Harmonization of caring for LF patient

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From the field
Case Management

Early treatment with proven therapies saves lives

- Triage
- IPC
- Supportive care for severe patients
- Laboratory diagnosis
- Antimicrobial therapy
Case presentation

Methodology: 1

- Review currently available materials
- Field visits during outbreak
- Discussions with partners on the ground (ALIMA, BNI, MSF)

List of aspects that need harmonization
Methodology 2

- Draft **Operational Guidance** developed
- International and national expert peer review group assembled
- Weekly TC held to review key recommendations step by step
- Evidence-to-decision tables created
- Questions needed to be answered

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**Operational guidance for the Case Management of LASSA FEVER in Nigeria**

**Introduction**

**Objective:** Early recognition of patients with Lassa fever (LF) is essential for implementing appropriate infection prevention and control measures (IPC), supportive care, and antimicrobials to prevent the spread of infection and save lives. This document is intended for health officials, policy makers, managers and health care workers to guide clinical case management of patients with suspected or confirmed LF during outbreaks. This document is based on the NCDC Clinical Management Guidance and WHO VHF Handbook, and addressed issues that were raised during the 2017-2018 outbreak (Insert references here).

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Alternative 1: Local definition of fever &gt; 38 and &gt; 72 hours, not improving on treatment with antimalarials and/or antibiotics, and no other cause of the illness Systemic</th>
<th>Evidence, benefits</th>
<th>Limits/Risks</th>
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</thead>
<tbody>
<tr>
<td>Suspect definition: NCDC</td>
<td>Gradual onset, any ec: fever, malaise, diarrhea, abdominal pain, headache, sorethroat, cough, nausea vomiting, myalgia, central chest pain, hearing loss AND either: unexplained bleeding contact with lassa case within past 21 days, or contact with rodents.</td>
<td>None are validated. NCDC very sensitive, but impractical to ask about rodents, rodents are ubiquitous.</td>
<td>None are validated. NCDC too inclusive, would overwhelm health system</td>
</tr>
<tr>
<td>Suspect case definition:</td>
<td>Fever &gt; 38 and &gt; 72 hours, not improving on treatment with antimalarials and/or antibiotics, and no other cause of the illness Systemic</td>
<td>Alternative 1: 72 hours may be good entry point as still early in disease, and PCR performance at that time may be more sensitive. If done earlier, may have more false negatives.</td>
<td>Alternative 1: less sensitive, may delay diagnosis if require 72 hours and failed treatment of malarial or antibiotics. Failure to include contacts, delay diagnosis.</td>
</tr>
</tbody>
</table>

**Conclusion:** Goal is to not delay diagnosis. Delay in diagnosis associated with higher risk of death. Recent Lancet publication showed fever is not always present (50%) and that malaria co-infection is common (30%). Thus, alternative recommendations are not sensitive enough and cases would be missed. Preference to use NCDC case definition as it has diseases specific symptoms. Do not include failing to respond to antimalarials/antibiotics. To further develop with surveillance data.
Methodology 4

• Clinical Management Meeting to be held in 26-27 April with all major national stakeholders (affected states represented and major treatment centres)

• Systematic discussions about each aspect of care, including pregnant woman
Outputs expected: standards of care

- Harmonized clinical management guide to promote best practices
- Clear standards necessary resources (supplies, equipment, supplies and training) for treatment centers to care for LF patients.
- Pathway to integrate clinical research into the programs, starting with standardized data collection
Key areas of harmonization: IPC

• Variability in architecture of treatment units, access to PPE and other basic standards of IPC (i.e. WASH).

• WHO recommendations clear at this time to use Filovirus procedures with isolation rooms.

• Major efforts in place to strengthen treatment units, ensure logistic management systems to procure IPC, training on IPC, etc. (i.e. MSF and ALIMA work)
Key areas for harmonization: ribavirin use

• Availability limited, expensive, quality/suppliers

• Pharmacokinetic data is old. Clinical trial data is old and biased. What is true efficacy?

• Only one dosing strategy tested, others dosing strategies developed based on expert experience but not validated.
Key areas for harmonization: ribavirin use

• Criteria for clinical use?
  – Start as soon as possible (as for other severe infectious diseases using clinical syndrome vs lab based confirmation)

• Traditional duration 10 days
  – but can it be shorter if patient gets better faster?
  – should it be prolonged if patient remains sicker?
Key areas for harmonization: testing strategy

- Availability of PCR testing capacity (hours vs days)

- Initial timing of test with PCR suspect patient as soon as possible.

- When to repeat PCR test?
  - At end of treatment (day 10)
  - Can treatment be shortened if patient becomes asymptomatic and becomes PCR negative (before 10 days)?

- If patient remains PCR + after 10 days
  - further treatment determined by clinical status?
Algorithm X: Management of confirmed cases: repeat PCR when clinically well for 72 hours

Based on discussions with BNI lab and work done in Irrua

Start IV ribavirin immediately for suspect patient with Lassa fever. Do not wait for PCR.

PCR + Confirmed case

Treat with ribavirin IV + supportive care + other antimicrobials (based on syndrome)

Repeat PCR when patient becomes clinically well for 72 hours

PCR +
If PCR test +:
1. Continue IV ribavirin to complete 10 days and repeat PCR at day 10.

PCR -
If PCR test negative:
1. Stop IV ribavirin.
2. Consider discharge to home.

Algorithm X: Management of confirmed case: repeat PCR at day 10 to guide therapy.
Key areas for harmonization: supportive care

- Management of shock
- Management of encephalitis
- Management of AKI
- Management of electrolyte disorders
Management of the pregnant patient

• Special attention needed for pregnant woman (high risk of death).
  – Manage complications
  – Termination of pregnancy?
**Standardized case record form**
http://www.who.int/emergencies/diseases/lassa-fever/case-report-form-lassa-fever.pdf?ua=1
NEXT STEPS

• Systematic review ribavirin
• Clinical meeting in Nigeria
• TC next week international
• Final stakeholder meeting TBD
Thank you for your attention