Enhancing access to safe and timely caesarian sections by prioritizing quality care and building strong partnerships in Nakitiri, Mozambique

Introduction

The availability of safe, timely and high-quality Caesarian sections is a key strategy for maternal and neonatal survival. According to the World Health Organization, 5% to 8% of deliveries require an urgent lifesaving C-section.

The Alert Community Prepared Hospital (ACPH) implementation research project, which seeks solutions to improve maternal and newborn survival, found the C-section rate at Marrere General Hospital (MGH) to be below 5%. Prior to this research project, the hospital had one operating room, which was often not available for C-sections. During the day, it was used for general surgery, with limited capacity to perform urgent C-sections. Further, the hours of operation were restricted to 07:30 to 15:30, Monday to Friday. Pregnant women needing a C-section outside of these times were transferred to Nampula Central Hospital (NCH), about ten kilometers away. The referral process presented a host of problems: it was often prolonged due to communication issues, and the transfer ambulance was not always available. The delays caused by these conditions corresponded to the worsening clinical condition of the woman and fetus, and in turn, late arrivals at NCH contributed to increased maternal and newborn morbidity and mortality.

In response, the ACPH team designed a strategy for the provision of safe and timely C-sections at MGH, 24 hours a day, 7 days a week. Meetings with MGH board members and the health professional staff were held to develop the approach and identify existing constraints:
Research goal

The goal of this research was to enable access to safe, timely C-sections at MGH on a 24/7 basis.

Achievements

The MGH surgery department introduced a second operating room through a joint undertaking by the ACPH project paid for equipment, the MGH facilitated the implementation measures and private Canadian donors covered construction costs.

Board, in coordination with Nampula District Health and Nampula Provincial Health offices, agreed to address the health professional resource constraints listed above.

1. C-section service provision was started on a 24 hour seven days a week basis in November 2019 following the completion of the second operating room.

2. The number of C-sections performed remained low due to the lack of an obstetrician/gynaecologist or paediatrician. As a result, a full-time gynaecologist/obstetrician position was created and approved in the MGH human resources chart by the national Ministry of Health in Maputo. A respected physician with years of experience was assigned to MGH by the NCH in July 2020.

3. Strong network of partnerships and increased the capacity of MGH established to serve the women and newborns of Natikiri District.
Key findings

As a result of the interventions implemented, the following are the key findings.

1. The percentage of total births by C-sections at MGH has increased by 14% of the total births.
2. Appropriate C-section referrals for complicated births is occurring.
3. There is increased access to emergency perinatal services at the MGH for the women and newborns in the MGH catchment area.

Table 1. Births and C-sections at Marrere General Hospital (MGH) and Nampula Central Hospital (NHC), 2017 - 2019

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total women delivering at MGH</td>
<td>1890</td>
<td>1831</td>
<td>2316</td>
</tr>
<tr>
<td>Total vaginal deliveries</td>
<td>1803</td>
<td>1709</td>
<td>1991</td>
</tr>
<tr>
<td>Total C-section deliveries</td>
<td>87</td>
<td>122</td>
<td>325</td>
</tr>
<tr>
<td>(% of total births)</td>
<td>(4.6%)</td>
<td>(6.7%)</td>
<td>(14.4%)</td>
</tr>
<tr>
<td>C-sections at MGH</td>
<td>41</td>
<td>66</td>
<td>112</td>
</tr>
<tr>
<td>(% of total births)</td>
<td>(2.2%)</td>
<td>(3.6%)</td>
<td>(4.8%)</td>
</tr>
<tr>
<td>C-sections referred to NCH</td>
<td>46</td>
<td>56</td>
<td>213</td>
</tr>
<tr>
<td>(% of total births)</td>
<td>(2.4%)</td>
<td>(3.1%)</td>
<td>(9.2%)</td>
</tr>
</tbody>
</table>
Policy recommendations

1. Establish 24/7 C-section service at the district level to diminish the pressure of referrals on overloaded provincial hospitals.
2. Allocate a full-time obstetrician/gynaecologist or paediatrician position for district hospitals providing 24/7 C-section service to ensure it is running smoothly.
3. Ensure details such as transportation, accommodation, and food for health professionals are factored into starting a 24/7 C-section service.

Call to action

24/7 access to safe and timely C-sections in district hospitals can relieve pressure on the health system at the provincial level and promote better maternal and newborn outcomes. While arranging this service, attending to seemingly minor details, such as efficient local transport and sufficient surgical drapes and sutures, can prevent system failure.

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