SUPPLEMENTARY MATERIAL

Supplementary Material 1: Interview Guide

Part I. Context

Before we get to the details of surgical services, I would like to ask you some questions about how COVID-19 has impacted your country and your hospital.

1. First, could you share with me briefly what is the COVID-19 situation like in your country now? What about the situation in the city where your hospital is located?

2. How is the effort to fight COVID-19 organised in your country? [Probe] Is it coordinated at the national level such as by your Ministry of Health or by a specially formed taskforce?

3. Some countries allow COVID-19 cases to be treated in any hospital, and others designate certain hospitals to take care of such cases. What is the arrangement in your country? [If there are designated COVID-19 hospitals] Is your hospital a designated COVID-19 hospital? How many COVID-19 cases have been treated in your hospital?

4. Has any of your hospital facilities been converted to COVID-19 wards? [If yes] Has any surgical facilities been converted? How many?

5. How many or what percentage of the surgeons in your hospital have been deployed to fight the COVID-19?

6. Has any healthcare worker in your hospital contracted the COVID-19 in the course of work? [If yes] Has anyone of them got infected with the virus while providing surgical care?

7. What measures has your hospital taken to prevent cross-infections within the hospital? Are there any specific measures for preventing cross-infections in surgical care? [Probe] Are there any changes to the policies and processes to perform surgeries during the COVID-19 pandemic? Is there split-team arrangement among surgeons to prevent cross-infection?

Part II: Disruption to surgical services and its management
Thank you for sharing information on the big picture. Now we will move on to talk about how COVID-19 has affected surgical services in your hospital. Let’s start with emergency surgeries.

8. Has there been a significant change in the volume and types of emergency surgeries during the COVID-19 pandemic in your hospital compared to normal times? [If yes] In what way and to what extent? What do you think were the reasons for the change?

9. Were there any changes in the processes of preparing for and performing emergency surgeries during the COVID-19 pandemic? [Probe] How do you screen patients for COVID-19 to ensure that they are safe to undergo surgeries? Are there operating theatres designated specifically for the operation of patients with the COVID-19? Has any emergency operation been performed on patients with suspected or confirmed COVID-19 so far?

Thank you for sharing the information and your thoughts on emergency surgeries. Now let’s move on to elective surgeries.

10. Have all or some of elective surgeries in your hospital been cancelled during the COVID-19 pandemic?

11. When did you start cancelling elective surgeries? [Probe] Was it when you had the first confirmed COVID-19 case in the country or in the hospital or was it some other time?

12. Who made the call to cancelling elective surgeries? [Probe] Was it your Ministry of Health or the senior management (i.e. your CEO or CMB) of your hospital?

13. What were the main considerations for postponing such surgeries?
   
   Probes:
   • Was it to prevent cross-infection in the hospital?
   • Was it because manpower shortage?
   • Was it to conserve critical care resources such as PPEs?
   • Were there other considerations?

14. Did you have any concerns about cancelling the elective surgeries? Could you elaborate on them?
15. **[If only some elective surgeries were postponed]** How did you decide which elective surgeries to cancel and which ones to carry on? **[Probe]** Was there a formal guideline to follow? **[If yes]** Was it a hospital, national, or international guideline (e.g. Elective Case Triage Guidelines for Surgical Care by the American College of Surgeons)? Or was it left entirely to individual surgeons to decide? Were there patients who were disagreeable to the hospital’s decision to cancel their surgeries? How did the hospital manage the disagreement?

*We have talked about emergency and elective surgeries, now let’s talk about outpatient care.*

16. How has COVID-19 affected outpatient care for surgical patients in your hospital? **[Probe:]** How does the outpatient workload during the COVID-19 pandemic compare to normal times? **[If there has been a significant drop in the number of outpatient clinic visits]** Was it because patients chose to postpone their visits or was it because the hospital advised patients to postpone their non-urgent visits or both? How did you decide which patients’ appointments to postpone? Were there any guidelines/criteria to follow? Where there patients who insisted coming to the hospital despite the hospital’s advice for him/her to postpone the visit? How did you manage these patients?

17. Was tele-communication used as an alternative to normal clinical consultation for surgical care? **[If yes]** What was the take-up rate by surgeons and patients? How do you feel about this result? Why? For those patients who chose to or had to come to the hospital for outpatient follow-up, what measures have been put in place to keep both patients and staff safe? **[Probe]** Is here any screening procedure? How are patients screened?

**Part III. Reflecting on the past and looking into the future**

*We have covered in detail how COVID-19 has affected the surgical services in your hospital. Now I would like to hear your reflections on the experience of managing the impact of COVID-19 on surgical services.*

18. Overall, what were the biggest challenges you faced as a surgical leader during the COVID-19 pandemic?

19. Sometimes disruption of status quo can offer leaders a unique opportunity to gain insights into the way they do things normally. What insights has the experience of the COVID-19 pandemic offered you about the delivery of surgical care during normal times? And what do
you envision to be the new normal for delivering surgical care in your hospital after the COVID-19 pandemic?

20. If there were another pandemic like the COVID-19 in the future, what are the things you have done in the last few months you will do again? What are the things you will do differently based on your experience during the COVID-19 pandemic?

21. What plan do you have to tackle the backlog of cancelled surgeries after the COVID-19? [Probe] In view that is still uncertain when the COVID-19 will be over, how do you estimate workload and plan for resources? Do you resort to mathematical modelling?

22. Finally, what is your biggest concern now as a surgical leader?
Supplementary Material 2: Pre-interview Questionnaire

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