PRACTICAL EVALUATION DESIGNS FOR IMPROVING THE QUALITY OF HEALTH CARE IMPLEMENTATION

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Panelists/Moderators

Dr. Pierre Barker
Senior Vice President,
Institute for Healthcare Improvement
Clinical Professor, Gillings School of Global Public Health, UNC Chapel Hill, NC

Gareth Parry PhD
Senior Scientist, Institute for Healthcare Improvement

Lisa Hirschhorn
Associate Professor of Medicine
Department of Global Health and Social Medicine
Director, Implementation and Improvement Science
Ariadne Labs

Rohit Ramaswamy
Director, Center for Global Learning
Faculty Director,
Global Online MPH
Clinical Associate Professor
Public Health Leadership Program
and Maternal and Child Health
Gillings School of Global Public Health
Housekeeping

Attendees:
• All attendees are muted during the session
• You are encouraged to submit your questions and comments in writing via the “Questions” frame provided under the GoToWebinar panel
• Panelists/presenters will collect the questions submitted by you during the session
• In case you did not get answer on your question during the webinar, panelists will get back to you later.
• In case of technical problems, please write to Natia Rukhadze, at n.rukhadze@curatio.com
• For other support, please contact Mark Bradshaw, at: mbradshaw@IHI.org

Facilitators/Panelists:
• Please keep your microphones muted while listening to a presenter to avoid background noise during the session
Session objectives

• To hear a case example of health systems implementation from the field and consider how best to evaluate it
• To learn about the questions an evaluation can answer when implementing health care improvements
• To understand the approaches that can be applied to answer these evaluation questions
• To explore the options and challenges to collecting data for QI evaluations
• To consider the role of evaluation in informing policy decisions
Agenda

• Case history – “Implementing hand hygiene in maternal and neonatal wards” – Rohit Ramaswamy - 15 min
• Reflections from panelists - 20 min
• Panelist response to questions chatted in by attendees – 15 min
• Description of next steps – 5 min
CASE PRESENTATION – IMPLEMENTING HAND HYGIENE IN MATERNAL AND NEONATAL WARDS

• **Background:** High rates of preventable healthcare associated infections occur in mothers and their infants in hospitals in LMICs resulting in unnecessary harm and suffering

• **Context:** Mix of hospitals within the Ministry of Health network across a low/middle income country
- Mix of tertiary and district hospitals
- 10000 deliveries per year in tertiary hospitals fewer in district
- 21 NICU cots in tertiary hospitals, peak of 50 babies
- Cot sharing occurred on 86% of days
- Potential for infection transmission in all settings
IMPROVEMENT OBJECTIVE

- Reduce maternal and newborn mortality and morbidity due to infections by 25% in all participating hospitals, through effective implementation of hand hygiene interventions within one year.
- Sites:
  - Pre-labor ward
  - Labor and delivery ward
  - Post-natal ward
  - Operating room
  - NICU
PROPOSED INTERVENTIONS

• WHO has an evidence based package of hand hygiene
• Package needs to be adapted for local conditions across hospitals and across wards
BASELINE ASSESSMENTS

• Facility level self-assessment
• Ward level assessment
• Health worker perception assessment
• Hand hygiene observations
• Hand swabs
Data was stratified by NICU nurse activities. “Diaper Change” had the lowest hand hygiene adherence.

Data was also stratified by shift. Night Shift had the lowest hand hygiene adherence.

12/8/14-1/11/15  67% compliance
BASELINE ADHERENCE EXAMPLE – HAND SWAB
WHO HAND HYGIENE INTERVENTION COMPONENTS

• System change
• Education and training
• Evaluation and feedback
• Workplace reminders
• Institutional safety climate
**Reduced incidence of infection**

**AIM**

**DRIVERS**

- Proper Hand Hygiene
- Proper Diaper Change
- Adherence to Visiting Parent Protocol
- Sanitary Suction Machine
- Sanitary/Proper Access of IV Cannula
- Proper Storage of Breast Milk
- Sanitary Bag and Mask
- Minimal and Sanitary Sharing of Cots and Incubators

**SANITATION EDUCATION OF STAFF**
- Any employee (every house officer, new staff member who is required to complete a sanitation training
- Infection control reinforcement reminder at each Tuesday all staff meeting
- Visual reminders placed around NICU for infection control measures

**CREATING CLEANING PROTOCOLS**
- Create cleaning protocols for (1) hand washing, (2) suction machinery, (3) feeding equipment, (4) bag and mask
- Train all staff on proper cleaning protocols

**CREATING CLINICAL CARE PROTOCOLS**
- Create clinical care protocols for (1) IV cannula usage/access, (2) breast milk storage, (3) cot sharing, (4) changing of diapers, (5) changing of sheets
- Train all NICU staff on proper clinical care protocols

**FUNCTIONING EQUIPMENT**
- Repair (1) second suction machine in isolation NICU, (2) sink in sluice room
- Purchase (1) replacement refrigerator for breast milk storage, (2) replacement tubing for suction machine, (3) additional hand towels, (4) dryer for after hand washing, (5) additional gowns for visiting parents, (6) washing machine for use

**ROUTINE MONITORING AUDITS**
- Create appropriate processes for monitoring each of these change packages that (1) do NOT over burden staff and (2) that allow for continuous checks (random audits) for compliance with protocols relating to identified infection drivers
EDUCATION
- Any Ridge employee (every house officer, new staff member of NICU, etc.) who will be working in NICU is required to complete a sanitation training using curriculum developed specific to Ridge NICU
- Infection control reinforcement reminder at each Tuesday all staff meeting
- Visual reminders placed around NICU for infection control measures

CLEANING
- Create cleaning protocols for (1) hand washing, (2) suction machinery, (3) feeding equipment, (4) bag and mask
- Train all NICU staff on proper cleaning protocols

CLINICAL CARE
- Create clinical care protocols for (1) IV cannula usage/access, (2) breast milk storage, (3) cot sharing, (4) changing of diapers, (5) changing of sheets
- Train all NICU staff on proper clinical care protocols

EQUIPMENT
- Repair (1) second suction machine in isolation NICU, (2) sink in sluice room
- Purchase (1) replacement refrigerator for breast milk storage (2) replacement tubing for suction machine, (3) additional hand towels, (4) dryer for after hand washing, (5) additional gowns for visiting parents, (6) washing machine for NICU use

MONITORING
- Create appropriate processes for monitoring each of these change packages that (1) do NOT over burden staff and (2) that allow for continuous checks (random audits) for compliance with protocols relating to identified infection drivers
EDUCATION:
Create training curriculum, weekly CME, and visual reminders

MONITORING:
Design and Perform Compliance checks

CLEANING:
Create cleaning procedures and training

CLINICAL CARE:
Create clinical protocols and training

EQUIPMENT:
Repairing and purchasing

PRIORITIZING PACKAGES

IMPACT

EFFORT
Questions for panelists: Q1

• What are the key evaluation questions that we need to address - generally and with specific reference to this case?
Questions for panelists: Q2

• What are appropriate designs to answer the key evaluation questions?
Questions for panelists: Q3

• Data for the evaluation: what types of data, how much data, how do you collect it, who collects it?
Questions for panelists: Q4

• What are the policy and context considerations? How does the evaluation balance the in-country needs for implementation and for research?
Questions from the Audience

• Please chat in your questions into the “Questions” frame (see under the GoToWebinar panel)
What happens Next?

• Sign up to expert panel on GHD Online at: bit.ly/1ZGz709
• Each day (Tuesday to Friday) an evaluation question will be open for discussion by global community. The conversation will be moderated by a panelist who also synthesize discussion at the end of the day.
• New question will be moderated by a different panelist each day
• Recorded panel discussion will summarize learnings – will be made public on GHD Online and HSG websites and links circulated to all the following week
Thank you!

See you online at GHD-Online site

bit.ly/1ZGz709