life
  - **Consequences:** Immediate treatment, transport as soon as possible
  - **Examples:** Arterial lesions, internal haemorrhage, major amputations

- **T2 = Severe injury**
  - **Category:** T2 (II)
  - **Meaning:** Severe injury
  - **Consequences:** Constant observation and rapid treatment, transport as soon as practical
  - **Examples:** Minor amputations, flesh wounds, fractures and dislocations

- **T3 = Minor injury**
  - **Category:** T3 (III)
  - **Meaning:** Minor injury or no injury
  - **Consequences:** Treatment when practical, transport and/or discharge when possible
  - **Examples:** Minor lacerations, sprains, abrasions

- **T4 = No injury**
  - **Category:** T4 (IV)
  - **Meaning:** No or small chance of survival
  - **Consequences:** Observation and if possible administration of analgesics
  - **Examples:** Severe injuries, uncompensated blood loss

- **T5 = Dead**
  - **Category:** T5 (V)
  - **Meaning:** Deceased
  - **Consequences:** Collection and guarding of bodies
  - **Examples:** Dead on arrival, downgraded from T1–4, no spontaneous breathing after clearing of airway
The ABC

- Airway
- Breathing
- Circulation
- D = Deadly bleeding or defibrillation
Airway

- Important for unconscious patients
- Tongue can fall backward and cause obstruction
- Hemlich maneuver for releasing blocks
Breathing

- Place in recover position
- Side with neck extended
- Prevents aspiration
- Assisted breathing {mouth to mouth, Ambo bag, etc.}
Circulation

- Cardiopulmonary resuscitation

- 30:1 compression vs. breathing

- Chest compression only not as effective as conventional
Anaphylaxis

- Life threatening allergic reaction
- Adrenalin injection if available {0.01 ml/Kg}
- Vagal stimulation, elevation of the Lower limb
Heat Stroke

- Could be Exertional or non-exertional
- Remove clothing and apply cold water
- 5% Dextrose for hypoglycemia / Paracetamol / alkalinize /
Fractures

- Clean / Sterile covering
- Splinting {one joint above and below}
- Distal pulses and sensation distal to the site
Joint dislocations

- Trying to reduce without proper knowledge can lead to more problems

- Check for distal pulses and nerve supply

- Splints are necessary
Burns

- Can be due to heat, chemicals, electricity & radiation
- Rule of 9 for %
- Parkland formula = 4 ml x % of burns x body weight
- Silver suphadiazine oint.
Hypoglycemia

- Sweating, palpitations, pins and needles
- Headache, hunger
- Fatigue, lethargy, confusion, etc. to coma
- Sugar in water, IV sugars
Bleeding

- Class 1 to 4 = < 15, 15 – 30, 30 – 40 & > 40% of blood volume
- From wound or orifices or internal
- Pack, pressure, patience and prayer

If bleeding has not stopped after 15 minutes of direct pressure, apply strong pressure at one of these points between the wound and the heart.

Use a tourniquet ONLY AS A LAST RESORT, if bleeding cannot be stopped and the situation is life-threatening.
Of interest to Engineers

- Handheld system on the Pocket PC 2003 platform using 802.11, Bluetooth, and GSM protocols.
- Embedded C++ system
- Used for reliable communication during disaster