Inadequate care provided to baby in hospital
15HDC01330, 28 June 2017

District health board ~ Public hospital ~ Registered nurse ~ Nursing ~ Paediatrics ~ Intravenous fluid ~ Intravenous antibiotics ~ Extravasation injury ~ Fluid balance recording ~ Right 4(1)

A seven-day-old baby was admitted to hospital with 11% weight loss since birth, jaundice, and reduced feeding. She was treated with phototherapy on the children's ward.

The baby's temperature spiked the following day. The consultant paediatrician ordered investigations to try to determine the cause, and decided to commence intravenous (IV) fluids and antibiotics. A junior paediatric registrar prescribed the antibiotics and IV fluids. The registrar prescribed IV fluids at a rate of 180ml/kg/day, which was higher than the amount recommended by the district health board's (DHB's) policy and other national guidelines.

A registered nurse cared for the baby on the following evening shift. During the shift, the nurse administered the baby's antibiotics then recommenced the IV fluids. At about 8.30pm the IV monitor began to flash, saying that there was a "downward occlusion". The nurse and a senior nurse investigated the line and the IV site but did not find any obvious issues. The nurse did not clearly document the issues she had with the IV line during the shift, nor did she hand these over to the following shift.

Another registered nurse took over the baby's care at 11.15pm for the night shift but did not review the baby for nearly two hours. At around 2.30am, the baby was due for her next antibiotics. The nurse said that there were no signs of phlebitis or tissue infiltration when she commenced the first IV antibiotic. During the administration of the antibiotic, the baby's mother noted a blister forming on the baby's arm, and the arm swelled immediately. The nurse stopped the antibiotic infusion and called for assistance. The baby was reviewed by a senior house officer and treated for an extravasation injury.

The paediatric fluid balance charts from throughout the baby's hospital admission were not filled in regularly by staff in accordance with the DHB's "Fluid balance chart recording standards (Paediatric)" policy.

Findings
Overall, it was found that there were a number of failings in the care provided to the baby by the DHB: the DHB did not have a clear consensus on which IV fluid guidelines were to take priority; the registrar's orientation to the IV fluid guidelines was inadequate; multiple staff reviewed the baby, but did not recognise that her IV fluid prescription was too high; and multiple staff did not fill in the baby's fluid balance chart in accordance with policy requirements. Cumulatively, these factors painted a picture of poor care. Accordingly, the DHB failed to ensure that services were provided to the baby with reasonable care and skill and, as such, breached Right 4(1).

The evening shift nurse did not comply with the DHB's policy regarding hourly IV site monitoring and documentation; did not document an accurate description of the issues she encountered or the actions she took in response to the IV pump alarm; and did not hand over the issues she had with the IV pump to the following shift. Accordingly, it was found that the nurse did not provide services to the baby with reasonable care and skill and, as such, breached Right 4(1).

There was a two-hour delay in the night shift nurse reviewing the baby's IV site at the start of her shift, and the nurse did not document phlebitis and infiltration scores in accordance with the DHB's policy. Accordingly, it was found that the nurse did not provide services to the baby with reasonable care and skill and, as such, breached Right 4(1).

Criticism was made of the registrar for prescribing a rate of IV fluids that was higher than the amount recommended by guidelines.

Recommendations

It was recommended that the DHB: establish a clear consensus on which guidelines are to be followed when prescribing IV fluid to neonates, and ensure that this is documented clearly; provide HDC with the results of its six most recent monthly audits of IV access; use this case as an anonymised case study during induction of nursing and medical staff to the children's ward and neonatal unit; provide HDC with confirmation that the actions taken to meet the recommendations made in the DHB's internal investigations are continuing; and provide a written apology to the baby's family.

It was recommended that the evening shift nurse undertake an audit of her compliance with fluid balance chart recording standards, and provide a written apology to the baby's family.

It was recommended that the night shift nurse provide a written apology to the baby's family. It was also recommended that should the nurse hold a nursing position in future where she is responsible for administering IV fluids to her patients, she undertake a self-audit of the standard of her fluid balance chart documentation.