In 2015 our Trust remodelled into a hub and spoke geography with a new central emergency care hospital at its core and 4 surrounding elective surgical/ medical step down hospitals. All acute services from the 4 ‘base sites’ were amalgamated at the new hospital including Emergency Department, critical care and transfusion services. With this major change, a 4 bedded ‘SERU (surgical enhanced recovery unit)’ was designed and set up at 1 of the 4 base sites to initially take higher risk orthopaedic and spinal patients.

Aims

Evidence supports good outcomes for patients undergoing care in specialist ‘high volume’ centres with standardised packages of care. Transfers confer risk and increase morbidity for patients. The aim of SERU was to allow for higher risk patients to be operated on within the same hospital, under specialist experienced teams and prevent and minimise predictable transfers. It also paralleled the development of the Bone Infection Unit onsite.

Method/ how it works

The SERU allows for a higher nursing to patient ratio (2:1), continuous non-invasive monitoring and administration of peripheral vasopressors.

Admissions to the SERU can be planned or determined intra-operatively for the following reasons:

1. Surgical – more complex revision arthroplasty cases, peri-acetabular osteotomy work and instrumented spinal surgery
2. Medical – significant comorbidity, elderly/frailty (we tend to find that factors such as diabetes and hypertension (on multiple agents) and higher frailty scores leaves patients needing vasopressor support post procedure).
3. Anaesthetic – stable patients with labile blood pressure requiring vasopressor support, stable patients requiring closer monitoring

Patients may only go to SERU immediately following their surgery via recovery and for a maximum of 20 hours. Within this timeframe the patient is either ready for stepdown to the main elective orthopaedic ward or necessitates escalation to a higher level of care (i.e transfer out to the emergency care hospital). SERU closes at 7am and provides a service Monday afternoon until Friday morning.

Medical care overnight on SERU is delivered onsite by nurse practitioners experienced in post-operative care of spinal and orthopaedic patients. This level of enhanced care with experienced staff in these areas offers high quality standardised care to patients. There is currently a developing program of competency training for all nursing staff on the orthopaedic and spinal unit covering all areas of care of which SERU forms one part. Clear protocols are in place for escalation in the event of any deterioration and staff receive regular contact with critical care outreach and anaesthesia services to reinforce this crucial team safety aspect.

Measures of success

In 2016 we found that transfers from Wansbeck theatres/recovery to NSECH for post-operative vasopressor had reduced after SERU had opened. Importantly, patients will still receive early physiotherapy and mobilisation on SERU if appropriate, all measures which facilitate recovery. By the main ‘ownership’ of the unit being ward based and nurse led, a secondary but critical success has been SERU’s ability to minimise unnecessary interventions and push each patient’s mobilisation and ‘normalisation’ at the right time. Having a higher level of care area and its pathways has also enhanced and encouraged communication with critical care and escalation processes as well as providing enhanced education and career opportunities for staff.

Further things we needed to consider/ projects in hand (including the nursing skills competency guide)

Concluding comments

SERU was setup with patient safety and high quality orthopaedic and spinal care the key factor. It also benefits patient flow and efficiency underpinned with the ethos of ‘doing the simple things very well’. Through increased staffing levels, their education, clear protocols and standardised processes, patient monitoring while minimising additional interventions we are able to provide safe and effective care to our patients.