



## A Rapid Transformation of an Existing Testing Facility Area for COVID-19 into a Fully Functional Pediatric Emergency in 72 Hours' Time—An Experience from a Tertiary Care Teaching Hospital

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*To the Editor:* With the second surge of COVID-19 pandemic and sudden rise in the number of cases, there was a precipitating need for capacity enhancement of main emergency in our setting, both in terms of number of beds and circulation space [1, 2]. The current pediatric emergency area being in close proximity to main emergency was planned to be used for expansion of main emergency and the existing facility for COVID-19 testing of our own employees was zeroed in to be transformed into a fully functional pediatric emergency. The option, albeit, a plausible one was fraught with few practical challenges: a) rapid transformation of a testing area into fully functional pediatric emergency amidst the lockdown, b) integration of elements—civil structures, electrical fitments, and extension of manifold pipelines in this area, c) setting up of an independent registration area, and d) procurement of equipment and essential furniture items on emergent basis. With a time span of 72 h assigned to us to transform and render the facility fully functional, we spearheaded the project with precise ground level planning, listing and cohorting of activities, and clear earmarking of roles amongst the team members. We transcribed the activities onto a Gantt chart, assigned timelines to them, and identified the rate-limiting steps. We gainfully utilized the internal lead-time available by our side—"the time period of four days in which the testing area was vacated and handed over to us" in ground-level planning, extension of manifold pipelines from the adjacent Trauma Emergency Department (ED), organization of teams of civil, electrical, and manifold workers in order to kick start the works as soon as the facility was handed over to us.

The extension of manifold pipeline works from the Trauma ED area to pediatric emergency was an independent piece of planning, as it required a brief shutdown of about 30 min of manifold of the Trauma ED. At any point in time, it had 6–8 patients on life support equipment in the red area of Trauma ED who had to be mobilized to other patient care areas with these equipment before a shutdown could be undertaken. This being the identified rate-limiting step in our timeline, the execution of it kept us ahead of the planning curve.

The civil and electrical works entailed: 1) dismantling of existing structures, 2) putting up of wash basins, 3) RO water system, 4) placement of signages, 5) setting up of a registration area, 6) placement of curtain assembly for each bed, 7) creation of electric-panels at head ends of beds, 8) provision of UPS points, and 9) alternate source of electricity for life-saving equipment which were undertaken on a war footing. The IT points were mapped; telephone line for internal communication and LAN were extended. The new manifold points were created; 02 oxygen, 01 compressed air and 01 vacuum point.

The works were delineated in a manner so that multiple teams could carry them out in tandem. We planned and procured the necessary furniture items under emergent purchase. The time, during which civil, electrical, and manifold works were progressing, we planned out for the shifting process of our existing pediatric emergency. The hospital indents for store items were placed, and day and time slots with the equipment-specific company personnel's were fixed for their decommissioning from the existing place and installation to a new place.

The manpower for shifting of other nonessential items was arranged in advance and specific tasks were assigned to them. So by the time we got ready with the facility, we were good to shift our existing pediatric emergency with lock, stock, and barrel without the need of any extra time for this work. The floor area and beds which became available

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through this transformed new pediatric emergency were about 279 square meters and 16 beds; which was almost 3.6 times the floor area and double the bed strength of old pediatric emergency.

While it required significant planning on paper and onsite visits by the members of the team from Hospital Administration, Pediatrics, Engineers, and Manifold, creation of a spacious, contemporary pediatric emergency was made possible within 72 h time period.

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## Declarations

**Conflict of Interest** None.

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