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Original Article

Covid 19: Ethical Impact on Healthcare and Lessons Learned in Preparation for Future Pandemics

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The Covid 19 pandemic had a severe impact on healthcare services throughout the world. The impact was seismic, and countries were struggling to cope with the demands of the pandemic and provide healthcare to the populace. In allocating scarce resources, certain decisions were made that were not always favourable to the individual patient, healthcare practitioners, and the general population. In South Africa, doctors were forced to make life-and-death decisions to safeguard access to limited resources. Lessons were learned during this pandemic, which hopefully will help in dealing decisively with future pandemics without infringing on patients' rights. In this article, medical ethics were explored, and it was noted which of the four principles of autonomy, beneficence, nonmaleficence, and justice were overlooked and how these can be avoided in future pandemics. We explored the impact that the pandemic had on vulnerable patients, the elderly, those with cancer, and children. There was also an exploration of the Covid pandemic's impact and how the South African government can prevent these in the future.

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INTRODUCTION

As the world is emerging from the devastating Covid-19 pandemic, it is time to count stock of what the effects of the disease were and what

lessons were learned during the pandemic in preparation for possible future pandemics. Pandemics pose the enormous challenge of balancing the equality of all people and equity in

the distribution of risks and benefits among them.¹ Covid has shown the ethical, legal, and social impact on society. It has shown how governments, in the future, should respond to pandemics by controlling the spread of infection without negatively impacting the rights and privileges of their citizens.² As suggested by Satomi et al., pandemics require "calamity or disaster medicine" measures.³ They assert that ethical precepts should be considered to apply distributive justice best when allocating resources appropriately. In applying these calamity disaster measures, we should be conscious of human rights and respect ethical principles.^{2,3}

Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) transmission caused a global pandemic. Coronavirus Disease 2019 (COVID-19) is a viral infection that originated out of Wuhan and quickly spread globally.⁴ In March 2020, the World Health Organization (WHO) declared the infection a pandemic.⁵ The disease presented in varying degrees of mild asymptomatic disease, through severe chest infection with hypoxia and, in some, death.⁶ Millions of people were infected, among them healthcare workers who unselfishly put their lives on the line to treat infected patients.⁷ Surgeons were on the frontline of the disease and at risk of infection from bodily fluids as they operated on covid infected patients.⁸

In their previous article, Masege et al. raised issues relating to the pandemic.⁹ Among the issues highlighted were delays in patients presenting to the hospital to treat serious illnesses because of Covid regulations and these being misunderstood.^{9,10} Cancer patients and patients with other serious conditions in need of emergent care are not being attended to due to rationing of resources and deferment of treatment.^{9,3} Surgeons and other specialists alike had to decide who gets treated and who doesn't, priority being given to COVID-positive patients needing hospital admission, with the most vulnerable patients being affected.^{8,11}

At the end of the pandemic and with an easing of restrictions, Masege et al. predicted a possible

influx of all these (Surgical) deferred cases and other patients into the healthcare system, thus flooding the facilities and creating a backlog, further worsening the situation.^{9,11} In their study, there was a significant drop in patients presenting for care pre- and post-covid. The numbers were similar following the easing of restrictions, in contrast to the opposite. (Verbal communication)

Especially in ENT conditions of cancers in the head and neck region, time-sensitive diseases such as cholesteatoma, inverted papilloma, and recurrent respiratory papillomatosis, if patients delay getting treatment, this can have dire consequences for those affected. A new problem also arose because of COVID-19 pneumonia, and patients who had prolonged intubation now presented with subglottic and tracheal stenosis.¹² These patients could not be tracheotomized due to the recommendation by surgical societies to refrain from such procedures as they increased droplet spread.¹² This article considers these and other issues concerning the impact of Covid and lessons learned in preparation for future pandemics. During the pandemic, proposals were made to triage treatment and rationalize treatment to protect our clientele by minimizing exposure in the hospital setting.¹³

Introduction of Lockdown Measures

Following the declaration of Covid-19 as a pandemic by the WHO on March 11 2020, countries embarked on measures to contain the disease. South Africa recorded its first Covid-19 case on March 5 2020¹⁴, and soon thereafter, lockdown measures were implemented to curb the spread of the disease and to increase the capacity of our healthcare system.¹⁰ On March 15 2020, President Cyril Ramaphosa declared a national state of disaster which was soon followed by lockdown measures, effective March 26 2020.¹⁰ The lockdown ranged between levels 1 and 5, with the latter being labelled hard lockdown, with dire economic consequences both at an individual and country level. Countries employ different strategies based on their population distribution and the capacity of their healthcare facilities and personnel. WHO was the first to suggest frequent

hand washing with an alcohol-based product, and where not available, frequent washing of hands with soap and water.⁵

Based on lessons learned earlier about the disease, especially in Italy and China, various methods were implemented to contain the disease at the community level. These included preventing the spread of the infection by actively screening for the disease, contact tracing, testing, and isolating at a specified facility till the person was non-infectious.⁴ These measures significantly affected the freedom of their citizens and individual rights and autonomy, being held against their will in quarantine facilities.^{2,4} South Africa was no different, having built government-approved facilities where patients could be isolated. This curtailed a lot of the citizens' rights of free movement and freedom of choice to do as they please, creating an ethical challenge. A "right" is one side of a coin, the other being "responsibilities".² Each individual is responsible for not infecting the next person by abiding by government regulations. These must be communicated clearly to the public so they do not become frustrated and angered by the "draconian" regulations. But should be embraced as the responsibility of one citizen to protect the other.

During lockdown, especially levels 3-5, families were torn apart and separated, with anxiety heightened by these measures.¹⁵ Patients were admitted to ICUs, and their next of kin not allowed to visit them, dying a lonely and painful death.¹⁵ Lockdown measures were in different forms and included restrictions on mass gatherings, closing schools, libraries, places of worship, malls, and cinemas, and the suspension of all social events, such as sports, celebrations, funerals, and meetings. South Africa followed the worldwide trend, and on March 15 2020, President Cyril Ramaphosa declared a national state of disaster, which was soon followed by lockdown measures.¹⁰ The lockdown, especially level 5, caused immense emotional trauma and hard financial strain as people were not allowed to and could not earn a living during this period.¹⁰

Mitigating and minimizing mass hysteria and taking the population into confidence is important in future pandemics. Governments should continuously and accurately communicate with the public to maintain trust and minimize confusion.¹⁰ Also some of the lessons learned include proper resource allocation strategies that ensures that social status should not determine type of treatment one receives to minimize unintended consequences of discrimination. These can be remedied by developing decision making tools to ensure no favouritism in allocation of resources. The author set out to assess the impact that Covid-19 had on healthcare at their facility and how these were handled.

ETHICAL CHALLENGES IN HEALTHCARE PROVISION DURING COVID-19 PANDEMIC

Modification of Outpatient Protocols and Triage of Patients

According to the World Medical Association (WMA), the doctor should always put the patient first, and medical practitioners should always act in the patient's best interest.¹¹ This is the cornerstone of the doctor-patient relationship. During the pandemic, in keeping with recommendations from medical societies, face-to-face consultations were to be avoided.^{8,17, 18,19} In essence, doctors were deviating from WMA recommendations of always putting the patient first, creating an ethical dilemma.²⁰ The doctor-patient relationship was put to the ultimate test, that of potential harm.

Allocation of scarce resources should be based on the right of access to healthcare as espoused by the constitution of the country¹³ and with respect for the human dignity of all individuals^{3,21}. Clearly, with the modification of many protocols, an ethical dilemma was created by this diversion from normal treatment protocols.^{8,3,22} In drawing up treatment protocols and deviating from the norm, allocating these resources should not be arbitrary. They should be scientific and not discriminatory in nature.²² They should not be based on an individual's financial capacity.³

In the Ear Nose and Throat(ENT) department , conditions were triaged in terms of severity and urgency of treatment needed (internal Memo). Patients with conditions that were deemed benign and minor were deferred, and cancer patients were prioritized as was done in other parts of the world.^{3,6,7,8,13,17} This resulted in the most vulnerable in the communities, with potentially serious diseases, not being attended to at the expense of more serious cases such as cancer patients. This prioritization affected vulnerable communities the most, especially children and the elderly.³

Telephone and video appointments were recommended instead of face-to-face consultations.¹⁷ However, South Africa being an upper-middle-income country with a high unemployment rate, this would not have been possible. As much as telemedicine encouraged ambiguity emanating from Health Professions Council of South Africa (HPCSA) regulations, this was never an option.^{23,24} Easing regulations in future pandemics can greatly assist in curbing the spread of infections. Also, telemedicine works well in developed countries with available resources and the Internet.¹³

Prioritization of Surgical Conditions: Nonmaleficence, Informed Consent, and Autonomy

Surgeons, and all surgical specialties in general, especially ENT and Ophthalmologists, were placed in a unique position during the pandemic;^{8,19} they faced ethical dilemmas they had not been prepared for.²² They had to make life and death decisions in the face of limited resources, admissions' ward and theatre space, the former being taken over by the physicians in managing severely ill Covid patients.^{8,19}

The surgeons had to deal with the dual specialty-specific risk of being possibly infected intraoperatively and turning patients away to minimize this risk, prioritizing urgent over non-urgent cases.⁸ This created an ethical dilemma, especially in time-sensitive diseases like cancer⁸. Considering the four principles of medical ethics espoused by Beauchamp and Childress²⁰, it was

evident that such a move would cause an unintended consequence of maleficence.^{8,11} The four principles of medical ethics are autonomy, beneficence, nonmaleficence and justice.²⁰ Nonmaleficence is not to harm, and beneficence is to help others and to do good^{8,20,25} Turning patients away was not beneficial to the patients, and there was a possibility of harming the patient. The doctors were deviating from the Declaration of Geneva of the WMA: "The health of my patient will be my first consideration".^{16,26,27}

Surgical cases deemed minor were deferred, an unintended consequence of maleficence⁹ creating a backlog that later needed to be attended to.^{9,11,13} This treatment deferment would also cause mortality and morbidity long after the pandemic had ended.¹³ The elderly with comorbidities and the infirm were the most affected by this pandemic. Those patients who had cancer were also in the vulnerable group category. Delaying curative surgical treatment would increase their mortality, but so would contracting Covid.²⁸ Case fatality rate was found to be 5.3% in those cancer patients infected with Covid as compared to 2.3% in the general population.¹³

Cancer surgery was prioritized, and these were treated as usual, but cancer patients were not aware that the restrictions did not apply to their conditions. There was also the risk of these patients getting the perioperative nosocomial infection from Covid if they were to be admitted to the hospital.⁸ In situations like these, the onus is with governments to issue clear guidelines that are not confusing to the public. According to the constitution of South Africa, all citizens have the right to know and not to have their rights infringed upon.²¹ The right to healthcare was denied to these patients due to a lack of hospital beds, further infringing on the rights of every citizen to have access to healthcare.²⁹ Limitation of access to healthcare can also be attributed to fewer healthcare facilities compared to other countries in the BRICS block, of which RSA is part.²⁹ Decentralization of care and devolution of specialists to lower healthcare facilities need to be explored.

To minimize infection with COVID-19 upon admission to the healthcare facility, patients had to undergo a Covid test, to the chagrin of those tested without their consent. Autonomy is to respect another person's wishes. When taking informed consent, the patient must have had the capacity to understand the information they have been presented with that is relevant to their condition, agree voluntarily to undergo a certain test, and freely communicate that decision.^{8,26} This was not the case during the Covid-19 pandemic. The ethical and legal basis of this definition was taken away.

According to the Nuremberg Code, "The voluntary consent of a human subject is absolutely essential".²⁶ Patients did not have a choice in taking the Covid-19 test as it was a requirement before admission. Informed consent is the bedrock of the doctor-patient relationship. The patient's autonomy was taken away in the best interest of the majority and the community at large.³⁰ One could argue that in public health research ethics, where individual consent conflicts with the community's needs, the latter takes precedence over the former.³⁰ Individual freedom was replaced by the best interest of the society at large.

Looking after Healthcare Workers' Mental Health and Morale

That healthcare workers were overworked and overburdened is a fact recognized the world over.³ Covid-19 compounded this problem as healthcare workers (HCWs) suffered from more mental issues.^{31,32,33} Suicide rates in HCW are the highest among all professionals. Multiple factors can affect HCW morale. These range from conditions of employment, uncertainty in treating patients not in their scope of practice^{8,29, 34} place of employment, availability of resources (including PPEs) and fear of infecting family members with Covid-19.³⁵ Absence of effective Covid treatment was also cause for concern for HCW. Awareness of HCW to the absence of ICU beds should they fall sick was also a factor.³⁵

Some authors acknowledge that the only way to alleviate and minimize angst amongst HCWs is to

ensure safe working conditions, adequate human resources, and the provision of materials and PPE.³² During the pandemic, healthcare staff was repurposing, and training was provided to familiarize staff with what treatment Covid-19 patients would require.⁸ This was totally out of their scope of practice, causing anxiety. Their autonomy was infringed upon as management thrust this upon them without discussing it with them. It was a requirement. Unfortunately, ethical values such as unrestricted respect for autonomy are suspended in emergent situations. They assert that professionals working in the frontline, who are already overburdened by the pandemic, should be protected as they are needed in good health to tackle the same crisis.^{24,36}

Healthcare workers were exposed to death and dying and had to work with critical care equipment with which they were not familiar.³⁶ They had to have "in-service" training.¹⁸ Over and above, they were taking the risk of exposing their non-medical partners to infection with Covid.³⁵ Healthcare workers bore the brunt of the pandemic initially, especially in China and Italy.^{29,34,36} The impact that this had on HCWs and their families was immeasurable. With future pandemics, planning is paramount, and allocating adequate human resources is essential to prevent such occurrences. As much as most of the teaching and learning went online for most postgraduate training, hospital management could have done more to provide employee assistant programs (EAP) for online counselling. The HCWs were left to their own means to provide counselling.

Centralization of HCW at Major Hospitals

The South African healthcare system has two-tiered public and private healthcare facilities³⁷. The public healthcare system is tiered, so specialist care is mainly available in the large academic hospitals, and there are very few or no specialists at the lower tier hospitals.³⁷ The services in the public healthcare sector are divided into primary (clinics), secondary (district and regional hospitals) and tertiary (academic) health services.³⁷ One of the issues identified during the

pandemic was the loss of life due to the centralization of healthcare. Lower-tiered hospitals were ill-equipped to deal with the influx of Covid patients from human resource allocation and equipment. If one were not in the big cities, there was a perception that there was a high likelihood that one would die. It is important to recognize that in a country like South Africa, with stark contrast in inequality, the government must recognize that there are different challenges at different tiered healthcare facilities. These need to be addressed for future pandemics. There was a flock of patients from lower district hospitals seeking "proper" medical care at the bigger hospitals, with the perceived belief that they were most likely to survive if admitted there.

This centralization created unnecessary congestion at the larger hospitals. Unfortunately, decentralization of care can have a negative impact on the patient's cost. South Africa is UMIC with a high unemployment rate.³⁸ Considering decentralization, this would require patients to be uprooted from the nearest healthcare facility to one that is distant from the patient's residence and, therefore increased cost. In this instance, patient consent would need to be obtained in this transfer. This must be balanced between the risk/benefit ratio if governments are to implement this strategy. Investment in buildings, infrastructure and human capital will go a long way in alleviating poverty and access to proper healthcare.⁴¹

Crash courses in managing certain conditions were offered online, which assisted a lot in providing healthcare. Of note, though, were ENT residents being required to work in "neo-ICUs", which work they were not trained to do and they were not familiar with. They also needed a crash course in managing critically ill patients^{18,39}. This may have the unintended consequence of substandard care as HCWs are not trained in such care^{18,40}. Future planning should entail cyclic quarterly appraisal and training of healthcare workers in critical care.¹⁸

CONCLUSION

As discussed in the article, there should be lessons learned in the current epidemic that should not be repeated in future pandemics. Lessons can be classified at the government level, healthcare facilities and public health, management at healthcare facilities, healthcare workers and patients.

When lockdown rules are promulgated in governments, these should be clear, precise, and simple. South Africa is a UMIC with a low education rate. Therefore, regulations should be given in a language that everyone understands. Civil societies should participate and assist in decoding these regulations. Many lives were lost due to misunderstanding Covid lockdown regulations that were not clearly explained by the government and poorly understood by the public. The government should take the population into their confidence and trust.

There was a lot of misunderstanding in terms of what patients could and could not do, with the unintended consequence that patients with major surgical conditions and malignancies neglected their disease with the fear of breaking lockdown regulations. Social media could be a good source of information sharing and explanation.

Devolution of specialists is also important. Each healthcare facility, irrespective of level of care, should have ALL specialties, not to burden the major academic institutions. In cases where specialists are unavailable, governments should consider tele-practice to provide remote diagnosis services.

To the healthcare facilities, planning human resource capital is of utmost importance. The human capital should have continuous in-service training and be up to date in all health disciplines; should there be a need, there should be a department charged with rapid response in teaching and imparting scarce skills, e.g., critical care skills. Healthcare facilities should ensure that there is always adequate supplies of drugs, linen and, most importantly, PPE. We should also clear the discourse between individual rights and the common good, especially regarding quarantine

and isolation. Also, with justice and distribution of limited/scarce resources, this allocation should have transparency and accountability. There should be a decision-making body separate from the clinicians in allocating scarce resources. This group of independent people should be responsible for making triage decisions, not the clinicians who may be biased towards the patient they are seeing.

Management at healthcare facilities should continuously monitor their disaster management strategies and have funds available in case of need. In China, a hospital was built within 10 days to accommodate excess patients in ITUs.

Healthcare workers should keep up-to-date with the latest technology and medical knowledge. Healthcare workers should familiarize themselves with telepractice and apply it within the allowed framework of HPCSA. This would assist in future pandemics by preventing HCWs from being exposed to the disease, as their manpower will be needed. But importantly, this will prevent fear of being infected and minimize mental health issues. Importantly, they should look after their mental health continuously around pandemics.

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