

The impact of COVID-19 on recovery after heart surgery: preliminary findings from the CardiacCovid Study

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Background/Introduction

The COVID-19 pandemic has had far-reaching effects on everyday life leading to stress and anxiety, which may be heightened in those undergoing cardiac surgery. Health impacts following a traumatic event may be apparent at one month but can also present after many months.

Purpose: The aim of the CardiacCovid study was to explore the effect of the pandemic on recovery from cardiac surgery. We report the preliminary results from a single centre study in the UK during the early phase of the COVID-19 pandemic.

Methods: Patients >18 years old undergoing any form of cardiac surgery between 23rd March 2020 (UK lockdown) to 4th July 2020 (lifting of most restrictions) were recruited to this prospective observational study. Those too unwell or unable to give consent/complete study questionnaires were excluded. Participants completed a Quality of Life (QoL) (EQ-5D), impact of event (IES-R), depression (CES-D) and health service use questionnaire at baseline, 1 week after hospital discharge, and 6 weeks after surgery. Questionnaires were completed electronically on the Amplitude platform or via post. Ethics approval (20/YH/0132) was obtained and the study was registered (Clinicaltrials.gov:NCT04366167).

Results: A total of 395 patients had surgery of which 298 (91.7%) were screened and 203 (68.1%) were enrolled to the study. Participants were mostly male (74.6%), with a mean age of 63 years, undergoing urgent/emergency (57.9%) CABG +/-valve (70.1%). Mean inpatient stay was 8.6 days and in-hospital mortality was 0.5%. No patients had Covid-19. The initial findings suggest a deterioration of QoL at 1 week post discharge with near restoration to baseline level at 6 weeks post-surgery. Mean scores for CES-D and IES-R remained within subclinical levels at all available time points. However, at 6 weeks, a proportion of patients reached levels for depression on the CES-D and had high IES-R scores indicating possible post-traumatic stress.

Conclusion: We believe that this is the largest/only study exploring the impact of the pandemic on cardiac surgery recovery, including QoL, spanning the immediate recovery phase but will continue until 1 year. The findings so far show that recovery from cardiac surgery during the Covid-19 pandemic is similar to that reported prior to the pandemic (Cromhout et al 2018) and reinforces the need for psychosocial assessments to identify patients who may require additional support during the immediate recovery phase.