ABSTRACT: DR. REBECCA NANTANDA

Management of asthma and acute respiratory infections in under-fives: towards

rational medicine use.

Introduction

Asthma and acute lower respiratory infections (ALRI) are common childhood conditions world-wide, and

are associated with significant morbidity and mortality. They overlap in clinical presentation, and

sometimes co-exist, making diagnosis a big challenge. Children presenting with cough and difficult

breathing are frequently diagnosed as pneumonia, with little thought about the possibility of asthma.

Investigative capacities are almost non-existent at many of the primary care levels in low-income

settings, but even where they exist, their usefulness is limited because of low validity and reliability.

Consequently, asthma is under-diagnosed while pneumonia is over-diagnosed. This contributes to

irrational medicine use, preventable chronic ill health, affects growth and development and leads to

high health care costs to families and health care systems. Improving diagnostic accuracy of asthma and

ALRI's will contribute towards mitigating the above problems.

Aim: To validate a tool for clinical diagnosis of asthma and ALRI's, determine their prevalence and

associated factors, and document the outcomes, among under-fives in Mulago hospital.

Methods: The study will have both cross-sectional and prospective cohort designs. Children aged 2 to 59

months presenting with cough and/or difficult breathing and/or wheezing at the paediatric medical

emergency unit of Mulago hospital will be enrolled in the study after fulfilling the inclusion criteria. An

"asthma-ALRI" questionnaire will be administered by the research assistant. The children will then be

reviewed by a paediatrician with expertise in respiratory conditions, who will make a diagnosis with the

guidance of the diagnostic criteria as per research protocol. The admitted children will be followed up by

the research assistant twice daily until discharge.

**Expected outcomes:** The study findings will contribute towards improving asthma case detection, better management of asthma and acute lower respiratory infections and rational medicine use among children less than five years.

**Key words**: Asthma, acute lower respiratory infections, diagnosis, children