

REDUCING CHILD MORTALITY THROUGH TARGETED NURSING CARE IN THE HIGH DEPENDENCY AREA, ACUTE CARE UNIT MULAGO HOSPITAL, UGANDA

Akao M.G.*, **Ayebare E. &, **Mbalinda N.S.

*Department of Pediatrics and child health, Mulago Hospital. **Makerere University Department of Nursing.



Introduction

Acute Care Unit (ACU) is an emergency unit for children which admits 800 children monthly. The patients are initiated on treatment, stabilized and later transferred to the specialized wards. According to unit data for 2015, the rate of death was high at 4.6% mainly within 24 hours of admission. Very sick children are admitted in the High Dependency Area (HDA) for close monitoring. Majority of the children died in the HDA where close monitoring and care is expected. This prompted the development of this quality improvement project.

Objective

To improve nursing care rendered to children in High Dependency Area so as to facilitate recovery and reduce mortality.



High Dependency Area in Acute care Unit, Mulago Hospital

Measures

Baseline survey was conducted in July to September 2016 to identify common diseases and the causes of death of children admitted in High Dependency Area. A check list was used to review records of children admitted in HDA during a two weeks period in December 2016 to critically assess the nursing care offered.

Interventions were developed collaboratively to address the key causes of death. A post intervention assessment of mortality and its causes was done from April to June 2017.

Results at Baseline

The mean age of children was 18 (0- 156) months. Most of the admissions (76.6%) occurred during the day. Mothers constituted 87.2% of the care takers. Medical conditions of children admitted were; severe pneumonia 34.2%, severe malaria 13.9%, and sickle cell disease 11.4%. Major causes of death in HDA were aspiration pneumonia and hypoglycemia.

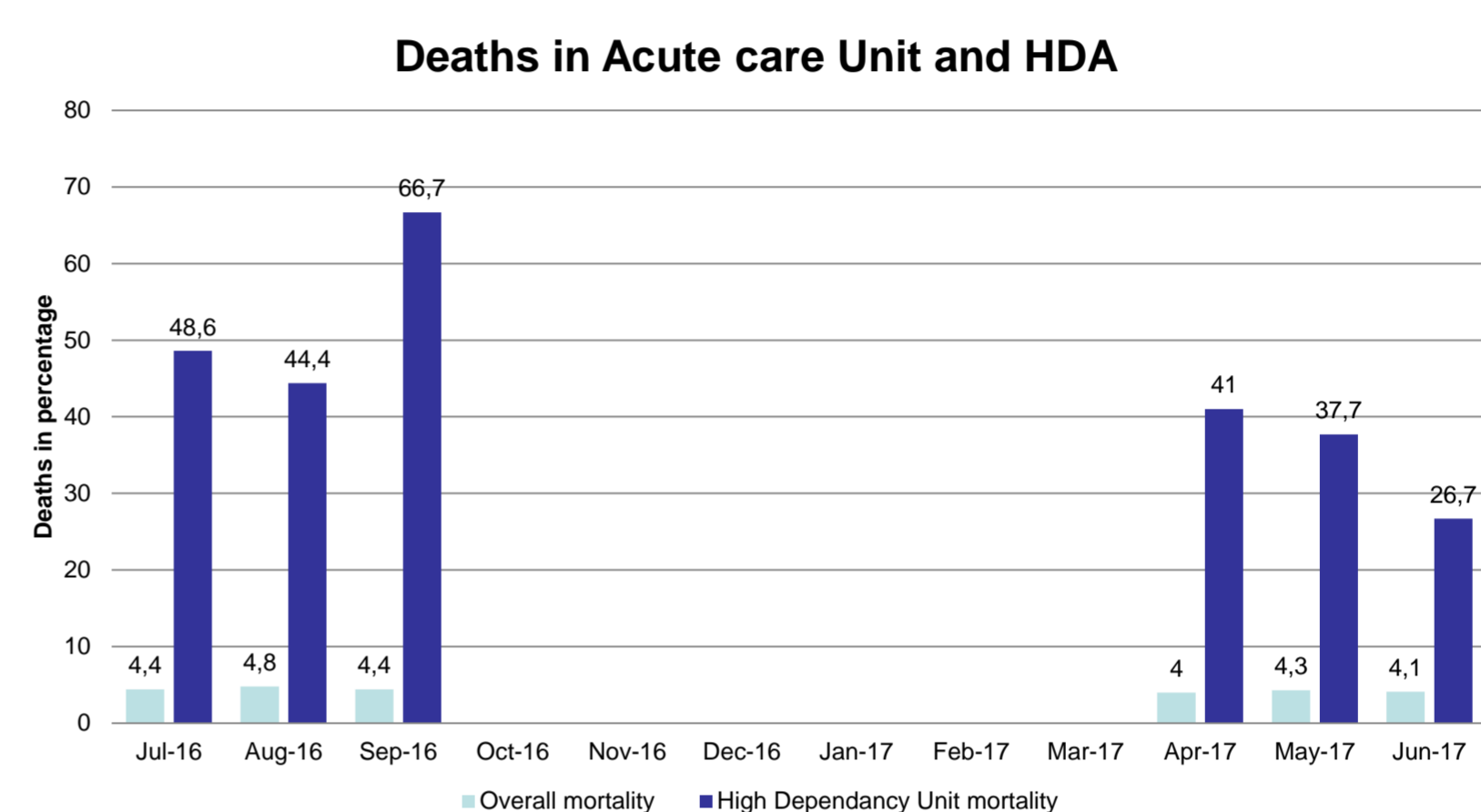
None of the case files had nursing care plan however, doctors' orders and care protocols were present.

Interventions

Interventions targeted to reduce deaths occurring due to aspiration pneumonia and hypoglycemia. These included:

- Nurses allocated to HDA during all the 3 shifts daily
- All children in HDA monitored for hypoglycemia
- Care takers educated and facilitated to effectively feed their children to via nasogastric tube
- Naso-gastric tubes insertion for all children who are unable to feed

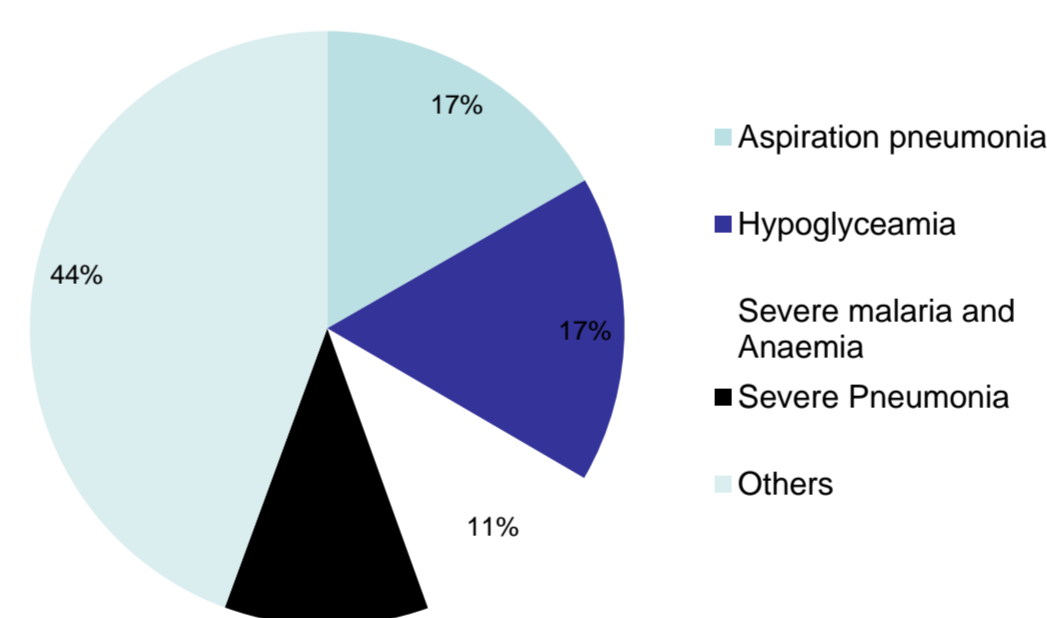
Mortality before and after intervention



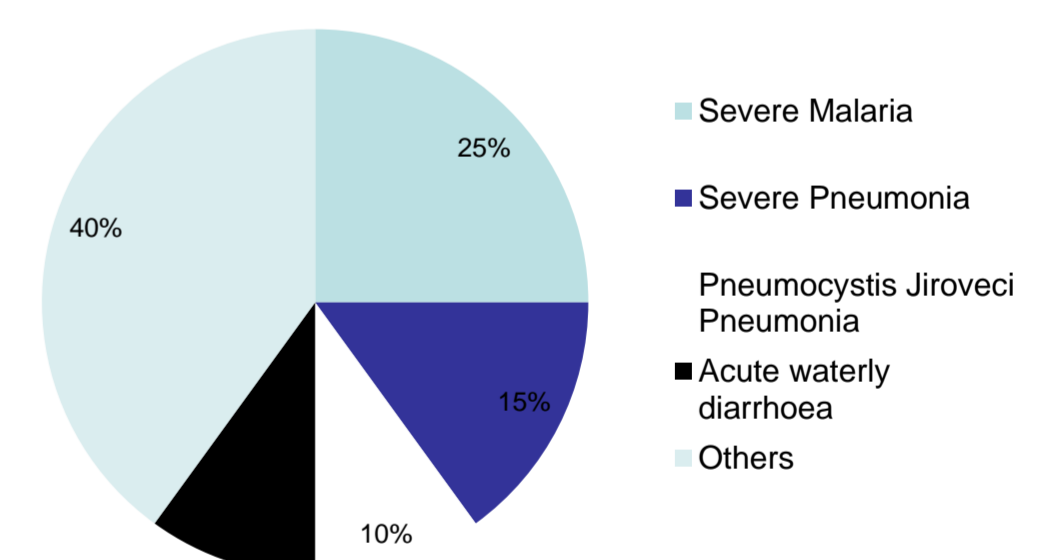
Overall mortality calculated as percentage deaths out of total admissions in acute care unit. HDA mortality calculated as percentage HDA deaths out of total acute care unit mortality

Causes of mortality before & after intervention

Major causes of mortality HDA at Baseline



Major causes of mortality in HDA after intervention



Conclusions and recommendations

1. Although overall mortality in the ACU did not reduce significantly, the percentage of children dying in HDA reduced after the intervention
2. The major causes of death changed from aspiration pneumonia and hypoglycemia to severe malaria showing the effect of the nursing care interventions.
3. Targeted nursing care interventions for very sick children are effective in preventing mortality
4. There is need to develop interventions targeting the major causes of death in pediatric emergency areas.

Acknowledgements

- ❖ Sigma Theta Tau International
- ❖ Johnson and Johnson
- ❖ Acute care unit- staff and management, Mulago hospital
- ❖ Department of Nursing, Makerere University

References:

1. Ministry of Health, 2014: Emergency triage Assessment and treatment + protocol. Ministry of Health, Uganda
2. Graham W, Wagaarachchi P, Penney G, McCaw-Binns A, Yeboah Antwi K, Hall M. Criteria for clinical audit of the quality of hospital-based obstetric care in developing countries. Bulletin of the World Health Organization. 2000;78(5):614-20.
3. Benjamin A. The Competent Novice: Audit: how to do it in practice. BMJ: British Medical Journal. 2008;336(7655):1241.