Managing Lassa fever cases in Sierra Leone & Nigeria
standard of care, challenges

Médecins Sans Frontières (MSF)
/ Doctors Without Borders
Standard of care in SL (Bo) 2011-2014
200 bed paediatric hospital (+ gyn/obs) - MSF

- Lassa screening, high level IPC, early suspicion ("non responding fever"/"fever without focus")
- 7 bed temporary isolation ward (referral to Kenema GH)
  - Diagnosis:
    » RDT (Corgenix), limited DD (e.g. Malaria ...)
    » ELISA (Ag&Ab) Kenema GH (no PCR)
  - Management: IV fluids (R/L, saline), blood transfusions, broad spectrum AB, anti-malaria, glucose, Oxygen
    » NO Ribavirin, vasopressors, ions, dialysis
  - Follow up survivors: condoms, neurological (/deafness ...)
  - Safe burial, safe transport (Lassa ambulance)
  - Staff health: early suspicion ("fever"), PEP, contact tracing
Actual & Future projects

- **Kenema (SL):** MSF paediatric hospital
  - 150+ beds; 10 bed isolation ward
- **Nigeria:** emergency support FTH Abakaliki
  - 27+ beds isolation ward (700+ bed hospital)
Standard of care planned
MSF paediatric Hospital, Kenema (SL)

- Kenema (SL):
  - 10 bed temporary isolation ward (individual rooms suspected cases, ICU beds in confirmed ward)
  - Lab.: Same as ‘Bo’ + **differential diagnosis & clinical lab** (hemato, biochemistry)
  - Clinical management (as Bo): + **ion-disturbances (2\textsuperscript{nd} phase: vasopressors, dialysis??)**

| Technologies         | Monitoring : DINAMAP Carescap V100 (automatic non invasive BP, HR, satu, T\textdegree)  
|----------------------|---------------------------------------------------------------------------------------------|
|                      | Electrical suction pump  
|                      | Cylinder or O2 concentrator 10l/min + flow splitter  
|                      | Syringe pump  

| Treatments/Drugs      | High flow O2  
|-----------------------|-------------------------------------------------------------|
|                       | Nebulisation : Salbutamol, Adrenaline, NaCl  
|                       | Drugs : Dopamine, Labetalol, Nicardipine, Magnesium,  
|                       | Insulin, Salbutamol, Mannitol, Methylprednisolone  
|                       | Thoracic drainage  

| Diagnostic supports   | Electrolytes : Na, K, Cl, Ca, HCO3, +Mg +Phosphorus  
|-----------------------|----------------------------------------------------------|
|                       | Renal function : urea, creatinine  
|                       | CRP, bilirubin  
|                       | X-ray, fixed  
|                       | Ultrasonography  

Standard of care & challenges perceived

MSF support FTH Abakaliki (Nigeria)

• (emergency) support PPE, risk zones & flow, cohorting patients, IPC
• Patient management:
  – Delay PCR results (5h drive to Irrua) – treatment ‘suspects’ + no PCR at discharge; clinical lab. depends access (“cost-recovery”)
  – IV Ribavirin (access to pre-qualified?!)  
  – No clinical guidelines,
  – Intermittent access IV fluids, AB (“cost-recovery”),
  – dialysis machines not in use
  – No oral Ribavirin

Prerequisite trials: standardisation (& rapidity) testing & care (access, training …)

Remaining challenges: prequalification Ribavirin, dosage experimental drugs … ?