Supplementary Table S1. Approach to resumption of paediatric liver and kidney transplantation in tandem with nationwide regulations\textsuperscript{1-6} (7 February 2020–13 June 2021)

<table>
<thead>
<tr>
<th>Period</th>
<th>National safe-management measures and healthcare activities allowed</th>
<th>Hospital-wide measures</th>
<th>Paediatric liver and kidney transplant candidates (in addition to national and hospital measures)</th>
<th>Number of paediatric liver and kidney transplants in National University Hospital</th>
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</thead>
</table>
| Initial period from the 1\textsuperscript{st} confirmed case until the circuit breaker | New visitors with travel history to China not allowed into or transit through Singapore. | - Notification, isolation and testing of suspect cases  
- Healthcare staff self-monitor for symptoms and report for testing and isolation  
- PPE policy for staff at different locations in the hospital  
- PAPR training of healthcare staff  
- Separate paediatric clinical management guideline for suspect cases | No organ transplant activity | 0 |
| Circuit Breaker (Heightened safe-distancing measures) (7 April 2020–1 June 2020) (2 incubation cycles) | - Significant reduction in movement and interaction at public places  
- All leisure spots closed  
- Home-based learning, work from home  
- Essential services remain open such as healthcare, financial, cleaning, water/energy/environment-related  
- Compulsory mask-wearing in public places/when out of home | - As above  
AND  
- Temperature screening and management of visitors if $> 37.5^\circ \text{C}$  
- Temperature self-check and management for all healthcare staff if $> 37.5^\circ \text{C}$  
- Clinical management workflow for adults and children presenting with respiratory symptoms to emergency department  
- Screening measures for inpatients  
- Compulsory masks for healthcare staff, patients and visitors  
- PPE for aerosol generating procedures  
- Separate isolation wards for suspect cases  
- Dedicated wards and intensive care unit rooms for COVID-19 patients  
- Dedicated negative pressure operating room (pandemic OT) | Urgent organ transplants allowed nationwide; we deferred paediatric liver and kidney transplants until after this phase | 0 |
<table>
<thead>
<tr>
<th>Phase 1</th>
<th>(Safe Re-opening)</th>
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</table>
| (2 June 2020–18 June 2020) | -Limited re-opening of schools and businesses  
-All leisure spots closed  
-Resumption of healthcare services based on medical necessity. If safe, then treatment for stable and well patients was deferred.  
-Only one visitor/patient at a time from the same household or one other household |
| | -Segregation of each department into separate teams to cater to different services-intermixing not allowed  
-Restricted movement of healthcare staff between institutions unless clinical exigency |
| | -Prevention measures as above  
-Strict PPE guidelines for healthcare workers inside operating room  
-Additional guidelines for aerosol-generating procedures |
| | -Urgent organ transplants allowed including from living donors (with permission from Ministry of Health)  
-D-7 and D-2 COVID swabs for both living donors and recipients  
-Screening questionnaire to parents/caregivers prior to coming to hospital for admission  
-Screening protocols for donors and recipients in case of respiratory symptoms  
-Emergency organ transplants allowed |
| | 1 (kidney) |
| Phase 2  | (Safe Transition) |
| (19 June 2020–27 December 2020) | -No more than 50% workforce allowed to return to a given workplace  
-Re-opening of dine-in, all students return to school; gradual re-opening of institutes of higher learning  
-Gradual re-opening of fitness centres/cinemas/public libraries/attractions with restrictions on occupancy |
| | -Screening of inpatients for potential exposure to clusters  
-Treatment of medically urgent cases prioritised over non-urgent cases  
-Teleconsultations for outpatients  
-Deferment of elective surgeries  
-Split-team arrangements continued |
| | -Screening of inpatients for potential exposure to clusters  
-Treatment of medically urgent cases prioritised over non-urgent cases  
-Teleconsultations for outpatients  
-Deferment of elective surgeries  
-Split-team arrangements continued |
| | 4 (2 kidneys and 2 livers) |
| Phase 3  | (Safe Nation) |
| (28 December 2020–7 May 2021) | -COVID-19 vaccination programme for healthcare workers  
-Update workflows on risk-assessment of contacts following exposure to COVID-19 patients; discharge criteria |
| | 2 (1 kidney and 1 liver) |
| Phase 2  | (Heightened Alert) |
| (8 May 2020–13 June 2021) | -No more than 50% workforce may return to workplace  
-Restrictions on occupancy in leisure places  
-Postponement of non-elective surgeries/admissions to release inpatient beds/resources  
-Day-surgeries allowed to continue in a calibrated manner |
| | -Enhanced surveillance – routine swab testing of all healthcare staff  
-Staff vaccination programme  
-Heightened PPE precautions during the “back to phase 2” especially for aerosol generating procedures |
| | 1 kidney |
D-2: within 2 days prior to transplant; D-7: 7 days prior to transplant; OT: operation theatre; PAPR: powered air-purifying respirator; PPE: personal protective equipment


