

# Diagnostic Imaging Dataset Statistical Release

NHS England and NHS Improvement



## **Diagnostic Imaging Dataset Statistical Release**

### **Provisional monthly statistics, March 2019 to March 2020**

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## 1 Introduction

The Diagnostic Imaging Dataset (DID) is a monthly data collection covering data on diagnostic imaging tests on NHS patients in England. It includes estimates of GP usage of direct access to key diagnostics tests for cancer, for example chest imaging, non-obstetric ultrasound and Brain MRI.

The DID was introduced to monitor progress on *Improving Outcomes: A Strategy for Cancer*<sup>1</sup>. This strategy set out how the Government, NHS and public can help prevent cancer, improve the quality and efficiency of cancer services and move towards achieving outcomes that rival the best. One aspect of that is to ensure that GPs have access to the right diagnostic tests to help them to diagnose or exclude cancer earlier. The DID therefore reports on imaging activity, referral source and timeliness.

These data are collated from Radiology Information Systems (RISs), which are hospital administrative systems used to manage the workflow of radiology departments, and uploaded into a database maintained by NHS Digital.

### 1.1 Frequently Used Acronyms

- **DID**  
Diagnostic Imaging Dataset
- **RIS**  
Radiology Information System

*In this publication, imaging activity for the latest month of data is based on submissions up to the 28th of the month before the publication.*

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<sup>1</sup> [Improving Outcomes: A Strategy for Cancer](#), first published 12 January 2011.

In May 2016, the cancer strategy implementation plan was updated: [Achieving World-Class Cancer Outcomes: Taking the strategy forward](#).

## 2 **Headline Messages**

- There were 44.5 million imaging tests reported in England in the 12 months from April 2019 to March 2020. Of these, 2.73 million imaging tests were reported to have taken place in March 2020.
- This relatively low figure is impacted by the effect of the COVID-19 pandemic.
- In March 2020, Plain Radiography (X-ray) was most common (1.34 million), followed by Diagnostic Ultrasonography (Ultrasound, 0.64 million), Computerized Axial Tomography (CT Scan, 0.39 million) and Magnetic Resonance Imaging (MRI, 0.25 million).
- The median period between the request being made and the test being performed in March 2020 varied greatly for the different tests, from the same day for X-ray, Fluoroscopy and Medical Photography to 20 days for MRI.
- The median period for the report to be issued after the test in March 2020 ranged from the same day for Ultrasound, for example, to 3 days for MRI.
- In March 2020, GPs requested 22.7% of all tests that may have been used to diagnose or discount cancer<sup>2</sup>, under direct access arrangements. Of these, the test most commonly requested by GPs was Chest X-ray (116,000), whilst the test with the highest proportion of GP referral was ultrasounds that may have been used to diagnose ovarian cancer (44% of which were requested by GPs).

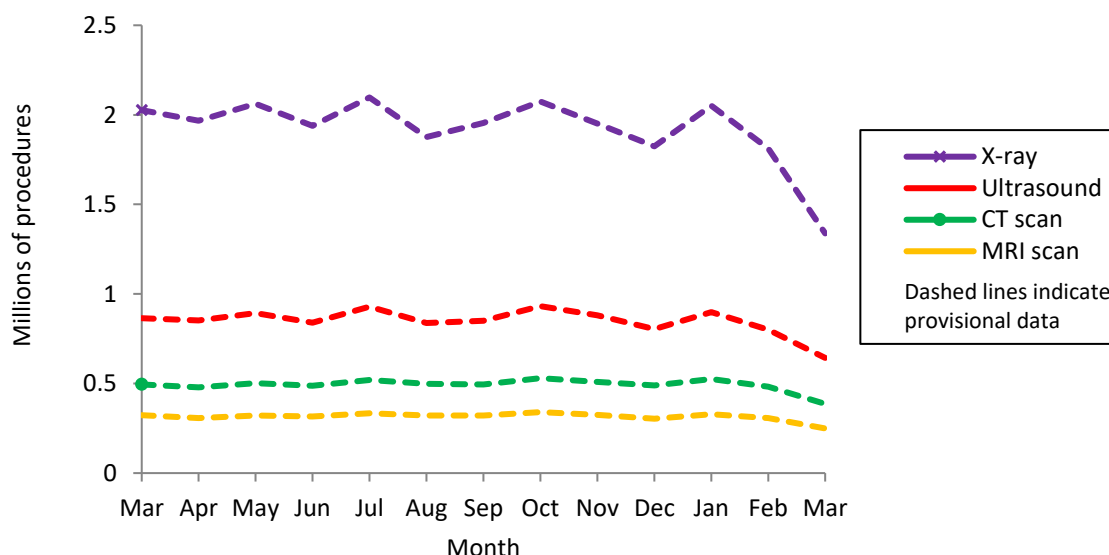
<sup>2</sup> Although these tests are used to diagnose cancer, many of the tests also have wider clinical uses. Within this data it is not possible to distinguish between the different uses of these tests

### 3 Current Data – March 2019 to March 2020

#### 3.1 Imaging Activity

- 3.1.1. There were 44.5 million imaging tests reported in England during the year from April 2019 to March 2020. Of these, 2.73 million imaging tests were reported to have taken place in March 2020. This relatively low figure is impacted by the effect of the COVID-19 pandemic.
- 3.1.2. Out of all tests performed in March 2020, X-rays (Plain Radiography) were the most common, with 1.34 million X-rays being performed. The next most common procedures were Diagnostic Ultrasonography (Ultrasound, 0.64 million), Computerized Axial Tomography (CT Scan, 0.39 million) and Magnetic Resonance Imaging (MRI, 0.25 million).
- 3.1.3. Table 1 gives an all-England count of imaging activity by modality from March 2019 to March 2020. March 2019 is shown at the top of the table for comparison but is not included in the totals for the latest 12 months. Overall activity for all modalities decreased by 29.3% between March 2019 and March 2020.
- 3.1.4. Graph 1 shows the trend in imaging activity from March 2019 to March 2020

**Graph 1: NHS imaging activity in England, March 2019 to March 2020**



All data from April 2019 onwards remain provisional and subject to change. Further information on the tests included in these tables is given in the glossary section. Full break-downs by modality, provider and referral source setting are given in Tables 1 – 6 (separate excel files), available from [NHS England DID website](#).

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**Table 1: Count of imaging activity in England, on NHS Patients, March 2019 to March 2020**

	X-ray	Ultrasound	CT Scan	MRI	Fluoroscopy	Nuclear Medicine	PET-CT Scans	SPECT Scans	Medical Photography	% organisations included	Total
<b>Mar</b>	2,025,715	864,955	494,920	323,100	87,040	34,265	15,405	3,955	4,280	100.0%	<b>3,853,635</b>
<b>Apr</b>	1,966,375	851,880	479,215	308,065	82,460	32,640	15,360	3,645	4,290	100.0%	<b>3,743,925</b>
<b>May</b>	2,061,470	893,990	501,830	321,470	87,890	34,840	16,455	3,955	4,725	100.0%	<b>3,926,620</b>
<b>Jun</b>	1,939,400	840,450	487,155	315,900	82,130	31,915	16,090	3,615	4,240	100.0%	<b>3,720,895</b>
<b>Jul</b>	2,097,065	929,670	520,455	334,875	92,305	36,850	17,920	3,995	4,865	100.0%	<b>4,038,000</b>
<b>Aug</b>	1,876,200	837,095	498,085	322,280	82,025	32,810	14,730	3,650	4,650	100.0%	<b>3,671,525</b>
<b>Sep</b>	1,954,545	850,900	494,945	320,855	83,505	33,140	16,255	3,750	4,620	100.0%	<b>3,762,510</b>
<b>Oct</b>	2,074,175	931,905	529,910	340,420	91,715	36,405	18,090	4,180	5,190	100.0%	<b>4,031,990</b>
<b>Nov</b>	1,951,065	881,640	509,435	325,955	86,525	34,060	16,495	4,015	5,150	99.4%	<b>3,814,340</b>
<b>Dec</b>	1,824,435	803,060	489,750	303,340	76,915	29,185	15,830	3,330	4,700	100.0%	<b>3,550,545</b>
<b>Jan</b>	2,051,215	898,935	525,405	327,765	87,205	35,110	18,425	4,050	5,805	97.5%	<b>3,953,915</b>
<b>Feb</b>	1,810,990	800,565	482,295	307,875	78,455	30,505	16,855	3,535	5,205	96.9%	<b>3,536,275</b>
<b>Mar</b>	1,338,035	643,155	386,430	249,220	61,455	24,490	15,280	2,870	4,210	95.1%	<b>2,725,145</b>
<b>Total</b>	<b>22,944,980</b>	<b>10,163,240</b>	<b>5,904,900</b>	<b>3,778,015</b>	<b>992,585</b>	<b>391,950</b>	<b>197,785</b>	<b>44,580</b>	<b>57,650</b>	-	<b>44,475,690</b>

1. Activity not matched to a known organisation is omitted.
2. Data from April 2019 onwards remain provisional and subject to change.
3. Total row represents a rolling 12-month total and does not include activity from the earliest month in the table. Totals may not always equal the sum of the parts due to rounding

### 3.2 Patient Test Times

- 3.2.1. The DID collects data on four dates associated with each imaging event:
- Date of test request (request made by health care professional)
  - Date of test request received (by the organisation providing the imaging)
  - Date of test
  - Date of test report issued (by health care professional interpreting the imaging output)
- 3.2.2. The Date of Test determines the month an imaging event is reported under in the DID monthly publications.
- 3.2.3. There is variation in the median period between the request being made (or received) and the test being performed for each of the different tests in March 2020. The median period was as low as the same day for X-ray, Fluoroscopy and Medical Photography and as high as 20 days for MRI scans.
- 3.2.4. Table 2 gives the median number of days between the ‘date of test request’ (or, where this was missing, the ‘date of test request received’) and the ‘date of test’, split by the test modality for each month from March 2019 to March 2020.

**Table 2: Median number of days between ‘date of test request’ and ‘date of test’ for imaging activity, March 2019 to March 2020**

	X-ray	Ultra-sound	CT Scans	MRI	Fluoroscopy	Nuclear Medicine	PET-CT Scans	SPECT Scans	Medical Photography
<b>Mar</b>	0	14	1	21	0	19	7	19	0
<b>Apr</b>	0	16	1	22	0	19	8	16	0
<b>May</b>	0	15	1	22	0	20	8	16	0
<b>Jun</b>	0	15	1	21	0	20	8	18	0
<b>Jul</b>	0	14	1	21	0	20	8	17	0
<b>Aug</b>	0	14	1	22	0	20	9	18	0
<b>Sep</b>	0	14	1	20	0	19	9	17	0
<b>Oct</b>	0	14	1	19	0	18	8	16	0
<b>Nov</b>	0	14	1	21	0	19	9	17	0
<b>Dec</b>	0	14	1	21	0	18	9	17	0
<b>Jan</b>	0	15	1	24	0	23	9	22	0
<b>Feb</b>	0	14	1	20	0	19	8	17	0
<b>Mar</b>	0	13	1	20	0	17	8	19	0

Note: Median values of 0 occur where at least 50% of activity has the same day for both 'date of test request' and 'date of test'. Where 'Date of test request' was missing, 'Date of test request received' was used instead. Records where both dates were missing were excluded from the median calculation.

- 3.2.5. These figures should not be compared to “waiting time” statistics that measure how long patients are on a waiting list, since the DID figures include both planned and unplanned imaging activity. In addition, they exclude any cancelled or missed appointments and they count the period for each distinct test not each patient appointment.



3.2.6. There was slight variation between different test types in the median period for the report to be issued after the test. In March 2020 this ranged from the same day for Ultrasound, for example, to 3 days for MRI. Table 3.1 gives the median number of days between 'date of test' and 'date of test report issued', split by the test modality for each month March 2019 to March 2020. Table 3.2 gives the percentage of records where the test report is issued on the same day of test, split by modality.

**Table 3.1: Median number of days between 'date of test' and 'date of test report issued' for imaging activity, by modality, March 2019 to March 2020**

	X-ray	Ultra-sound	CT Scans	MRI	Fluoro-scropy	Nuclear Medicine	PET-CT Scans	SPECT Scans	Medical Photography
Mar	1	0	0	3	0	1	2	2	0
Apr	1	0	0	3	0	1	2	1	0
May	1	0	0	3	0	1	2	1	0
Jun	1	0	0	3	0	1	2	2	0
Jul	1	0	0	3	0	1	2	1	0
Aug	1	0	0	4	0	1	2	1.5	0
Sep	1	0	0	3	0	1	2	1	0
Oct	1	0	0	3	0	1	2	1	0
Nov	1	0	0	3	0	1	2	2	0
Dec	1	0	0	3	0	1	2	2	0
Jan	1	0	0	3	0	1	2	1	0
Feb	1	0	0	3	0	1	2	2	0
Mar	1	0	0	3	0	1	2	2	0

Note: Median values of 0 occur where at least 50% of activity has the same day for both 'date of test' and 'date of test report issued'. Records where either of these dates is missing are excluded from the calculation of median values. 96.8% of all records for tests performed in March 2020 included both these dates.

**Table 3.2: Percentage of records where date of test report issued equals date of test, by modality, March 2019 to March 2020**

	X-ray	Ultra-sound	CT Scans	MRI	Fluoro-scropy	Nuclear Medicine	PET-CT Scans	SPECT Scans	Medical Photography
Mar	33%	93%	58%	24%	71%	34%	15%	33%	58%
Apr	32%	93%	58%	23%	70%	33%	14%	34%	53%
May	33%	93%	58%	24%	70%	35%	16%	34%	56%
Jun	32%	93%	58%	24%	70%	33%	15%	33%	55%
Jul	33%	93%	58%	25%	70%	34%	16%	34%	52%
Aug	32%	94%	58%	23%	71%	33%	15%	32%	58%
Sep	32%	93%	58%	24%	70%	33%	14%	32%	56%
Oct	34%	93%	58%	24%	70%	33%	16%	33%	60%
Nov	34%	93%	58%	24%	70%	32%	16%	31%	53%
Dec	33%	94%	60%	24%	71%	34%	15%	31%	57%
Jan	34%	94%	59%	24%	71%	33%	15%	30%	58%
Feb	33%	94%	58%	23%	72%	32%	16%	27%	56%
Mar	39%	94%	59%	24%	72%	34%	17%	26%	55%

### 3.3 Imaging Tests that could contribute to Early Diagnosis of Cancer

3.3.1. A main driver for the creation of the DID is to assess use of diagnostic imaging that could contribute to the early diagnosis of cancer and in particular General Practitioner (GP) direct access to these tests. To enable this analysis a subset of procedures particularly used to identify or discount a diagnosis of cancer have been identified:

- **Brain (MRI)**

This may diagnose brain cancer, this includes – MRI of brain (often with contrast);

- **Kidney or bladder (Ultrasound)**

This may diagnose kidney or bladder cancer, this includes – ultrasound of kidney, ultrasound scan of bladder or ultrasound and Doppler scan of kidney;

- **Chest and/or abdomen (CT)**

These may diagnose lung cancer, this includes - chest + abdominal CT, CT of chest (high resolution or other), CT thorax + abdomen with contrast, CT thorax with contrast or CT chest + abdomen;

- **Chest (X-ray)**

This may diagnose lung cancer, this includes – plain chest X-ray only;

- **Abdomen and/or pelvis (Ultrasound)**

This may diagnose ovarian cancer, this includes – ultrasonography of pelvis, ultrasonography of abdomen (upper, lower or other) or abdomen + pelvis.

3.3.2. Although these tests are used to diagnose cancer, many of them also have wider clinical uses. Within this data, it is not possible to distinguish between the different uses of these tests.

3.3.3. Brain MRI, Chest X-ray, and Ultrasounds of the abdomen and pelvis to diagnose ovarian cancer are three of the key tests which are outlined in *Improving Outcomes: a Strategy for Cancer*.

3.3.4. In March 2020, GPs requested 22.7% of all tests that may have been used to diagnose or discount cancer, under direct access arrangements. Of these, the test most commonly requested by GPs was Chest X-ray (116,000), whilst the test with the highest proportion of GP referral was ultrasounds that may have been used to diagnose ovarian cancer (44% of which were requested by GPs).

3.3.5. Table 4 gives a count of tests carried out on NHS patients that may have been used to make an early diagnosis of cancer. It includes the total number of these tests carried out, regardless of referral source setting, and a subset of this total where the referral source was recorded as “GP Direct Access”.

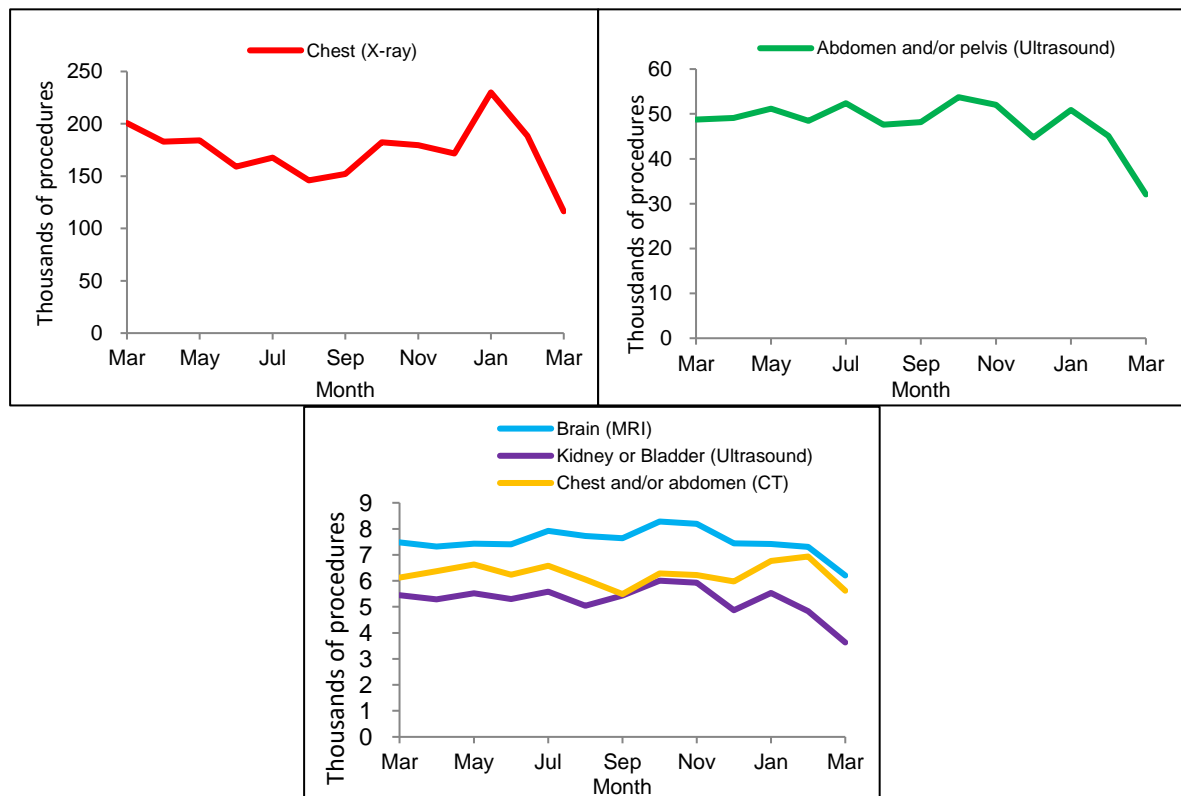
**Table 4: Imaging activity for groups of tests suitable for diagnosing cancer, for all patients referred and for those directly referred by a GP, March 2019 to March 2020**

	Brain (MRI)		Kidney or Bladder (Ultrasound)		Chest and/or abdomen (CT)		Chest (X-ray)		Abdomen and/or pelvis (Ultrasound)	
	All	GP	All	GP	All	GP	All	GP	All	GP
Mar	67,640	7,475	19,925	5,450	53,975	6,120	742,090	200,585	110,430	48,760
Apr	64,955	7,315	19,840	5,290	52,635	6,365	710,970	183,035	108,345	49,075
May	67,655	7,430	20,475	5,520	54,605	6,630	713,380	184,110	113,415	51,180
Jun	65,610	7,410	19,310	5,295	52,535	6,240	659,520	159,220	108,325	48,450
Jul	70,270	7,915	21,385	5,585	55,325	6,575	685,235	167,685	116,280	52,415
Aug	68,020	7,730	19,515	5,040	52,030	6,050	636,530	145,790	105,940	47,600
Sep	67,320	7,640	19,970	5,435	51,100	5,490	648,325	152,115	107,395	48,190
Oct	71,755	8,280	22,015	6,005	55,895	6,280	730,000	182,325	118,065	53,730
Nov	69,340	8,190	20,880	5,925	54,070	6,225	722,305	179,545	113,160	52,005
Dec	63,585	7,445	18,445	4,870	51,155	5,980	735,490	171,600	99,295	44,715
Jan	70,450	7,415	20,700	5,530	56,765	6,770	795,310	229,965	114,115	50,850
Feb	65,140	7,300	18,165	4,830	53,135	6,935	681,780	188,290	100,670	45,085
Mar	51,585	6,205	13,265	3,630	43,185	5,625	542,175	116,365	73,180	32,055

Note: Data from April 2019 onwards have been updated but remain provisional and subject to change.

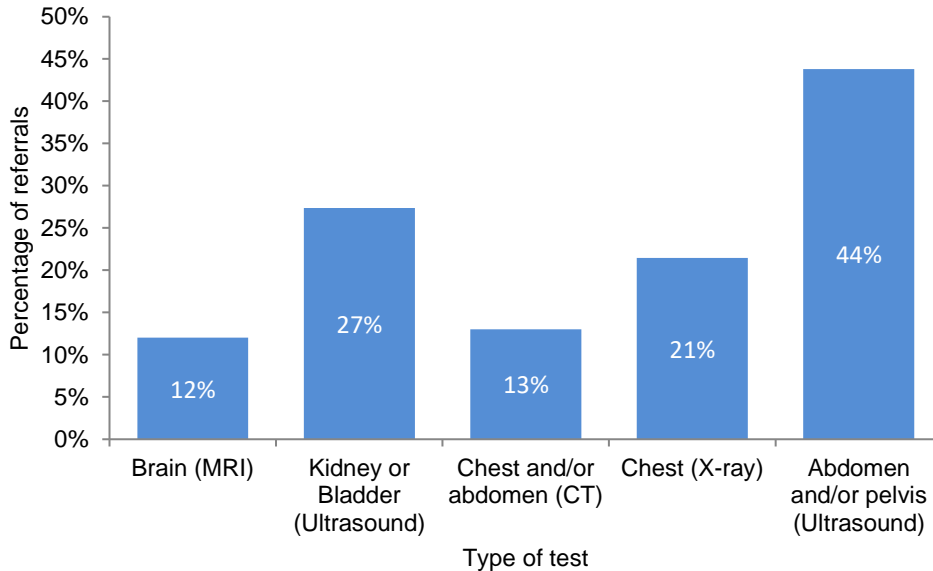
3.3.6. The number of Chest X-rays (all referrals and GP referrals) appeared to show some seasonality with summer months generally having lower numbers of Chest X-rays and winter months higher levels. This was not evident in the other tests. The trend in imaging activity for patients directly referred by a GP for March 2019 to March 2020 is shown in Graph 2.

**Graph 2: Imaging activity for patients directly referred by a GP, March 2019 to March 2020**



3.3.7. Graph 3 shows the proportion of referrals that were made by GPs for tests undertaken in March 2020. Ultrasounds on the Abdomen and/or Pelvis had the highest proportion (44%) of referrals made by GPs, whilst Brain MRI had the lowest (12%).

**Graph 3: Percentage of referrals made by GPs by type of test, March 2020**



3.3.8. Table 5 shows the median number of days between the date a test was requested and the date the test was completed, for groups of tests suitable for diagnosing cancer, for All Referral routes and GP Direct Access for March 2019 to March 2020.

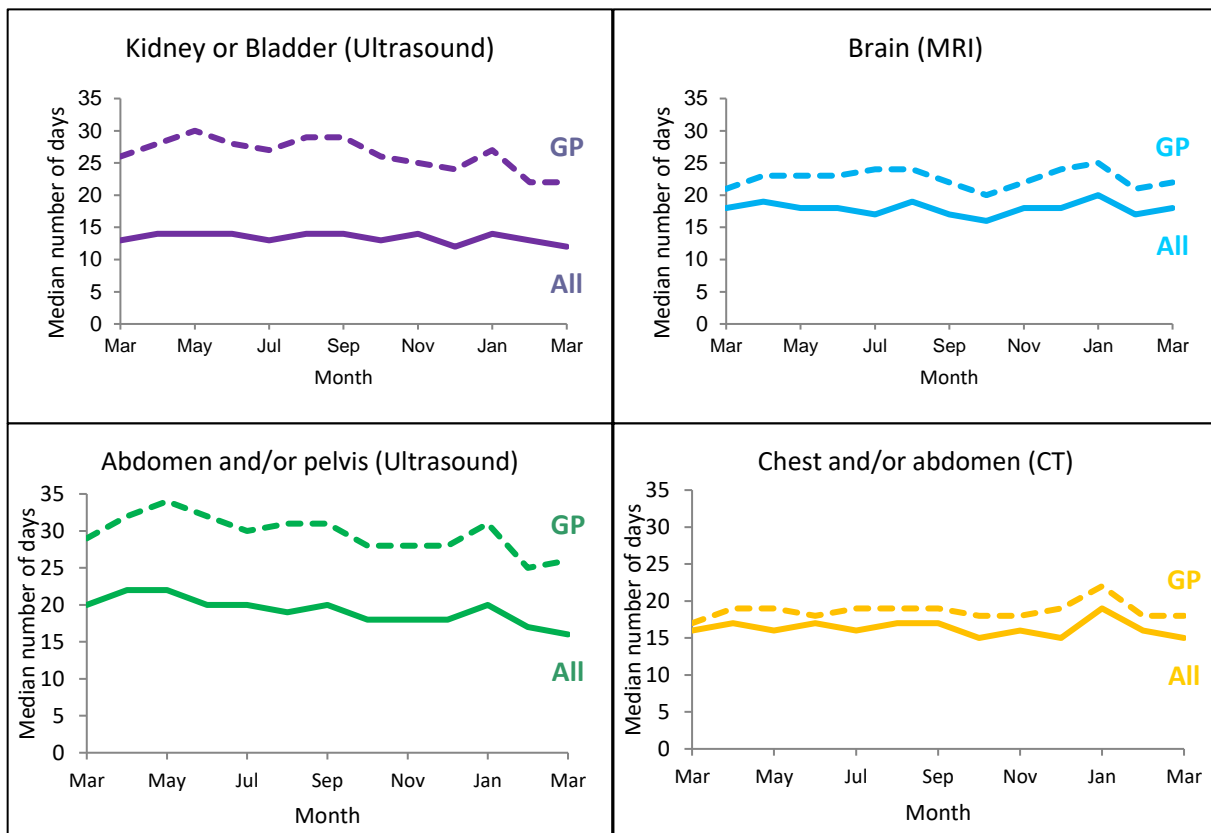
3.3.9. The median period from a test being requested (or, where this was missing, the date of test request being received) to being performed is noticeably longer for GP direct access than overall for the Ultrasound tests (Kidney or bladder and Abdomen and/or pelvis) used to diagnose or discount cancer. There are smaller differences for Brain MRI and Chest and/or abdomen CT in March 2020. The main reason for a difference is that 'All Referrals' includes tests on emergency admissions and inpatients, which have shorter waits. The trend in these differences is shown in Graph 4.

**Table 5: Median number of days between ‘date of test request’ and ‘date of test’ for groups of tests suitable for diagnosing cancer, overall and for GP Direct Access, March 2019 to March 2020**

	Brain (MRI)		Kidney or Bladder (Ultrasound)		Chest and/or abdomen (CT)		Chest (X-ray)		Abdomen and/or pelvis (Ultrasound)	
	All	GP	All	GP	All	GP	All	GP	All	GP
Mar	18	21	13	26	16	17	0	0	20	29
Apr	19	23	14	28	17	19	0	0	22	32
May	18	23	14	30	16	19	0	0	22	34
Jun	18	23	14	28	17	18	0	0	20	32
Jul	17	24	13	27	16	19	0	0	20	30
Aug	19	24	14	29	17	19	0	0	19	31
Sep	17	22	14	29	17	19	0	0	20	31
Oct	16	20	13	26	15	18	0	0	18	28
Nov	18	22	14	25	16	18	0	0	18	28
Dec	18	24	12	24	15	19	0	0	18	28
Jan	20	25	14	27	19	22	0	0	20	31
Feb	17	21	13	22	16	18	0	0	17	25
Mar	18	22	12	22	15	18	0	1	16	26

Note: Median values of 0 occur where at least 50% of activity has the same day for both 'date of test request' and 'date of test'. Where 'Date of test request' was missing, 'Date of test request received' was used instead. Records where both dates were missing were excluded from the median calculation.

**Graph 4: Median number of days between ‘date of test request’ and ‘date of test’ for groups of tests suitable for diagnosing cancer, overall and for GP Direct Access, March 2019 to March 2020**



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3.3.10. As can be seen from Table 6, although there is generally little difference in the time taken for a test report to be issued for GP Direct Access and All Referrals, GP-referred reporting periods were slightly longer for Chest CT and Brain MRI.

**Table 6: Median number of days between date of test and date test report issued and Percentage of records where report issued on day of test, for groups of tests suitable for diagnosing cancer, for all referrals and GP Direct Access, March 2019 to March 2020**

	Brain (MRI)				Kidney or Bladder (Ultrasound)			
	All Median	All % Same Day	GP Median	GP % Same Day	All Median	All % Same Day	GP Median	GP % Same Day
Mar	2	33%	3	17%	0	95%	0	92%
Apr	2	32%	3	16%	0	95%	0	91%
May	2	33%	3	15%	0	95%	0	92%
Jun	2	32%	3	16%	0	95%	0	91%
Jul	2	34%	3	16%	0	95%	0	92%
Aug	3	32%	4	14%	0	96%	0	93%
Sep	2	33%	3	17%	0	95%	0	92%
Oct	2	34%	3	17%	0	95%	0	92%
Nov	2	33%	3	17%	0	96%	0	94%
Dec	2	33%	3	18%	0	95%	0	92%
Jan	2	34%	3	18%	0	95%	0	92%
Feb	2	32%	2	16%	0	95%	0	92%
Mar	2	34%	2	19%	0	95%	0	92%

	Chest and/or abdomen (CT)				Chest (X-ray)				Abdomen and/or pelvis (Ultrasound)			
	All Median	All % Same Day	GP Median	GP % Same Day	All Median	All % Same Day	GP Median	GP % Same Day	All Median	All % Same Day	GP Median	GP % Same Day
Mar	3	32%	4	19%	3	23%	2	27%	0	95%	0	93%
Apr	3	30%	5	18%	3	23%	2	25%	0	95%	0	93%
May	4	30%	5	17%	2	24%	2	27%	0	95%	0	93%
Jun	3	29%	5	15%	3	22%	2	26%	0	95%	0	93%
Jul	3	30%	5	17%	3	23%	2	27%	0	95%	0	93%
Aug	5	28%	6	13%	3	22%	2	26%	0	96%	0	94%
Sep	4	29%	5	15%	3	22%	2	28%	0	95%	0	94%
Oct	3	30%	4	16%	2	23%	2	28%	0	95%	0	94%
Nov	3	31%	4	15%	2	23%	2	29%	0	95%	0	94%
Dec	3	32%	4	16%	3	23%	2	30%	0	95%	0	94%
Jan	3	31%	4	17%	3	23%	2	29%	0	95%	0	94%
Feb	3	29%	4	17%	2	23%	2	29%	0	96%	0	94%
Mar	2	33%	3	19%	1	33%	1	35%	0	96%	0	94%

Note: Median values of 0 occur where at least 50% of activity has 'date of test' and 'date of test report issued' recorded as the same day. Only records where both dates are reported are included in the calculation of median values: 98% of all records for tests performed in March 2020 and 98.4% of records for patients referred through GP Direct Access.

## 4 Annex

### 4.1 Glossary

#### **Computerised Axial Tomography (CT Scan)**

Computed tomography (CT), sometimes called CAT scan, uses special x-ray equipment to obtain image data from different angles around the body, then uses computer processing of the information to show a cross-section of body tissues and organs. In the DID this means all codes mentioning CAT or computed tomography except those also mentioning PET.

#### **Diagnostic Ultrasonography (Ultrasound)**

The use of ultrasonic waves for diagnostic or therapeutic purposes, specifically to image an internal body structure, monitor a developing foetus or generate localised deep heat to the tissues. In the DID this means any code relating to ultrasound.

#### **Fluoroscopy**

Fluoroscopy is an imaging technique commonly used by physicians to obtain real-time images of the internal structures of a patient through the use of a fluoroscope. In its simplest form, a fluoroscope consists of an x-ray source and fluorescent screen between which a patient is placed. In the DID this is a collection of codes mentioning fluoroscopy or using fluoroscopic guidance, Barium enema or swallow. Interventional procedures are classified under imaging modalities which provide guidance. Almost all interventional procedures are under fluoroscopy procedure. A very small number of interventional procedures are under CT or MRI procedures.

#### **Magnetic Resonance Imaging (MRI)**

Magnetic resonance imaging (MRI) is a method of producing extremely detailed pictures of body tissues and organs without the need for x-rays. The electromagnetic energy that is released when exposing a patient to radio waves in a strong magnetic field is measured and analysed by a computer, which forms two- or three-dimensional images that may be viewed on a TV monitor. In the DID this means all codes mentioning MRI.

#### **Plain Radiography (X-ray)**

A Radiograph is an image produced on a radiosensitive surface, such as a detector, by radiation other than visible light, especially by X-rays passed through an object or by photographing a fluoroscopic image. In the DID this means any code referring to radiography or X-ray.

#### **Medical Photography**

A Photograph is an image recorded on sensitized material by energy from the light spectrum, which is then processed to create a print that can be viewed clearly. Medical Photography is used in order to document a variety of different medical conditions and their treatment.

#### **Nuclear Medicine**

Nuclear medicine (NM) is a branch of medicine and medical imaging that uses unsealed radioactive substances in diagnosis and therapy. These substances

consist of radionuclides, or pharmaceuticals that have been labelled with radionuclides (radiopharmaceuticals). In diagnosis, radioactive substances are administered to patients and the radiation emitted is measured.

Nuclear medicine imaging tests differ from most other imaging modalities in that the tests primarily show the physiological function of the system being investigated, as opposed to the anatomy. It has both diagnostic and therapeutic uses, such as planning cancer treatments and evaluating how well a patient has responded to a treatment. It can be used with other diagnostic methods, including CT scans and MRI, where the images are superimposed to produce complex cross-sectional, three-dimensional scans.

### **Position Emission Tomography – Computer Tomography (PET-CT Scans)**

Position Emission Tomography - Computed Tomography (PET-CT Scan) is an imaging technique used in the diagnosis and treatment of cancer which combines PET with CT. PET uses gamma-type cameras to produce crude three-dimensional images highlighting radionuclide concentration in the body. CT allows precise localisation of the radionuclide concentration. PET-CT scans can be used to show how far a cancer has spread and can determine if a patient is responding positively to a treatment. In the DID this means all codes mentioning PET, whether or not they also mention CT.

### **Single Photon Emission Computerised Tomography (SPECT scans)**

Single Photon Emission Computerised Tomography (SPECT scans) is an imaging method that allows for analysis of internal organs. Gamma photon-emitting radionuclides are administered to a patient prior to being exposed to gamma cameras that rotate around a patient to produce cross-sectional slices that can then be reformatted into a true three-dimensional image of the patient.

### **Median**

The median is the preferred measure of the average time between pairs of dates within records as it is less susceptible to extreme values than the mean. The median number of days between pairs of dates is calculated by ordering the values obtained by subtracting the dates for each record and selecting the middle value when all records are ranked by these number of days.

### **Modality**

The broad procedure or method used for examination, for example MRI. This may include procedures assisted by the method, e.g. biopsy or injection. In the DID the modality of the examination is derived from SNOMED CT (Systematised Nomenclature of Medicine – Clinical Terms) or NICIP (National Interim Clinical Imaging Procedure) codes.

### **Referral source setting**

This is a categorisation of the department or organisation making the referral for the imaging activity. It includes categories for admitted patient care, outpatients, GP Direct Access, A&E and health care providers other than the organisation providing the imaging activity.



## 4.2 Data Quality Statement

This collection uses data from Radiology Information Systems (RISs) as a rich resource for analysis, making wider use of administrative data in line with the code of practice for official statistics. Some RIS systems cover additional test activity not reported in this publication.

A number of validations and other checks are built into the DID upload system and processing to seek to ensure that the data are complete and accurately reflect activity. Nevertheless, data issues may affect activity for some providers and users should exercise care when interpreting the results.

Reported times from test request to test should not be compared to diagnostic test waiting time statistics, as these are collected using different definitions. Unlike these statistics, the DM01 diagnostic test waiting times statistics exclude records where, for example:

- The patient is waiting for a planned (or surveillance) diagnostic test/procedure as part of a treatment plan, which is carried out at a specific time or repeated at a specific frequency for clinical reasons, eg. 6-month check cystoscopy;
- The patient is currently admitted to a hospital bed and is waiting for a diagnostic test/procedure as part of their inpatient treatment.

Data for this publication is extracted from the DID data warehouse around the 28<sup>th</sup> of the third month after the period. Any data submitted after this date may not be included in the provisional published data but should be included in subsequent updates. Finalised data are published in the Annual Report at the end of the year.

Details of coverage, completeness, comparability with other data sources, and a discussion on the types of data quality issues encountered are provided in the Technical Report and the Coverage Completeness Data Quality Summary report which is available on the NHS England Statistics website.

## Contact Us

### 4.2.1 Feedback

We welcome feedback on this publication. Please contact us at [england.did@nhs.net](mailto:england.did@nhs.net).

### 4.2.2 iView

The NHS Digital allow health sector colleagues to access DID information through their web-based reporting tool, iView. Registered users can access anonymised data at an aggregate level in a consistent and flexible format:

- **Access Information** – choose from a variety of data areas.
- **Build Reports** – select data to suit your needs.
- **Generate Charts** – customise report tables and graphs.
- **Export Data** – copy to Excel and manipulate data your way.
- **Save Reports** – store your favourite views for future use.

For more information, please visit the [iView website](#). If you would like to register to use iView for DID, please email [enquiries@nhsdigital.nhs.uk](mailto:enquiries@nhsdigital.nhs.uk) (subject: DID iView Access).

### 4.2.3 Websites

NHS Digital collects the DID on behalf of NHS England and NHS Improvement. Further information about the dataset can be found on [NHS Digital DID website](#).

Those who submit data to DID do so via a secure submission portal. Further information about submissions can be found on the [submission website](#).

The DID Additional Tables and Technical Report can be found on [NHS England DID website](#).

### 4.2.4 Additional Information

For press enquiries contact the NHS England Media team on 0113 825 0958 or 0113 825 0959. Email enquiries should be directed to [nhsengland.media@nhs.net](mailto:nhsengland.media@nhs.net)

The next scheduled publication of this report is 20 August 2020.

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