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In-Hospital Post-Operative Mortality Rates for Selected Procedures in Tanzania's Lake Zone

Taylor Wurdeman, MD MPH, Christopher Strader, MD, Cheri Reynolds, JD, David Barash, MD, John G. Meara, MD DMD MBA and Shehnaz Alidina, SD MPH

Program in Global Surgery and Social Change, Boston, MA, University of Miami Miller School of Medicine, Miami, FL, SafeSurgery 2020, Harvard Medical School, Boston, MA, Department of General Surgery, University of Massachusetts, Worcester, MA, Assist International, Scotts Valley, CA, GE Foundation, Boston, MA, Department of Plastic and Oral Surgery, Boston Children's Hospital, Boston, MA

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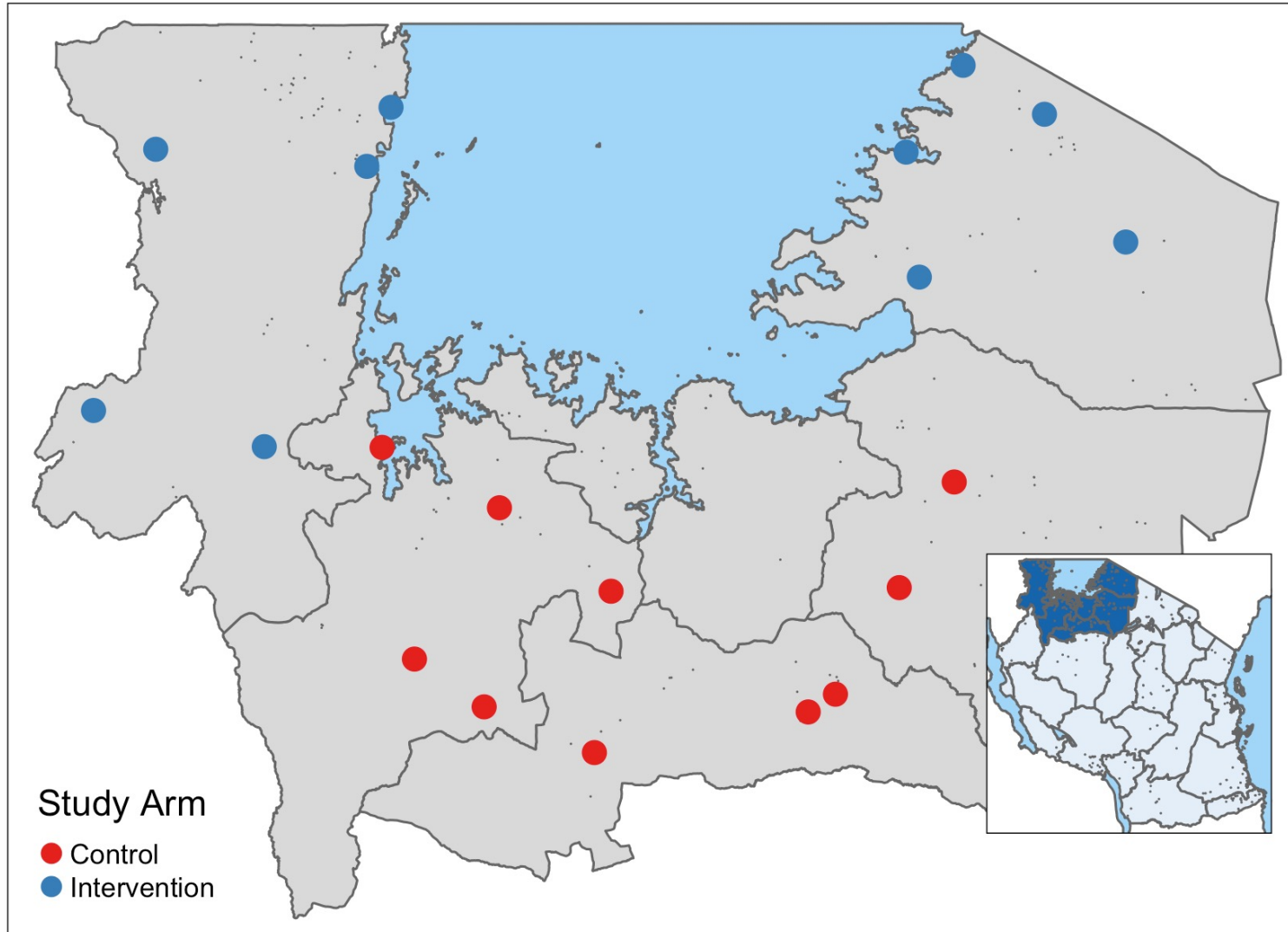
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Introduction

- Global Surgery efforts often focus on increasing scale, while putting less emphasis on quality
- Post-Operative Mortality Rate (POMR) is a key quality indicator of surgical systems
- As Low- and Lower-Middle Income Countries scale surgical systems, there must be a focus on measuring and tracking POMR

Safe Surgery 2020



Design

- Pre-post, intervention-control study
- Multiple intervention components

Aim

- Baseline measurement of POMR in Tanzania

Study Characteristics

- Post-operative mortality
 - Any death following a surgical or obstetric procedure within 30 days of the procedure, or until discharge.
- Post-Surgical Patients Followed: 6,111
 - Laparotomy: 12.5%
 - Caesarian section: 73.7%
 - Non-Laparotomy/Non-Caesarian Section: 13.8%
- 53 deaths

Results

Surgical Category	POMR
Laparotomy	3.92%
Caesarian Section	0.24%
Non-Laparotomy/ Non-Caesarian Section	1.43%

6.6X risk if an emergent case
($p = 0.07$)

44.4X risk if contaminated
versus clean-contaminated
($p < 0.0001$)

Hernia Repair (4 deaths)
Prostatectomy (3 deaths)
Amputation (2 deaths)
Debridement (1 death)
Disarticulation (1 death)
Hydrocelectomy (1 death)

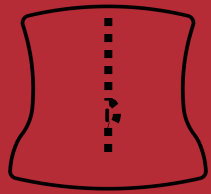
Selected Findings

- Laparotomy POMR is low compared to other studies (11.1% in one systematic review)
- Caesarian Section mortality in this study = emergent mortality (0% of deaths came from elective cases)
- Patients died early in their course of stay (83% of mortalities in the first 7 days)

Conclusion

- These results can serve as a baseline for POMR measurements in future studies in Tanzania
- More rigorous studies would include: measurement of intraoperative deaths, larger sample sizes, post-discharge follow up of patients, measurement of more risk factors
- Scaling surgical care without quality could potentially lead to worse outcomes

In-Hospital Post-Operative Mortality Rates for Selected Procedures in Tanzania's Lake Zone



Laparotomy POMR
3.92%



6.6X Risk if
Emergent



Caesarian Delivery POMR
0.24%



44.4X Risk if Contaminated
Wound Class



Other Surgery POMR
1.43%

Hernia Repair (4 deaths)
Prostatectomy (3 deaths)
Amputation (2 deaths)
Debridement (1 death)
Disarticulation (1 death)
Hydrocelectomy (1 death)

Recommendations:

Increased Sample Size
=
More specific
procedure categories

Risk adjustment is key to
targeting future
interventions

Scaling surgical care
without quality
=
potentially worse outcomes