Original research

Impact of the COVID-19 pandemic on UK endoscopic activity and cancer detection: a National Endoscopy Database Analysis

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ABSTRACT

Objective The COVID-19 pandemic has had a major global impact on endoscopic services. This reduced capacity, along with public reluctance to undergo endoscopy during the pandemic, might result in excess mortality from delayed cancer diagnosis. Using the UK's National Endoscopy Database (NED), we performed the first national analysis of the impact of the pandemic on endoscopy services and endoscopic cancer diagnosis.

Design We developed a NED COVID-19 module incorporating procedure-level data on all endoscopic procedures. Three periods were designated: pre-COVID (6 January 2020 to 15 March), transition (16–22 March) and COVID-impacted (23 March–31 May). National, regional and procedure-specific analyses were performed. The average weekly number of cancers, proportion of missing cancers and cancer detection rates were calculated.

Results A weekly average of 35 478 endoscopy procedures were performed in the pre-COVID period. Activity in the COVID-impacted period reduced to 12% of pre-COVID levels; at its low point, activity was only 5%, recovering to 20% of pre-COVID activity by study end. Although more selective vetting significantly increased the per-procedure cancer detection rate (pre-COVID 1.91%; COVID-impacted 6.61%; p<0.001), the weekly number of cancers detected decreased by 58%. The proportion of missing cancers ranged from 19% (pancreatobiliary) to 72% (colorectal).

Conclusion This national analysis demonstrates the remarkable impact that the pandemic has had on endoscopic services, which has resulted in a substantial and concerning reduction in cancer detection. Major, urgent efforts are required to restore endoscopy capacity to prevent an impending cancer healthcare crisis.

Significance of this study

What is already known about this subject?

- The COVID-19 pandemic has had a major impact on endoscopy services and cancer detection, but the extent of that impact is not well defined.
- National Endoscopy Database is an established national database, holding over 2.5 million UK endoscopy records, which automatically captured near-real-time data from each endoscopy procedure that an endoscopy service performs.

What are the new findings?

- Early in the UK pandemic lockdown, endoscopy activity reduced to only 5% of normal activity; 10 weeks later, activity had only increased to 20% of pre-COVID levels.
- Endoscopic cancer detection reduced by 58% overall, and by 72% for colorectal cancer.

How might it impact on clinical practice in the foreseeable future?

- The scale of the impact of the pandemic on endoscopic services, particularly the reduction in cancer detection, is important to inform national, regional and local healthcare planning.
- Major, concerted and coordinated national, regional and local efforts are required to restore endoscopy capacity and to prevent an impending cancer healthcare crisis.

INTRODUCTION

COVID-19 is an infectious disease that is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus which was initially detected in Wuhan, China, in November 2019. Since the detection of this novel virus there, it has been declared a global pandemic by the WHO in March 2020.[1] As of 9 June 2020, it has infected over 7.25 million people worldwide, and caused more than 410 000 deaths.[2] The pandemic has represented a unique challenge to all clinical services, including endoscopy, with its severity, virulence and unprecedented scale.[3]

The clinical characteristics of COVID-19 include a febrile and inflammatory biphasic illness with associated respiratory tract inflammation.[4 5] GI manifestations are associated but seem less prevalent than in prior SARS or Middle East respiratory syndrome.[6] Evidence has established that COVID-19 is mainly spread via droplets and contact.[3 7–9] Additionally, there are now data supporting airborne spread during aerosol-generating procedures, which include endoscopy.[3 9] This has implications for healthcare professionals (HCPs) performing or assisting with

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these procedures: indeed, around 3.8% of the initial cohort of confirmed cases of COVID-19-associated mortality were seen in HCPs in China.[10] More recent UK data (up to 20 April 2020) have shown that rates of death in COVID-19 in HCPs were not higher that the general population; 10.2 deaths per 100 000 men (43 deaths) and 4.8 deaths per 100 000 woman (63 deaths).[11] Further challenges to the provision of endoscopy in the current pandemic include asymptomatic carriers spreading the virus to close contacts,[12 13] and the findings that many of these asymptomatic cases had detectable viral loads similar to those with prominent symptomatology.[14]

In response to these worldwide issues, most gastroenterology societies in jurisdictions affected by the pandemic, including the European Society for Gastrointestinal Endoscopy, the American Society for Gastrointestinal Endoscopy and the Asian-Pacific Society of Digestive Endoscopy, issued guidance to cease non-urgency endoscopic activity, with the British Society of Gastroenterology (BSG) and Joint Advisory Group for Gastrointestinal Endoscopy (JAG) advice published on 23 March 2020.[15] This guidance included the postponement of non-emergency cases, bowel cancer screening and surveillance which have impacted on the cancer diagnostic pathway. Although this guidance has caveated that fast-track referral cases can be assessed on a case-by-case basis, it is likely that these have been significantly delayed. The wider implications from guidance on the provision of endoscopy services are covered elsewhere in more detail.[3]

The impact of this reduction in endoscopic diagnostic service provision is currently ill defined. In other European countries, COVID-19 has reduced overall cancer diagnostics and led to reductions in cancer diagnoses by between 26% (non-skin cancer) and up to 60% (skin cancer).[16] We are yet to see what impact this pandemic and the associated reduction in GI endoscopy has had on the diagnosis of GI cancers, but there is increasing concern that delay in treatment of even 3 months will have a significant impact of cancer survival.[17] As the pandemic transmission rate reduces in the UK, there has been further advice on recommencing endoscopy services,[18] but this guidance may be slow to implement in light of issues around provision of personal protective equipment (PPE), other measures aimed to reduce potential COVID-19 transmission within endoscopy centres and patient reluctance to attend for procedures.[19]

Currently, 411 of 520 (79%) of UK Endoscopy units, including both the state and private sector, provide uploaded data to the National Endoscopy Database (NED), which holds data from over 2.5 million endoscopic procedures.[20] This resource can provide a unique insight how national guidance generated to prevent COVID-19 transmission may have changed service provision. Additionally, this database allows us to demonstrate the reduction in cancer diagnosis rates in the upper and lower GI tract in the COVID-19 compared with the prepandemic era.

The aim of this paper was to use NED to examine in detail the historical changes in endoscopy service provision and cancer diagnosis in the immediate pre-COVID-19 era and during the early phase of the pandemic.

METHODOLOGY

NED is an established national database which automatically captures near-real-time data from each endoscopy procedure that an endoscopy service performs. The development of NED has previously been published.[20] Endoscopic retrograde cholangiopancreatography (ERCP) upload is not currently mandatory. As this study was service evaluation, ethical approval was not required.

For this current research, the NED IT team developed a dedicated COVID-19 module (Microsoft.Net, Microsoft SQL Server, Microsoft Analysis Services OLAP; Microsoft Corporation) incorporating procedure-level data on all endoscopic procedures, including date of the procedure, procedure urgency, indication and cancer diagnosis, patient age and sex, endoscopist and endoscopy service, segmented in weekly intervals. We downloaded data for a 21-week period starting 6 January 2020 and ending 31 May 2020.

For analysis purposes, we designated three periods: a stable pre-COVID period, reflecting normal UK endoscopy workload (10 weeks from 6 January–15 March), a transition week (from 16 March–22 March, when UK endoscopic practice was highly variable) and a COVID-impacted period (10 weeks from 23 March–31 May). The average number of procedures in each period was computed, and the percentage reduction in activity calculated for the transition and COVID-impacted periods compared with the pre-COVID period. This was done for all procedures in the UK, the four nations and English regions. It was repeated by procedure type (colonoscopy, flexible sigmoidoscopy, oesophagogastroduodenoscopy (OGD), ERCP) and for Bowel Cancer Screening Programme (BCSP) procedures and other (non-BCSP) procedures.

χ^2 tests were used to compare the age, sex and urgency (emergency, urgent, surveillance, routine, not specified) distribution of the procedures conducted in the pre-COVID and COVID-impacted periods, overall and by procedure type. The average weekly number of cancers detected at endoscopy, and cancer detection rate (with 95% CIs), was computed by period and the rates compared using z-tests. To derive the number of 'missing cancers' in the COVID-impacted period, we calculated the number of cancers that would have been expected in the COVID-impacted period (had the pre-COVID activity and cancer detection rates applied) and subtracted the number of cancers detected in the COVID-impacted period. This was also expressed as a percentage of the cancers detected in the pre-COVID period ('% of cancers missing'). Finally, we computed the number of procedures needed to detect one cancer in each period.

RESULTS

Endoscopy workload

On average, 35 478 endoscopy procedures were performed per week (by 3007 endoscopists; mean 12 procedures per endoscopist) in the pre-COVID period. In the transition week, this fell by one-third, to 23 827. In the COVID-impacted period, only 12% of the pre-COVID volume of procedures were conducted (average 4315 per week, performed by 922 endoscopists; mean 4 procedures per endoscopist; table 1 and figure 1). At its low point, by the end of March, fewer than 1800 procedures per week were being conducted: 5% of pre-COVID activity. This continued for the following 2 weeks, after which a modest week-on-week rise began, such that by the last 2 weeks of May, on average 6974 procedures were being undertaken per week undertaken: a fourfold increase from the end of March but still only 20% of pre-COVID activity.

Endoscopy training reduced from a mean of 1930 training procedures per week in the pre-COVID period (performed by 380 trainees; mean of 5 procedures per trainee), to a mean of 133 training procedures per week in the COVID-impacted period (performed by 46 trainees; mean of 3 procedures per trainee): a 93% reduction.

Table 1 Weekly number of procedures by time period and change over time, overall and by procedure type

Procedure type	Time period*	
	Pre-COVID	COVID impacted
All		
Average number of procedures per week	35 478	4312
% reduction in activity compared with pre-COVID		87.8
Colonoscopy		
Average number of procedures per week	12 646	1300
% reduction in activity compared with pre-COVID		89.7
Flexible sigmoidoscopy		
Average number of procedures per week	7335	632
% reduction in activity compared with pre-COVID		91.4
OGD		
Average number of procedures per week	14 985	2091
% reduction in activity compared with pre-COVID		86.0
ERCP		
Average number of procedures per week	513	289
% reduction in activity compared with pre-COVID		43.7

*Pre-COVID 16 January 2020–15 March 2020; COVID-impacted 23 March 2020–31 May 2020
ERCP, endoscopic retrograde cholangiopancreatography; OGD, oesophagogastroduodenoscopy.

Procedure types

When procedure types were considered, the average reduction in weekly activity compared with pre-COVID was substantial for low colonoscopy (90%), flexible sigmoidoscopy (91%) and OGD (86%). In contrast, the reduction was only 44% for ERCP procedures (table 1). For BCSP procedures, the decline in BCSP flexible sigmoidoscopies commenced at the start of March, while the volume of BCSP colonoscopies was maintained until mid-March (figure 2). In the COVID-impacted period, the reduction in weekly procedure volume, compared with pre-COVID, was 97% for BCSP colonoscopies and 99% for BCSP flexible sigmoidoscopies.

Regional variation

Analysis by UK nation showed no substantial differences (online supplementary table 1): in the COVID-impacted period, the reduction in activity compared with the pre-COVID period across nations ranged from 84% in Wales to 88% in England, and within England from 85% (South West and West Midlands) to 91% (East England and Greater London).

Case mix

The case mix of patients seen in the transition and COVID-impacted period was significantly different from the pre-COVID case mix (table 2). For all procedures combined, the proportion of older patients (aged 70 and above) was higher in COVID-impacted (39%) period, than pre-COVID (29%; p<0.001) and men comprised a higher proportion of patients (53% vs 49%; p<0.001). These patterns were most pronounced for flexible

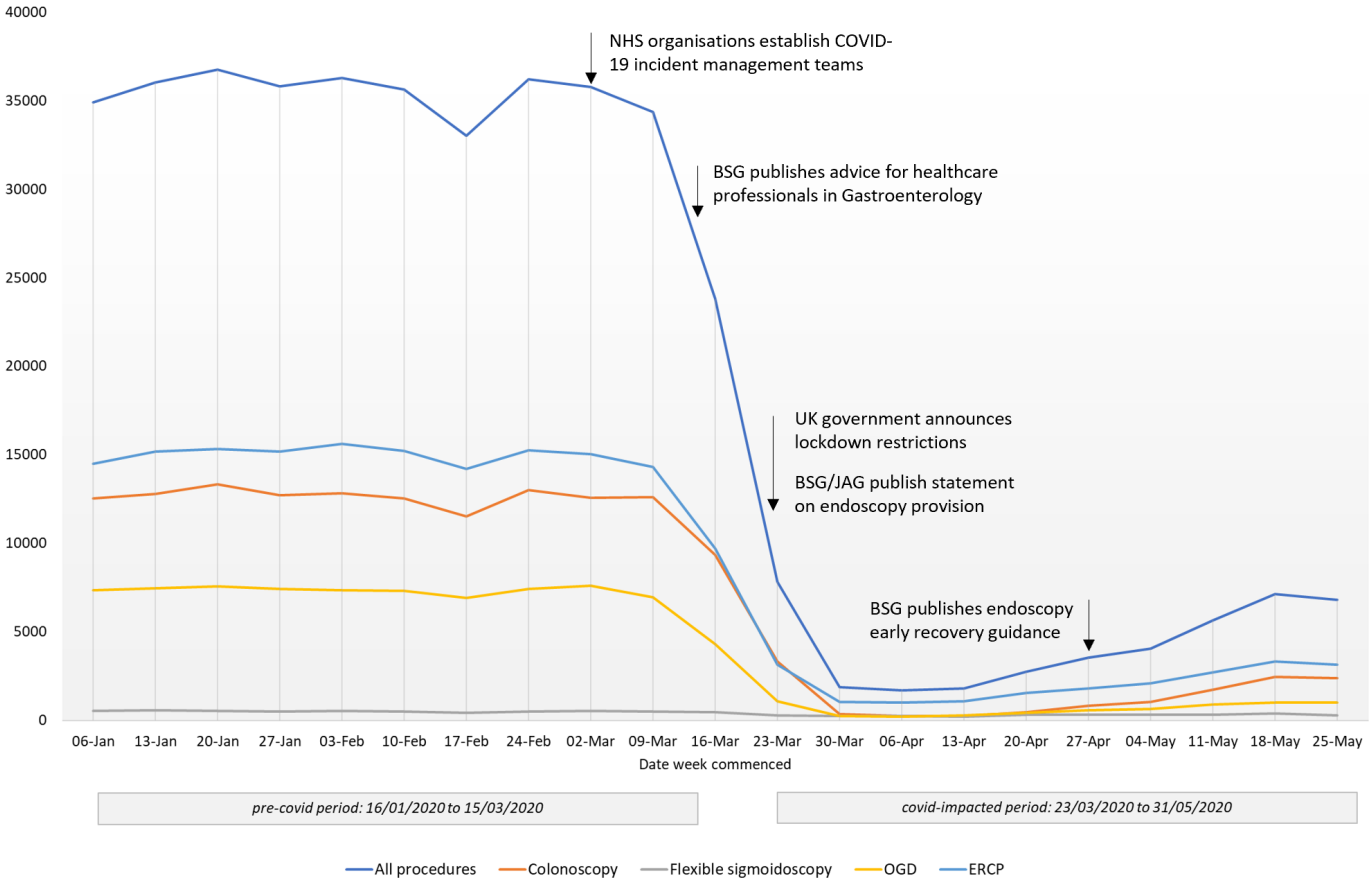

Figure 1 Number of endoscopy procedures per week, overall and by procedure type. BSG, British Society of Gastroenterology; JAG, Joint Advisory Group for Gastrointestinal Endoscopy; NHS, National Health Service.

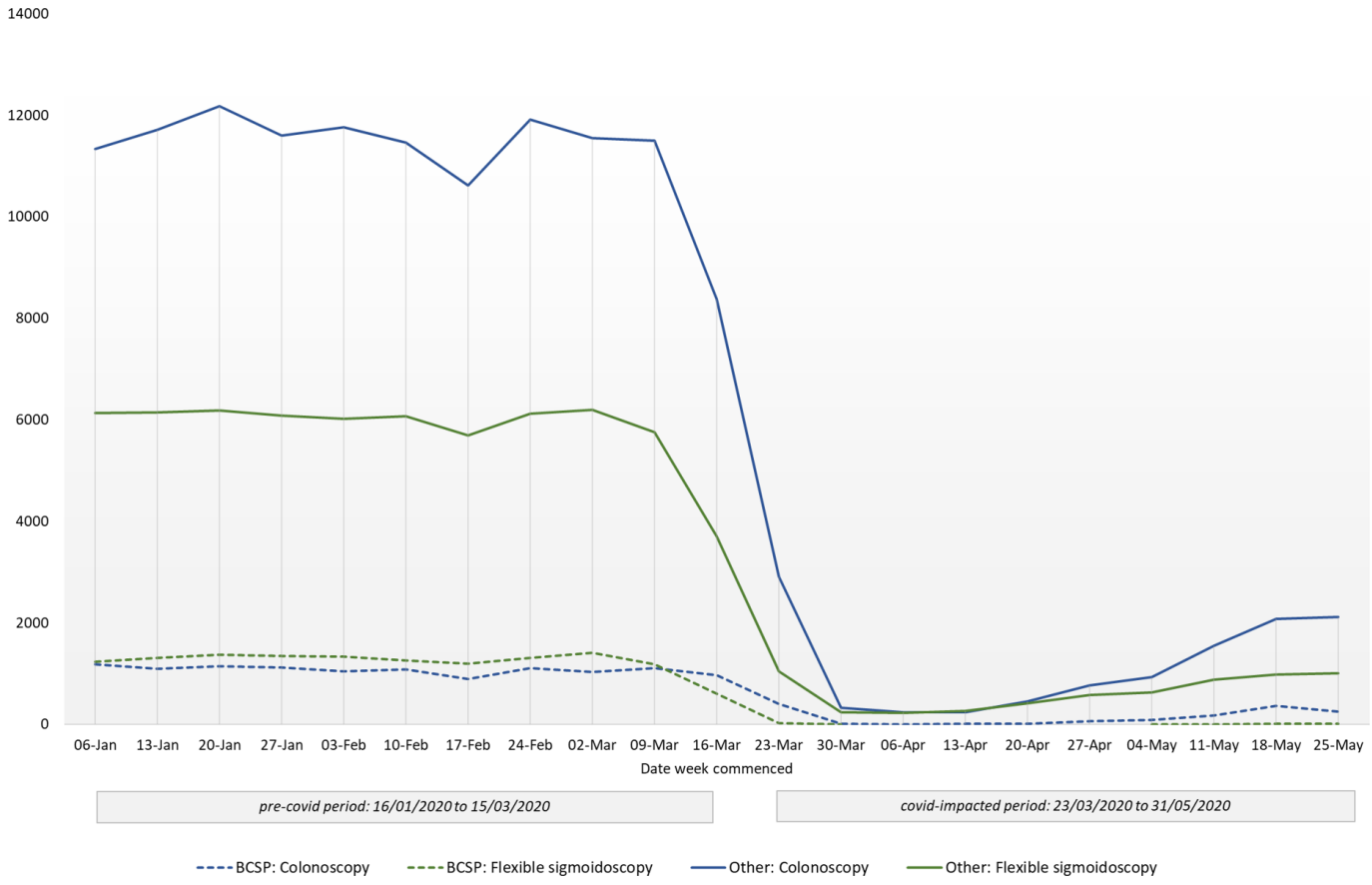

Figure 2 Number of Bowel Cancer Screening Programme (BCSP) and non-BCSP procedures per week, by procedure type.

sigmoidoscopy and OGD. For ERCP, there was a different pattern of change in the age distribution of patients; greater proportions were aged 50–59 and 60–69, and a smaller proportion was aged 70 and over in the COVID impacted, compared with the pre-COVID period (p=0.013).

Compared with the pre-COVID period, in the COVID-impacted period, the proportions of emergency procedures and those considered urgent increased while routine and surveillance procedures decreased (pre-COVID: emergency 2%, urgent 35%; COVID impacted: emergency 6%, urgency 60%; p<0.001; table 2). This increase in urgency procedures was seen for all procedure types and was most pronounced for OGD (rise from 28% to 57%) and least pronounced for ERCP (52% to 69%).

Cancers

The number of cancers detected at endoscopy decreased from an average of 677 per week in the pre-COVID period to 283 per week in the COVID-impacted period (table 3) meaning that 394 cancers per week were 'missing' during the COVID-impacted period; this represents 58% of all cases that would have been expected to be detected in this time. The proportion of 'missing cancers' ranged from 19% for pancreatobiliary cancers to 72% for colorectal cancers.

Reflecting the change in case mix, the overall per-procedure cancer detection rate rose significantly (pre-COVID 1.91 per 100 procedures; COVID-impacted 6.61 per 100 procedures; difference=4.70 per 100 procedures (95% CI 4.46 to 4.94), p<0.001;table 3). There was a significant increase in the per-procedure detection rate for colorectal, oesophageal, gastric and pancreatobiliary cancers. Overall, the number of procedures conducted per cancer decreased, from 52 in the pre-COVID to 15 in the COVID-impacted period. This was evident for all groups (table 3).

DISCUSSION

We have used a national database, populated by automated real-time capture of endoscopy reports and holding over 2.5 million endoscopic records, to achieve an accurate perspective of the impact of the COVID-19 pandemic on endoscopic workload and endoscopic cancer diagnosis. Whereas earlier modelling work has been performed, we believe that this is the first such national analysis.

Our study shows the profound effect that the pandemic has had on endoscopy services in the UK: by the end of March, endoscopic activity was running at 5% of pre-COVID activity. This substantial reduction has been seen across all UK regions and endoscopic procedures (although ERCP activity, being mostly emergencies, has been relatively well preserved). The initial reduction in endoscopic activity occurred in the week commencing 16 March 2020, when several hospitals, particularly in London, were experiencing a surge in COVID-19 admissions and hospitals across the UK were restructuring services to deal with the pandemic. There was also increasing awareness that upper GI endoscopies were aerosol-generating procedures and concern about faecal shedding of SARS-CoV-2. The demand for national advice was addressed with the publication of the BSG/JAG guidance for endoscopy services on 23 March,[15] which advised that all non-emergency endoscopic procedures should stop immediately, after which our NED analysis demonstrates that almost all non-emergency endoscopy activity ceased across the UK. In addition to this national guidance, endoscopy services faced several other logistical challenges, including inadequate

Table 2 Age, sex and urgency distribution of procedures by time period with p values*, overall and by procedure type

	Time period*			
	Pre-COVID		COVID impacted	
Procedure type	N	%	N	%
All				
Age group				
<40	49 443	13.9	4607	10.7
40–49	40 110	11.3	3945	9.1
50–59	88 631	25.0	7680	17.8
60–69	72 467	20.4	10 209	23.7
70+	104 099	29.3	16 675	38.7
	P<0.001			
Sex				
Females	179 244	51.0	20 093	47.3
Males	172 051	49.0	22 416	52.7
	P<0.001			
Urgency				
Emergency	5478	1.5	2508	5.8
Urgent	123 651	34.9	*25 598*	*59.4*
Surveillance	19 226	5.4	649	1.5
Routine	168 339	47.4	9367	21.7
Not specified	38 084	10.7	4998	11.6
	P<0.001			
Colonoscopy				
Age group				
<40	16 259	12.9	1247	9.6
40–49	15 160	12.0	1222	9.4
50–59	26 074	20.6	2619	20.1
60–69	32 495	25.7	3875	*29.8*
70+	36 463	28.8	4035	31.0
	P<0.001			
Sex				
Females	62 223	49.8	6373	49.8
Males	62 840	50.2	6422	50.2
	P<0.001			
Urgency				
Emergency	658	0.5	64	0.5
Urgent	47 599	37.6	7934	61.0
Surveillance	8255	6.5	287	2.2
Routine	56 627	44.8	3118	24.0
Not specified	13 316	10.5	1595	12.3
	P<0.001			
Flexible sigmoidoscopy				
Age group				
<40	10 270	14.0	1085	17.2
40–49	5998	8.2	582	9.2
50–59	33 589	45.8	974	15.4
60–69	8297	11.3	1225	19.4
70+	15 188	20.7	2456	38.8
	P<0.001			
Sex				
Females	35 994	49.5	2975	47.5
Males	36 780	50.5	3286	52.5
	P=0.003			
Urgency				
Emergency	1090	1.5	469	7.4
Urgent	20 209	27.6	3612	57.1
Surveillance	6514	8.9	137	2.2
Routine	36 609	49.9	1423	22.5
Not specified	8927	12.2	682	10.8
	P<0.001			
OGD				
Age group				
<40	22 545	15.0	2036	9.7
40–49	18 630	12.4	1963	9.4
50–59	28 352	18.9	3691	17.7
60–69	30 721	20.5	4541	21.7
70+	49 583	33.1	8676	41.5
	P<0.001			
Sex				
Females	78 268	52.7	9316	45.2
Males	70 132	47.3	11 294	54.8
	P<0.001			
Urgency				
Emergency	3607	2.4	1843	8.8
Urgent	53 169	35.5	12 067	57.7
Surveillance	4441	3.0	224	1.1
Routine	73 149	48.8	4302	20.6
Not specified	15 480	10.3	2474	11.8
	P<0.001			
ERCP				
Age group				
<40	369	7.2	239	8.3
40–49	322	6.3	178	6.2
50–59	616	12.0	396	13.7
60–69	954	18.6	568	19.7
70+	2865	55.9	1508	52.2
	P=0.013			
Sex				
Females	2759	54.5	1429	50.3
Males	2299	45.5	1414	49.7
	P<0.001			
Urgency				
Emergency	123	2.4	132	4.6
Urgent	2674	52.1	1985	68.7
Surveillance	16	0.3	1	0.0
Routine	1954	38.1	524	18.1
Not specified	361	7.0	247	8.5
	P<0.001			

*Pre-COVID 6 January 2020–15 March 2020; COVID-19 impacted 23 March 2020–31 May 2020.
†From χ^2 test of association.
‡Implausible ages recorded for 33 procedures; sex not recorded for 4095 procedures; urgency not recorded for 1 procedure.
ERCP, endoscopic retrograde cholangiopancreatography; OGD, oesophagogastroduodenoscopy.

availability of appropriate PPE, staff redeployment to pandemic-related activities and some endoscopy units being repurposed for COVID-related work.

Our study shows the dramatic and concerning effect that the reduction in endoscopy has had on cancer diagnosis—58% of expected cancers have not been detected, ranging from a 19%

Table 3 Number and rate of cancers detected at endoscopy, numbers and percentages of 'missing cancers'* and number of procedures per cancer detected, by time period, overall and by procedure type

	Time period*		
Procedure type	**Pre-COVID**	**COVID impacted**	**Change in cancer detection rate**
All cancers			
Average cancers detected per week	677	283	
Cancer detection rate (per 100 procedures)	1.91 (1.86–1.95)	6.61 (6.38–6.85)	4.70 (4.46–4.94), p<0.001
Missing cancers in period		3939	
% of cancers 'missing'		58.2%	
Number of procedures per cancer	52	15	
Colorectal cancers (colonoscopy and flexible sigmoidoscopy)			
Average cancers per week	394	112	
Cancer detection rate (per 100 procedures)	1.97 (1.91–2.03)	5.77 (5.44–6.10)	3.80 (3.46–4.13), p<0.001
Missing cancers in period		2828	
% of cancers missing		71.7%	
Number of procedures per cancer	51	17	
Oesophageal cancers (OGD)			
Average cancers per week	205	129	
Cancer detection rate (per 100 procedures)	1.37 (1.31–1.43)	6.16 (5.84–6.49)	4.80 (4.47–5.13), p<0.001
Missing cancers in period		759	
% of cancers missing		37.1%	
Gastric cancers (OGD)			
Average cancers per week	61	29	
Cancer detection rate (per 100 procedures)	0.41 (0.38–0.44)	1.40 (1.24–1.56)	0.99 (0.83–1.15), p<0.001
Missing cancers in period		320	
% of cancers missing		52.3%	
Number of procedures per cancer†	56	13	
Pancreatobiliary cancers (ERCP)			
Average cancers per week	17	14	
Cancer detection rate (per 100 procedures)	3.36 (2.77–3.74)	5.21 (4.35–6.07)	1.95 (0.97–2.94), p≤0.001
Missing cancers in period		32	
% of cancers missing		19.2%	
Number of procedures per cancer	31	19	

*Difference in numbers of cancers detected in COVID-impacted period compared with number expected had the same number of weekly procedures and cancer detection rate applied as in pre-COVID period; % of cancers missed is this difference expressed as percentage of number of cancers expected.
†Pre-COVID 16 January 2020–15 March 2020; COVID-19 impacted 23 March 2020–31 May 2020.
‡Number of oesophagogastroduodenoscopy (OGD) procedures per cancer (oesophageal and gastric cancers combined).
ERCP, endoscopic retrograde cholangiopancreatography.

reduction for pancreatobiliary cancers to a 72% reduction for colorectal cancer.

Our data are consistent with the impact on cancer diagnosis identified in a recent report, which showed a reduction in the diagnosis of all cancers across the Netherlands[16]; similar assumptions have been raised by Cancer Research UK.[21] This delay is of great concern: a recent modelling study indicated that even modest delays in surgery for cancer of 3– 6 months might incur significant impact on survival, particularly for stage 2 or 3 cancers.[17]

Our study shows that whereas the overall number of cancers being detected has dropped significantly, the detection rate of endoscopic tests for cancer has increased significantly during the COVID-19 pandemic. This is due to the selective nature of endoscopic procedures being performed during the pandemic, focusing on patients whose symptoms and baseline tests indicate the highest risk of cancer. Strategies have included senior clinician vetting of all endoscopic referrals (compared with much open-access endoscopic workload prepandemic) and using other investigations such as faecal immunochemical test (FIT) testing and cross-sectional imaging to stratify risk and identify pathology. Whether such mechanisms persist and/or prove useful in the later phases of recovery remains to be seen.

Our data reveal a small increase in endoscopic workload since the end of March, recovering to 20% of pre-COVID activity by the end of our analysis. While this recovery is small, in comparison with pre-COVID levels, it nevertheless represents a fourfold increase from its nadir, driven by increasing concerns about the detrimental impact of delayed cancer diagnosis and confidence that hospitals were coping with the COVID-19 workload,[22] admissions for which were beginning to decline.

We believe the slow speed of recovery of endoscopic activity has been multifactorial. First, many of the original reasons for reduced activity (staff redeployment, illness and shielding/self-isolation, repurposing of some units, PPE shortages) have remained. Second, endoscopy services have had to restructure, introducing social distancing, enforced downtime and additional cleaning between procedures and PPE donning and doffing, all of which substantially reduce patient throughput. Finally, but importantly, we believe the national public message to 'stay at home', along with daily news about hospitals being inundated with COVID-19 cases, many of whom were dying, resulted in

the public being reluctant both to present to general practitioners (whose services were also significantly stretched) and to attend hospital appointment, both from fear of catching COVID-19 in hospital and from a desire not to overburden hospital services.

Limitations of this paper include NED currently only covering 79% of UK endoscopy units (lower for ERCP, which is not mandatory at present)—however, this is felt to be broadly representative of the entire UK endoscopy practice. It is possible that during the pandemic, some endoscopy services have utilised endoscopy units that are not currently uploading to NED, resulting in an under-reporting of current endoscopic activity; however, it is also possible that some non-NED uploading units are now using facilities (eg, independent sector endoscopy units) that are uploading to NED, correcting previous under-reported—we feel, therefore, that these changes are unlikely to have had a significant impact on UK endoscopy reporting. Another limitation is that cancer diagnosis in NED relates to the endoscopic diagnosis, rather than histologically confirmed cancers; thus, there is potential for false-negative cases (eg, a cancer focus in a resected polyp) and false-positive cases (where the endoscopist misinterpreted benign pathology for a cancer). However, as these limitations are common to all NED reports irrespective of timeframe, we do not think they will have introduced any bias to the diagnosis of cancer in this study. Finally, it is possible that some of the cancers that would normally be detected by endoscopy have been diagnosed by alternative investigation; however, while it is likely that some cancers have been identified by, for example, cross-sectional imaging, in most cases a tissue diagnosis would still be required and therefore these cases would still undergo endoscopy.

CONCLUSION

Using the UK's NED, we have performed the first national analysis of the impact of the COVID-19 pandemic on endoscopy services and endoscopic cancer diagnosis. Our study confirms the remarkable impact the pandemic has had on endoscopic workload, which has resulted in a substantial and concerning reduction in cancer detection. Major, urgent efforts are required to restore endoscopy capacity.

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Patient consent for publication Not required.

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