Wales Deanery School of Paediatrics and Child Health
Reflective Practice Example

Raised Lactate

Describe the event
6 year admitted to PICU post status epilepticus. Admission blood gas revealed raised lactate levels without acidosis.

What did I think and feel?
In view of absence of hypoxia and the patient having good perfusion with optimal urine output. My impression was the raised lactate levels were due to post seizure activity.

What were the context / factors which had an influence on the event?
Sepsis and shock are common causes of lactic acidosis on the ICU. Considerations in a patient presenting acutely with a lactic acidosis include fitting, diabetic ketoacidosis, hypoxia, rhabdomyolysis and hepatorenal failure and poisoning.

What did I do / say that was effective in the situation?
I assessed the patient for any correctable causes of lactic acidosis. We made a plan to repeat the gas in an hour’s time to monitor the trend.

What happened that exacerbated the problem?
With a new admission to PICU I had not repeated the gas as planned within an hour and could only repeat the gas in 3 hours time.

What was the outcome for the patient / parent / myself / others?
Patient-full safe recovery.
Parent-no concerns.

Looking back what could I have done differently?
I could have prioritized my tasks on hand.
I could have asked for help from the nursing team to repeat the gas to check the lactate levels.

What were the key learning point(s) from this event?
Lactic acidosis is commonly encountered on the ICU
It is important to have an understanding of the differential diagnosis of lactic acidosis in the critically ill patient.
The underlying cause should be identified and treated where possible.
The benefits of buffers and minute volume manipulation remain uncertain.
Lactic acidosis can be extreme after a generalised seizure but normally resolves spontaneously within hours.