

## Medical and Surgical Challenges and Opportunities for Treatment at the Aberdeen Women's Centre in Sierra Leone

19

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#### 19.1 Introduction to Aberdeen Women's Centre

Aberdeen Women's Centre (AWC) is located in Freetown, the capital city of Sierra Leone. It is the only facility in this West African country that is dedicated to providing comprehensive care for women living with obstetric fistula, which is a devastating childbirth injury that can leave women with chronic incontinence. Since its founding, AWC has provided life-restoring obstetric fistula repair to over 2000 women.

The Centre was built in 2004 in order to take over the work of obstetric fistula repair from the Mercy Ships, an international charity that provides humanitarian assistance through international hospital ships. While it initially solely provided fistula management, with the passage of years AWC expanded and now multiple services are being offered. In 2005, an out-patient paediatric clinic was built serving children from new-born infants up to 15-year-olds. The services being offered include consultations, immunizations, physiotherapy, nutritional therapy and short-stay management, including care for very ill patients. It is open on weekdays and has two outreach clinics in Kroo Bay. Sick children needing in patient management are referred to Ola During hospital for further management. Clients are seen on a first come first serve basis, after triaging, until the day's target is reached. AWC currently sees over 20,000 children a year.

There are also family planning services, which are available to everybody within the community. The family planning clinic is open on weekdays and over weekends there are outreach clinics in highly populated areas. Methods being offered are oral contraceptives, both combined and progesterone only, Depo-Provera injectable, progesterone implants, intrauterine devices, copper T and condoms. There is also management of complications and treatment of sexually transmitted infections. These family planning services were initiated in order to help in combating maternal mortality and also in helping to prevent obstetric fistula.

In 2010 a maternity unity was opened in order to serve the local community and also to help in reducing maternal deaths and preventing obstetric fistula.

284 E. B. Chipungu

There is also a teenage programme, Dream girls, which serves teenagers when they are pregnant and after delivery. They are taught health education, how to look after a baby, and skills in literacy, numeracy, and arts and crafts. After delivery they are encouraged to go back to school or they are given housekeeping lessons and cooking classes so that they can get jobs or start their own businesses so that they gain employment.

Additionally, the facility's laboratory is open every day and processes specimens from all of the wards. The most common investigations done are full blood count and malaria tests. It also has a blood blank that primarily serves the maternity ward.

The AWC is unique in that all of its services are offered for free. The funding for the centre is primarily from the Gloag Foundation. UNFPA contributes to the management of fistula patients and the teenage program is sponsored by the Aminata Foundation, a charity foundation from Australia.

## 19.2 Maternity Services

The maternal mortality ratio (MMR) in Sierra Leone is one of the highest in the world with 1165 deaths/100,000 live births. According to the maternal death surveillance and response report of 2016, the main cause of maternal deaths was postpartum haemorrhage (32%), seconded by pregnancy-induced hypertension (16%) (Directorate of Reproductive and Child Health, Ministry of Health and Sanitation [Sierra Leone] 2017). Poor quality of care was identified as the main contributor for 67% of the maternal deaths, combined with delay in seeking and accessing care. These factors are also the main contributors of obstetric fistula.

In 2010 the government of Sierra Leone introduced the free health care initiative to all pregnant women, lactating women, and under five children, in order to ease access to skilled health workers and adequate resources. This provision will also reduce maternal mortality in Sierra Leone. AWC launched its maternity unit in 2010, which offers free antenatal, intrapartum and postpartum care to the surrounding underprivileged community. This was initiated with the aim of offering a good environment for delivery, offering good quality evidence-based care, reducing maternal mortality and morbidity, and preventing obstetric fistula. AWC has five delivery beds, 10 antenatal beds in the maternity unit and 15 postnatal beds. Currently, it is the second busiest maternity facility in Freetown, next to Princess Christian Maternity Hospital, with over 3000 deliveries a year. The number of deliveries has been increasing over the years, putting constraints on the available resources. The maternity unit has about 20 government posted midwives and nurses. There are also two government posted medical officers and an international obstetrician and gynaecologist.

## 19.3 The Challenge of Inadequate Resources and Infrastructure

The number of deliveries that can be conducted is limited by the number of available midwives and doctors. The midwives are government posted and AWC has no control on the number of midwives or nurses posted to the unit. Due to this restriction coupled with the limited budget of drug and supplies, AWC cannot serve all the pregnant women around the centre. Therefore, AWC limits the number of deliveries by tending to only pre-booked patients. These patients are booked from the community. There are two booking days in a week and 40 patients are booked on each day. However, with a bigger space than what we have now, as well as an increase in resources, including drugs and supplies, AWC will be capable of offering quality maternity care to more mothers than the numbers at present.

AWC does not have its own neonate unit, so all neonates who need care have to be transferred to Ola During Paediatric hospital, which is quite a distance from the centre. Also, if the mother is post-

Caesarean section or still ill, the neonate is transferred without the mother, which makes early bonding and establishment of exclusive breastfeeding impossible. Most of the time, the neonates cannot be transferred without a guardian, and this takes up essential time before appropriate management can be initiated. However, this can be solved by having an extension of the paediatric unit, to have a neonatal unit with all the required equipment, so that admissions can be done within the centre with 24 h onsite paediatric doctors. However, there currently is not enough space within the compound to accommodate these extensions.

## 19.4 Procuring and Maintaining Medical Equipment

It is difficult to procure some of the essential equipment in the country. Therefore, we often require equipment or spare parts to be brought in from outside the country, which is expensive and time-consuming. This is mostly for sutures for caesarean sections and oxygen concentrators, which are crucial in resuscitation of neonates and management of critical maternity cases. It has been a struggle to get vacuum extractors, which are needed to expedite delivery especially when the foetus is in distress or the second stage of labour has been prolonged. Almost all the delivery sets are brought in from outside the country. Because the spare parts are being brought from outside, sometimes the part which is brought in is not right and it takes even longer for the machines to be fixed.

Additionally, there is a need for the centre to get an extra neonatal resuscitaire, in order to assist with resuscitation of hypoxic and preterm neonates. The centre also is in need of a cardiotocography machine, which will be essential in monitoring of high-risk cases in order to reduce the numbers of fresh stillbirths and hypoxic neonates. With all these struggles of getting equipment, there are often damages to the equipment within a short time. There is a dedicated biomedical engineer, who comes to do the repairs once a week, but increased staff training on the use and cleaning of new equipment could also be helpful.

## 19.5 Limited Interhospital Care Coordination

Another extreme challenge is it is difficult to refer patients, especially critical patients, to the tertiary hospital, Princess Christian Maternity Hospital. Having an onsite high dependency unit or intensive unit, with well-trained personnel to offer close monitoring and ventilation of very sick patients, would improve the quality of care being offered to save the lives of mothers and newborns.

#### 19.6 Fistula Services

In Sierra Leone, AWC is the only facility which offers surgical repairs of fistula. At the moment, AWC performs about 200 surgeries a year, though it has capacity to do about 300 a year. Most of our fistulas are obstetric. The patients come from all over Sierra Leone and most of them are from the rural areas. Although a number of fistula patients are walk-ins, most patients are brought in by the screening team from AWC, which enters hard-to-reach areas to sensitize the communities about fistula and identify women with fistula who are in need of repair. AWC offers both routine surgeries and repairs during camps. There are about 45 beds dedicated to fistula patients. Currently, one of the greatest challenges is the centre primarily depends on international surgeons who are flown in to provide surgeries during the camps. Having a fistula surgeon at all times at AWC would enable the centre to provide routine surgery to women with fistulas.

286 E. B. Chipungu

#### 19.7 Fistula Prevalence and Incidence Not Known

UNFPA estimates that about 2–4 million women live with obstetrics fistula in low-income countries and that there are about 50,000 to 100,000 new cases every year (World Health Organization, 2018). Currently, the prevalence and incidence in Sierra Leone is not known. AWC has been managing both old and new fistula cases, which means there are still clients we have not reached and that there are clients who do not have access to health facilities with skilled health workers and timely interventions.

Because the figures for fistula are not known, it is difficult to know if we are able to reach out to all women who need the centre's services. Since most patients are brought in by AWC teams who go into the rural areas, it is possible that there are areas the teams have not been able to reach, especially the areas in extremely rural parts of the country with no access roads. Therefore, there is a need to intensify sensitization of communities in these hard-to-reach areas on what fistula is, how to prevent it, and where to go if you have a fistula. Partnering with organizations who work with these communities could aid these efforts. There is also a need to sensitize health workers in rural community facilities on fistula and where they should refer women with fistula.

Currently, there is a plan to bring in midwives and nurses from as many health facilities as possible to AWC. This effort will provide an opportunity for these healthcare providers to learn more about obstetric fistula, including what it is, how it affects women, and how to screen for patients. This effort could additionally assist in identifying patients in places we cannot reach while reducing the number of screening trips and therefore the cost of the program.

Like other sites have done, a patient ambassador program was introduced at AWC. However, compared to other sites, this effort was not as successful at identifying and bringing in women who need fistula repair. This could be due to ongoing high rates of stigmatization in communities as well as financial and cultural barriers.

## 19.8 Poor Post-surgical Follow-up

An ongoing challenge for AWC is most of our patients do not return for follow-up, which is critical. This challenge makes it difficult for us to calculate long-term cure rates, to assess postsurgical psychological state, to assess how women have reintegrated into the community, and to determine whether they are financially independent. Follow-up via mobile phones is a possibility; however, most of our patients do not provide a phone number or they are in areas where there is no mobile network. These challenges must be addressed if we are to address the long-term outcomes and needs of women after obstetric fistula repair.

# 19.9 No Solution to Irreparable Fistulas and Patients with Stress Incontinence

About 80–95% of obstetric fistula can be closed after surgery (Ouedraogo et al., 2018). However, even after surgical closure, some women may still have urinary incontinence. This incontinence is more common in patients who have obstetric fistula involving the bladder neck and the urethra.

A number of procedures, including urethral plication, rectus sheath sling, pubococcygeus slings, and glacilis muscle slings have been attempted with minimal success. Many patients were benefitting from the use of urethral plugs, which were being supplied by Direct Relief. Unfortunately, the production of urethral plugs was halted and this method is no longer an option. As healthcare providers, it is

frustrating to try and manage these patients because there is little to offer them to address their ongoing incontinence.

There are other fistula patients who are deemed irreparable due to multiple unsuccessful repairs, inadequate bladder tissue, or absent urethral tissue. Initially in the Malawian centre in Lilongwe, the clients were being offered urinary diversions, MAINZ II, illeal conduit or Miami pouch. However, these methods have since been put on hold due to high complication rates and need for regular follow-up, which is often difficult to achieve.

For these women, there is also a need for special counselling and support, so that they can be financially independent since they are often isolated due to ongoing incontinence. Future efforts should assess options that may be the most feasible and accessible for these women, so that their quality of life may improve despite persistent incontinence that cannot be remedied via surgery.

## 19.10 Challenge of Interhospital Consultation

An ongoing challenge for AWC is interhospital consultation. AWC is located in Aberdeen township, which is quite a distance from the tertiary hospital, Connaught. The distance between the two hospitals makes it difficult to have other specialists help AWC. Assistance can be coordinated for scheduled cases; however, it is extremely difficult in emergency cases.

#### 19.11 Recurrent Fistula

Unfortunately, we have had patients return to AWC with a recurrent fistula after successful fistula repair surgery. This damage primarily presents itself following another attempted vaginal delivery. On discharge, women who have undergone fistula repair are advised to plan for delivery through Caesarean section as soon as they learn they are pregnant. However, many women do not acquire a Caesarean section, and they labour at home and develop a recurrent obstetric fistula. Other women may attempt vaginal delivery in health facilities, even though they arrive to the facility with post-op instructions from AWC outlining that Caesarean section is needed for any future deliveries following fistula repair. Unfortunately, many of these women also have a stillbirth.

To avoid developing a recurrent fistula, patients are now instructed to come to the centre once they find out they are pregnant and await delivery. They might wait at the centre for several months, so that they can have a safe delivery and a live baby. However, this method is not ideal because the women are away from their families for a long time. For the women who cannot afford to travel to AWC in Freetown, they often end up with a stillbirth and recurrent fistula. Therefore, there is a need for continued sensitization to clinicians and midwives on how to manage pregnant patients who have previously undergone fistula repair.

#### 19.12 Conclusion

AWC is the only facility in Sierra Leone that provides surgical repair for women with obstetric fistulas. The centre continues to grow and improve the quality of care that we provide. This is accomplished via the use of evidence-based medicine, providing job training for all clinical staff, and utilising experienced staff and international mentors. Challenges persist; however, despite the challenges, AWC assists in reducing preventable maternal deaths, delivers services to vulnerable pregnant patients, provides care to children, and performs obstetric fistula repair surgeries to women whose lives have been impacted by chronic incontinence.

288 E. B. Chipungu

#### References

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