Investigations into cause of severe back pain
16HDC01886, 11 June 2018

District health board ~ Registrar ~ED consultant ~ Investigations ~Aortic dissection ~ Right 4(1)

A 70-year-old man experienced severe back pain following exercise in the early morning. He presented to an emergency medical centre around 7am and was assessed. The GP identified that the pain was located in the thoracic region (back of the chest) and was extreme in nature with a pain score of 10/10 recorded. The man was also pale, sweaty, and experiencing slurred speech and a left facial droop. An electrocardiogram (ECG) showed that his heart rate and rhythm were normal.

The GP documented that the man's blood pressure in his left arm was lower than the blood pressure in his right arm, and questioned a possible thoracic aneurysm, a possible cerebrovascular accident (stroke), and/or an acute coronary syndrome (a heart attack).

At 7.46am, at the GP's request, the man was transferred to the Emergency Department (ED) at the public hospital. At approximately 8.15am, an ED registrar reviewed the medical notes and noted that the man had been referred to the ED with thoracic back pain for assessment. The registrar noted the symptoms that had been identified and documented by the GP, and conveyed the information to an ED consultant.

The consultant asked the registrar to check the pulses in both arms for radial–radial delay (a delay between the arterial pulses in both arms). The registrar told HDC that "[t]here was no asymmetry in pulses between arms, which might have occurred if there was a blockage in the main artery to the arm caused by an aortic dissection".

At approximately 9.30am, the consultant examined the man and recorded that he had no chest pain, no prior history of hypertension, no heart disease or aortic valvular disease, normal blood pressure and heart rate and no pulse discrepancy between arms, and that the cardiac examination was normal with no murmurs apparent from the front or back of his chest.

At 12.10pm, the man's pain score had decreased to 2/10. The man remained in the ED. At approximately 1pm, he told the registrar that his pain had resolved, and the registrar said that he intended to discuss the man's X-rays with the consultant. The registrar stated that as the chest X-ray had been taken in a non-standard position, the plan was to repeat it in the standard position and, if that were normal and the pain had settled, the man could be discharged. The consultant stated that they performed the X-ray to examine the outline of the aorta to look for any abnormality of the kind that might occur with aortic aneurysm or dissection.

At 3.11pm, nursing staff took the man's observations and recorded his pain score as 2/10. The man declined further morphine for his pain.

The consultant stated that a further X-ray at approximately 3.10pm revealed a normal appearance, and the radiologist reported both films as normal. The registrar visited the man at approximately 3.30pm. The man advised that his pain had resolved, and the observations taken by the nurses were within the normal range.

The consultant stated that prior to a formal handover, the registrar advised him that the man was "pain free", was resting comfortably, and had no further complaints, and nursing documentation recorded that he had been sleeping. The consultant said that during the handover at 4pm they began to make formal arrangements for discharge. The consultant stated that the diagnosis was of musculoskeletal back pain, as the results of all the investigations carried out were normal. At 4.10pm the man collapsed and medical staff attempted to resuscitate him. However, this was unsuccessful.

Findings

Criticism was made that the consultant failed to carry out appropriate investigations in light of the symptoms the man presented with in the ED, and his medical history and diagnostic concerns documented by the general practitioner. By failing to carry out appropriate investigations to exclude a diagnosis of aortic dissection, and in particular by failing to order a CT scan, the consultant failed to provide services with reasonable care and skill and, accordingly, breached Right 4(1) of the Code.

It was held that the DHB took such steps as were reasonably practicable to prevent the consultant's error. Accordingly, the DHB was not vicariously liable for the consultant's breach of the Code.

Recommendations

It was recommended that the consultant provide a written apology to the man's family for his breach of the Code, and that the DHB provide training to staff about aortic dissection.