

Prevalence of SARS-CoV-2 in elective surgical patients at Epworth Richmond in 2020

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Introduction

The impact of national elective surgery restrictions in April and Victorian restrictions in August/September due to the SARS-CoV-2 pandemic have yet to be fully realised. However, it is crucial to examine how elective surgery can continue in a manner that is safe and sustainable, for patients and healthcare workers.

Aims

Two prospective multi-centre studies were performed to determine the prevalence of SARS-CoV-2 in asymptomatic elective surgical patients.

Methods

1. In June 2020 the Commonwealth DHHS designated hospitals to collect data and perform intraoperative PCR and serology testing on asymptomatic elective surgical patients undergoing general anaesthesia. The primary outcome measure was the number of positive PCR and serology tests (indicating active and previous infection, respectively).
2. When COVID cases surged in Victoria in July, preadmission PCR testing became mandatory for all patients booked for elective surgery and some procedures. Category 1 and 2a restrictions applied. The primary outcome measure was the number of positive PCR results in patients booked for elective surgery/procedures.

The Epworth COVID-19 risk screening tool was used during both study periods. The tool includes symptomatic and epidemiological (close contacts, places of residence and work) screening.

Results

Only Epworth data are presented here. Complete group data will be available upon publication.

1. 3037 patients from 10 hospitals in 4 states were enrolled in June-July. At Epworth, 387 patients were enrolled. 384 patients had PCR swabs; all were negative. 368 patients had serology testing; 365 results were negative and 3 were indeterminate. 550 patients were not included because they were not informed about the study, patient refusal (58), VMO refusal (219), or for other reasons.

Demographic data

	1. Commonwealth study (n=387)	2. Victorian study (n=626)
Study date/duration	1-15 July, 10 days	6-31 August, 18 days
Age: mean (SD)	51 (18)	58 (18)
Sex: female	189 (49%)	290 (46%)
ASA 1, 2, 3	140 (36%), 161 (42%), 80 (21%)	134 (21%), 237 (38%), 219 (35%)
CV disease	93 (24%)	247 (39%)
Diabetes	12 (3%)	73 (12%)
COPD/asthma	50 (13%)	98 (16%)
OS travel in 2020	51 (13%)	Not measured
COVID contact in 2020	1 (0.3%)	1 (0.2%)
Healthcare worker	42 (11%)	40 (6%)
Day case	135 (35%)	310 (50%)
Nights in hospital: median (IQR)	2 (1-4)	3(1-5)
Unplanned ICU admission	3 (0.8%)	4 (0.6%)
In hospital mortality	0	0

2. 4,965 patients from 8 Victorian hospitals were enrolled in July-August.

At Epworth, 626 patients were enrolled. No patient booked for elective surgery had a positive preadmission PCR result. 624 (99.7%) results were negative; 2 (0.3%) were not done/refused. 609 (97%) patients completed a telephone screening checklist before admission. 85% had screening rechecked on admission; the majority of those who didn't were admitted via a ward. 99% had a temperature check on admission. No patient tested positive during their hospital admission.

Conclusions

Patient demographic data are consistent with elective surgery restrictions.

1. In July, all study patients tested negative for active SARS-CoV-2 infection. However, conclusions regarding prevalence cannot be drawn due to the high number of excluded patients.
2. In August, almost every patient had symptom, epidemiology and PCR screening before admission. No patient tested positive after surgery which may indicate a robust combination of screening processes. The rate of COVID-19 checklist screening on admission for surgery can be improved.

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