Mortality pattern within twenty-four hours of admission to a pediatric emergency room in a teaching hospital in Ghana

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Background
Childhood mortality in sub-Saharan Africa still remains high despite a reduction in global trends. Although several strategies have been instituted to help reduce this, the progress is slow which can affect the achievement of the Sustainable Development Goal 3 (SDG). Majority of these deaths occur within the first twenty-four hours of admission due to delay in seeking medical care and inability to identify and adequately resuscitate the critically ill patients. The aim of the study was to describe the pattern of mortality within the first twenty-four hours in children presenting to the Paediatric Emergency Unit (PEU) of Komfo Anokye Teaching Hospital (KATH) in Kumasi, Ghana.

Methods
This was a retrospective review of mortalities in children aged 2 months to 13 years admitted to PEU from January to December 2020. The bio-data, duration of illness, diagnoses, duration of hospital stay and admission outcome were extracted from their health records and analysed.

Results
There were 2,145 admissions during the study period of which 59.3% (n=1272) were males, and 38.5% (n=825) were under-five years of age. Out of the 171 (7.9%) that died, 31.5% (n=54) occurred during the first 24 hours with 51.8% (n=28) being males and 77.7% (n=42) under-five years of age.

The months with the highest recorded mortality occurring within 24 hours were January 16.6% (n=9), March 14.8% (n=8), and February 12.9% (n=7) with sepsis/septic shock 18.5% (n=10), Pneumonia 12.9% (n=7), surgical conditions 9% (n=5), Severe acute malnutrition 7% (n=4), and diarrhoea diseases 7% (n=4) being the leading causes of death.

Conclusion
Sepsis/septic shock and pneumonia are top two causes of mortality within 24-hours of admission with the highest mortality occurring in the first quarter. In order to end preventable deaths in under-fives and achieve the SDG 3.2, early health care seeking behaviour, quality and timely interventions for critically ill children as well as appropriate development and deployment of disease commodity packages will be key.