The History of Emergency Medicine in Rwanda

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Emergency Medicine in the Tropics
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From the beginning

- 1952- Maurice Ellis became first casualty consultant at Leeds General Infirmary
- In the 1960s, more American physicians were becoming specialists, and more patients were relying on emergency rooms.
- 1961- first EM practice with 4 physicians in VA- Alexandria Plan
- 1967- Casualty Surgeons Association formed in UK (later became British Assoc. for EM)
- 1968- American College of Emergency Physicians formed
- 1970- Univ. Cincinnati started first EM residency
- 1979- American Board of EM approved by American Board of Medical Specialties
Becoming a global specialty

- Anglo-American model vs. Franco-German model
  - Most developing countries follow Anglo-American model, with 3-4 year EM residency the gold standard

- International Conference on EM founded in the 1980s

- African Federation of Emergency Medicine (AFEM) founded in 2009
  - Currently, 8 African countries with societies recognized by AFEM, RECA being the latest
Need for global emergency care

- The World Bank estimates that 45% of deaths and 36% of disability-adjusted life years (DALYs) in low- and middle-income countries could be addressed by the implementation of emergency care systems.

- Recent study by Chang et al. found that burden of emergency conditions was the highest in low-income countries, where ED utilization is the lowest.
HIV prevalence 2.9%, communicable diseases still predominate

Leading causes of death:
- HIV/AIDS and opportunistic infections
- Severe malaria
- Pulmonary infections

Average life expectancy 58 years

Natural disasters, and population displacement
Rwanda has a medical school and nursing school, but only 0.047 doctors per 1000, and 0.43 nurses per 1000.
In Rwanda, most emergency care is provided by GPs at district hospitals.

Initially, district hospitals did not have formal EDs. This has only started happening in the last few years.

Pre-hospital care - SAMU established in 2009 in Kigali, DH-affiliated ambulances around the country.

SidHARTe studied the state of EM in the Emergency Services Resource Assessment Tool (ESRAT), finished in 2016.

- 91% of DHs had 24/7 Emergency Care Areas.
- Wide variability in availability of equipment, medications, and services, use of triage, and level of training of staff.
Where to start?

What are the components of a well-functioning emergency system?

What order should you go in to create and sustain these?
MoH 2011 Strategic Plan

- Five-year plan to provide appropriate numbers and mix of health providers
- Four core elements:
  - Decentralization
  - Development of primary health care (including the provision of health insurance for all, mutelle de la sante)
  - Reinforcement of community participation
  - Rebuilding the health workforce
Emergency Medicine Sub-Committee

- Strong interest in EM among Rwandan medical students and physicians
- Strong interest in Rwandan hospitals to improve emergency care
- Plan to address two main needs:
  - Scale up capacity of GPs at DHs to triage and stabilize emergency cases → Post-graduate diploma in Emergency and Critical Care Medicine
  - Create supply of EM specialists to train future generations, supervise pre-hospital system, aid disaster and emergency planning → Masters of Medicine in Emergency Medicine
Post-graduate degree program
- Started enrolling in fall 2012
- Two-year part time course
- Half of the rotations are in EM, half in other specialties
Human Resources for Health

- MMed program (part of larger HRH program)
  - Four year, full-time program
  - First class to graduate in 2018
- Current trainees
- PGD monitoring and evaluation
- Also improvements in nursing care with HRH
Acute Care In-Service (ACIS)
- Being piloted by sidHARTe for GPs and nurses at District Hospitals

WHO Basic EM
- Aimed at health providers at health centers

Emergency Triage Assessment and Treatment (ETAT)
- For pediatric triage, has been taught widely in Rwanda
Guidelines and Norms

- Emergency Medicine Clinical Guidelines
  - Approved by the Ministry of Health in 2016

- Clinical algorithms
  - Based on EMCGs, in the process of review and approval

- Norms and Procedures for Rwandan Emergency Departments
  - Document completed in 2016, up for review and implementation decisions by MoH
Rwanda Emergency Care Association

- First organization for EM in Rwanda, founded by Mmeds
- Inaugural conference on August 26, 2016
- Recognized by AFEM
Pre-hospital care

- SAMU (Service d’Aide médicale d’Urgence) established in 2009
- Ambulances and motos purchased and distributed to District Hospitals
Looking forward

- Upscaling training for non-specialists
- Continuation of Mmed program
- Integration of EM into undergraduate medical education
- Pre-hospital system development, improving transfer infrastructure, EMS
- Developing capacity for EM research


