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Enhanced Postoperative Recovery - Fast - Track Surgery

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Enhanced recovery (fast-track surgery) is a modern, evidence based approach that helps patients who are undergoing surgery to recover more quickly. It includes aspects of the preoperative, intra-operative and postoperative care of patients undergoing surgery. Patients on Enhanced Recovery pathways recover more quickly following surgery, and so can leave hospital and get back to normal activities sooner. Enhanced recovery aims to minimise both the physical and emotional stress of major surgery.

Irrespective of the type of procedure, postoperative recovery is an essential part of the patient experience. The current trend of rapid transition through the healthcare system means that patients are discharged quickly, shifting much of the responsibility for postoperative recovery to patients and their families. To appropriately treat and support patients, according to their personal experiences and needs, we must enhance our knowledge and understanding of postoperative recovery. Assessing the impact of interventions on outcomes of genuine interest to patients requires subjective evaluation of patients' experiences.

Five dimensions and 19 items were identified as being part of the operationalization process of the postoperative recovery concept (Figure 1).

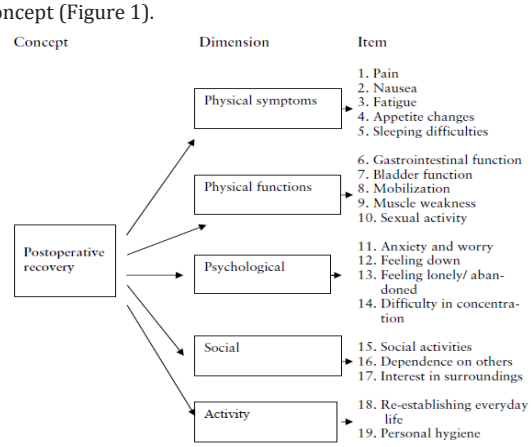

Figure1. Diagram of operationalization of postoperative recovery

The enhanced recovery programme involves a coordinated team approach, designed by all members of the multi-disciplinary team. Patients are also encouraged to play a vital role in their own care. Different members of the hospital and primary care team work together in order to ensure patients are:

- As healthy as possible before receiving treatment.
- Receive the best possible care during their operation.
- Receive the best possible care while recovering.
- **Aims (**(Figure 2).
- Reduce pain with anaesthetic techniques and medication
- Use minimally invasive surgical techniques where possible
- Support and encourage early movement and activity
- Remove drips, drains and catheters as early as possible
- Reduce post operative nausea and vomiting by managing r fluid balance and with medication
- Better outcomes and reduced length of stay
- Increased numbers of patients being treated (if there is demand) or reduced level of resources necessary
- Better staffing environment.

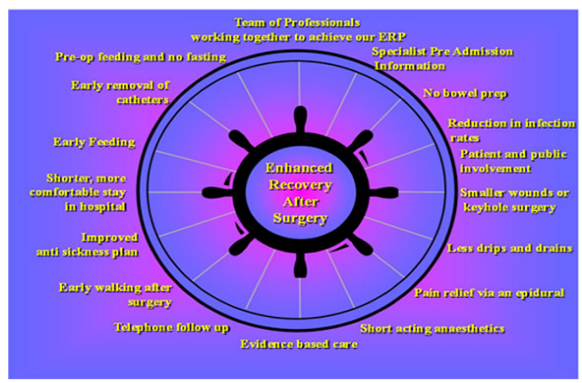

Figure 2 Aims of enhanced recovery programme.

Recovery Programme
There are four elements to the enhanced recovery programme:

1. Pre-operative assessment, planning and preparation before admission.
2. Reducing the physical stress of the operation.
3. A structured approach to immediate post-operative and during (peri-operative) management, including pain relief.
4. Early mobilisation.

There are also three areas that help the practical management of the enhanced recovery programme:
1. Staff training and learning
2. Improved processes and room layout
3. Procedure specific care plans

Elements of the enhanced recovery programme
1. Pre-Operative Assessment Improve Pre-Operative Care For complex surgery in particular, it is important to involve family and carers in all pre-operative education and planning processes. This maximises the chances of the patient understanding and acting on the advice given.

The aim of pre-operative 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 bodies as fit as possible for surgery and anaesthetic (for example, they eat the right food, mobilise joints)
- 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.

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
- Use of intra-operative fluid management technologies
- Epidural local anaesthesia
- Keeping patients warm during the operation

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3. Increase comfort post-operatively
The focus is to get patients moving and eating normally as soon as possible after their operation.

- 'Vigorously treat' post-operative 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)
- Do not use naso-gastric tubes routinely in patients undergoing elective gastrointestinal surgery
- Help patients to resume a normal diet as soon as possible.

4. Improve post-operative care. The focus is to continue enabling patients to move with a focus on nutrition.

- Continue to mange post-operative pain
- Strong focus on nutrition and mobilisation
- Clear discharge and post discharge arrangements.

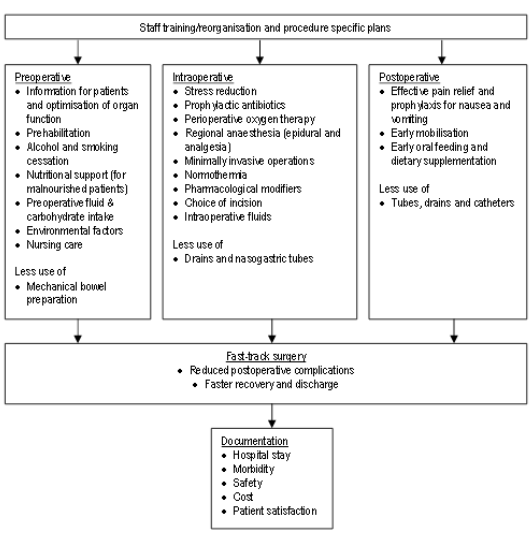
Factors that help the enhanced recovery programme
1. Staff training. There are five areas of focus:

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

2. Improved processes and room layout

- Plan or schedule work around what needs to happen to patients and when in order to smooth workflow
- Focus on the physical environment of the ward and workspace. The focus is to have a logical layout and good organisation to help efficiency.

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 the staff should do (e.g. remove catheters) and that the patient themselves should do (distances walked). Patients then become a check or reminder for their own care.



*Different components for different types of surgery. Adapted from: Wilmore & Kehlet (2001) and Zargar-Shoshtari & Hill (2008)

Conclusion
Recent efforts to improve patient outcomes and to reduce hospital stay focus on enhancing postoperative recovery with a multimodal approach. The concept of fast-track surgery, also called enhanced recovery after surgery (ERAS) or multimodal surgery involves using various strategies to facilitate better conditions for surgery and recovery in an effort to achieve faster discharge from hospital and more rapid resumption of normal activities after both major and minor surgical procedures, without an increase in complications or readmissions. Patient education, optimizing organ function before surgery, improved anaesthetic and postoperative analgesic techniques and better understanding of perioperative care principles with early oral feeding and ambulation have resulted in enhanced postoperative recovery .

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