Pre-op anaemia care: improving outcomes for surgical patients

A nurse-led initiative is getting patients ready for surgery and reducing the need for transfusions

By Elaine Cole @prideinnursing

Feeling the benefit: feedback from patients

Case studies highlight the effect the anaemia service can have on outcomes and experience for patients. Follow-ups were undertaken with two patients who had been referred and were receiving treatment for anaemia.

Patient A was listed for a full gastrectomy due to cancer of the proximal stomach, which had been found following investigation for symptoms of iron deficiency anaemia.

He had initially complained of fatigue and shortness of breath after exertion. He described feeling short of breath when climbing stairs and on flat surfaces, and only being able to walk about ten metres before needing to stop and catch his breath. His haemoglobin levels were low so he received intravenous iron.

He went into surgery without anaemia and his symptoms improved dramatically. He reported feeling more energetic and also that he was out of breath less often.

Before the iron therapy his breathlessness was affecting his ability to do everyday activities – mowing the lawn took him three hours, as he had to stop and start, but after treatment it only took him 45 minutes.

NHS Foundation Trust. ‘Guidelines tell us we should do this, but because of our processes we were unable to. The transfusion team had tried to set up an anaemia service for many years, but it isn’t as easy as it might seem.

The biggest issue is getting patients referred to us early enough in the pathway’

Louise Polyzois, pictured

Patient B had a jejunal adenocarcinoma, found on scanning following routine blood tests. The tests also revealed significant iron deficiency anaemia, and the man had reported progressive anaemia symptoms, particularly extreme fatigue, which had stopped him from walking and playing bowls for two years.

After being treated by the service his symptoms improved significantly. He reported that he did not feel as tired, achy or short of breath and was now able to walk for a quarter of a mile every morning. He had also resumed playing bowls.

’We weren’t the only ones – other trusts are struggling with this. People are busy and can’t take on the problem. We asked if we could do it within our nurse team, and the trust agreed to give it a go. Another nurse was seconded to the transfusion team to enable me to deliver the pilot.’

By improving haemoglobin levels, the service aims to reduce the need for blood transfusion before, during and after surgery, as well as improving symptoms such as lethargy and breathlessness. It seeks to improve patients’ ability to exercise and reduce...
Postoperative critical care stays and overall length of hospital stay.

Ms Polyzois says the team also hoped to reduce postoperative complications such as deep wound infection, ischaemic heart disease and stroke, to speed up recovery and improve patients’ quality of life.

Explaining the concept

The pilot started in September 2016, but before it went live Ms Polyzois visited clinical teams to explain the concept and the reason it was being launched. She produced leaflets for patients, created a brochure for surgical teams, and collaborated with them on the care pathway.

‘An early challenge was deciding how to highlight patients undergoing these surgeries early in the cancer pathway,’ says Ms Polyzois. ‘I discussed it with the surgical teams and then worked with IT to set up a smooth electronic referral system.’

As well as referral, the system documents attendance and progress through the service. ‘I attended multidisciplinary team meetings to explain the process,’ says Ms Polyzois. ‘Patients are referred to the service by the surgical teams and the electronic system makes a list for us. Following a standard set of blood tests these patients are triaged, with the outcome fed back to the surgical teams.

‘The service runs in parallel with the surgical pathways and ensures waiting list initiatives are not interfered with. You cannot always stop the clock with surgery – especially with cancer patients.’

Ms Polyzois also felt a need to refresh her clinical skills, and undertook training so she could follow patients through the entire process. ‘I had to negotiate with surgical teams to enable the prescription of intravenous iron in an outpatient setting,’ she says.

“This involved gaining agreement that the junior doctor would attend to prescribe at the bedside.

‘Overall it has worked well, but the biggest issue is getting patients referred to us early enough in the pathway. The earlier we see them the more we can help optimise pathway. The earlier we see them, the more we can help optimise their pathway. The earlier we see them, the more we can help optimise their pathway. The earlier we see them, the more we can help optimise their pathway.’

The anaemia pathway is an excellent, efficient service allowing the rapid detection and intervention for preoperative patients with iron deficiency anaemia,’ he says.

Louise and her team keep the surgical teams engaged and remembering to refer them for their surgery. ‘I try to keep the surgical teams engaged and remembering to refer by presenting at multidisciplinary team meetings. The teams agree the service is an amazing idea.’

‘An excellent, efficient pathway’

Consultant general and colorectal surgeon Ben Hornung says it is ‘a very effective nurse-led service that could easily be applied to other specialties and other NHS trusts’.

‘The anaemia pathway is an excellent, efficient service allowing the rapid detection and intervention for preoperative patients with iron deficiency anaemia,’ he says.

Louise and her team keep the clinicians updated and are on hand for advice regarding preoperative haematological optimisation.

‘The service has improved patient safety and ultimately improved patient outcomes.’

It has also improved patient experience. ‘I was worried that patients would not understand the service’s importance,’ says Ms Polyzois. ‘Many come from a long way away – North Wales, the Lake District and as far away as Coventry. They already have lots of appointments and they might need two trips for us.

‘But actually, patients want to know they are as fit as possible for their surgery. We work closely with them to coordinate their visit to us for intravenous iron with appointments they already have with the consultant or for scans.’

News of the service and its impact has spread. ‘Gynaecology heard about it and wanted in, so we took that on,’ says Ms Polyzois.

While it was difficult to prove the service’s impact on patients’ length of stay, Ms Polyzois has been able to show savings on blood usage during surgery.

This enabled her to make a business case to bring another nurse into the service. With transfusion practitioner Sushila Kadu on board, the service has been able to take referrals from vascular surgery. ‘The reduction in the use of blood products equals the cost of iron plus a member of staff,’ says Ms Polyzois. ‘If it breaks even then it is worth doing.

‘When we get to full capacity again I will build the case for more resources to extend it further. My ambition is to provide a hospital-wide service for adult patients from surgical and medical specialties, because it is so much better for the patient.’