RBF - PROJECT: evaluating RESULTS 2021
Lacor and Kalongo
Draft Feb 19th 2020

"Result Based Financing, a change engine for paediatric services"

- Intervention to strengthen the quality of care and empowerment of health personnel in the Acholi region, Northern Uganda
Implemented in the Acholi Region: Districts of Gulu, Amuru and Agago (Northern Uganda)
Based in Gulu (Lacor H) and Kalongo (Kalongo H)

OBJECTIVE
To evaluate the impact of Results Based Financing project in Northern Uganda on process and health indicators in the two locations involved in the intervention

STUDY DESIGN: cross sectional retrospective + prospective comparing cohorts
- Process and health indicators in the year 2016 prior to the intervention
- Process and health indicators at the end of the intervention 2020

ROUTINELY AVAILABLE BASIC DATA for the year 2016 and the year 2020 (Dr. Emmanuel Ochola)
- Number of admissions to the hospital
- Duration of hospitalization
- Stratification by age
- N. of discharged without conclusion
- N. of deceased

DATA TO BE COLLECTED
1. IMPROVEMENTE IN BASIC INFRASTRUCTURES: hints? (Quality Office S.Sharon)
- Drug availability over time: Check for Pharmacy Audit in 2016 and 2020
- Equipment: report from the 3-monthly filled forms
2. HYGIENE (Dr.Emmanuel Ochola)
- Check hospital acquired infections: see HAI Point Prevalence Study protocol
3. CLINICAL AND NURSING, INDICATORS OF OUTCOME (Dr. Venice Omona)
Comparing the management of admitted sick children in 2020 with historical series of 2016:

Qualitative: TO BE COLLECTED RETROSPECTIVELY (year 2016) AND PROSPECTIVELY (year 2020)
Adherence to the protocols for the 8 diseases subjected to revision: 10 forms for each disease x 2 years

CHECKLIST ITEMS	PROTOCOLS
Proper diagnosis of 10 admitted cases (analysis of randomly selected hospitalization records): **1)** identification of patient **2)** complaints or symptoms on admission **3)** clinical examinations guided by anamnesis **4)** no unnecessary diagnostic tests prescribed, **5)** Malaria is excluded or treated in patients with fever **6)** Malnutrition diagnosis according to WHO - Check sub-liminal malnutrition, **7)** Percentile charts available and in appropriate use **8)** Anemia diagnosed according to guidelines, **9)** Sepsis: Increasing the percentage of specific diagnosis (origin)	1. URTI 2. Malaria 3. Dehydration- Diarrhoea 4. Convulsions 5. Anemia- Sickle Cell 6. LRTI-Pneumonia 7.Urinary Tract Infect 8. Meningitis 9. Sepsis
Proper prescription of therapy of at least 10 admitted cases (analysis of selected hospitalization records): **1)** proper treatment according to evidence from anamnesis, and accepted protocols, **2)** no unnecessary prescriptions, especially antibiotic, **3)** Appropriate prescription of drugs in children with **URTI, 4)** Appropriate use of Oxygen & Antibiotics for children with **LRTI, 5)** Appropriate request of blood transfusions. **6)** Checking regularly the vaccination record and recommend accordingly	

STRATEGY

RETROSPECTIVE AND PROSPECTIVE DATA RETRIEVAL YEAR 2016 AND YEAR 2020

1. Search the clinical charts of children discharged from the children's ward from March to August 31; select only charts with more than 48 hours of permanence in the hospital that report a final diagnosis within the 8 selected for RBF, or reasonably compatible with the list provided. Select randomly, for example one every three charts and spread across different months from March to June.
2. Develop a simple easy working data collection form that explore the 10 + 6 items listed above.
3. SAMPLE SIZE: to evaluate a clinically significant 25% difference between the 2016 series and the 2020 one, at least 10 forms for each listed disease are needed for each year: so the collection will stop as soon as 10 (+ 25% missing data = 13) charts are collected for each disease = 104 charts for 2016 and 104 for 2020.
4. Evaluate, for each of the above listed diseases: 13 cases (13 malaria, 13 diarrhoea, 13 convulsions etc). Refer, for the evaluation, to the clinical protocols available (locally at Lacor or National or WHO at Kalongo)
5. Evaluate the management of each patient, reported on the charts, assigning a score -1, 0, 1 or 3 for each item for a maximum score of 48. When data are not appropriate, assign N.A. (for example in the case there is no fever assign N.A. to item n. 6 'malaria excluded or treated in patient with fever').
6. Quality Check: select randomly 20 charts to be independently scored by two observers, to estimate the inter-individual variability.
7. The data collection and evaluation could be performed once a week on the 2016 retrospective series and on the children just discharged from the children's ward in the same week of 2020, before chart are transferred to the records' office.

St. Marys' Hospital Lacor – Dr.Ambrosoli Kalongo Hospital –
Results Based Financing Program 2018-2021
CLINICAL PROCEDURES REVIEW FORM

CASE ID _____ Admitted |__|__|____| Discharged |__|__|____| Age mo|_____|

DIAGNOSIS:_____

Proper diagnosis	SCORE
2) report complaints or symptoms on admission	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
3) clinical examinations guided by anamnesis	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
4) unnecessary diagnostic tests not prescribed	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
5) easy available diagnostic test appropriately prescribed	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
6) Malaria is excluded or treated in patients with fever	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
7) Malnutrition diagnosis according to WHO – Weight checked	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
8) Percentile charts available and in appropriate use	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
9) Anemia diagnosed according to guidelines	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
10) Sepsis: Increasing the percentage of specific diagnosis (origin)	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
Sub-TOTAL SCORE	
Proper prescription of therapy	
1) proper treatment according to evidence from anamnesis, and protocols	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
2) unnecessary prescriptions, especially antibiotic, not prescribed	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
3) Appropriate prescription of drugs in children with **URTI**	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
4) Appropriate use of Oxygen & Antibiotics for children with **LRTI,**	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
5) Appropriate request of blood transfusions	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
6) Checking regularly the vaccination record and recommend accordingly	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
TOTAL SCORE	

GRAND-TOTAL SCORE	

NURSING PROCEDURE EVALUATION FORM
Compare nursing procedures reported in the papers (fluid and treatment sheet) in 2016 to the ones reported in 2020.
Possible strategy: random sample of 20 readable charts/forms for each month from March to August 2016 and similarly in 2020. Final sample 120+120 for the two years = 240

Proper administration of therapies of admitted cases	WEEK :
1) Therapies have been given properly (Oral, injection, IV line, fluids)	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
2) Charts correspond to the correct patients	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
3) Weight and vital signs recorded (Wt, Temp, Resp Rate etc)	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
4) Fluids balance chart is present, when applicable	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐
5) Bowel actions recorded in case of diarrhea - dehydration	N.A. 0☐ NO -1☐ Unclear 1☐ YES 3☐

4. EMERGENCY
- Revise a sample (? 20 ?) of death records of 2016 and of 2020
- Prospectively evaluate the actual use of emergency procedures over 3 months

5. TRAINING
- Enquiry with student nurses
- Enquiry with medical students
- Residents and Expatriate

STRATEGY TO RETRIEVE DATA BEFORE THE RBF PROJECT
1. Recover available nursing audit
2. Recover Pharmacy reports
3. Recover studies on hospital acquired infections