

Introduction

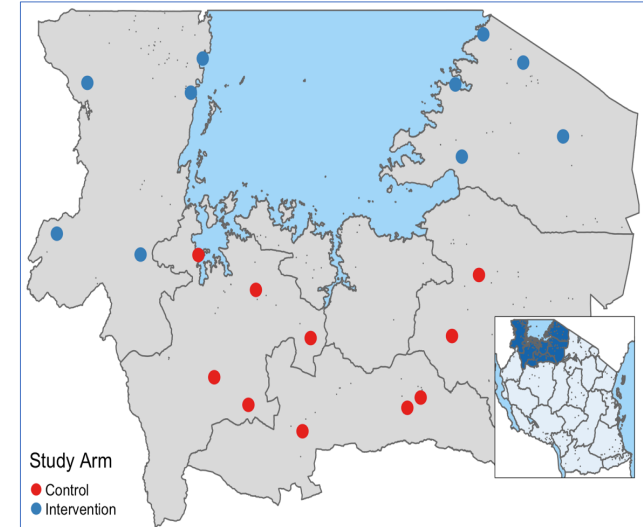
- Surgical site infections (SSI), sepsis, and maternal sepsis are preventable post-operative infections that are targets for morbidity and mortality reduction
- Understanding the risk factors associated with these complications can aid quality improvement projects in low-and middle-income countries.

Methods

- Data Source: Safe Surgery 2020
- Data: Every surgical/obstetric patient in 20 hospitals over 3 months
- Endpoint: Development of postoperative SSI, sepsis, or maternal sepsis
- We used univariate analysis to determine risk factors for SSI, sepsis, and maternal sepsis

Results

- There were significant differences in SSI, sepsis, and maternal sepsis rate based on wound class, with complications more likely in higher wound classes ($p < 0.001$, $p < 0.01$, $p < 0.01$).
- Patients with SSI or sepsis were 2.63 and 3.52 times more likely to have a contaminated or dirty wound class.
- Patients with maternal sepsis were 5.44 times more likely to have contaminated wound class.
- The relative risk of SSI and maternal sepsis in patients without vaginal cleansing prior to caesarian section was 2.63 ($p < 0.05$) and 5.80 ($p < 0.01$), respectively.
- There was no difference in ASA class or age for the SSI, sepsis, or maternal sepsis cohorts.
- There was also no difference in gender for the SSI or sepsis cohort.



Implications

- Wound class is an important factor in determining post-operative complications
- Vaginal cleansing may be beneficial in reducing SSI and maternal sepsis after caesarian section
- ASA score was not associated with complications
- Post-operative complications are multifactorial, requiring more study and targeted interventions

Surgical Site Infection (n = 2130)				
	Surgical Site Infection	No Surgical Site Infection	Relative Risk (Confidence Interval)	p-value
Age (mean, sd)	29.75 (13.65)	31.53 (14.63)	NA	0.20986
Gender (% Female)	83.93%	85.12%	0.92 (0.56 - 1.50)	0.83538
ASA (% class III/IV/V)	3.57%	2.73%	1.30 (0.50 - 3.41)	0.81403
Wound Class (% contaminated or dirty)	17.12%	6.74%	2.63 (1.65 - 4.19)	0.00009
Vaginal Cleansing (n = 251)	8.11%	19.48%	2.63 (1.16 - 5.99)	0.02278

Sepsis (n = 781)				
	Sepsis	No Sepsis	Relative Risk (Confidence Interval)	p-value
Age (mean, sd)	37.48 (20.63)	41.36 (18.91)	NA	0.33488
Gender (% Female)	52.17%	59.45%	0.75 (0.34 - 1.68)	0.62858
ASA (% class III/IV/V)	13.04%	5.15%	2.64 (0.82 - 8.53)	0.23595
Wound Class (% contaminated or dirty)	43.48%	17.17%	3.52 (1.57 - 7.86)	0.00305

Maternal Sepsis (n = 1349)				
	Maternal Sepsis	No Maternal Sepsis	Relative Risk (Confidence Interval)	p-value
Age (mean, sd)	26.50 (7.12)	25.73 (6.28)	NA	0.39026
ASA (% class III/IV/V)	0.00%	1.31%	0 (0 - 0)	0.84391
Wound Class (% contaminated or dirty)	5.77%	0.93%	5.44 (1.91 - 15.53)	0.00958
Vaginal Cleansing	3.85%	19.45%	5.80 (1.42 - 23.70)	0.00828