Strengthening Surgical Quality Indicator Data Collection and Reporting in Rural Tanzania

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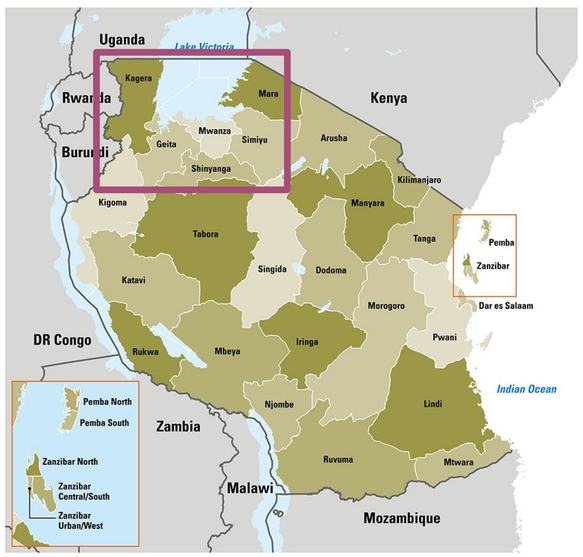
Background and Study Objective

Background

- Safe Surgery 2020 Initiative (SS2020) is a multi-partner collaboration aiming to strengthen the quality and utilization of surgical services in Tanzania.
- Safe Surgery 2020 partners include Dalberg, Jhpiego, G4 alliance, Assist International, and Program in Global Surgery and Social Change (PGSSC) at Harvard Medical School.
- Safe Surgery 2020 will evaluate the impact of the suite of interventions on surgical site infections (SSI), post-operative sepsis, maternal sepsis, surgical volume and referrals.
- Accurate data collection is essential for assessing impact, however, the quality of data collection in local facilities is weak (1,2).
- In this study, we seek to examine the impact of a data quality improvement intervention on the quality of data collection and reporting for SSI, sepsis, surgical volume and referrals.

Study Objective

- To evaluate the impact of a data quality improvement intervention on the quality of data collection and reporting for SSI, sepsis, maternal sepsis, surgical volume and referrals indicators.



Map image: http://angalia-tanzania.weebly.com/map.html

Methods

Setting

- 10 facilities in Mara and Kagera region in the Lake Zone region of Tanzania.

Study Design

- Pre and post descriptive study.

Intervention

- The intervention consists of five key elements:
  1. Studying the current data flow from each of the 10 facilities to the Ministry of Health level.
  2. Assessing data quality for (a) key indicators to diagnose SSIs and sepsis by evaluating 500 patient files for completion of metrics essential to diagnose SSIs, post-operative sepsis, and maternal sepsis; (b) 200 referral letters for completion of referral details and reasons for referral.
  3. Training of surgical teams, ward nurses, and auxiliary staff on knowledge and practices related to the collection of metrics essential to diagnose SSI and sepsis by 14 Tanzanian trained data collectors as well as PGSSC researchers and surgical fellows.
  4. Strengthening and improving the documentation of reasons of referrals in referral out forms, as well as ASA score and wound class in the OR registries.
  5. Mentoring visits to coach facility staff on collection and reporting of indicators, which will be facilitated by Jhpiego.

Inclusion and Exclusion Criteria

- All 500 files for patients who have been diagnosed with SSI and sepsis during the baseline period will be included. All 200 referral letters for patients referred out during the baseline period will be included.
- A random sample of files for patients who had a surgery but were not diagnosed with SSI and sepsis during baseline period will also be selected. Referral letters will be assessed for every inpatient who was referred out during baseline period.

Primary Outcome Measures

- Change in the presence of documentation of the following variables in patient files from baseline (Feb - April 2018) to endline (Feb - April 2019):
  - SSI and sepsis symptoms
  - Discharge details
  - Post-op notes, daily progress notes and doctors orders
  - Accurate ASA score and wound class
  - Detailed reasons for patient referral

Limitations

- Due to limited resources and difficulty obtaining files from medical records, we will review only a sample of patient files who were diagnosed with SSI or sepsis.
- The data quality assessment is mainly focused on one element of data quality - completeness. Other aspects of data quality, including the accuracy and reliability will not be evaluated.
- Each of the 10 intervention health facilities vary in infrastructure, human resources, and catchment population which will impact the successful implementation of the intervention.
- Since SS2020 is a multi-partner collaboration offering a package of interventions, it will be difficult to assess causality between data strengthening intervention and the improvement of data collection.

Conclusions

- Accurate, timely and reliable data are essential for assessing the impact of interventions to strengthen surgical services as well as advocacy to prioritize surgery in national health policies.
- Health data strengthening is among top priorities for Tanzanian MOH (3).
- Our intervention will serve as an example for effectively training hospital staff in sustainable, high quality data collection, which in turn will facilitate data utilization and promote the use of best practices.

References

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