

ABSTRACT

Examining Which Clinicians Provide Admission Hospital Care in a High Mortality Setting and Their Adherence to Guidelines: An Observational Study in 13 Hospitals

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Background: We explored who actually provides most admission care in hospitals offering supervised experiential training to graduating clinicians in a high mortality setting where practices deviate from guideline recommendations.

Methods: We used a large observational data set from 13 Kenyan county hospitals from November 2015 through November 2018 where patients were linked to admitting clinicians. We explored guideline adherence after creating a cumulative correctness of Paediatric Admission Quality of Care (cPAQC) score on a 5-point scale (0–4) in which points represent correct, sequential progress in providing care perfectly adherent to guidelines comprising admission assessment, diagnosis and treatment. At the point where guideline adherence declined the most we dichotomised the cPAQC score and used multilevel logistic regression models to explore whether clinician and patient-level factors influence adherence.

Results There were 1489 clinicians who could be linked to 53 003 patients over a period of 3 years. Patients were rarely admitted by fully qualified clinicians and predominantly by preregistration medical officer interns (MOI, 46%) and diploma level clinical officer interns (COI, 41%) with a median of 28 MOI (range 11–68) and 52 COI (range 5–160) offering care per study hospital. The cPAQC scores suggest that perfect guideline adherence is found in $\leq 12\%$ of children with malaria, pneumonia or diarrhoea with dehydration. MOIs were more adherent to guidelines than COI (adjusted OR 1.19 (95% CI 1.07 to 1.34)) but multimorbidity was significantly associated with lower guideline adherence.

Conclusion Over 85% of admissions to hospitals in high mortality settings that offer experiential training in Kenya are conducted by preregistration clinicians. Clinical assessment is good but classifying severity of illness in accordance with guideline recommendations is a challenge. Adherence by MOI with 6 years' training is better than COI with 3 years' training, performance does not seem to improve during their 3 months of paediatric rotations.

Keywords: Admission hospital care, Guideline adherence, Preregistration clinicians, Paediatric Admission Quality of Care, Multimorbidity, High mortality setting