Online library of Quality, Service Improvement and Redesign tools

Enhanced recovery

NHS England and NHS Improvement
Enhanced recovery

**What is it?**

Having a particular focus on the recovery of patients following surgery can improve the patient experience, improve clinical outcomes and reduce the demand on inpatient beds. Enhancing recovery attempts to ensure the delivery of evidence-based care – doing the right things, at the right time, more of the time.

The approach focuses on making patients active in their own recovery, reducing the staff resource required and helping to ensure that patients are better prepared to manage when back at home.

Some elements of the enhancing recovery approach are similar to an integrated care pathway approach. In fact, you should build on an integrated care pathway as your starting point for enhancing recovery. However, there are some things that are new and specific to this approach:

- It brings together two best practices: organisation of care and clinical management, while making sure that patients receive evidence-based care.
- It uses patients and their families as an appropriate resource in planning and managing their own recovery and care.
- It focuses on less invasive surgical techniques, pain relief and the management of fluids and diet, which help patients get on their feet quickly postoperatively and speeds up recovery.
- It aims to make events in a hospital as normal as possible. For example, patients eat in a dining area, not in their beds.

**When to use it**

The enhanced recovery approach can be used in any improvement initiative that is attempting to improve elective surgical care. The aim of the approach is to improve patient outcomes and speed up recovery following surgery. It can be particularly useful if there is an issue with bed capacity. See also [reliable design](#) and [reducing length of stay](#).

Initially, the introduction of additional minimally invasive techniques may increase theatre time, so this needs to be monitored. Looking at improving systems around theatres and theatre schedules should offset this, as well as the benefits of reduced bed occupancy.
How to use it

There are four elements to the enhancing recovery approach.

1. Preoperative assessment, planning and preparation before admission.
2. Reducing the physical stress of the operation.
3. A structured approach to immediate postoperative and perioperative management, including pain relief.
4. Early mobilisation.

There are also three areas that can help you manage the enhancing recovery approach.

1. Staff training and learning.
2. Improved processes and room layout.
3. Procedure specific care plans.
Figure 1

**Training and learning: staff do particular tasks in a particular order**

**Improved process and room layout**

**Procedure specific care plans**

- **Improved pre-operative care**
  - Pre-op assessment
  - Consent and information
  - Plan and prepare discharge
  - Patient prepares organs, joints etc for surgery

- **Reduced physical stress of operation**
  - Local anaesthesia
  - Surgical technique
  - Care around surgery
  - Pharmacological

- **Increased post-operative comfort**
  - Effective pain relief and prophylaxis for nausea and vomiting

- **Improved post-operative care**
  - Early mobilisation
  - Minimal use of drips, drains and catheters
  - Oral nutrition
  - Patient held plans

**Patients recover faster with better outcomes**

**Monitor:**
Morbidity, readmission rates, safety, cost and length of stay, patient satisfaction, waiting times, application of evidence-based care (care bundles)
1. Improve preoperative care

For complex surgery in particular, aim to involve family and carers in all pre-operative education and planning processes, as well as the patient’s GP. This maximises the chances of the patient understanding and acting on the advice given.

The aim of preoperative assessment is to ensure that:

- full assessment, including consultation with an anaesthetist, takes place as soon as the decision to operate has been made
- the patient has the maximum opportunity to get their body as fit as possible for surgery and anaesthetic (eat the right food, mobilise joints, etc.)
- the patient fully understands the proposed operation and is ready to proceed
- staff identify and co-ordinate all essential resources and discharge requirements
- dates for the operation and discharge are in everyone’s diary (see discharge planning).

2. Reduce the physical stress of the operation

Apply best practice to reduce the physical stress of the operation as much as possible:

- Minimally invasive operation techniques: either smaller incisions or a laparoscopic approach.
- Maximise the use of local anaesthesia.
- Keeping patients warm during the operation.

3. Increase postoperative comfort

The focus is to get patients moving and eating normally as soon as possible after their operation:

- Vigorously treat postoperative pain to reduce surgical stress responses.
- Try to get patients moving with a suitable low dose epidural (special pumps are helpful to allow easy mobilisation).
- Help patients to resume a normal diet as soon as possible (include nausea management).

4. Improve postoperative care

The focus is to continue enabling patients to move with a focus on nutrition:

- Continue to manage postoperative pain.
- Strong focus on nutrition and mobilisation.
- Clear discharge and post discharge arrangements.
Factors that have been found to be helpful when implementing the enhanced recovery approach include:

1. **Staff training**

   There are five areas of focus:
   
   - Learning about the evidence around speeding up recovery post surgery.
   - Developing a mindset where patients are active in their recovery while aiming to make life in the ward as normal as possible.
   - Surgical techniques.
   - Adoption of a consistent protocol by anaesthetists.
   - Consistent implementation of the approach.

2. **Improved processes and room layout**

   Plan or schedule work around what needs to happen to patients and when it needs to happen, in order to smooth workflow. Use this to plan ahead and know when the next step is ready.

   Focus on the physical environment of the ward and workspace to ensure that you have a logical layout and good organisation to maximise efficiency: 6S may give you ideas. You can also use a [spaghetti diagram](#) to identify unnecessary movement of staff, patients and paperwork and see potential areas for improvement.

3. **Procedure specific care plans**

   In addition to developing procedure specific care plans, patients should have their own care plans. This means that they know what should happen to them each day. It includes things that staff should do (eg remove catheters) and what patients themselves should do (eg distances walked). Patients then become a check or reminder for their own care.

**Examples**

Clinicians usually lead development of the enhancing recovery approach. In hospitals where the programme is in place, teams are often formed through the partnership of a respected consultant surgeon and a respected senior nurse or matron. These teams include consultant anaesthetists, surgical trainees and experts in acute pain management. As this is a relatively big change, a strong [project management](#) approach helps to carry it through.

1. In Torbay Hospital, a Band 6 nurse was designated as the facilitator for the project. Clinical engagement and support of all staff (see [gaining insights from/working with health service users](#)) was critical. As the leads had evidence of patient benefits to hand, they put up snippets of evidence in places where staff spent time (staff room, corridors, etc.) to gain buy-in.
The leads also had strength of conviction. They knew the evidence and anticipated the impact. As an example, they managed to persuade the facilities department to convert one of their wards into a kitchen and dining area. Other up front investments requiring funding included epidural pumps and surgical training, which were offset by a reduction in beds required.

2. At the Hvidovre Hospital in Denmark, part of the advanced care planning in orthopaedics involves patients receiving an information pack.

In the pack, there are instructions for measuring things like the height of the toilet seat and so on, which patients send back to the hospital. Using these, combined with other information on an individual patient enables staff to get all the equipment ready. Patients receive this at their discharge.

If patients are unable to take the measurements, staff know that they will have problems and can be planning alternative arrangements.

What next?

Once the approach has been introduced, the ongoing focus should be on capturing measures to indicate how well the approach is working by monitoring the following areas:

- Patient readmission rates.
- Length of stay.
- Adherence to plans (one way you can do this is through a care bundle approach that will describe how many patients receive all aspects of best care).
- Ongoing feedback and discussion with staff until the programme has become an everyday part of working practice.

Background

The enhancing recovery approach, originally called the ‘multi-modal approach’, was developed by Professor Henrik Kehlet. It is also called fast track surgery.

Torbay Hospital developed the enhancing recovery approach based on the experience of Robin Kennedy (Yeovil Hospital, North East Somerset Trust) and Polly King’s experience of enhanced recovery as Robin Kennedy’s Research Specialist Registrar. Kennedy conducted surgical masterclasses with surgeons to help them improve their laparoscopic skills. King helped Torbay, having already experienced the benefits of the enhancing recovery approach.