

## A PILOT STUDY OF COMPARATIVE 30-DAY MORTALITY: A PAN-AFRICAN PAEDIATRIC SURGERY ASSOCIATION RESEARCH PROJECT

Kathryn Ford<sup>1</sup>, Aswath Bandi<sup>2</sup>, Ceri Jones<sup>3</sup>, Seun Ladipo-Ajayi<sup>4</sup>, Emmanuel Ameh<sup>5</sup>, Abiboye Yifeyeh<sup>6</sup>, Tamina Banu<sup>7</sup>, Lukman Abdur-Rahman<sup>8</sup>, Kokila Lakhoo<sup>1</sup>

<sup>1</sup>John Radcliffe Hospital, Oxford, UK, <sup>2</sup>St George's Hospital, London, UK, <sup>3</sup>Royal London Hospital, London, UK, <sup>4</sup>Lagos University Teaching Hospital, Lagos, Nigeria, <sup>5</sup>National Hospital, Abuja, Nigeria, <sup>6</sup>Komfo Anokye Teaching Hospital, Kumasi, Uganda, <sup>7</sup>Chittagong Medical College Hospital, Chittagong, Bangladesh, <sup>8</sup>University of Ilorin Teaching Hospital, Ilorin, Nigeria

**Aim:** The Pan-African Paediatric Surgery Association (PAPSA) has reported several international research papers. The aim of this study was to collaborate with low, middle and high income countries (L/M/HIC) and report 30-day in hospital mortality in paediatric surgical units. We present the provisional results from a larger investigation into mortality in 2017.

**Methods:** PAPSA members were invited to participate in this prospective study. Ethical approval was obtained at institutional level. The primary outcome was mortality, reported from all admissions over a 30-day period (01/12/2016 – 31/12/2016). Secondary outcomes included: demographics; diagnosis; date and details of surgical procedures and cause of death. Data are presented as median (range).  $P < 0.05$  was considered statistically significant.

**Main results:** There were 1,201 admissions to eight paediatric surgical centres over the month study period; 437 patients in two HIC centres and 764 in five LMIC centres. The number of admissions did not differ per country income group: median of 118 (range 28 – 222) in the HIC centres and 55 (range 22 – 595) in LMIC centres (Mann Whitney U = 3,  $P = 0.25$ ) (Table 1). Overall mortality was 1.2% (15/1,201). Patients in LMIC were more likely to die: 2% (15/764) cf. 0% (0/437) mortality in HIC, Mann Whitney U = 0,  **$P = 0.0178$** ). The highest mortality (13.6%, 3/22) was reported in one LMIC centre. Of those who died: age at admission was 18 months (1 day – 11 years); 80% went to theatre 2.5 days (0-12 days) from admission and the most common diagnosis was typhoid perforation. The most common cause of death was sepsis (47%, 7/15) (Table 1).

**Conclusion:** This study emphasises the worldwide disparity in mortality from paediatric surgery conditions and informs the future study which aims to address access to care and outcome from emergency admissions.

### TABLE 1:

Data for all admissions in eight centres over a month period (December 2016)

**Table omitted due to size**

\*Mann Whitney U