Critical Care Development In Ethiopia

Aklilu Azazh (MD)
Head Department of Emergency Medicine, AAU, Ethiopia
Advisor : FMOH, EMCC development committee Member and Advisor
Country profile

- It is a North east African Country
- Over 90 million population
- It is a developing country registering better GDP rise in this decade.
- Health care indicators are improving with reduction of infant mortality to 42 from 144 in 20 years time, MMR 420.
- Life expectancy rise 64 from 49.
First ICU was established in Tikur Anbessa Hospital, an 800-bed hospital, in 1990.

Six surgical and six medical ICU beds.

Recently, the hospital has 22 ICU beds—18 adults and 4 pediatrics.

The current ICU/Hospital bed ratio is 2.5%.

Many critical patients stay days in ED for lack of beds in ICU.
Main causes for ICU admissions

- Injury, specially head injury is a common problem
- Cardiovascular disorders: complications following RHD or AMI
- Respiratory failure due to pneumonias
- Infectious disorders: sepsis, Tetanus, Malaria (decreased)
- Poisoning
- Metabolic/endocrine-DKA
- Pediatric conditions
- Maternal complications
Monitoring: continuous ECG, Vital signs, fluid balance, mental status and other follow ups.

Organ support
- management of arrhythmias pharmacologically and defibrillation, inotropes/pressors support in shock
- NIV, Invasive Ventilation
- Acute renal failure care

Critical management and care for sepsis

Point-of-Care tests (POCT)
- Blood gases and cardiac enzymes determination is not consistent.

Portable X-ray machine and bedside U/S available
Recent expansion of ICU in Ethiopia

- In the past decades ICU service is expanding in the country.
- It is triggered through:
  - FMOH attention changing
  - Expansion of University Hospitals
  - Expansion of private facilities,
The Federal Ministry of Health efforts

- For long time FMOH major efforts were in Health promotion and disease preventive efforts.
- Currently there is a policy direction to give a better focus on hospitals services improvement.
- One focus area- establishment and development of Emergency and critical care services.
- The Ministry is supporting new ICU establishment in 18 hospitals.
FMOH efforts contd.

- Emergency and critical care unit in the FMOH.
- ICU standards and guidelines under development.
- Short term and long term trainings.
- Procurement of ICU drugs, equipment and supplies.
University Hospitals

- In the country medical schools and university hospitals have expanded significantly in the past decade.
- Jimma, Mekele, Haromaya, Gonder, Hawassa, Bahrdar hospitals in the region have ICUs.
Private Hospitals

- Expanded in the last 20 years after socialism ended.
- 10 Private hospitals in A.A have ICUs
- Regional private Hospitals with ICU care
- Myungsung Christian medical center (MCM)-8 beds ICU
- MCM, Addis Cardiac, Landmark, Addishiwot, Bethel, international cardiac, Yared, Cadisco, gebriel, Hayat
Capacity and levels of ICU

- There is no national standard on ICU level
- Most hospitals have 6-10 bed ICU with ventilators and monitoring system
- Invasive monitoring is limited
- Quality assurance work should be strengthened.
Anesthesiologists (part time coverage as their number is very few.)

Internists - most of the medical ICUs are covered by internists.

Pulmonary critical care specialists - very few

General practitioners - only limited exposure to ICU care

Nurses - general nurses giving service with limited exposure

No respiratory therapists or other support staff.
Critical Care training in Ethiopia

**Physicians**
- There is no independently designed critical care training.
- There are Critical Care component in
  - Anesthesiology
  - Pulmonary and critical care Medicine
  - Emergency and Critical Care Medicine

**Nursing**
- There is only masters in Emergency and critical care
Future Direction Human resource development

- Bigger attention is given by government
- Critical Care Subspecialty curriculum is finalized for physicians in AAU – the entry will be from different specialties.
- Masters in AAU for nurses, previously EM/CC is split into EM and CC independently
- Diploma Nursing is advancing into at BSC level EMCC in 4 universities.
The Short term trainings

- A basic ICU course given by AAU-EM/Anesthesiology/pulmonary critical/pediatrics
- 4 weeks course - 1 week skill center based didactic lectures and 3 weeks hands on ICU training
- ICU nurses and practicing physicians enrolled
- 4 rounds of training to 79 professionals from 8 hospitals where there are new initiatives
Professional Society

- There is no professional society for critical care workers-Physician or Nurse association.
Challenges

- Appropriate Human resource is limited (trainings just started)
- Most ICUs are AA based (5% of the population)
- Junior and less trained staff.
- High turnover of staff.
- The ICU setup is just basic.
- Infection control is suboptimal.
- Standards and guidelines underdevelopment.
Thank You