

## Assessing the Quality of Care for Hospitalized Children in Eritrea

First Step in Quality Improvement



Ministry of Health/Eritrea  
USAID (QAP, TASC), WHO and UNICEF  
Assessment completed 12/02

## Outline for Presentation

- Objectives of Assessment
- Methodology
- Results
- Next Steps

## Objectives

- Undertake a quality assessment of hospital care for sick children to
  - Identify current hospital pediatric practices
  - Introduce evidence-based guidelines for case management of a child with serious infection or severe malnutrition
  - Provide onsite mentoring to improve knowledge and case management skills of zonal practitioners
  - Use findings to initiate quality improvement

## Methods

- Teamwork - 4 teams
  - Each team
    - Composed of Pediatrician, GP and nurse
    - Assessed 4-5 hospitals, including at least one regional hospital
    - Spent 2.5-3 days onsite, including night shifts
    - Focused on inpatient care of children < 5yrs
  - Division of tasks

## Methods cont2

- Direct observation of cases
- Review of current records and nursing notes
- Interviews with providers, managers and mothers/caretakers
- Onsite inventory and site inspection
- Past record (chart) reviews
- Case simulations

## Assessment Based on Key Processes: Sections of the Guidelines

Support systems	Feeding and baby friendly services
<i>Emergency care</i>	Mother/Caretaker involvement
<i>Inpatient care of common conditions</i>	Child friendly services
<i>Newborn care</i>	Hospital support systems
<i>Care of sick young infant</i>	
Monitoring and discharge	Access to care

### Example: Levels of Assessment

- **Key Process or Function (section):** Inpatient care of serious infection or malnutrition
- **Sub section:** Care of child with cough or respiratory condition
- **Standard:** Severe pneumonia is correctly assessed and diagnosed in patients 2 mo – 5yr according to the RCM
- **Criteria:**  
Assessment is based on chest indrawing, respiratory rate, presence of central cyanosis and the child's general condition

### Performance Scoring

- Strong improvement needed [SI]
  - Could be life threatening or serious adverse consequences due to lack of compliance with standards
- Some improvement needed [I]
  - Using evidence-based standards, but not consistently or rigorously; does not jeopardize life or cause serious morbidity
- Good performance according to guideline [G]

### Analysis

- Primary unit of analysis – hospital
  - Secondary unit of analysis – child/condition
- Three levels of analysis
  - Function or process
  - Standard
  - Criteria
- Quantitative and qualitative data analysis

### The Assessors



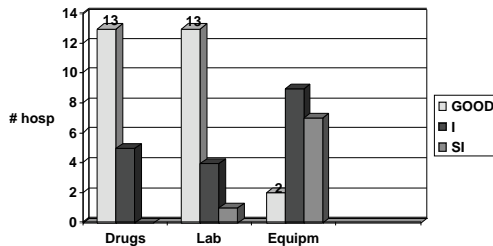
### RESULTS

19 Hospitals  
203 Children Directly Observed  
147 Past Records Reviewed

### Management of Emergencies

- Layout and flow of patients in first aid or casualty need improvement in 2/3 of hospitals
- Triage systems lacking in all but 1 hospital
- 7 hospitals need **STRONG IMPROVEMENT** in overall management of emergencies
- Only 1 hospital performed according to RCM clinical guidelines for emergency case management

### Availability of Essential Emergency Drugs, Lab and Equipment



### Hospital Performance: Management of Common Conditions

- 10% (2) hospitals are performing according to overall standards for inpatient care
  - Organization of care
  - Cleanliness, infection prevention
  - Staffing
  - Equipment and pharmaceuticals
  - Case management
    - Physician and nursing care
    - Caretaker involvement

### Hospital Performance: Management of Severe Malnutrition

- **58% (11/19) hospitals need to strongly improve case management of severe malnutrition**
  - Nutritional status assessed in all children
  - Management of dehydration and electrolyte imbalance
  - Hypoglycemia and hypothermia checked and managed
  - Management of infection and micronutrients
  - Correct feeding of severely malnourished children, F75 and F100 formula available
  - Correct management of associated conditions

### Hospital Performance: Management of Severe Pneumonia/Respiratory Conditions

- 17 hospitals need to improve management of respiratory conditions
  - Only 7 hospitals are correctly assessing and diagnosing severe pneumonia
  - Only 2 hospitals are administering appropriate antibiotics according to guidelines
    - Under-dosing is common, along with polypharmacy
  - **Oxygen is not available in ~ half of the hospitals**
  - Only 1 hospital is administering oxygen properly, including monitoring
  - Every hospital needs to improve patient monitoring (respiratory rates are not monitored in children with severe pneumonia!)

### Hospital Performance: Management of Diarrhea and Severe Dehydration

- Only **2 hospitals** are providing care according to the RCM guidelines
  - 7 hospitals need strong improvement
- Dehydration is correctly assessed in most hospitals, but rehydration is problematic, especially in malnourished children
  - 9 hospitals need strong improvement
- **Nearly half** of the hospitals are giving appropriate antibiotics only when necessary

### Hospital Performance: Management of Very Sick Young Infants

- **11/19** of hospitals need to improve case management of sick young infants
- **11** hospitals need to improve
  - assessment and diagnosis of neonatal sepsis
  - treatment and management of neonatal sepsis

## Feeding and Baby-Friendliness

- **~90% of hospitals** need to improve feeding (nutritional support) for all sick children
  - Nutritional needs of sick children are not being calculated and addressed in medical orders
  - Monitoring of nutritional status during hospitalization is rare (except for severely malnourished)
  - Hospitals lack dietary standards for sick children and infants
- Breast-feeding is promoted in over half of the hospitals

## Patient Monitoring

- **79% of hospitals [15/19]** need improvement in patient monitoring
  - Weight is not monitored on children with malnutrition
  - Inputs and outputs, weights in severe dehydration are not monitored
  - Respiratory rates are not monitored in children with severe pneumonias
- **11% of hospitals [2/19]** are using monitoring charts appropriately
- **In 63% of hospitals [12/19], admitted children are reassessed by a doctor**

## Mother or Caretaker Involvement Child-Friendliness

- **100%** of hospitals promote close contact between mother and sick child
- **In ~2/3** of hospitals, mothers are participating in monitoring the care of their children...but may lack sufficient instructions [eg pushing IV meds]
- **But, 16/19 hospitals** need to improve opportunities for emotional support and play in the hospital

## Discharge and Follow up

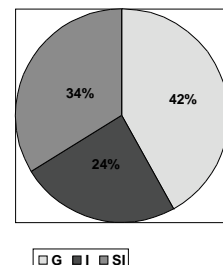
- About one half of all hospitals: ]
  - need to improve Mother/caretaker counseling prior to discharge [10/19]
  - are arranging appropriate follow-up before discharge [11/19]
  - are checking immunization status prior to discharge [10/19]
- Only 3 hospitals are communicating with referring health center prior to discharge

## 203 Total Children Directly Observed

- 50 children with emergency conditions
- 134 children with common conditions
  - 56 Cough/respiratory
  - 31 Diarrhea and severe dehydration
  - 36 Malnutrition
  - 23 Fever
  - 3 HIV
- 19 newborns or very young infants

## Care of Emergency Conditions Unit of Analysis=Child

- **50 children observed**
- **42% (21) received care according to standards**
  - 34% (17) need strong improvement (SI)
  - 24% (12) need improvement (I)



### Management of Serious Infections and Severe Malnutrition

- About 1/4 (26%) of children received good care, according to standard (G) n=35
- Almost three quarters (74%) of children received sub-optimal care (I or SI) n=99

Performance Condition	Good	Needs Strong Improvement
Cough (N=56)	34%	23%
Diarrhea (N=31)	13%	55%
Fever (N=23)	17%	13%
Malnutrition (N=36)	20%	36%

### Immediate Onsite Improvements Examples

- On-site orientation of staff in ER using RCM
- Emergency response and preparedness
- Correct doses of antibiotics; appropriate first line antibiotic
- Correct rehydration of malnourished children
- Patient monitoring (eg RR)
- IMCI OPD – recording guidelines

### Next Steps: Hospital Collaboration to Improve Quality

- Hospital Management Support
- Pediatric Care Improvement Teams
- Continuous small improvements addressing focus areas
- Monthly measurements of improvement
- Regular communication with other hospital teams, learning and sharing
- Participation in inter-hospital Improvement Sessions

THANK YOU for your attention

