Adherence to Pneumonia Guidelines for Children 2 – 59 Months at Garrisa Provincial General Hospital

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Background: Clinical Practice Guidelines for childhood illnesses including pneumonia in Kenya are contained in the Ministry of Health Basic Paediatric Protocols. In the presence of a cough and/or difficulty in breathing and increased respiratory rate for age, pneumonia is diagnosed. In addition to these the presence of lower chest wall indrawing denotes severe pneumonia; The presence of cyanosis, inability to drink/ breastfeed, grunting, level of consciousness using the AVPU scale less than A in addition to the aforementioned is classified as very severe pneumonia. Recommended management is intravascular Crystalline penicillin, gentamycin and oxygen for severe pneumonia, intravascular crystalline penicillin for severe pneumonia and oral amoxyl or cotrimaxol for pneumonia. These guidelines have been disseminated through the Emergency Triage And Treatment Plus (ETAT +) courses held since 2007. Implementation of guidelines into care has been shown to reduce case fatality from pneumonia by 36%.

Objectives: To evaluate the level of adherence and factors affecting adherence to the National guidelines on management of pneumonia in children aged two to fifty nine months at Garissa provincial General Hospital, Kenya.

Design: Retrospective hospital based cross sectional study. Setting: Paediatric Department of Garissa Provincial General Hospital (PGH) in Kenya.

Subjects: Hospital medical records of children aged two to fifty nine months diagnosed with pneumonia between January and June 2012 were reviewed. Data abstracted from the records included demographic information, recorded clinical signs and symptoms, disease classification and treatment.

Results: Records of 91 children were reviewed. Their median age was 12 months (IQR 6 – 18 months). There were more boys than girls with a male to female ratio of 1.25:1. Forty-eight of the participants (52.8%) had severe pneumonia. Guideline adherence was assessed at three levels; assessment of clinical signs and symptoms reflected by their recording, correct disease severity classification and correct treatment prescribed. There were a minimum of two and a maximum of six clinical sign and symptoms recorded. The average level of adherence was 42.9% (SD ±17.3). Documented correct classification of disease severity was 56.6% and recommended treatment of pneumonia was 27.7%. The presence of a co-morbidity and severe disease was associated with better adherence to the assessment tasks (p = 0.033 and p = 0.021 respectively). Disease severity was associated with better adherence to the disease classification task (p = <0.001) and treatment task (p = 0.02).

Conclusion: Adherence to guidelines was low at all assessed levels. Overall, disease severity was associated with better guideline adherence. Presence of co-morbidities improved disease assessment.