



## **Cahiers RetEx**

Novembre 2021

Fabrice Weissman

Reconciling the perspectives of MSF, the Ministry of Health (and patients) on the quality of care during the Covid-19 epidemic in Malawi (2021)

\_\_\_\_\_

Key words: Covid-19, Quality of care, Patients' hesitancy, Partnership, Team Conflict, Collaboration with MoH

Reconciling patients, MSF and MoH perspectives on medical quality...

#### Summary

This cahier describes the challenges encountered by MSF and Malawian Ministry of Health personnel in defining and achieving an "acceptable quality of care" in a Covid-19 field hospital managed by the Ministry of Health with MSF support in Blantyre district, Malawi, during the second wave of the Covid-19 epidemic (December 2020-March 2021). It is written as a personal testimony, in my quality of Field Coordinator for the MSF Covid-19 emergency in Malawi between January and April 2021.

After a mild first Covid-19 wave, Malawi experienced a short but brutal second wave between mid-December 2020 and February 2021, which put a high strain on the Malawian health system, especially in Blantyre district. The only public facility hospitalizing Covid-19 patients for Blantyre district, the Queen Elizabeth Central Hospital (QECH), faced numerous challenges starting with the shortage of staff due to high rate of contamination among health workers, shortage of oxygen, lack of beds, difficulties to organize screening and triage of suspect Covid-19 patients. In addition, it had to cope with a growing distrust of the population toward the health system (accused of deliberately killing patients) which progressively overtook the Covid-19 outbreak as the main public health crisis.

From January 8th onward, MSF responded to QECH call for support with the twin objectives to minimize mortality and maximize quality of life of suspect and confirmed Covid-19 hospitalized patients. Agreeing on a common definition of "quality of care" as well as transforming daily practices proved to be quite challenging. Not being able to implement straight away what they considered as minimal quality standards, some MSF expatriate resigned, while others found their ways to work with their MoH counterparts toward a gradual uplifting of nursing and clinical practices - at the price of uncomfortable work ethics compromises.

Reconciling patients, MSF and MoH perspectives on medical quality...

# Reconciling the perspectives of MSF, the Ministry of Health (and patients) on quality of care during the Covid-19 epidemic in Malawi (2021)

Fabrice Weissman, 2 November 2021

#### Patients' fears

After a mild first Covid-19 wave, Malawi experienced a short but brutal second wave between mid-December 2020 and April 2021. Driven by the Beta variant originally identified in South Africa, the epidemic officially made 27,431 confirmed cases and 928 deaths between December 17 and April 25<sup>1</sup>. The actual number of Covid-19 cases and deaths might have been tremendously higher. According to seroprevalence survey conducted among blood donors in Malawi aged between 18 and 49 years (not yet published)<sup>2</sup>, 49% of the sample population had anti-SARS-CoV-2 antibodies by February 2021. By that time, the cumulative number of patients tested positive for Covid-19 in health facilities represented only 0,35% of the total population of Malawi (around 18 millions inhabitants).

The outbreak unfolded at a very high speed. The number of new confirmed cases doubled every four to seven days during the first 4 weeks. After a peak that lasted less than a week, the number of new cases collapsed as rapidly as it had spiked<sup>3,4</sup>. The outbreak put a high strain on the chronically under-staffed and under-resourced Malawian health system, which had to set up in emergency infectious control measures (including the screening, triage and isolation of Covid-19 suspect patients) and organize the treatment of severe and critical Covid-19 patients. The situation was particularly critical in Blantyre district (1.2 million inhabitants, including 800,264 in the city) where one third of all cases and deaths registered nationally occurred<sup>5</sup>. The only public facility hospitalizing Covid-19 patients for Blantyre district, the Queen Elizabeth Central Hospital (QECH), admitted 322 severe and critical Covid-19 patients in January 2021, and 243 in February 2021, with a sharp decrease of admissions after February 15<sup>th</sup>.

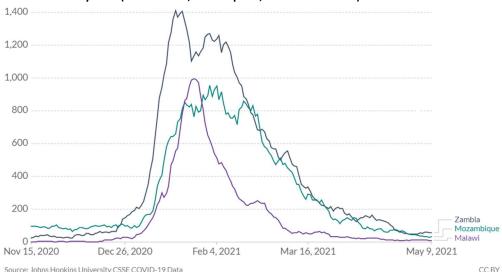
<sup>&</sup>lt;sup>1</sup> Source: MoH. Only 6,091 cases and 187 deaths were officially recorded during the first wave.

<sup>&</sup>lt;sup>2</sup> J Mandolo, et al., "Dynamics of SARS-CoV-2 exposure in Malawian blood donors: a retrospective seroprevalence analysis between January 2020 and February 2021", doi: <a href="https://doi.org/10.1101/2021.08.18.21262207">https://doi.org/10.1101/2021.08.18.21262207</a>, <a href="https://www.medrxiv.org/content/10.1101/2021.08.18.21262207">https://www.medrxiv.org/content/10.1101/2021.08.18.21262207</a>v1.full-text

<sup>&</sup>lt;sup>3</sup> There is no clear explanation for this "spike" epidemic profile, which contrasts with the trends observed in neighboring Zambia and Mozambique, where the number of confirmed new cases remained on high plateau for more than a month. Regional comparisons are risky considering the large discrepancies between data collection systems. According to epidemiological modelling, the number of new cases start to decline when the number of "susceptible" cases decrease (i.e. more and more people are immunized) and/or when the transmission to susceptible people drops due to biological and social factors (alteration of the pathogen, of the host, of the milieu – climate, social interactions, etc.).

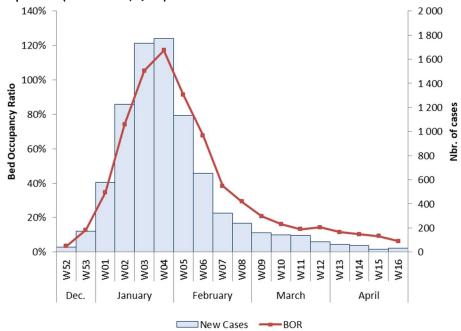
<sup>&</sup>lt;sup>4</sup>Following the death of two State ministers from Covid-19, the President Lazarus Chakwera declared the State of National Disaster on January 13. Four days later, he announced the tightening of containment measures and ordered the opening of 900 Covid-19 beds across the country. Containment measures remained lighter than in other countries. School and borders stayed open, but the government banned gathering over 100 people, imposed a curfew and instructed the police to strictly enforce preventive measure imposing the wearing of face mask, hand washing and usage of hand sanitizers in markets, offices, business premises and other public facilities.

<sup>&</sup>lt;sup>5</sup> Attack rate and the Covid-19 related mortality have been three times higher in Blantyre district than in Lilongwe district and four times higher than the national average. More generally, according to natation figures, the epidemic has been more virulent in the less rural part of the country: 60% of the cases originated from three districts hosting the three largest cities – Blantyre, Lilongwe, Mzuzu – accounting for less than 28% of the national population.



Graph 1. Total number of new Covid-19 confirmed cases per day (7 days mobile average), Malawi, Mozambique, Zambia, November 2020 - May 2021 (source: MoH, John Hopkins, Our World in Data)

Graph 2. Number of new Covid-19 cases in Blantyre district and Covid-19 wards bed occupancy ratio in QECH, December 2020-April 2021 (source: MoH, QECH)



From end of January onward, a growing distrust of the population toward the health system in general, and QECH in particular, started to overtake the Covid-19 outbreak as the main public health crisis. While aggressions against medical personnel involved in contact tracing or clinical care of suspected Covid-19 patients multiplied, attendance of all health facilities collapsed. According to Malawian health officials, the overall number of patients hospitalized at QECH was halved in February 2021 compared to the previous year – while Blantyre health centers registered 30%-40% drop in attendance.

Our Malawian colleagues and the patients explained the desertion of health facilities by people's fear to be contaminated, diagnosed or treated for Covid-19. Since the first wave, numerous rumors had been circulating on Malawian social media and private conversations

accusing health personnel to kill or sterilize patients under the cover of fighting Covid-19<sup>6</sup>. In January and February, Covid-19 was widely portrayed among Malawians of all classes as a disease introduced by white men (and Global Health Institution such as Bill and Melinda Gates Foundation) to wipe out Africa of its population (see box). Covid-19 vaccines were described as unsafe – if not designed to kill or sterilize Africans –, health personnel as inoculating Covid-19 with a swab or to forge false Covid-19 reports in order to receive Covid-19 risk allowance, and hospitals as places where people in good health were killed to "harvest" their organs. All the rumors converged in portraying hospitals and QECH as a fearful place "finishing off" people.

#### **Box 1. Covid-19 Rumors**

Circulating in private conversations and in Chichewa on social media (WhatsApp and Facebook), Covid-19 related rumors were hard to grasp and analyze. According to our patients and Malawian staff interviewed during this period, two "stories" dominated the scene. The first originated from a video extract of a testimony by an American naturopath ("Dr." Robert Young) explaining that Bill Gates was sponsoring research on fake vaccines designed to eliminate from earth 3 billions people starting with Africans "because they are worthless, deplorable". The video was first circulated in November 2019 by the so called "International Tribunal for Natural Justice" (an organisation based in the UK that claims, among other things, that 5G contributes to the spread of Covid-19, and that children are kidnapped by the NASA to be enslaved on Mars). An extract of the video resurfaced in South Africa at the beginning of the second wave and was widely circulated in Malawi in support of conspiracy theories accusing health personnel to kill or to sterilize people under the disguise of diagnosing, treating, or preventing Covid-19. https://observers.france24.com/en/africa/20210119-bill-gates-kill-three-billion-people-video-conspiracy

Another widely shared post on WhatsApp and Facebook was accusing hospitals to forge false medical reports of non-Covid patients to get them admitted and then "harvest" their organs to be sold on the black market. The rumor seems to have first been spread in India where a word for word version of the story circulating in Malawi appeared in July 2020, fueling attacks against health workers in the region of Mumbai. According to the original Indian story "A person with mild fever, cold and cough went to a hospital to get himself checked. He was declared corona-positive and forcefully admitted in the hospital. A few days later, he suddenly passes away. All arrangements were made to cremate the body. But on the pressure of family members, the body was shown to them and several of his body parts were found missing." https://www.indiatoday.in/fact-check/story/fact-check-rumours-of-organ-trade-under-the-garb-of-covid-19-go-viral-1703651-2020-07-2. The Malawian version replaces cremation by "burial in a sealed coffin" by heath personnel.

All these rumors were all the more entrenched as they were building on elements of truth. Since Malawi independence, "birth control" has been an ubiquitous target of donors funded development policies. Up to the beginning of the 1970's, the World Bank officially considered Malawi astronomical rates of infant mortality as a useful check on over-population while conditioning health sector funding to the adoption of aggressive birth control measures. During the first wave, MoH staff had gone on strike and managed to negotiate a significant "risk allowance" to be paid to all staff assigned to the Covid-19 response.

These rumors fueled such a distrust of health personnel that our staff was reluctant to tell their neighbors and family they were actually working for a medical organization involved in the Covid-19 response in QECH. In Blantyre, door to door contact tracing had to be stopped due to the aggression of community health workers.

<sup>&</sup>lt;sup>6</sup> Malawi: Nurses Body Condemns Attacks on Frontline Healthcare Workers - 'Hopes for Justice', *Nyasa Time*, 6 March 2021, https://allafrica.com/stories/202103070048.html

Beyond the exposition to conspiracy theories amplified by social media, two other factors at least fueled the defiance of the population toward the health system. First, was the highly publicized death of prominent public figures such as State ministers, parliament members, university teachers, church leaders, radio and television journalists, traditional authorities... While national media rarely reported successful "recovery stories", they gave wide coverage to the death of VIP, conveying the message that chances of survival in hospital were very grim, even for the rich and the powerful.

Death was indeed a frequent outcome of hospitalization. Overall, 29% of Covid-19 patients admitted at QECH during the second wave did not survive. Interpreting this rate as "high", "low" or "normal" is difficult without more detailed information on the composition of the cohort (severity of the disease, comorbidity, age, etc.), information which was then lacking as we shall describe. While Malawi endorsed and implemented internationally agreed Covid-19 protocols, chances of recovery in the Covid-19 ward were limited by the choice of the hospital medical direction to limit the ceiling of care to 15 liters/mn oxygen supplementation in order to concentrate their scarce oxygen resources and skilled manpower on the most numerous severe but noncritical patients with a greater chance of survival.

The second factor that contributed to the defiance toward health structures was related to the very rough hospitalization conditions. If compared to other health facilities in the country, QECH did not face serious shortage of oxygen and staff (thanks in part to MSF support), it had to cope with a lack of space to hospitalize Covid-19 patients and more generally to screen and isolate suspect cases. Built under tent during the first wave, QECH screening and isolation area was not dimensioned to cope with the sudden massive influx of suspect and confirmed patients of the second wave. The first contact of incoming patients with the hospital were overcrowded tents located in the middle of a muddy terrain, with no clear patient pathways – and packed isolation tents where people in need of hospital care were kept for 18 to 24 hours pending the results of their Covid-19 PCR test.

Once admitted in the Covid-19 wards inside the hospital, patients were prevented to see their relatives due to a strict national infectious control policy forbidding any direct contacts between patients and guardians. Overwhelmed health care workers had difficulties keeping family informed of the condition of their kin, and to provide psychosocial support to patients especially to those reaching their end of life who died alone, isolated from their family. The misunderstanding, frustrations and violence created by the strict implementation of infectious control measures was the main source of violent incidents between health care workers and the family of deceased patients<sup>7</sup>.

Whatever the reasons, the profound distrust towards health services was translated into a boycott of medical facilities, with patient refusing to go to hospitals or delaying until the very last moment their visit, after having exhausted all other options. QECH clinicians complained that the vast majority of Covid-19 patients were admitted at a very late stage of their disease, more than 10 days after the onset of their symptoms, often with severe hypoxia — and thus a poor vital prognosis. Between December 22 and February 7, 53 Covid-19 patients were actually brought in dead to QECH. 60% of the 124 hospital deaths recorded over this period died within the first 36 hours of their admission, which, according to QECH clinicians, was primarily due to their "late" referral and the severity of their condition on admission.

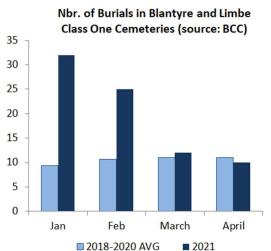
8 Cahier RetEx

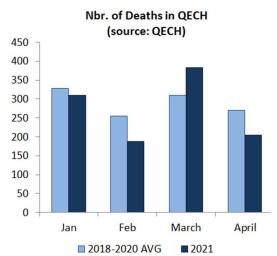
-

<sup>&</sup>lt;sup>7</sup> See for instance: "Malawi Health Workers Face Harassment over COVID-19 Deaths", VOA, 12 February 2021, https://www.voanews.com/a/covid-19-pandemic\_malawi-health-workers-face-harassment-over-covid-19-deaths/6201961.html

Data collected by MSF from the Blantyre City Council on two of the 28 Blantyre cemeteries show that the number of deaths among Blantyre population might have been two-three times higher in January-February 2021 than in previous years. Most of this excess mortality (Covid-19 and non Covid-19 related) occurred outside health facilities, unnoticed, as illustrated by the drop of the number of deaths registered in QECH over the same period. Although impossible to quantify, the second wave of Covid-19 has most likely been associated with an excess mortality due to the virus and to the reluctance of the population to seek medical assistance in health facilities deemed to provide a "low quality of care" if not direct and intentional harm.

Graph 3. Mortality trends in Blantyre cemeteries and QECH compared





#### **Negotiating quality**

In January 2021, QECH called for external support in the Covid-19 response. MSF first contribution was to complement oxygen supply and to replace MoH staff contaminated with Covid-19 or quarantined. Although the epidemic started to recede, MSF and QECH decided in February to continue their Covid-19 collaboration in anticipation of a third wave in the coming months. QECH specifically asked MSF to support the semi-permanent field hospital meant to screen, triage and isolate suspected Covid-19 cases as well as to offer an additional hospitalization capacity in case of a new surge of confirmed Covid-19 cases. The common goal was to "improve the quality of care", as an end in itself, but also as a mean to restore some kind of public confidence in QECH and to encourage "timely" referrals. In MSF parlance the intervention general objective was defined as "to reduce the mortality and improve the quality of life" among patients passing through the field hospital.

#### *Infrastructure*

The first component of the intervention consisted in creating a patient welcoming and health worker user-friendly field hospital environment. Having to do mainly with logistics, infrastructure and equipment, it proved to be the easiest part. Using WFP tents usually meant to store food items, MSF constructed with QECH and its partners (especially the Malawi Engineers Institute) a semi-permanent 80 beds field hospital, that could be extended up to 160 beds in case of acute emergency. The screening and triage tent was equipped with

spacious waiting areas, consultations cubicles for clinicians and counsellors, dedicated space for laboratory sampling and testing and a separate drug dispensary unit for patients sent back home. In February, the isolation tent was extended, and three new hospitalization tents erected the coming months, all provided with ventilations, individual patient cubicles, resuscitation bay, nursing station, monitors, store and pharmacy. The entire field hospital was equipped with an upgraded electrical network, a small power station of 60 KVA, hard building toilets and bathrooms blocks connected to septic tanks, numerous water points, protected cleaning and waste area, storage and loading stations for oxygen cylinders, morgue, concrete pathway and drainage, solar public lights, gravel road access to ambulance and nice gardens.

Enhancing the infrastructure triggered discussions on "minimum quality standards" both, within MSF and within QECH. They mainly focused on patients' environment, especially on "beautification" (the MSF direction challenging the need to get involved in gardening) and "privacy" (MSF and hospital direction being both initially in favor of "open space" rather than individual patient cubicle, which are more space consuming and more expensive). Both issues were eventually arbitrated in favor of patients' comfort and of the optimization of nurses' working conditions. By April 2021, the screening, triage, and isolation area manning the entrance to the whole hospital had been transformed from a battle-field medical post, into a nice-looking medical lodge offering some of the best working and hospitalization conditions of QECH despite its semi-permanent nature.

Illustration 1. The Field Hospital Before and After









Illustration 2. Triage waiting area and consultation room





Illustration 3. Patient cubicles and overview of isolation tent





Illustration 4. Aerial view of the field hospital



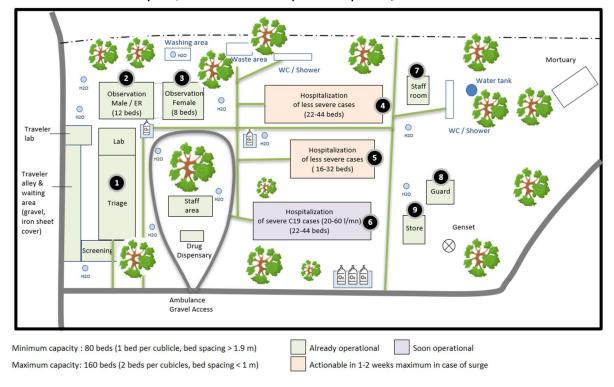


Illustration 5. Sketch map of QECH Covid-19 Field Hospital as of April 30st, 2021

#### Nursing and clinical care

The second component of our intervention was a lot more challenging as it implied to improve the "soft" part of health care delivery, that is nursing and clinical practices. The hospital direction had made it clear it wanted to upgrade the services provided by the field hospital, but not to delegate its management to MSF. MSF was expected to act as a technical adviser and resources provider, with unclear supervising responsibilities.

The decision to involve MSF not only in infrastructure work but in the actual delivery of care had been made by MSF coordination and the hospital direction without in depth concertation with the front-line nurses, matrons, clinical officers, hygienist, counsellors, who had managed on their own the Covid-19 response and the field hospital since the beginning of the epidemic. In their own words, this front-line staff felt "ambushed" when MSF debarked in the triage tent on February 2 with 15 medical staff led by an emergency team of 5 expatriates just released from quarantine with a firm intention to "improve the quality of care" according to MSF standards in the limited timeframe of their emergency mission.

Benefiting from the new tent infrastructure and from the absence of formal patients' pathway and triage protocols, the MSF teams managed the first week to set up and manage on their own a triage system. Patient flow and IPC measures were streamlined, a new admission and testing protocols based on the use of Covid-19 rapid tests was proposed and endorsed as official QECH policy by the hospital direction. However, these first achievements marked the beginning of a low intensity conflict between QECH and MSF frontline staff, with bitter battles being fought over joint rosters, implementation of triage protocol, role of counsellors, access to patient files and ward registries, data collection, management of MSF PPE stock, use of rapid test, etiquette and IPC rules in the waiting area, vital sign monitoring, organization of joint training, etc. (for further discussion on the contending issues and their resolution, see box 3)

The tensions culminated on Monday February 22, when a sceptic patient in isolation did not receive his prescribed antibiotics for six hours and had no vital signs documented in his file (he survived). This critical incident was reported to the hospital direction which swiftly reacted toward its own staff but insisted that it was up to both field teams to find ways to better collaborate together. While the escalation of the conflict radicalized the positions of MSF and QECH staff, it did allow for a first "defusing" but intense meeting to take place, where all could express their frustration and discuss the way forward.

The MSF team was profoundly divided on the conclusion to be drawn from the incident and subsequent meetings. One part considered that MSF should stop its collaboration. They argued that the MoH staff on the ground was unwilling to collaborate as illustrated by the refusal to attend meeting and training organized by MSF, to implement jointly agreed protocols or to share roster despite "the current medical team [being] courteous and pleasant in their interactions". In any case, the decreasing patient volume resulted "in lack of momentum and insufficient patient cases to improve clinical practices". The resulting "poor quality of care" was jeopardizing MSF reputation and putting MSF clinicians at risk of legal prosecutions for malpractice. MSF shouldn't "waste" more time and resources in trying to improve the quality of care in the field hospital.

Another part of the team (including myself) considered that the real and serious problems encountered in the field might as well be result from the emergency mode adopted by MSF in investing the field hospital. The decreasing volume of patients was precisely a good opportunity to try another approach, to "waste time", in order to understand the ways of working of our colleagues, their difficulties, challenges, history, rather than trying to "teach them" the MSF way. This implied to spend more time in observing, discussing, sharing informal moments, and acting as peers, colleagues, trying to identify and solve problems together, rather than supervisors willing to implement rigid quality standards. This seems all the more feasible as, on paper, QECH medical and nursing protocols (including for Covid-19) were perfectly aligned with international recommendations and MSF standards. Furthermore, we had the political support of the hospital direction and some key team members, within MSF and QECH, were displaying a real desire to work together.

Yet, this approach had its cost. Not only did it have a poor efficiency ratio (in terms of number of patients treated per Euro spent), but it was also placing MSF clinician and nurses in difficult ethical situations. Working – even temporarily – with "sub-optimal" quality of care could be synonymous with accepting – even temporarily – the avoidable death and suffering of patients. Invited to *support* a tertiary level teaching hospital sitting at the top of the Malawian health pyramid, MSF had no authority, no legitimacy, no power to impose immediate changes in nursing and clinical practices. Systems improvement could only be gradual and incomplete at best. Having in mind this difficult work ethic situation, we argued that this approach should go along with the definition of clear indicators allowing us to assess regularly the progress (or lack of) in terms of collaboration and quality of care – and to decide whether or not it was still worth it to continue.

By March 2, the MSF Malawi country director arbitrated in favor of the second option. Ten "collaboration and quality benchmarks" were defined (see below) as well as an overall outcome quality indicator in the form of ward mortality (percentage of deaths among the patients hospitalized in the isolation tent). The MSF team was reduced to a "skeleton" team headed by a first mission emergency doctor who enjoyed good relationship with his Malawian colleagues. Along with MSF Malawian staff, he eventually embarked the QECH staff in a gradual uplifting of nursing and clinical care. By the end of March, improvement in patient

flow, testing and triage protocols, patient monitoring, resuscitation, clinical supervision and internal referrals translated in the mortality rate being divided by more than two in the isolation tents. Yet their number was low: no more than 15 patients per day were seen on triage on average, and around 50 patients admitted in isolation per week, most of them being non-covid medical emergencies waiting their PCR results before being admitted<sup>8</sup>.

#### **Box 2. Collaboration and Quality Benchmarks**

#### Collaboration Benchmarks

- 1. All team members (MoH, MSF) have access to the tent;
- 2. All team members (MoH, MSF) have access to patient file;
- 3. All team members (MoH, MSF) have access to ward registry;
- 4. Each organization is responsible for the management of its own staff (for instance: no disciplinary measure to be taken directly by MoH against MSF staff and vice versa);

#### Nursing and Clinical Care Benchmarks

- 1. Standardized observation protocol is in place with rigorous recording/documentation procedure (patient file/board)
- 2. All nurses participate in the joint MoH/MSF clinical ward round at 8:30 in the morning;
- 3. There is a systematic and formalized hand-over between nurses between day and night shift;
- 4. Specialists from QECH department come to the tent to assess and manage cases that need their expertise;
- 5. Basic investigation tools are available at the tent, starting with X-Ray;
- 6. A designated MD has the final decision on clinical care during day shift (MSF) and night shift (AETC).

### Box 3 - "How can we help?" Issues and their Resolution – 3 examples

Common Roster. MSF head nurse and QECH matron could not agree on a common roster for MSF and QECH aid nurses, nurses and clinical officers. MSF complained that QECH was refusing to discuss the issue in meeting and to communicate its own roster to MSF so that the head nurse could decide how many MSF staff should be assigned to each shift. QECH argued it was pointless to discuss the issue as it was impossible to draft a common roster due to different HR policies: QECH was working with 8 h / 16 h shift system for days and night, while MSF was relying on a 12 h shift systems for both, night and day. The MSF medical team had argued it was impossible for MSF to apply the QECH shift system as it was "against MSF internal regulation and medical policy". The issue was solved by changing the objective from "common roster" to "harmonized rosters" and by inversing the logic. Rather that asking MoH to share their roster for MSF to decide how many additional staff were needed, we just asked the matrons: how can we help? how many additional staff do you need per shift to ease the pressure on your team? We agreed on the composition of the MSF staff reinforcement and then communicated our roster to the matrons so that QECH could adjust its own roster.

14 Cahier RetEx

-

<sup>&</sup>lt;sup>8</sup> Over the first 3 months (February-April), 1,144 patients were consulted in triage. 735 were admitted in observation: 46 died (6.5% of patients with known outcomes), 168 were discharged (24%), 189 transferred to Covid-19 ward (27%) and 298 (42%) admitted in other QECH wards.

Vital signs' monitoring. Staff (MOH and MSF) did not routinely record vital signs, even on critically ill patients, and especially at night. In a first move, MSF supervisor insisted on vital signs to be taken on each patient every 2 hours. The QECH team objected it would overload unnecessarily their work and jeopardize the provision of other care. A joint protocol was eventually agreed distinguishing between stable patients (every 6 hours) and unstable patients (every 3 hours), with specific areas in the ward assigned to each category (including a resuscitation bay for unstable patient). Compliance was ensured by the matrons and the MSF emergency doctor who observed by the end of March: "Compliance with the observation protocol has improved throughout the month. What is also obvious on ward rounds, is the recognition of a sick patient. At the beginning of the month, compliance to the protocol seemed random with stable patients getting strict monitoring but patients on 15L NBM receiving 8 hourly observations. My general observation in the latter half of March is that when vital sign monitoring doesn't follow the protocol, it is usually in stable patients. I am observing more often that staff are proactively moving sick patients to more monitored areas (and by default) are more frequently performing vital signs."

Data collection. From the very beginning of our collaboration (oxygen and staff support), the hospital direction promised to share with us basic activity data related to the field hospital and the Covid-19 wards (starting with number of patients admitted, transferred, discharged, cured, deceased, left against medical advice, bed occupancy ratio). Yet, by end of January, we had no official feedback from QECH hospital. The only data at our disposal was the number of patients hospitalized at the end of the day in Blantyre district according to the daily update published on the MoH facebook page and small bits of information gathered from our MoH colleagues or from direct observation (such as the number of funeral convoys leaving the QECH Covid-19 morgue). We soon realized that ward activity data (including basic information on the number of entries/exit) were not consistently recorded by the hospital. A fortiori, no system had been put in place to systematically document the therapeutic pathway and outcome of each Covid-19 patients (linelist). In the first week of February, MSF attempted to fill that knowledge gap by initiating a linelist in the triage and by collecting admission and exit data directly from the isolation and Covid-19 ward registries. The initiative provoked a serious backlash from the matron and the hospital health information manager who prevented MSF team to access to ward registry, arguing that we should only get the data through the official channels.

The situation was progressively solved thanks to the support of the hospital direction and through informal engagement with the QECH health information system (HIS) manager. The latter had been summoned by the hospital director to share with us consolidated data that he actually did not have due in part to lack of manpower and equipment. We had observed that a rudimentary ward activity report was sent to the HIS manager by WhastApp every day around 6 PM by the matrons of the isolation and the Covid-19 wards. I proposed to the HIS manager to help him enter the content of the WhatsApp message in an excel sheet. I thus started to receive daily the information we had been prevented to collect directly from the ward registry. I cleaned the data and presented them in charts and tables which I sent only to the HIS manager. They helped him draft his reports to the hospital direction which were later on officially shared with us. In the meantime, the MSF emergency doctor had managed to regain direct access to patient files and ward registry, only to witness the discrepancy between the data collected in the ward and those summarized in the daily WhatsApp messages. Yet, both sets of data were reflecting similar trends. If we were not able to fill the Epicentre linelist (considered by our field epidemiologists as their primary duty), we had enough information to assess and pilot our intervention. Efforts to expand the use of the linelist (or any other database documenting more rigorously Covid-19 patient therapeutic history) beyond triage eventually failed as it proved impossible to reach a consensus among the various hospital stakeholders on the variable to collect and the mechanism to be used (software, forms, data clerks, etc.)

#### **Epilogue**

Blantyre was eventually hit by a third wave of Covid-19 in June-August 2021, of comparable amplitude as the second one<sup>9</sup>. While hospitals and health facilities still suffered from a dubious reputation, they did not experience a massive drop in attendance comparable to what happened in January-March. Actually, consultations in QECH triage more than doubled between the two waves, jumping from less than 2,000 triage consultations for January-February 2021, to more than 5,000 for July-August 2021.

The improvement of the "quality of care" in the field hospital – whose "surge" hospitalization capacity was used to admit confirmed cases – might have played a role, thought this is impossible to demonstrate and measure. It is noteworthy that "quality of care" improvement covered a wide area: from building a proper infrastructure which was both functional and beautiful, to improving the working conditions of the health staff (number, equipment, resting areas, etc;) and uplifting clinical and nursing practices. Yet we failed to improve one of the major quality issues from patient perspective: the implementation of strict IPC measures preventing Covid-19 patients to be accompanied by relatives. The hospital direction proved inflexible in its determination to follow national guidelines forbidding the presence of care takers in the Covid-19 wards. We failed as well to mitigate the consequence of patients' isolation through psycho-social support and other measures allowing relatives to remain connected with patients and have proper information of the evolution of their health status, feeling, etc. As elsewhere in the world, making hospitals more "hospitable" and "patient-centred" remains a challenge.

16 Cahier RetEx

-

<sup>&</sup>lt;sup>9</sup> 26,042 confirmed cases and 1,1018 death (15 June to 31 August). Yet, the peak was a bit lower, but the wave extended over a longer period.