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An International Group of Hepatopancreaticobiliary Surgeons Respond to the COVID-19 Pandemic

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Abstract

An informal workgroup of 9 hepatopancreaticobiliary (HPB) surgeons from 6 different countries on 4 continents shifted the focus of their quarterly tumor board discussions to their responses to the current COVID-19 pandemic. Just as they had discussing HPB cases, they share their experiences and ideas in dealing with the outbreak that faced their hospitals and communities. Their efforts to improve care proved that professionalism in surgery, like the global pandemic, has no boundaries.

Keywords
COVID, HPB surgeons, respinse

Introduction

Under the leadership of one of the authors (MS), a global hepatopancreaticobiliary (HPB) case review board was initiated. Through this process and the use of technology, the group of 9 surgeons from 6 different countries on 4 continents, meet on a quarterly basis to present and discuss HPB cases from around the globe. Through this process, surgeons were able to obtain advice and learn from each other.

It seemed the natural progression to use this preformed group to solicit a "state of the globe" snapshot of how the COVID-19 pandemic is affecting each location. Each of us provided a brief (500 words) summary of how they were responding in their location. Specifically, we asked for the author to focus on personal protective equipment (PPE), national response, state of cases, impact on HPB cases, and their own personal stories. Through this piece, we hope to provide a current and personal account of the global COVID-19 pandemic. We found common themes that unite us, rather than differences that separate us.

Brisbane, Australia

As I write this piece, Australia and Queensland are a few weeks behind the rest of the world in terms of this pandemic. There are 4559 cases in Australia with 19 deaths. In Queensland, there are 743 cases with only 2 deaths.

The rise in numbers had also slowed in the last 5 days and there is a feeling that some of the social isolation measures (gradual and by no means draconian) taken by the government are working thus far.

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In the health system, this has allowed a significant period for preparation and planning. There have been contingency plans made to make use of sporting fields/exhibition centers/conference centers as medical treatment facilities.

From a surgical perspective, all noncancer/nonemergency work has been banned by the government as of April 1 in both public and private hospitals. This has created a variety of responses of surgeons who are variably dependent on private income from nonurgent surgery.

There is a feeling of anxiety that things are about to escalate and we, like the rest of the world, don't know enough about the virus to protect ourselves and others from it in the best way possible. As yet, there has been little in the way of cancelation or altered decision-making regarding the treatment of cancer, but with patients in various stages of planning for major cancer surgery from those undergoing neoadjuvant treatment to those already booked for surgery, their care plans look likely to be altered based on the burden of the disease at the time of decision making.

Finally, there has been significant debate regarding the use of laparoscopy in COVID-19 positive patients and the risk of transmission. The recommendations from the Australian College of Surgeons is that there is no evidence of significant transmission risk from laparoscopy after a rather comprehensive review piece from Dr David Cavallucci from the Australia & New Zealand Hepatic, Pancreatic, & Biliary Association that suggests there is no proven increased risk over laparotomy thus far.

We wait with eager anticipation of how Queensland, Australia, and the world will continue to change amidst the growing tide of this pandemic.

Mehan Siriwardhane, MBBS

Kandy, Sri Lanka

Sri Lanka's induction to the pandemic began in late January with a positive diagnosis in a tourist. After a hiatus of over a month, cases began to appear among Sri Lankans by March.

The curative sector began preparation for the inevitable second stage of the condition by March. At the forefront of this is The National Hospital of Infectious Diseases, located near the capital, Colombo. Other units also began to implement policies for isolation, case identification, and testing.

The chief challenge at this stage was shortages: shortages of testing kits, ceilings on test numbers possible, lack of sufficient PPEand, being a developing country, the predicted shortage of Critical Care beds (3 per 100 000 or half the pre-pandemic number in the United Kingdom).

Many measures are being taken to address these issues, some extremely innovative, others verging on the Draconian. Apparel Manufacturers, driven by both local demand and lack of international markets for their normal product, are retooling factories to produce microfiber products for PPEs. Engineering institutes throughout the country are restoring old ventilators and even manufacturing new ones. Intensive care beds are being manufactured locally. Face shield harnesses are being 3D printed and manufactured on site in many hospitals. Makeshift PPEs are being developed in-hospital throughout Sri Lanka.

We have currently stopped all elective surgical work apart from selected malignancies. Emergency surgical work continues.

In hand with this, both the government and the health care sector has recognized that, given the relative paucity of facilities, we would have to "flatten the curve" much more dramatically than wealthier nations if the health sector was to cope. The Sri Lankan Health Service is largely a state-funded free system and this has helped to coordinate a central effort.

Curfews were imposed over most districts to both minimize transmission and aid in contact tracing and quarantine. The armed forces were deployed in constructing quarantine centers and treatment centers, and in some instances also for contact tracing. Over 1000 beds have been added to existing facilities nationwide. Some regions which began to display community transmission have been placed under communal quarantine. At the point of writing this, the massive nationwide system of contact tracing has yielded over 30 000 traced and quarantined contacts.

The curfews are in their second week now. The mood among the health care providers is mixed. The chief source of satisfaction is that, with 150 cases being diagnosed, we are continuing on a linear trend instead of an exponential one although it is still early days. There is an ongoing request to expand testing. (Sri Lanka currently averages 120 tests per million. Although this is the highest in the region it still falls greatly short of the ratios in countries with large-scale community transmission.) To complicate this are issues related to Sri Lankan Medical trainees overseas. Postgraduate medical training in Sri Lanka has a mandatory period of overseas training stipulated prior to Board Certification in any medical specialty. Hundreds of such trainees are currently working in hospitals in some of the hardest hit countries worldwide.

Sri Lanka had its sixth COVID-19 death yesterday. As the weeks progress, there will inevitably be more. We are also yet to see the next wave of infection—that of our already thinly stretched health care personnel. What the future holds is difficult to predict: will we flatten the curve or will the lid burst off our effort at containment? If we do contain, what will happen when overseas travel recommences? If we do not contain, how many will die? We will not know for months to come.

Buddhika Dissanayake, MBBS

Kuda Galketiya, MBBS

Dallas, TX, USA

With the onset of what seems to be the worst thing that I have ever seen, the Dallas landscape for surgeons had changed. When my daughter's semester in South Africa this summer was canceled, I thought that this was an overreaction. I now feel that this was an underreaction. Now the gyms are closed, malls are shuttered, and restaurants only offer take-out service. We have a shelter-in-place order.

We are now seeing a rise in the cases in Texas. This is due to increased testing. They are still wanting the highest risk people and health care workers to be tested and ask that you stay home if not very ill and self-quarantine. Everyone is walking around with masks and we have our temperature taken when we enter and leave the hospital. All elective cases have now been canceled for the last week—cancer cases still being allowed. We have to document clearly the downside to waiting for surgery and the operating room case list is signed off by hospital leadership in order to not get into trouble. The Texas state came out with very rigid rules, including the possibility of serious repercussions if a surgeon performed a nonurgent case.

Patients are not allowed any guests and this is a huge toll on the psychological state of many patients and health care workers. It is hard to have tough discussions with patients when there is no family there. Office visits are now done by video or phone only unless there is a new patient with a serious diagnosis. We allow only one person in with that patient. The laws have been relaxed to allow us to bill for an office visit with telemedicine due to the COVID situation.

PPE is available here at this time, but the anesthesiologists especially are afraid as they are not wearing full suits. Their N95 masks are their best protection. There is high anxiety around this. We are not allowed into the operating room for 6 minutes after intubation or extubation, in order to minimize exposure to the aerosolized virus. We have only had a few deaths, and so far we are not facing the huge surge that we know will come. There are many computer models and these suggest that our surge will occur in early May in Texas. The conditions that overwhelm New York when I write this will come our way.

The finances are a real issue. Those in private practice have been decimated. Their livelihood has been taken away from them. The federal government is supposed to roll out a program to provide aid for salaries and rent. Many groups have laid off half of their staff and the physicians have taken no salary themselves. The unemployment rate is skyrocketing and there is great anxiety among all groups.

This virus seems to be the great equalizer. All are at risk and all can be harmed.

Dr Rohan Jeyarajah

Manchester, England

The pandemic caused by novel coronavirus has created a rapidly changing health care crisis. This short article provides a perspective from the regional HPB unit in the city. Manchester today (March 31, 2020) feels like a city in the path of a coming storm. Our HPB team, normally one of the busiest in the United Kingdom, are aware that they have 2 sets of responsibilities. First and foremost, their duties as doctors to help as much as possible with the care of patients with the novel coronavirus. Second, the duty to deal with patients with HPB cancer (and the other HPB conditions normally treated by the unit).

As resources are drawn inexorably to deal with coronavirus patients, it becomes increasingly difficult to serve the normal HPB population. Our elective liver and pancreas cancer surgical program continues for the present. However, anesthetic and critical care capacity is much reduced, and patients with cancer need to be carefully prioritized. This involves difficult decision-making: cancer surgery at present is undertaken in fit patients, with easily resectable, good prognosis tumors. There is no logic in undertaking surgery in borderline resectable or high-risk/marginal benefit settings.

Critical care is a precious resource and a long stay must be avoided at all costs. As can be imagined, this is leading to a series of incredibly difficult conversations with people who until recently were hoping for surgery for their cancer. Team members are working hard to reduce or mitigate the harm that may result. Tertiary care pancreatitis referrals—formerly the core of the workload—have stopped. In the UK, laparoscopic surgery has stopped in compliance with the guidelines of the Royal College of Surgeons. Laparoscopic cholecystectomy is no longer undertaken.

Colleagues know that the situation is likely to worsen before it gets better. As in wartime, extraordinary heroics are seen on a daily basis. On a personal note, I have been tremendously proud to see some of my younger colleagues, former registrars of mine, step up to leadership positions in a time of extraordinary hardship. I could not be more proud of the people of my adopted home town, Manchester.

Ajith K. Siriwardena, MBChB

Kathmandu, Nepal

Nepal is a landlocked country between China in the north and India in the south with a population of 29 million. Nepal has 7 provinces with health care facilities categorized to primary health care at the district level in the form of health posts and primary health centers, secondary health care at the zonal level as zonal hospitals and regional hospital, and tertiary health care as disease-specific

hospitals and teaching hospitals. Tribhuvan University Teaching Hospital (TUTH) is a tertiary level hospital in Kathmandu, Nepal.

The first COVID-19 case was identified on February 15, 2020, and as of April 4, a total of 9 patients have been found to be positive. Eight patients are imported cases and 1 is from the local spread. The first patient has been cured. Before March, COVID testing was available only in Kathmandu, the capital of Nepal. However, it has been initiated in 6 hospitals outside Kathmandu. A total of 1500 COVID tests have been performed in Nepal, of which 9 patients have tested positive. We are still not testing enough to identify COVID-positive patients. The Nepal government has assigned a few COVID dedicated hospitals, Hub hospitals, and all the teaching hospitals as the second line.

The Nepal government announced a 1-week lockdown from March 24, which has been extended, when the second case of COVID-19 tested positive on March 23. But the Nepal Medical Council had circulated notice on March 19, informing all the hospitals to initiate a fever clinic with the PPE and stop elective surgeries. Most of us were operating elective surgeries till March 20. But thereafter, all the elective surgeries have been postponed. A few elective cases were being performed in some private hospitals until the nationwide lockdown was announced. There have not been any elective surgeries since March 21.

Major trauma requiring emergency laparotomy has not been reported. The emergency admission at TUTH has been limited to acute appendicitis, acute pancreatitis, liver abscess, and acute cholecystitis which have been all managed conservatively. There has been 1 emergency laparotomy for duodenal ulcer perforation which was performed without adequate PPE.

All cancer cases have been postponed. A daycare oncology clinic is being run in one of the government hospitals. There are a few cancer cases being referred from outside Kathmandu that are being managed at TUTH, like carcinoma of the stomach with gastric outlet obstruction, duodenal carcinoma with hemorrhage and gastric outlet obstruction, and pancreatic head carcinoma. Other cancer cases planned to be operated on are on the waiting list.

COVID testing is very sparse in Nepal at present. There is a lack of PPE, but local resources are being mobilized to make PPE to be used in the hospital. The hospital authorities are providing PPE for only suspected COVID-positive cases and aerosol-generating procedures.

Social media is full of facts and myths of Coronavirus. What is very painful is that there is a lack of PPE and masks worldwide for the frontline health care workers, and one can see others who actually do not require PPE posting pictures with PPE.

Ramesh S. Bhandari, MBBS
Paleswan J. Lakhey, MBBS

Colombo, Sri Lanka

I work in both the public and the private sector in Colombo, practicing both HPB and General Surgery. As a university academic, I also teach medical undergraduates.

The scenario in hospitals for surgical cases, changed from routine surgeries to urgent cases only, in the last 2 weeks. This was mainly due to the uncertainties, the authorities had about the possibility of a sudden escalation of the numbers, requiring mobilization of hospital staff, and utilization of ICU beds. Almost all hospitals (mostly public ones, designated to admit suspected COVID-19 cases) only offered admission of emergencies.

The patients, who were mostly affected, were those diagnosed with malignancies, which were operable. This was a serious issue particularly for those with HPB malignancies, as there is a waiting time of at least 4-6 weeks, even under normal circumstances, due to the fact that they are managed in only a few centers in the country. Almost all of these centers were designated COVID-19 centers. We are hoping to sort this out soon, with at least 1 or 2 centers, being utilized to operate on HPB malignancies. The almost mandatory need for postoperative ICU care is one of the main reasons for not being able to offer surgery for this group of patients.

Another important issue we have in the surgical units is the admission of patients with not only overt surgical issues but also having either a contact history/travel history or even mild symptoms that could be due to COVID-19. Although the hospital has introduced a proforma that is filled out by a medical officer, before admission, the information is not reliable (as some do not divulge the truth). This is probably due to the "stigma" (which is unacceptable and irrational) associated with COVID-19, in our country.

We had 2 patients who were admitted to our unit, under similar circumstances. This created chaos in the wards, as none of our staff members have proper PPE. They mostly manage with only surgical masks. Until the patient was transferred to the relevant unit (COVID-19 isolation unit) in the hospital and tested for the disease, the staff who attended to the patient were "quarantined" in the ward itself. Fortunately, both these patients were negative for the disease.

Most surgeons in Sri Lanka depend on the income from their private practice. Due to the curfews and strict control of the movement of people and also lack of public transport, hardly any patient attends the private hospitals for consultations. Even the operations for nonurgent cases are deferred. This has resulted in a significant loss of income for most surgeons, but surprisingly, I have not heard any complaints. A side benefit is time to spend at home with our families.

Undergraduate teaching has suffered seriously as a consequence of the closure of universities. Unlike in most developed countries, online teaching is not commonly

practiced in Sri Lankan public universities, which cater to most of the undergraduates. We have started teaching our final year students, using online resources such as Zoom and Google Classroom. This has been embraced by teachers who are adapting to this new world of education.

The scenario of the COVID-19 outbreak in Sri Lanka is still evolving, just like in the rest of the world, and we still cannot predict which direction it will take. The health care system will take a long time to recover, if ever. We do not know how long we will treat all patients a "potentially positive". With limited testing and PPE, this will be a challenge. Nevertheless, we will continue with the "positives" that we have learned: handwashing, learning to survive with bare essentials, and online teaching.

Aloka Pathirana, MBBS

Yangon, Myanmar

Myanmar is one of the ASEAN countries and developing countries. Currently, COVID-19 is becoming a pandemic disease. At first, Myanmar has kept silent during the first wave of spread, but there is a long border that is shared with China and there is a direct flight from Wuhan to Mandalay.

The Ministry of Health and Sports (MOHS) has been preparing for:

1. Detection of cases and contact.
2. Follow the updated guidelines according to WHO.
3. Education for PPE donning and doffing.
4. Awareness of practice on frequent handwashing.
5. Preparation for quarantine places.

Limited facilities make people concerned about prevention which is better than treatment. This momentum has accelerated after confirming the first positive case on February 23, 2020. Prevention, Treatment, and Control Central organizing committee has put great effort into it.

Recently, second and third waves have occurred while overseas workers were returning home. Now there are 15 cases of COVID-19 positive and 1 death in our country.

The government predicts that there could be thousands of cases in the near future. Therefore, the Ministry urges people "to stay safely: yourself, your family, and your people".

Partial lockdown is being practiced: schools are suspended and change to online teaching system has taken place. Restaurants practice take-away only system and lockdown the contact area.

Concerning surgical care, elective cases except malignancy are postponed and the number of cases has also reduced after the first positive case in Myanmar. All staff are taking added precautions during operations. The number of patients in the outpatient clinic and follow-up clinic is also limited. The Liver transplant program was ceased temporarily.

The Ministry urges social distancing, handwashing, and stay at home practice. Anyone, who refuses to get quarantined, will be punished. Financial impact will be seen soon because of the increasing number of unemployment created by closing the factories. However, it can be minimized by a Government Loan program.

We live by the slogan "Limited facility makes us more united and fight together".

Tin Tin Mar, MBBS

Conclusion

In summary, this snapshot of the COVID responses reflect common themes:

- PPE is a common concern across the world.
- Elective surgery has been halted in most centers across the world
- Surgeons are less busy at this time in all centers but are awaiting the great unknown of what will happen with a "surge".
- Testing is a significant deficit worldwide.
- Social distancing is the method that countries have chosen to decrease the spread of this virus, some by the force of law.

Despite social distancing, everyone wants to talk and communicate. The feeling of isolation is foreign to us as human beings. While we now have time to spend with families it separates us professionally.

The challenges are many, including financial. The cost to those that have income linked in some way to productivity is real. The consequences of medical coverage with job loss may lead to care disparity in future health outcomes.

Taken together, this project has allowed for communication and sharing of what we have in common more than how we differ. The global pandemic is bringing us together as surgeons as we share common challenges.