Infection Control from an Emic Perspective: Forming & Evaluating a Local Infection Control Team in a Low-Resource Neurosurgery Ward

SAMANTHA SADLER1,2, ANTHONY FULLER, M.D.1,2, MICHAEL HAGLUND, M.D., PhD1,2, MELISSA WATT, PhD2
1Duke University Division of Global Neurosurgery and Neurology, Durham, NC, USA; 2Duke University Global Health Institute, Durham, NC, USA

I. OVERVIEW

STUDY GOAL & AIMS

To examine the feasibility and acceptability of a local infection control team by:

- Documenting the team as it develops, implements, and monitors infection control efforts
- Estimating its potential impact on infection control practices and outcomes
- Assessing local stakeholder perspectives of the team

II. METHODS

PROCEDURES

CASE STUDY: Researchers established the Neurosurgery Infection Control Team (NICT) in the Mulago National Referral Hospital (MNRH) neurosurgery ward

PRIORITY LOCAL INDEPENDENCE: Researchers provided auxiliary support as the NICT conducted an iterative infection control quality improvement project (ICQIP) development and implementation process, as designed by the researchers.

III. RESULTS: NICT TIMELINE

SUMMARY OF KEY NICT OPERATIONS

- Held 4 official NICT meetings independent of researchers
- 15 different ward staff attended at least one meeting
- Nurses attended significantly more frequently than physicians

Implemented ICQIP #1: moderate success, supply chain failure

Goal setting: reduce pneumonia through Decase manufacturing administration (a education)

ICQIP outcomes: reduction in pneumonia cases; moderate staff compliance

Supply chain: should not procure consistent supply within ward budget — abandoned project

Began ICQIP #2: greater behavioral focus

- Goal: improve patient care through staff and patient-carer education on chest and urogenital infection prevention practices

IV. EVALUATION

MODEL: PROJECT TEAM EFFECTIVENESS

DEVELOPING THE MODEL: constructs were operationalized with respect to two major project team effectiveness evaluation distinctions (Performance Effectiveness vs. Attitudinal & Behavioral Outcomes) to more succinctly define assessment criteria.

ASSESSMENT: Results across the various study measures were assessed collectively to qualitatively evaluate the NICT’s success with each construct:

- Goal: Evaluate the NICT’s local feasibility & acceptability

V. KEY FINDINGS

CHALLENGES

Collective interpretation of the constructs suggests that the NICT concept is generally feasible and locally-acceptable in the MNRH neurosurgery ward.

FUTURE RESEARCH

- STUDY DESIGN: consider how adjustments to team design may improve outcomes
- IMPROVING ASSESSMENT & EVALUATION: reflect data over a longer period of time and across multiple ICQIPs; adaptively apply evaluation model to broader contexts to determine its generalizability

LOCAL INFECTION CONTROL TEAM THEORY

- ICQIP GENERALIZABILITY: Developing recommendations and practices for balancing local ownership with evidence-based infection control methods.

VI. CONCLUSIONS

The NICT exemplifies how an emic approach to infection control might be effectively fostered through local empowerment. This emic perspective may be key to facilitating locally feasible and acceptable healthcare innovation efforts more broadly in LMICs.

REFERENCES


Kampala, Uganda

Kampala, Uganda