Follow up of test results ordered in ED and identification of lung mass
15HDC01204, 30 June 2017

District health board ~ Emergency department ~ Follow up of test results ~ Radiology service ~ Radiologist ~X-ray ~ Diagnosis ~ Lung cancer ~ Right 4(1)

A man presented to the Emergency Department (ED) at a public hospital, as he had developed left-sided chest pain when doing physical work. He also had shortness of breath, a feeling of illness since the previous day, and a chronic cough. An ED doctor reviewed the man and ordered a chest X-ray. He diagnosed pneumonia and recommended admission to the ward, but the man declined. On discharge, the ED doctor told the man to follow up with his general practitioner (GP), but did not specify a timeframe for this. The discharge summary was sent to the man's GP.

The chest X-ray was reported on the following day and the findings were "a dense pneumonic consolidation" in the left upper lobe of the lung. The report recommended a follow-up X-ray in 10-14 days' time to ensure resolution. The ED doctor and the GP both received the chest X-ray report but neither took any action in respect of it. The man did not present to his GP for follow-up of his pneumonia.

Approximately three months later, the man presented to an accident and medical centre, as he had hit his left upper arm the previous day and could not lift it. The doctor ordered a shoulder X-ray. The X-ray was reported on by a radiologist working for the radiology service. A mass in the left upper lobe of the lung, visible in the first of the two views taken, was not commented on.

Some time after these events, the radiology service discovered that there was a random, transient issue with auto-magnification of images for plain film X-rays affecting two workstations, one of which was the radiologist's. It is not known when this issue began. On the day of reporting the man's shoulder X-ray, there were inadequate radiologist resources available at the radiology service relative to the workload experienced.

The following year, the man presented to the ED at the public hospital with left-sided chest pain. A chest X-ray and left shoulder X-ray were carried out. The left shoulder X-ray reported "a very large left upper lung mass". The man was subsequently diagnosed with T3N1 squamous cell carcinoma of the left upper lobe. He underwent concurrent chemotherapy and radiation therapy, but, sadly, died.

Findings

In her radiology report, the radiologist failed to identify the left upper lobe lung mass. Despite the potential IT issue and the workplace circumstances that existed at the time, in the Commissioner's view, this abnormality should have been identified and reported on. By failing to do this, the radiologist did not provide services to the man with reasonable care and skill and, therefore, breached Right 4(1).

The Commissioner was critical of the radiology service provider in that there were workplace stressors at the radiology service provider that the radiologist felt impacted on her work.

The Commissioner made adverse comment that the ED doctor should have provided more specific instructions to the man on discharge, and that his communication about follow-up of the X-ray could have been improved.

The district health board (DHB) did not have a clear, effective, and formalised system in place for the reporting and following up of test results. The Commissioner would expect that such a system would include a policy requiring the clinician to instruct the patient leaving the ED to follow up any outstanding test result with an identified provider, normally his or her GP. The Commissioner found that the DHB did not provide services to the man with reasonable care and skill, and breached Right 4(1).

The Commissioner made adverse comment that the GP was not more proactive in confirming his assumption that the ED doctor would be acting on the recommendation in the X-ray report.

Recommendations

The Commissioner recommended that the radiologist have an independent radiologist peer perform a review of a random selection of her reports completed in the last 12 months, and provide a written apology to the man's widow.

The Commissioner recommended that the DHB review its ED policy to ensure that there is a clear process for the handover of care from ED to GPs, including follow-up of tests and X-rays ordered in ED, and provide a written apology to the man's widow.

The Commissioner recommended that the National CMO Group work to put in place clear practice guidelines regarding the interface between emergency departments and general practitioners in relation to follow-up of test results, within all DHBs.