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Dear Editor,

Ever since the COVID-19 pandemic started, the concept of redeployment gradually makes its place in residency programs across the globe \cite{1,2}. But how, when, where and whom to redeploy are not easy questions to answer. The number of new cases in Pakistan fortunately develop slowly which gave the healthcare facilities sufficient time for capacity building \cite{3}. Our large tertiary care hospital established a COVID diagnostic and treatment zone (CDTZ) in an isolated three floor building for suspected or confirmed COVID patients. The ground floor is dedicated to pediatric COVID patients. The first floor is converted to a 14 bed COVID ICU facility with negative pressure rooms. The second and third floors are for adult COVID patients. Thus, all COVID patients under all specialties are housed in a single unit (see Fig. 1).

The initial tasks on establishment of the facility were to arrange sufficient clinicians to cover ICU and surgical patients. These patients were either emergency surgical patients with pending COVID status, or known COVID positive patients admitted for operations for life/organ threatening emergencies. With patients from different specialties admitted under one roof, separate rounds by various specialty teams would require a large number of clinicians with wastage of personal protective equipments. As surgical residents had less elective cases, the Postgraduate Medical Education Committee (PGME) and Department of Surgery (DOS) devised the following two deployment models to run the CDTZ, which may serve as a guide for other institutions:

1. **COVID ICU deployment schedule**

   Subspecialities with sufficient number of residents and baseline training in managing in-patients were identified and divided into two groups (Fig: 1). Each team was led by either a resident from a medical specialty or anesthesiology and supervised by Critical care and Infection disease experts who were available in-house for 24 hours call. Residents with good medical reasons e.g. pregnancy were excluded.

2. **CDTZ deployment rota**

   To ensure coverage of various surgical specialties in the CDTZ (other then ICU) two residents from two different specialties were assigned for a week to do alternate 24 hours shifts, followed by 48–72 hours off, to provide cross specialty coverage. The quota of each specialty for coverage was based on the proportion of emergency cases. For example in the initial 8 weeks plan, 4 weeks of coverage was given by General surgery, 3 weeks each by Neurosurgery and Orthopedics, 2 weeks each by Otorhinolaryngology and Urology and 1 week each by Plastic and Cardiothoracic surgery. These worked in liaison with the specialty chief and consultants who guided them via phone calls, with daily morning updates by residents.

3. **Pre deployment preparation and challenges**

   The Institution organized a four day critical care course delivered through online interactive videos and lectures to broadly cover assessment and management, basics of mechanical ventilation and infection control, skills-demonstration on donning and doffing, and cardiopulmonary resuscitation in COVID patients. Workshops on how to take nasal or oropharyngeal swabs were arranged. Fit testing on respirators was an essential and care pre-requisite. The Institution also declared full treatment of all involved trainees and their eligible families if they acquire COVID infection during discharge of duties at the Institution.

   Deployment news caused some initial stress, and psychological impact on healthcare has well been reported \cite{4}. Employer support has been found to have a positive impact on mental health \cite{4}. Sessions on psychological well-being were introduced early by the Department of Psychiatry. A wellness hotline was also provided to give individualized support. Town-hall meetings and formal sessions were conducted when residents who came back from deployment shared their experiences to alleviate fear.

4. **Assessment of deployment model**

   The main purpose of this deployment model was to utilize available healthcare resources in the most efficient and safe way, and to avoid any further financial burden to the healthcare system. This roughly leads to a cost saving of 800,000–900,000 PKR per month. In one of the sessions...
when residents shared their experience, their main concerns were safety and health coverage in case they contracted infection. However, a general willingness to serve in this difficult time was noted. Although very stressful initially, the involved residents expressed that working in the facility gave them first-hand experience in managing COVID patients. So far no residents have contracted COVID while working in the COVID zones or immediately after, which is a success.

As desperate time calls for desperate measures, our plan may not be the best, but it is the best possible solution to us. It can certainly be further refined by experience.

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None to declare.

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