



Thursday 15 October 2015

## **Unreported X-rays, computed tomography (CT) and magnetic resonance imaging (MRI) examinations: results of the September 2015 snapshot survey of English NHS acute trusts**

### **Main results and findings**

Timely reporting of X-rays, CT and MRI scans by radiologists is of paramount importance to patient care. Prompt diagnosis of a serious medical condition is essential if an appropriate course of treatment is to be initiated. A delay in diagnostic reporting can delay treatment and lead to a worse outcome for patients. At best, patients waiting for test results experience a period of unnecessary anxiety which can itself be harmful.

Following our previous snapshot survey, conducted in February 2015, a further survey was undertaken in September 2015 to assess progress.<sup>1</sup> All 155 acute NHS trust radiology departments in England were surveyed and asked how many studies (X-rays, CT and MRI scans) had waited unreported for more than 30 days on a particular date – 3 September 2015. Responses were received from 128 trusts (83%).

The main findings are:

1. In 93 out of 128 trusts (73%) there are patients are waiting more than 30 days for results of X-rays, CT or MRI scans
2. The number of patients waiting over a month for the result of CT or MRI studies has more than doubled since February 2015, from 6,160 to 13,018. When projected to obtain a national picture, this means that there are now over 15,000 patients waiting more than a month for the results of their CT or MRI scans
3. The overall number of unreported radiological examinations remains high. The attention focused on this problem by our previous survey and subsequent enquiries by the Care Quality Commission (CQC) have led to a reduction in the number of unreported X-rays, from 257,158 in February 2015 to 175,865 in September 2015, but across the country there are still around 230,000 patients waiting more than a month for the results of X-rays and scans.

The persistence of large-volume reporting backlogs in NHS acute trusts is a result of a chronic shortage of capacity in radiology services rather than short-term or seasonal factors.

## **1. Introduction**

The Royal College of Radiologists (RCR) carried out a snapshot survey in September 2015 to identify the number of unreported imaging studies in NHS radiology departments. Radiology departments in NHS acute trusts in England were asked the following question:

- On Thursday 3 September 2015, how many studies (plain film, CT and MRI) have been waiting unreported for more than 30 days on your picture archiving and communications system (PACS)?

The September survey was a repeat of one carried out six months earlier, in February 2015. The results of the February survey raised serious concerns given the volume of radiology studies going unreported for more than 30 days; these were passed on to the CQC. This repeat survey was undertaken to determine whether the problem had been addressed.

## **2. Method**

All 155 radiology department clinical directors from each of the NHS acute trusts in England, as listed by the NHS Choices website, were sent an introductory email two weeks ahead of the survey date of 3 September 2015.<sup>2</sup> Together with a data submission form, clinical directors were also sent guidelines to ensure a standardised approach when completing the survey. The guidelines specified:

- Inclusion of only those studies generated up to midnight of 3 August 2015 and yet to be reported on 3 September 2015
- Not to use a timeframe when identifying unreported studies on the PACS system. If data cannot be generated without a timeframe then one year leading up to 3 August 2015 should be used
- Reports need to be typed and verified/authorised for a study to be defined as being reported
- A single examination counts as one study. Therefore, a patient booked in for a CT scan of chest, abdomen and pelvis would count as one study and not three
- Not to include studies reported on by non-radiologists, such as bone densitometry scans reported on by rheumatologists.

### ***Response rate***

Data submissions were received up to 25 September 2015. Responses were sent by 128 of the 155 trusts invited to take part in the survey – a response rate of 83%. This was a slight improvement on the 78% response rate for the February 2015 survey.

### 3. Results

Across England, the number of plain film X-rays, CT and MRI studies going unreported for more than 30 days remains high. This represents a radiology reporting backlog. Nearly three-quarters of NHS acute trusts completing this survey had such a backlog, affecting the delivery of diagnostic examination results to some 189,000 patients in total.

Particularly concerning is the substantial increase in the number of MRI and CT studies going unreported for more than 30 days. In the space of just over six months (late February to early September 2015):

- The number of unreported MRI studies has risen by 127%, from 3,277 to 7,438
- The number of unreported CT studies has risen by 94%, from 2,883 to 5,580.

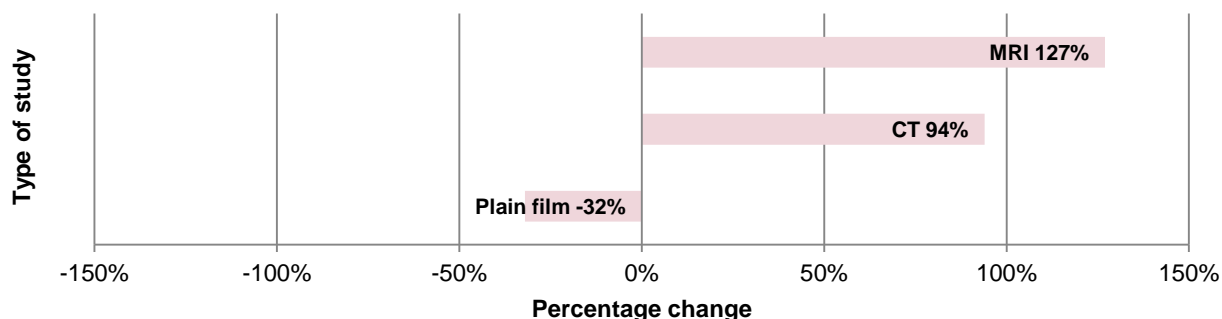
MRI and CT scanners are advanced and expensive healthcare technologies providing precise, detailed and often conclusive diagnostic information about a patient's medical condition. Scans are used to diagnose and monitor patients with cancer and a range of other serious conditions. Failure to report MRI and CT scans in a timely manner therefore constitutes a serious failure in patient care.

There has been an improvement in the national figure with regard to the reporting of plain film X-ray examinations. The number of X-rays going unreported for more than 30 days has decreased by 32% since February 2015 when the survey was last undertaken. However, there is still a high and persistent level of unreported X-ray studies in England. In September 2015, the figure totalled 175,865.

**Table 1. Total number of radiology studies waiting more than 30 days for a report – September and February 2015**

Survey	Trusts with studies waiting >30 days for a report		Number of studies waiting >30 days for a report		
	Number of trusts	% of trusts submitting data	Plain film X-ray	CT	MRI
February 2015	86	71%	257,158	2,883	3,277
September 2015	93	73%	175,865	5,580	7,438

**Figure 1. Percentage change in the total number of radiology studies waiting more than 30 days for a report between February and September and 2015**



#### 4. Projected number of unreported radiology studies

Of the 155 NHS acute trusts invited to take part, 27 did not submit data for the September 2015 survey. An estimate has therefore been made as to the total number of imaging studies going unreported for 30 days or more for all 155 trust radiology departments in England. The estimate is based on ascertaining the mean figure for data submitted and applying it to all 155 trusts.

**Table 2. Projected number of radiology studies going unreported for 30 days or more for all 155 NHS acute trusts in England – September 2015**

Projection method	Plain film X-ray	CT	MRI
National mean data	212,970	6,820	8,990

When the projections based on the September 2015 and February 2015 survey data are compared, there is a 25% to 35% decrease in the number of unreported X-ray studies. The number of unreported CT studies has increased by between 83% and 85% and there has been an increase of between 103% and 111% for unreported MRI studies. These changes are consistent with the changes in the actual number of unreported radiology studies provided by NHS acute trusts for the February and September 2015 surveys.

**Table 3. Projected number of radiology studies going unreported for 30 days or more for all 155 NHS acute trusts in England – September and February 2015**

	Plain film X-ray	CT	MRI
February 2015	322,543–329,417	3,636–3,693	4,198–4,268
September 2015	209,060–246,490	6,604–6,820	8,515–8,990

The ranges shown reflect different methods of making the projection.

#### 5. Discussion

This repeat snapshot survey confirms that there is a persistent severe problem in NHS radiology services with delays in the reporting of large numbers of X-rays and scans. The findings are a reflection of the chronic shortage of capacity in radiology services and, in particular, a failure to train and recruit sufficient numbers of radiologists. There is an urgent need to address these issues, given that demand for imaging services continues to rise at rates much greater than those of most other healthcare services.<sup>3</sup>

Of particular concern is that the number of patients waiting more than a month for results of CT and MRI scans has doubled in the past six months. The reduction in the number of X-rays waiting more than a month to be reported has come at the expense of a sharp increase in the number of CT and MRI scans waiting. The implication of this is that the limited extra capacity which has been found, whether in the form of outsourcing or reporting by radiographers, has only been able to address the relatively easier problem of unreported X-rays. For the much more serious problem of unreported complex CT and MRI scans, no solution has presented itself; this requires a sustained and committed long-term investment in diagnostic imaging capacity, as highlighted by the Independent Cancer Taskforce.<sup>4</sup>

## References

1. The Royal College of Radiologists. *Unreported X-rays, computed tomography (CT) and magnetic resonance imaging (MRI) scans: results of a snapshot survey of English National Health Service (NHS) trusts*. London: The Royal College of Radiologists, 2015.
2. [www.nhs.uk/servicedirectories/pages/acutetrustlisting.aspx](http://www.nhs.uk/servicedirectories/pages/acutetrustlisting.aspx) (last accessed 07/10/2015)
3. 2020 Delivery. *Horizon scanning: an evaluation of imaging capacity across the NHS in England*. London: Cancer Research UK, 2015.
4. Independent Cancer Taskforce. *Achieving world-class cancer outcomes: a strategy for England 2015–2020*. London: Independent Cancer Taskforce, 2015.