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# Experiences of a surgical unit at a tertiary care public hospital in Pakistan during the Covid-19 pandemic: A correspondence

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As the COVID-19 pandemic took its grip in early 2020, public hospitals in Pakistan had to slowly halt out-patient services and elective surgeries [1,2]. The risk of spread was high in public hospitals, without temporary slowing of services, where the surgical clinic alone saw a daily census of over a hundred patients.

As the fifth most populous country in the world with 212.2 million residents, Pakistan has a literacy rate of around 59% [3]. Social media conspiracy theories and myths took a stronghold amongst the citizens during the pandemic rendering following of standard protocols an unimaginably arduous task. Around 55% of Pakistanis believed the threat was exaggerated, while only 3% were identified as having no misconceptions regarding the infection [4].

The insurmountable task of explaining to patient's relatives and family members that only one attendant may remain, was challenging. Pakistan has a culture where at hospitals family and friends must conglomerate to show care and presence. Convincing the attendants to wear a mask was a mammoth task, as many had misconceptions that COVID-19 was a nefarious moneymaking project, and that the disease did not truly exist. This remained a communication skill challenge for all the doctors involved, from residents to consultants, and still remains so [5,6].

Public hospitals continued emergency surgeries under personal protective measures, even though at times, it was not possible to have a patient worked up for COVID-19 before proceeding to surgery. From emergency surgeries including appendicitis, bowel obstructions or perforations and trauma amongst others, we transitioned towards semi-urgent surgeries mainly consisting of oncological surgeries. At around this time in April 2020, out-patient services were also opened in a limited fashion, only entertaining patients that fell under a departmentally defined criteria of semi-urgent surgery. These were all worked up for COVID-19 as per the locally developed guidelines according to the World Health Organization.

Over the last two months, our surgical unit has slowly but surely returned back to work with fully functional out-patient services and elective surgeries. Initially, all doctors in the clinic were given a standardized questionnaire, which was used as a screening tool for those who were at high risk of having the infection or being an asymptomatic carrier based on contact history. All patients admitted for elective surgery underwent a nasopharyngeal swab test 48 h before planned surgery [7]. Patients for elective surgeries were begun at 5 patients initially, with a slow increase in patient census over the ensuing weeks till we reached our pre-pandemic surgical take. Laparoscopic surgeries due to theoretical risks of aerosolization and infectivity were slowly increased over the last 2 months.

In the last two months, 127 elective surgeries have been undertaken in the surgical unit. These include operative treatments for breast cancer, laparoscopic cholecystectomies, laparoscopic sleeve gastrectomy, diagnostic laparoscopies, ventral hernia repairs, inguinal hernia repairs, colectomy for malignancy, total thyroidectomies, surgery for varicose veins, perianal surgery for fistulas, sinuses and hemorrhoids, debridement and below knee amputations for diabetic foot, and laparotomies for various reasons.

In the same time frame, for the month of August 2020, 432 procedures were undertaken in the emergency setting. These included appendectomies, exploratory laparotomies, incision and drainage of abscesses and debridements for Fournier Gangrene, obstructed hernia surgery; amongst others, along with minor procedures done under local anesthesia. A total of 62 procedures were undertaken under general anesthesia, while 368 were done under local anesthesia. In September 2020, until the 21st of September, 406 minor procedures were undertaken, and 38 major procedures, a total of 444 procedures.

It is evident that with each passing month, the return of patients to the hospital is increasing and the census is also steadily rising. However, during this time, only two patients were identified and recognized as being COVID-19 positive on the surgical floor. Both had presented with a history suggestive of pancreatitis, however on work-up they showed were suspected to be COVID-19 infected and followed with a PCR test and referred to the internal medical unit. Mostly, due to vigilant

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screening at triage, patients with symptoms or suspicion of COVID-19 infection were initially seen by the internal medicine team, and vetted out. The surgical teams were called for surgical consults on COVID-19 patients, however in the last two months, no patient arose that required surgical intervention.

During this time, doctors ranging from house officers to residents did get infected with COVID-19. Mandatory screening was carried out throughout the pandemic and continued till date to ensure the health of the team and patients. Five doctors tested positive for COVID-19 in our surgical team, two had mild symptoms, while three were asymptomatic. The constraint on the workforce was high during the pandemic resulting in changes in duty rosters, but has normalized over the last two months [7].

All patients admitted in the ward must wear a mask at all times, and social distancing is observed and encouraged (Fig. 1). Patients' attendants cannot enter the ward without wearing masks, and though we no longer limit how many physically come to the hospital, not more than one may enter the ward at any given time to see their patient, except in extenuating circumstances where an ill patient requires an attendant round the clock to attend to them.

The surgical ward is a small controlled part of a larger ecosystem of the hospital. We still find that many patients and attendants, and increasingly so in the last two months, come to the emergency department without masks, and many refuse to wear masks arguing that COVID-19 no longer exists and has been eradicated (Fig. 2). Those admitted for emergency surgery are then enforced to follow standard protocols, and their attendants are encouraged to follow them. Sick patients and frenzied emotions of worried relatives, usually numbering ten or more, in Pakistan's public hospitals even with security in place, can be quick to turn to violence [8].

The challenges of following protocols and ensuring safety of doctors and patients while providing surgical care, both emergency and elective surgical care has been extremely difficult.

**Fig. 1.** Surgical ward where all doctors, paramedical staff, and patients are wearing masks.

**Fig. 2.** Emergency waiting area where some attendants and patients are wearing masks.

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Vishal Farid Raza is the guarantor of the study.

## Declaration of competing interest

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## References


[1] S. Qazi, A. Saleem, A. Pirzada, L. Hamid, S. Dogar, J. Das, Challenges to delivering pediatric surgery services in the midst of COVID 19 crisis: experience from a tertiary care hospital of Pakistan, Pediatr. Surg. Int. (2020).

[2] V. Karampelias, Urgent, emergent, or elective surgery during the COVID-19 pandemic, Journal of the College of Physicians and Surgeons Pakistan 30 (1) (2020) 86–87.

[3] Statista, Pakistan: literacy rate from 2006 to 2017, total and by gender, Stat (2020) [online] Available at: https://www.statista.com/statistics/572781/literacy-rate-in-pakistan/.

[4] A. Saleem, How denial and conspiracy theories fuel coronavirus crisis in Pakistan, Deutsche Welle (2020) [online] Available at: https://p.dw.com/p/3eDS6.
[5] Dawn, In pictures: minimal compliance with SOPs as provinces end Covid-19 lockdowns [online] Available at: https://www.dawn.com/news/1573660, 2020 [Accessed 24 September 2020].
[6] Pakistan Today, Doctors' Body Alleges Non-implementation of SOPs in Hospitals, 2020 [online] Available at: https://www.pakistantoday.com.pk/2020/05/19/doctors-body-alleges-non-implementation-of-sops-in-hospitals/ [Accessed 24 September 2020].
[7] R. Rana, M. Ather, S. Enam, Change in surgical practice amidst COVID 19; example from a tertiary care centre in Pakistan, Annals of Medicine and Surgery 54 (2020) 79–81.
[8] Dawn, Lawyer, her kin beat doctor, hospital staff [online] Available at: https://www.dawn.com/news/1518279/lawyer-her-kin-beat-doctor-hospital-staff, 2019 [Accessed 24 September 2020].