Monitoring of patient on BiPAP machine
16HDC00823, 13 June 2019

District health board ~ Ventilator ~ Monitoring ~ Right 4(1)

A man in his seventies, who had motor neurone disease and required a bi-level ventilator machine (BiPAP machine) 24 hours a day to assist with his breathing, was admitted to the Emergency Department at a public hospital with respiratory difficulties. He was transferred to a ward to be observed overnight and treated with intravenous antibiotics.

Observations were taken at 7pm, and an early warning score (EWS) of 3 was calculated. At 7.40pm, the man's wife gave him his regular sedative and attached the mask from his BiPAP machine. At 10.45pm, repeat observations were undertaken and an EWS of 0 was calculated. At 11.45pm, the man called for assistance with toileting. A registered nurse assisted him and checked his face mask. At 12.10am, repeat observations were undertaken. The man's oxygen saturation level was 93% and his EWS was calculated at 3.

At 1am, the registered nurse handed over the man's care to another registered nurse. The notes record that the man was settled with his BiPAP in situ. The man could not be seen from the nurses' station, and the curtains were pulled around each cubicle. At 4am, a registered nurse opened the curtain and found the man to be unresponsive, with his ventilation mask removed. He could not be revived.

Findings
It was held that the man was not monitored adequately. The EWS Chart did not reflect the EWS Policy accurately, particularly in respect of the frequency of observations. It was also not clear how the EWS was to be calculated.

There was no policy for monitoring personal BiPAP machines. In the absence of a policy, the BiPAP machine should have been monitored hourly, but it was not.

Hourly observations should have been undertaken. EWS scores of 3 were recorded at 7pm and 12.10am and, on each occasion, the score should have triggered hourly observations. An EWS score at 10.45pm should have been calculated at 3, which should also have triggered hourly observations. An oxygen saturation level of 93%, recorded at 12.10am, should have triggered a review by a house officer, but it did not.

It is the responsibility of the district health board (DHB) to have in place adequate systems to ensure that an acceptable standard of care is provided to consumers. This includes having appropriate policies, having working documents that accurately reflect those policies, and ensuring that the policies are complied with. The DHB failed to provide services with reasonable skill and care and, accordingly, breached Right 4(1).

Recommendations
It was recommended that the DHB amend its EWS Policy and EWS Chart to clarify (a) how an EWS is calculated when a patient has a domestic BiPAP; (b) the frequency of observations for each EWS; and (c) who is to be contacted when the EWS Escalation Protocol requires escalation, and how to contact that person. It was also recommended that the DHB develop a policy for the management of patients who are using a domestic BiPAP machine, and provide evidence of staff training on its EWS and BiPAP machines. In addition, it was recommended that the DHB provide an apology to the man's wife for its breach of the Code.