

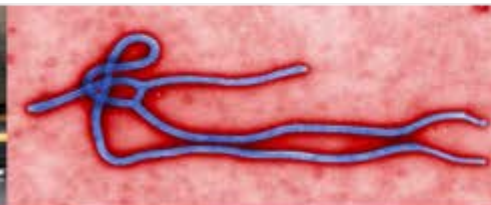
6th Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) Meeting

Protea Hotel Midrand, Johannesburg South Africa

12 – 16 October 2015

AIR AMBULANCE OPERATIONS: TIME FOR CHANGE?

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Air ambulance operations in SA:

- Air service licencing Council issues a G7 licence (for air ambulance work: International or domestic)
- A 1/ 2/ 3/ 4 issued by ASLC too dependant on weight of aircraft
- Once ASLC permission obtained, make application to SACAA.
 - Existing operator: Demonstrate in accordance to Part 138 manual abilities (takes 3 weeks to 3 months)
 - New operator: application for AOC (takes approx 3 months)
 - Issued operating certificate endorsed for Part 138 operations

Part 138 CARS:

Within these regulations, you will find:

- Training requirements
- Management including quality management systems
- Instruments and equipment such as door size, seatbelts, patient restraint, medical equipment, oxygen
- Flight Ops (despatch, landing, loading and unloading)
- Infection control and fluid management

Part 138 Ops:

138.05.1

The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that the aircraft which is to be used in the air ambulance operation, is configured in such a way that the medical personnel have access to a patient in order to begin and maintain life-support

138.02.2

Medical personnel and medical service providers involved in air ambulance operations shall comply with the relevant legislation and regulations administered by the Department of Health, the Professional Board for Emergency Care and the Health Professions Council of South Africa.

Quality assurance:



Quality assurance:

- Part 138 audit (Initial, annual, ad hoc)
- International accreditation: NAAMTA, CAMTS, Eurami

Who
regulates
Africa?

Time for
change

ICAO
STANDARDS



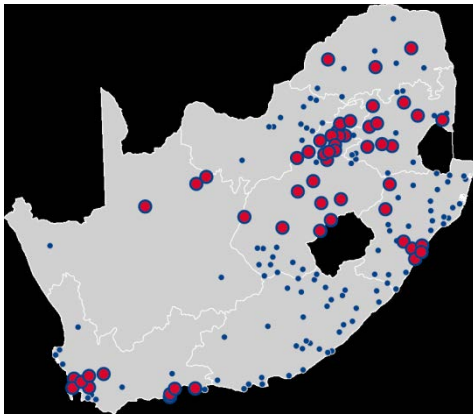
Emergency Medicine:

- Emergency Medicine is a profession of contrasts
- Environment differs from the clinical hospital environment
- Uncontrolled environment
- Intuitive thoughts, governed by Protocols
- **PASSIONATE PEOPLE!**
- Patient safety hazards are unique



ER24:

- Private medical care provider
- Support private and public
- > 50 bases in South Africa
- 3 Jet and 4 RW aircraft



Choices for aircraft:

Patient Dependent

Logistics Dependent

Infrastructure Dependent

Minimise Transport Times

Maintain or Improve Level of Care

Sea level Cabin?



Choices for aircraft:

- 0 – 200 Km Road or Helicopter, Urgency Dependent
- 200 – 350 Helicopter
- Over 350 km Fixed Wing is Ideal
- Must take into account medical condition may be impacted by the mode of transport eg Awake Cardiac patients, Spinal Injuries, Obstetrics cases.



Patient preparation:

- Airway management is always a key issue
- Informed consent
- Cervical spine protection
- Supplemental Oxygen
- Control of bleeding



Case 1:

- Patient from Southern Africa
- 1 month history of ? Pericarditis
- Saw 3 doctors at 3 hospitals
- Gradual progression to septic shock, hepato-renal failure
- Patient demised on route to hospital in South Africa



Case 2

- Patient in South Africa
- Recently returned from rural Southern Africa
- Reason for travel: Her child died of “Ebola”
- Patient presents with nausea, abdominal pain and bleeding.
- Pyrexial and acutely unwell
- HEMS evacuation requested

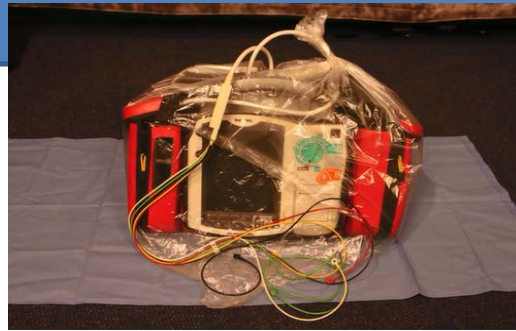


Case 3

- Patient in Sub Saharan Africa
- Presented with acute abdominal pain and petechial rash
- Medical treatment in SA deferred pending vial and other pathogenic studies
- Patient placed on local air ambulance flight and arrived in SA

Lessons learnt

- TEAMWORK AND COMMUNICATION CRITICAL
- Close collaboration with ALL stakeholders
 - NDOH, Natjoc, Port Health, Airport, International Insurer
- Provider safety first!



Limitations for air ambulance transport

- Aircraft and Crew Safety
- Patient Refusal
- The “Unstable Patient”
- The Psychiatric Patients
- Helicopters and Obstetric cases
- Pneumothorax/ Decompression Illness/
Bowel Obstruction/ Pneumocephalus
(relative)



Infection Control

MULTIDRUG RESISTANT ORGANISMS ARE THE BIGGEST THREAT TO SURVIVAL OF MANKIND..... And certainly a bigger threat than Ebola

- Limitations in transporting isolation cases via aircraft if isolator unit is not available
 - Require a safe area to don and doff PPE
 - Turbulance
 - Toilet breaks
 - Aircraft cleanliness



Air ambulance guidelines in SA

- ZS registered Aero-medical aircraft required to comply with Part 138 guidelines
- Initial, annual and ad hoc inspections by Avmed team at CAA
- Comprehensive audit includes medical record, crew checks, infectious disease

Are our borders safe?

- Yes: reputable ZS-registered Aero-medical aircraft
- No: Charter flights used for medical



Solutions

- Regulate standards for Air Ambulance Operations: recommendation
- Wash your hands
- Patient safety must be a priority

