Failure to follow up on abnormal test results led to long delay in diagnosing heavy metal toxicity

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Deputy Health and Disability Commissioner Dr Vanessa Caldwell has found South Canterbury District Health Board (SCDHB, now Te Whatu Ora/Health New Zealand South Canterbury) in breach of Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).

The breach involved a failure to follow-up on a man's significantly abnormal test results.

The man underwent a follow-up review with SCDHB in 2013 following metal-on-metal hip replacement surgeries in 2006 and 2012. This included blood tests for cobalt and chromium levels.

While the man's results significantly exceeded normal levels, SCDHB failed to take action on the results. There was no electronic sign off process in place at the time, and the paper results were not sighted by the man's orthopaedic surgeon. In addition, the man was not scheduled for future orthopaedic review of his hip replacements.

The man presented to hospital with various health issues, including heart failure, over the next six years, but did not receive orthopaedic review during this period.

Additionally, the man's cobalt and chromium levels were not tested again until he was admitted to hospital in 2019. At this time, the results showed significantly elevated levels, indicating heavy metal toxicity, which clinicians believed could potentially explain the man's heart failure.

Dr Caldwell considered: "SCDHB did not provide the man with the timely, competent, and appropriate services he needed based on his significantly abnormal chromium and cobalt test results. This meant the heavy cobalt toxicity remained undiagnosed, and this contributed to the man's eventual heart failure."

Dr Caldwell noted it is the responsibility of healthcare organisations to ensure there are robust systems in place to minimise the risk of such errors occurring, and considered that SCDHB was responsible for the failings in the man's care.

"SCDHB's system for receiving and communicating laboratory test results to clinicians was inadequate and prone to human error, and SCDHB did not have safety-netting steps in place to mitigate this," Dr Caldwell said.

In addition, Dr Caldwell found: "Proactive steps were not taken to ensure the man was reviewed in accordance with SCDHB's relevant policies and guidelines, resulting in the man receiving no further post-operative follow-up between 2013 and 2019. Human error also occurred in the orthopaedic administrative process in booking the man's follow-up appointment."

Dr Caldwell agreed with SCDHB's Serious Adverse Event Review findings which described the circumstances as "wholly preventable".

As the errors in the paper-based system did not alert the orthopaedic surgeon to the man's abnormal results, Dr Caldwell found that the surgeon was not culpable for the missed results, and was not in breach of the Code.

In addition to changes already made by SCDHB, Dr Caldwell recommended that Te Whatu Ora South Canterbury provide HDC with a summary of a recent audit of the existing register of patients with metal-on-metal hip replacements, and steps taken to address any issues identified.

Dr Caldwell also requested an update from Te Whatu Ora South Canterbury on the implementation and effectiveness of its existing protocol for long-term management of total hip replacements, and a summary of the changes implemented to ensure that diagnostic testing and investigations ordered for orthopaedic patients have been received and actioned.

Finally, Dr Caldwell recommended that Te Whatu Ora South Canterbury provide an apology to the man's family.

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