

Endoscopy volumes and outcomes at a tertiary Melbourne centre during the 2020 COVID-19 lockdowns

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During the coronavirus disease 2019 (COVID-19) pandemic, elective medical procedures and population cancer screening programs, including colonoscopy, were suspended because of lockdowns and other public health measures.¹⁻⁴ Marked declines in endoscopic procedure volumes were reported overseas.¹

In Melbourne, two lockdowns restricted non-urgent endoscopy during 2020. All patients scheduled for elective endoscopy at Monash Health were re-triaged for priority in accordance with the Gastroenterological Society of Australia COVID-19 guidelines.⁵ In this article, we report our assessment of the impact of lockdowns on endoscopic volumes and outcomes at our centre.

We undertook a retrospective analysis of endoscopic procedures at Monash Health during the 2020 lockdowns (24 March – 1 May, 2 August – 28 September 2020) and the corresponding periods in 2019. All patients underwent pre-procedure COVID-19 screening (health questionnaire, polymerase chain reaction testing). We collected information on patient demographic characteristics, procedure type, COVID-19 status, and endoscopic outcomes (cancer and polyp detection). We assessed differences in procedure volumes and rates during the 2019 and 2020 periods in χ^2 tests; $P < 0.05$ was deemed statistically significant. The overall missing cancer number was estimated as the difference between the expected number of cancers (based on procedure volume and detection rate for 2019) and the number of cancers identified during the 2020 lockdowns.¹ Our study was approved by the Monash Health Human Research Ethics Committee (QA/68490/MonH-2020-232763).

A total of 1147 endoscopic procedures were performed during the two lockdowns; none of the patients were diagnosed with COVID-19. This number was 42% lower than during the corresponding periods of 2019 (1972 procedures), but the overall cancer detection rate was higher (2020: 77, 6.7% of procedures; 2019: 89, 4.5%; $P = 0.008$). Colonoscopy detection indicators — the adenoma (2020: 138 of 426 colonoscopies, 32.4%; 2019: 256 of 906; 28.3%; $P = 0.12$) and sessile serrated polyp detection rates (2020: 17 of 426, 4.0%; 2019: 40 of 906, 4.4%; $P = 0.72$) — were similar for the two periods (Box). Despite the higher cancer detection rate and the similar quality indicator values, 55 fewer cases of cancer were detected than expected had the number of procedures been the same in 2020 as in 2019.

The data from our Melbourne centre may not be representative of data for other centres with different endoscopy strategies during the pandemic. The 2019 periods corresponding to the 2020 lockdown periods may not reflect baseline endoscopic volume and outcomes, but endoscopic activity during 2019 was regarded as typical for our centre.

Despite a large reduction in case volume because of pandemic lockdowns, the overall cancer detection rate was higher and colonoscopy detection indicators were maintained at pre-pandemic levels. However, fewer cancers were detected. By enhancing patient selection using guideline-based re-triage, we

Endoscopic procedures and outcomes, 24 March – 1 May, 2 August – 28 September, 2019 and 2020

Characteristic	2019	2020	<i>P</i>
Patients			
Total number of patients	1606	946	
Outpatients	1253 (78%)	646 (68.3%)	
Inpatients	353 (22%)	300 (31.7%)	
Sex (men)	792 (49%)	506 (53.5%)	
Age (years), median (IQR)	61 (48–72)	64 (51–73)	
Endoscopic procedures			
Total number of procedures	1972	1147	
Cancers detected (overall detection rate)	89 (4.5%)	77 (6.7%)	0.008
Gastroscopy	765 (38.8%)	461 (40.2%)	
Cancers detected	24 (3.1%)	16 (3.5%)	0.75
Colonoscopy	906 (45.9%)	426 (37.1%)	
Cancers detected	24 (2.6%)	18 (4.2%)	0.13
National Bowel Cancer Screening Program	84 (9.3%)	71 (17%)	< 0.001
Adenoma detection rate	256 (28.3%)	138 (32.4%)	0.12
Sessile serrated polyp detection rate	40 (4.4%)	17 (4.0%)	0.72
Flexible sigmoidoscopy	94 (4.8%)	27 (2.4%)	
Cancers detected	7 (7%)	2 (7%)	0.99
Endoscopic retrograde cholangiopancreatography	103 (5.2%)	114 (9.9%)	
Cancers detected	9 (9%)	10 (9%)	0.99
Endoscopic ultrasound	93 (4.7%)	116 (10%)	
Cancers detected	24 (26%)	31 (27%)	0.88
Enteroscopy	9 (0.4%)	2 (0.2%)	
Cancers detected	1 (11%)	0	—
Per-oral endoscopic myotomy	2 (0.1%)	1 (0.1%)	

IQR = interquartile range.

increased our overall cancer detection rate during a period of limited access and resources. Although our missing cancer rate was not as high as reported elsewhere,¹ prompt restoration of endoscopy volume should be a focus of pandemic recovery.

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