

Containment Of Lassa Fever Outbreak In A Southeastern Nigerian Burn Center Without Healthcare worker infection: The Role Of Institutionalized Infection Prevention And Control Practices

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Introduction

Lassa Fever (LF) outbreaks occur in health facilities (HFs) in Nigeria

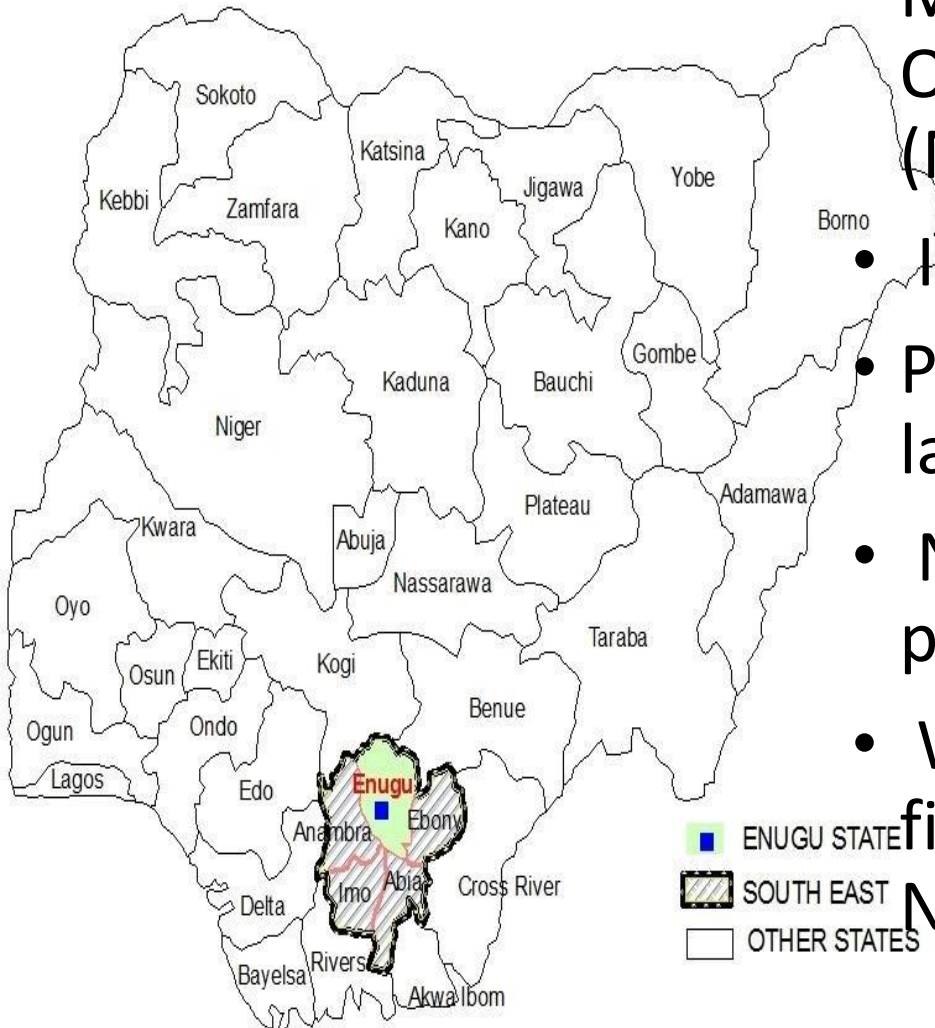
Other patients and HCWs have get infected during LF patients care

Documented reasons for the HCW infections include

- Gaps in the infection prevention and control (IPC)
- poor risk communication



Introduction



- Maiden outbreak of LF in National Orthopaedic Hospital Enugu (NOHE) in July 2018
- Index patient in acute burn ward
- Patient died 48 hours post laboratory confirmation
- No transmission to close contacts pts, or HCWs recorded
- We sought factors that led to this first containment of LF in a HF in Nigeria without HCW infection

Methods

Study Area: NOHE a regional burn center in southeastern Nigeria

- outbreak occurred in the fully occupied acute burn ward
- 10 patients in four cubicles and a room

Study Design: Retrospective cross-sectional

Data collection and analysis: information obtained on

- IPC practices in the ward and the hospital before and during the outbreak

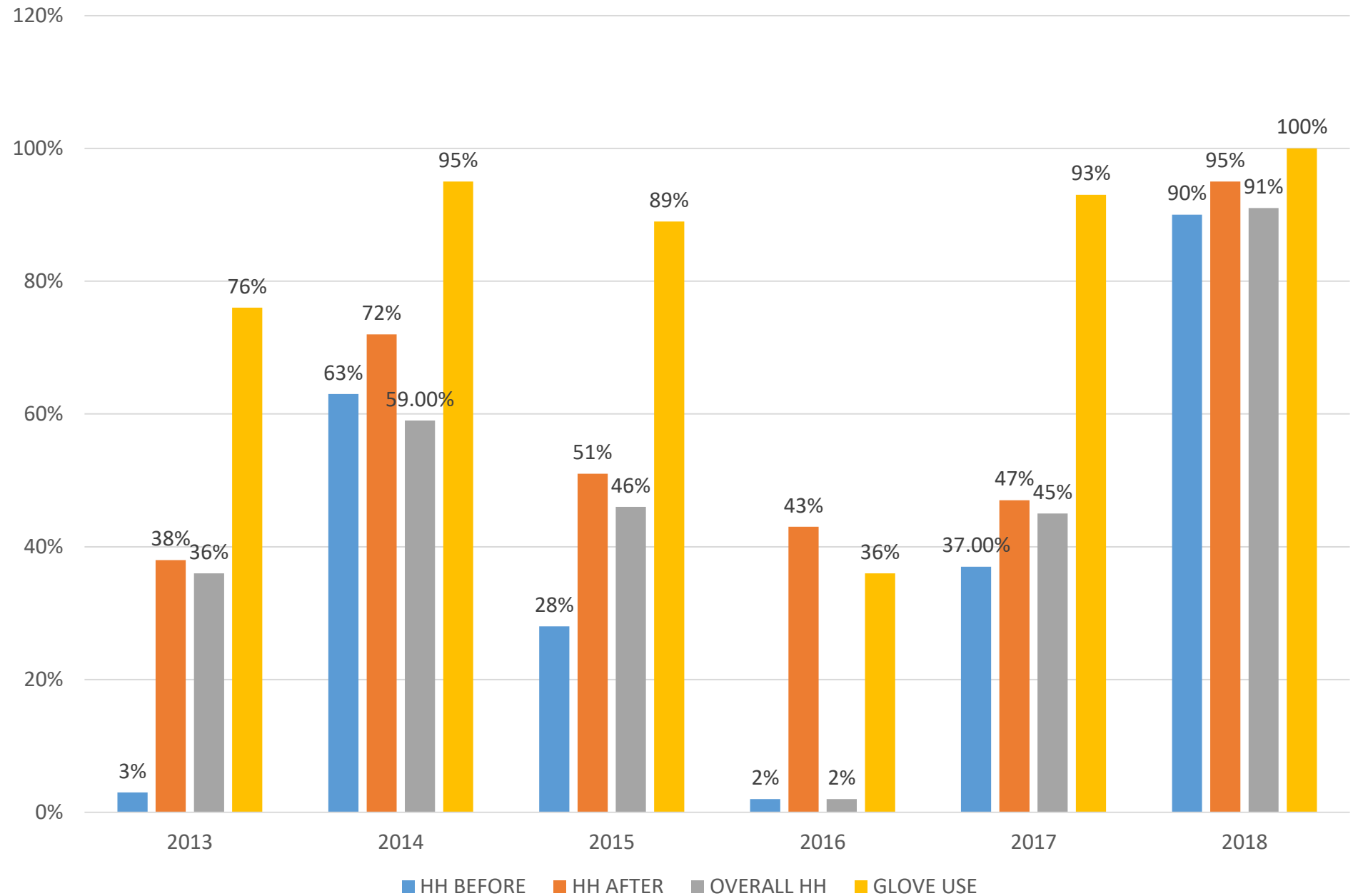


Results

- Infection Control Committee set up in 2007
- Active Infection Control Unit since 2012
 - Evaluation of the institution using WHO Hand Hygiene Self-Assessment Framework 2010
 - Training in surveillance
 - Hand hygiene, Surgical Site Infection, UTI, Implant infection
 - Monthly monitoring
- Advances before LF
 - Wound dressing protocol
 - Posters in strategic locations
 - Multiple hand wash points
 - Elbow taps
 - Colour coded bins

- Hand hygiene and glove use (IPC) compliance monitored using the Mayo clinic IHI hand hygiene and Glove use monitoring form since 2013.
- The observers were trained prior to use of the instrument

RESULTS



Burn unit practice

- Clinical outfits specific for the ward was always used by care givers in the ward.
- Use of gloves and aprons and strict restriction of visitors to the ward was the practice.
- On confirming the case
 - Management employed adequate risk communication
 - Labour unions were in enforcement of compliance on IPC
 - Management and labour had an agreement on provision of IPC materials

Use of IPC materials by Staff of the ward

Item	Never used before LF	Never used after LF	Sometim es used before LF	Sometim es used after LF	Always used before LF	Always used after LF
Gloves	0	0	25	12.5	75	87.5
Running water	0	0	25	37.5	75	62.5
Alcohol gel	0	0	62.5	37.5	37.5	62.5
Boots	87.5	87.5	0	0	12.5	12.5
Face mask	0	0	0	0	100	100
Apron	25	25	25	25	50	50

Conclusion and Recommendations

- Institutionalization of IPC practices in a HF can help prevent transmission of LF
- Risk communication helped containment of the outbreak
- NOHE management continue with IPC practices in the hospital
- Federal Ministry of health (FMoH) should enforce institutionalization of IPC
- All HFs should have an active IPC committees
- Training and retraining in IPC recommended for HCWs in Nigeria