Delayed diagnosis of kidney problems in premature baby
15HDC00464, 8 December 2017

District health board ~ Radiologist ~ Sonographer ~ Neonatal care ~ Ultrasound ~ Rights 4(1), 4(2), 4(5)

At 31 weeks' gestation, a woman had an ultrasound performed by a sonographer at a private radiology service. The reporting radiologist was working from a location remote from where the scan was performed. During the scan, the sonographer noticed that the fetal kidneys appeared dilated, and that the fetal bladder was full and not seen to empty. She recorded on the sonographer's worksheet: "Kidneys appear dilated ? rescan once born." She sent the images and worksheet to the radiologist, but did not discuss this case with him.

The radiologist wrote in the ultrasound report: "[B]ilateral fetal renal dilation (5mm). Fetal bladder appears somewhat overfilled. Bladder was not seen to empty during the study … [P]ostnatal assessment is suggested." The actual findings of the scan were fluctuating renal pelvis measurements of 4.1mm to 9.5mm on the right and 5.1mm to 14mm on the left.

The baby was born at 32 weeks' gestation, and was admitted to the Neonatal Unit. It was verbally reported to paediatric staff that an antenatal ultrasound had shown bilateral fetal renal dilation of 5mm, but a copy of the radiology report was not transferred from the mother's clinical records to the baby's records. A copy of the report was obtained from the private radiology service by the hospital, but not disseminated to paediatric staff, and paediatric staff did not request a copy.

Subsequently the baby developed oedema and had episodes of high blood pressure. Nursing staff were told that medical staff had no concerns and that they needed to give consistent feedback to the woman about this. A renal ultrasound was performed, and a diagnosis of posterior urethral valves (PUV)[1] was made. The baby was catheterised and transferred to another hospital, where he underwent posterior urethral valve ablation.[2]

At the time of these events, the district health board (DHB) was testing a new electronic health record. This meant that staff were electronically recording in bullet or abbreviated form the clinical decisions made, but not necessarily the thinking behind those diagnoses or the alternative diagnoses considered. There was also a lack of clinical workstations, and it was difficult to enter data cot-side.

Findings

The DHB responded appropriately to the reported antenatal ultrasound findings of bilateral fetal renal dilation of 5mm, and the care provided to the baby on the first four days of his life was appropriate. However, the DHB paediatric medical staff did not investigate the baby's worsening oedema and high blood pressure from day five of his life. Accordingly, the DHB did not provide care to the baby with reasonable care and skill and, therefore, breached Right 4(1).

By not transferring a copy of the antenatal ultrasound report from the woman's clinical records to the baby's clinical records when he was born; not disseminating to relevant paediatric staff the copy of the report obtained from the private radiology service; and paediatric staff not requesting a copy of the report, the DHB failed to ensure continuity of care and, therefore, breached Right 4(5).

[1] Posterior urethral valves is a condition where obstructing membranes in the posterior male urethra prevent normal urine flow from the bladder.
[2] Posterior valve ablation is surgery to remove the valve through the urethra.

There was a pattern of suboptimal documentation by multiple staff involved in the baby's care, and the environment in which the DHB staff were operating contributed considerably to the documentation failures in this case. The DHB failed to provide services to the baby that complied with relevant standards, and thereby breached Right 4(2).

Adverse comment is made regarding the culture at the DHB, particularly given that nursing staff felt that they were not listened to. Adverse comment is also made that the radiologist misreported the abnormality, as the measurements of the renal pelvic dilation stated in the report were incorrect.

The care provided by the sonographer was within the range of accepted practice. The private radiology service's policies and procedures were appropriate.

Recommendations

It was recommended that the DHB report back to HDC on the implementation of the recommendations arising from its Root Cause Analysis; provide refresher training to all paediatric staff on coordination of care; undertake a qualitative audit to check for appropriate use of the electronic health record in the Neonatal Unit; provide a detailed update on progress toward additional clinical workstations being situated cot-side; and provide a written apology to the complainants.

It was recommended that the radiologist provide a written apology to the woman.