

Patient Safety Bulletin

High or low? When you're not sure, say you're not sure.

What happened and what were the issues/implications?

I took an advice call late one evening, at home, about possible tumour lysis syndrome (TLS). I was asked if it causes hypercalcaemia or hypocalcaemia? Their patient had a large aggressive lymphoma, had been given Rasburicase prophylaxis with chemotherapy, was on intravenous fluids and was being monitored regularly. They had hypocalcaemia (fractionally below the normal range) – should my colleague be worried?

I just couldn't remember if the calcium goes up or down when tumour lysis occurs – I just had a mental block. It was very embarrassing, but also very worrying. If I got this wrong, we could miss a patient with TLS; we could fail to give the right treatment; I could endanger a life.

What actions were taken?

I remember repeating 'hypocalcaemia' back to the caller very slowly, to check I had heard them correctly. I asked a few more questions, established that the patient had also recently had a bisphosphonate (for recent hypercalcaemia) and that all other tests were unchanged (renal function, potassium, phosphate level, urate). The patient was well with no cardiac or neurological symptoms.

I decided that they didn't have TLS and no change in management was required. After I got off the phone, I did a quick check on the diagnostic criteria of TLS – I had given the right advice. I never quite answered their original question though: 'does the calcium level go up or down in TLS?'

What did you learn?

- More about the Cairo-Bishop definition of TLS: it requires two or more electrolyte abnormalities to be present.
- More about the Howard criteria: these include 'any symptomatic hypocalcaemia', but this is usually at a much lower level than this patient had. They don't mention how to account for recent bisphosphonate therapy.
- Being called when I am tired or asleep is a bad time for me. It can take me a few moments to get into gear and I can ramble.
- I should have simply admitted my memory lapse and said 'I don't know'. What was stopping me was that I was embarrassed. I am sure between me and the caller we could have spent a few more minutes talking and sorted the question out together.
- 'Hyper' and 'hypo' are easily confused on a phone call and could lead to mistakes. One way to avoid this could be to use 'high' and 'low' when communicating results over the phone.