**A review of the burden of infection following cesarean section in sub-Saharan Africa**

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**Background:** Cesarean section is the most common operative procedure performed in Sub-Saharan Africa, accounting for as much as 80% of the surgical workload. In contrast to CS performed in high-income countries, CS performed in Sub-Saharan Africa are accompanied by high morbidity and mortality rates. This operation is the most important known variable associated with an increased probability of postpartum bacterial infection; reported rates of infection range from one to twenty five percent, about five to twenty times higher than that of vaginal delivery. The objectives for this review were to assess the surgical outcomes related to CS in Sub-Saharan Africa and investigate surveillance and implementation constraints specific to a region with limited resources.

**Material/methods:** We conducted a review of studies on the incidence and epidemiology of surgical site infection (SSI) following cesarean section in developing countries in Sub Saharan Africa. PubMed (including MEDLINE), CINAHL, EMBASE, and the World Health Organization’s Global Health Library were searched without date or language restrictions.

**Results:** A total of 26 studies reporting SSI rates after CS were identified, representing 14,063 patients from 14 countries. 22 of these studies were conducted at academic and/or urban hospitals, the majority of which served as urban referral centers for smaller healthcare providers. the vast majority (76.7%) of CS performed were emergency operations. Over one third of hospitals saw more than 10,000 deliveries per year, with a range of 274 to 27,000. The overall CS rate for patients included in this review was 12.4% with a range of 1.0% to 41.9%. Only 17 out of 26 total studies reported a significant proportion of patients receiving antimicrobials of any kind, and only 11 studies out of the 17 reported the exact antibiotic or combination of antibiotics used. There was no uniformity
in either the medication given or the timing (preoperative vs. postoperative) across all studies. 7 studies reported infection data based on standardized terminology as given by the CDC. The SSI rate for these studies was 15.6%. The most widely reported SSI category, locally defined as "wound infection", had an incidence of 10.3%.

**Conclusions:** Our study identified high rates of surgical site infections following cesarean section in Africa, substantially higher than seen in higher income areas. Given the well known effect of correctly administered pre-incisional prophylaxis and the relative simplicity of this intervention, these data would argue for efforts to correct the timing of antibiotic administration.