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Forward

Enhanced recovery after surgery (ERAS) or ‘fast-track’ surgery was originally pioneered in the 1990’s by Professor Henrik Kehlet in colorectal surgery. By systematically reflecting on every element of the surgical pathway he refined it to minimise surgical stress. His multi-faceted approach challenged surgical dogma and significantly improved patient outcomes and experience. The National Health Service (NHS) adopted this approach and set out a vision to spread it across all surgical specialties.

This clear, comprehensive, evidence-based guideline is an essential resource for thoracic surgery teams across the country. Application of these principles will certainly improve the patient journey.

Babu Naidu,
Clinical Scientist
Consultant Thoracic Surgeon,
Background

Enhanced recovery is an approach to the pre-operative, intra-operative and post-operative care of patients undergoing surgery that aims to ensure that patients are in the best possible condition for surgery, have the best possible management during and after their operation, and experience the best post-operative rehabilitation (Department of Health 2011).

There are four founding principles of all enhanced recovery programmes:

1. All patients should be on a pathway to enhance their recovery. This enables patients to recover from surgery, treatment, illness and leave hospital sooner by minimising the physical and psychological stress responses.

2. Patient preparation ensures the patient is in the best possible condition, identifies the risks and commences rehabilitation prior to admission or as soon as possible.

3. Pro-active patient management components of enhanced recovery are embedded across the entire pathway; pre, during and after operation/treatment.

4. Patients have an active role and take responsibility for enhancing their recovery.

NHS Improvement (2012)

An underlying principle within enhanced recovery programmes is to empower patients to actively contribute to their own recovery (Driver 2011)

Enhanced recovery programmes advocate the utilisation of innovative technologies, early resumption of oral intake, early mobilisation, pain management, reduction of surgical stress and utilisation of advanced techniques in anaesthesia. These measures ensure that patients are in optimal condition for their operation and post-operative rehabilitation.

The principles of enhanced recovery have already been adopted across the country in colorectal, musculoskeletal, gynaecological and urological departments. There have been a number of studies and trials across all four specialities demonstrating that implementing at least 4 of the elements of enhance recovery can lead to a reduction in the length of stay in

The NHS Institute for Innovation and Improvement in partnership with the National Cancer Action Team and the NHS Improvement are now advocating the use of enhanced recovery programmes in other specialist areas to improve the quality of their service through improving clinical outcomes and patient experience. A number of thoracic surgery centres have been keen adopters of enhanced recovery programs and enhanced recovery is now part of the normal patient pathway in many UK thoracic surgery centres.

Lung cancer affects over 40,000 patients per year in the UK of which around 20% will undergo major lung resection for primary lung cancer (Health and Social Care Information Centre 2013). Approximately 15% of patients will have complications post operatively. Once the patient develops a post-surgical pulmonary complication mortality increases from 0.5% to 12%, ITU admission rate increases from 1.5% to 26% and the length of stay increases from 5 to 14 days (Agostini, et al. 2010, Cancer Research UK 2013). Delivering a complex intervention of enhanced recovery for lung cancer surgery can achieve the targets set out in the cancer reform strategy (Department of Health 2007), specifically rehabilitation, reducing patient length of stay and post-operative complications. (Agostini, et al. 2010, Cancer Research UK 2013)
Scope of the Guideline

This document has been developed, by a multi-professional group, to provide guidance to healthcare professionals involved in providing patient information on enhanced recovery programmes.

This guideline is a series of broad statements and where necessary local procedures should be developed to complement the guideline in each clinical area.

This document compliments the ‘Guideline for Telephone Follow-up for Patients Undergoing Thoracic Surgery’ (National Lung Cancer Forum for Nurses 2013) and the ‘Guideline to Prepare and Support Patients Undergoing Lung Resection’ (National Lung Cancer Forum for Nurses 2013) also produced by the Thoracic Surgical Specialist group and available on the National Lung Cancer Forum for Nurses (NLCFN) website (www.nlcfn.org.uk).

Objective of the guideline

Central to the enhanced recovery concept is the involvement, empowerment and partnership with the patient. To increase understanding of the enhanced recovery care pathway it is vital that patients are provided with the relevant information. This guideline has been written by the Thoracic Surgical Specialist Sub Group of the NLCFN to support any health professional involved in the provision of patient information for those who are enrolled onto enhanced recovery programmes.

The aim of the guideline is to support the provision of patient information regarding enhanced recovery programmes so that patients are in partnership with healthcare professionals thereby improving patient experience and clinical outcomes.

This guideline is based on evidence available and identified best practice in UK thoracic surgical centres.
Thoracic surgery enhanced recovery programme patient information

Patient information aims to manage patient’s expectations to facilitate working in partnership with the patient. Evidence indicates that patients are happier and less anxious when receiving good quality information, this is vital in improving the decisions patients make about their care. Without this a number of patients remain dissatisfied about their surgery (Garretson 2004, Hughes 2002).

Patient information should include an explanation of what to expect during the in-patient stay.

Written patient information

There are three parts to the written patient information that should be given to thoracic surgery patients on an enhanced recovery programme pre-operatively:

- Information about the enhanced recovery pathway
- Information about their surgery
- Patient diary

These three elements can be separate leaflets or can be combined depending on local preferences.

Verbal patient information

Patients should be given verbal information about the enhanced recovery pathway pre-operatively. It is important that written information is not given in isolation and should be explained and discussed with the patient. The individual circumstances of the patients should be considered during this discussion and adaptations to the programme to suit individual circumstances should be noted. If relevant, specific goals and targets can be noted in the patient diary (e.g. smoking cessation targets).
**Information about the enhanced recovery pathway**

Pre-operative information given to thoracic surgery patients on an enhanced recovery pathway should include:

- A full explanation of the principles of the enhanced recovery programme including the reasons why the patient is being asked to take part.
- What the patient is expected to do as part of the programme.
- What the nursing and allied health professional teams will offer the patient undertaking the enhanced recovery programme.

Patient information should include the following sections:

- **Planning and preparation for admission**
  
  Information should be given about the pre-admission pathway and planning for discharge after surgery.

- **Exercise**
  
  Exercise information should include guidance on pre-operative exercise, including pre-operative classes or courses if they are available locally. The rationale for exercise pre and post-operatively should be explained and the patient should be able to record their exercise.

  The post-operative exercise programme should be explained and the patient provided with a diary to record their activity.

- **Smoking cessation**
  
  The rationale for smoking cessation and health promotion prior to surgery should be explained and information provided on locally available resources to aid cessation.

- **Nutrition**
  
  Information should be based on local practice. If carbohydrate loading is undertaken pre-operatively clear instructions should be given to the patient about what they should eat and drink and when.

  All patients should receive guidance on pre-operative fasting.

  Patients should be given information on good post-operative nutrition and how to combat a poor appetite.

- **Pain management**
  
  Information should be included about the management of post-operative pain including the side effects of analgesic medications.
**Discharge**

Patients should be given information about their expected length of stay and be given responsibility for organising their discharge.

Examples of patient information about enhanced recovery and patient diaries can be found in the appendices.

More detailed information on all of these topics can be found in ‘Guideline to prepare and support patients undergoing a lung resection’ (National Lung Cancer Forum for Nurses 2013).

**Information about thoracic surgery**

Patients should receive good quality, relevant, written information about their surgery. For further information on the elements needed to produce high quality information for patients undergoing thoracic surgery please refer to ‘Guideline to Prepare and Support Patients Undergoing a Lung Resection’ (National Lung Cancer Forum for Nurses 2013).

**Patient diary**

The patient diary is a personal record which sets out the patient’s daily goals to be achieved with support from the multidisciplinary team. Patient diaries can be retained and used as an audit tool. Diaries should be given out in a timely manner, ideally as early as possible in the pre-admission pathway, to ensure the patient has time to read and understand how to use the document.

Patients on an enhanced recovery programme experience optimised post-operative rehabilitation and recovery supported by collaborative use of the patient diary.
Quality assurance and audit of the patient information

Written local information should be passed through a recognised quality assurance process. Once this information has been approved it can be added to patient information prescriptions and made widely accessible. All written information should be periodically reviewed. Patient information documents should be subjected to an audit process to demonstrate their effectiveness if required.

Patient diaries can be retained and used as a tool to audit the enhanced recovery programme, if this is being undertaken and the patient would like to keep their diary a copy should be made for audit purposes.
Appendix One

Example of a patient information leaflet

![Patient Information Leaflet](image-url)
What is the Enhanced Recovery Programme?

The Enhanced Recovery Programme is a new way of improving the experience and well-being of people who need major surgery. It will help you to recover sooner so that life can return to normal as quickly as possible.

It is important that you are an active participant in your own recovery process.

There are four main elements to the programme:

- Planning and preparation before admission, including making sure that you are in the best possible condition for surgery
- Reducing the physical stress of the operation
- A structured approach to your post-operative and peri-operative (during surgery) management, including optimising pain relief.
- Early mobilisation

The Enhanced Recovery Programme is a guideline for best multidisciplinary care. *If the programme is no longer suitable for you at any time during your hospital stay, the team will tell you about the changes to the care you are receiving and will continue to make sure that you receive care of the highest quality.*

You will be given an Enhanced Recovery Programme patient diary when you come into pre-admission clinic. This is an important part of your programme. It is a useful tool to guide you through what will be expected of you on a daily basis and for you to see how you are able to do a little more each day. It also helps the ward team to check how you are getting on which will help in planning your discharge.

If you need any help filling in your diary pages please ask one of the ward staff.

Each day you will be asked about how you are coping with:

- Washing and dressing
- Moving around
- Eating and drinking
- Pain control
Planning and preparation before admission

You will have been seen by the surgeon to discuss your operation and the risks and benefits.

Pre-operative Assessment Clinic:

You will have an appointment to go to the pre-operative assessment clinic before the date of your surgery, in order to assess your fitness for an anaesthetic and surgery.

At the pre-operative assessment clinic you will be seen by a nurse, who will ask you questions about your general health and explain what will happen before and after your operation. You should also be seen by an anaesthetist, a doctor and a physiotherapist.

The information gained at this clinic will be used to plan your care in hospital, and to deal with any problems at an early stage. You will be given an opportunity to ask questions and the staff will endeavour to answer them.

You will be given your Enhanced Recovery diary and they will explain how to use it. **Do not forget to bring your Enhanced Recovery Programme diary with you when you come in for surgery.**

Tests will be carried out to provide further information relevant to your surgery, for example blood tests. The nurse will also give you an antiseptic lotion, mouthwash and nasal cream and instructions on how to use them before your admission.

You will be told what time to arrive at theatre direct admissions (TDA) on the day of surgery and given instruction on when you should stop eating and drinking prior to your operation.

Further information on coming in for your operation can be found in the following patient information booklets; these will be given to you in pre-operative assessment clinic or can be accessed via the website:

Transport & discharge home:
An important part of your Enhanced Recovery Programme is planning for your discharge from hospital. This planning will start when you come in to the pre-operative assessment clinic. You will need to make arrangements to be picked up from hospital by a friend or relative as the criteria for hospital transport are restricted to those with specific mobility needs.

Further information about discharge from hospital can be found in the following patient information booklets; these are available on the ward (ask your ward nurse if you have not received them) or can be accessed via the website:

- Leaving Hospital: information for patients leaving hospital, OUH (http://www.oxfordradcliffe.nhs.uk/forpatients/inpatients/inpatientdocs/110523leaving.pdf)

We ask that there is someone with you at home for the first week to look after you. If you live alone maybe you could arrange to stay with a relative. If this is not possible please tell us when you come to pre-admission clinic so that arrangements can be made to give you some help at home.

For Information on the John Radcliffe and how to get here you can read:


Exercise
It is a good idea to exercise prior to coming in for your surgery if you feel well enough. This will help you to be in the best possible condition for your surgery. The fitter you are before surgery, the quicker you will recover afterwards.

Any sort of exercise that will get you moderately short of breath is useful. This may be walking, going up and down stairs, swimming, cycling etc. You should check with your GP before doing anything more strenuous than you are used to.
Stopping smoking

It cannot be emphasised enough that it is in your best interests to stop smoking as soon as possible before any major surgery. The greater the period you are smoke free before your surgery the greater the reduction in you risk of complications, due to smoking, during and after your surgery. Continuing to smoke before surgery is associated with an increased risk of complications involving your heart, lungs and surgical wounds all of which may result in you having a slower recovery period and a longer stay in hospital.

Cigarette smoking is known to be the major cause of almost all heart and lung disease, including cancer.

The risk of developing heart or lung disease increases with the amount and the length of time that you smoke.

Low tar cigarettes, cigars and pipes are harmful too – there is no such thing as safe smoking. If you have smoked before your operation, this is likely to have contributed to your illness. Your stay with us will give you a valuable opportunity to stop smoking.

There are several places that you can find information about stopping smoking:

- Make an appointment at your GP practice or health centre. There is at least one Stop Smoking Advisor in every GP Practice in Oxfordshire who can give you advice about stopping smoking and prescribe medication, including Nicotine Replacement Therapy, to help you quit. If you don’t live in Oxfordshire then call the National Smoking Helpline number listed below to find out where your nearest support is available.

- Make an appointment at your local Pharmacy. Some retail pharmacies in Oxfordshire have fully trained Stop Smoking Advisers who can also help you to quit. Call Oxfordshire Smoking Advice Service to find one near you.

- Oxfordshire Smoking Advice Service; Telephone 0845 40 80 300

- National Smoking Helpline, Telephone 0800 169 0 169
Reducing the physical stress of the operation

Nutrition
Traditionally, patients are not allowed anything to eat or drink for several hours before their operation to ensure that the stomach is empty and complications such as aspiration (where stomach contents flows into your lungs) are minimised. However research has shown that eating up until 6 hours prior to surgery and drinking up until 2 hours prior to surgery causes no harm and can improve recovery. In addition carbohydrate loading up to 2 hours before surgery improves the outcomes from surgery, reduces patient anxiety and improves hydration, as it helps to provide your body with energy at a time when you are not able to eat.

On the Enhanced Recovery Programme, the pre-assessment nurse will give you 2 cartons of Ensure (a nutritional drink) and 2 cartons of a carbohydrate drink, called Nutricia preOp,

The carbohydrate drinks are specially formulated drinks that contain complex carbohydrates which help to reduce the impact the operation has on your body and optimise your recovery. These drinks have been proven to completely empty from the stomach 90 minutes after drinking, which is why it is safe for you to drink these up to 2 hours before your surgery.

The day before your surgery eat and drink normally but try to eat foods that are high in carbohydrates such as potatoes, pasta, bread and rice.

In the afternoon before your surgery drink 1 of your Ensure drinks. Drink the 2\textsuperscript{nd} Ensure drink in the evening before surgery as well as having your normal evening meal. You can continue to eat up until 6 hours prior to admission.

On the day of your surgery drink both cartons of Nutricia preOp drinks 2 hours prior to your admission time to hospital i.e. they need to be finished at least 2 hours before your surgery. For example if you are due to arrive at 7.30am drink both cartons by 5.30am. If you are due to arrive at 11.30am drink both cartons before 9.30am etc. You are also able to continue drinking clear fluids (water, squash, tea and coffee \textit{with no milk}) up until 2 hours prior to surgery.

Most people prefer to drink these drinks chilled. These drinks are gluten, lactose and fibre free.
The preOp drinks are not suitable for patients with insulin-treated diabetes or patients with delayed gastric emptying.

If you are an insulin dependent diabetic you can continue to eat up until 6 hours before surgery. You are able to drink clear fluids (for example water, lemonade, squash, tea and coffee without milk) up to 2 hours prior to surgery. Carry on with your insulin routine as normal.

If you have any questions please speak to your pre-operative assessment nurse.

Eating and drinking after surgery
You will be allowed to eat and drink as soon as you are awake enough following your operation. It is important that you start doing this as early as possible.

You need more calories (energy) from your diet to help your body heal and regain strength. It is common to lose your appetite and you may not wish to eat large meals. Most people find that eating 'little and often' is best.

Your nurse can provide you with high calorie drinks to supplement your meals if necessary.

Your nutritional intake will be monitored during your admission and you will be referred to the dietician if necessary.

Bowel movements
You may find that that you have trouble opening your bowels after your surgery. You should be offered regular laxatives to help with this but if not please ask your nurse.
Pain management: during and after surgery

There are a number of ways for you to receive pain relieving medication:

**Epidural**

Epidural pain relief is when a thin flexible tube called a catheter is inserted into the epidural space (an area of your spine) while you are in theatre. This can be done while you are awake or asleep and will give you a continuous infusion of pain relief that may feel like you are numb in the area around the wound and the drains. You will also be able to give extra pain relief yourself by pressing a button. The medication is set by the anaesthetist so there is no risk of overdosing. The nurses will check your numbness with a cold spray after your surgery. You may have your epidural for 2-3 days and then move onto oral pain relief once the tube is removed.

**Paravertebral block**

A paravertebral infusion is a continuous infusion of local anaesthetic around the nerves supplying the site around your wound. It is administered through a thin flexible tube which will be inserted while you are in theatre. The amount of local anaesthetic you receive is set by the surgeon and anaesthetist and there is no risk of overdosing.

**Patient controlled analgesia (PCA)**

Pain relieving medication, such as morphine, is given via a pump into a small needle in a vein usually in your hand. You will be able to control your medication by pressing a button. Alternatively your nurse can control your medication if she feels your pain is not controlled. Again, the dosage is set so there is no risk of overdosing or addiction. You will normally have the PCA for 1 or 2 days after your operation then move onto oral pain relief.

**Oral pain relief**

Once you are able to eat and drink we will give you pain medication in tablet form every four to six hours. Your nurse will assess your pain with you using a scale of 0-3 [0=no pain, 3=severe pain]. It is important that you are comfortable enough to carry out your deep breathing and coughing exercises and you are able to move around. Please tell us if your pain scores more than 1 so we can make changes to your medication if needed.

Throughout your recovery an anaesthetist will be available to give you advice about pain, sickness or any other problems that may arise.
**Early mobilisation and discharge**

A vital part of your Enhanced Recovery Programme is to mobilise as soon as possible after your operation. This is usually the first day after your surgery. Early mobilisation helps to prevent complications such as venous thromboembolism (e.g. DVT/PE) or chest infection, and to promote lung function. Staff will help you with all the ‘clutter’ of drains and tubes relating to your operation to begin with. The amount that you do will gradually increase.

Record your exercise in your diary as a way of monitoring your progress. You will also be encouraged to attend our daily exercise class run by the Physiotherapists.

If part of or all your lung has been removed you will have to train the remaining lung to work hard to compensate. Exercise and physiotherapy is the only way to do this. This will be hard as you will feel breathless and tired.

You will be encouraged to dress in your usual clothes during the day and nightwear during the night only, please ensure that you bring in suitable clothing when you are admitted for surgery i.e. light lose fitting clothes that you feel comfortable in.

Please take advantage of our quiet time between 1-3pm to have a rest on your bed as you will feel more tired than usual.
When will I be able to go home?

The Enhanced Recovery Programme sets out goals and targets to achieve at specific days after your operation. Your discharge from hospital is also based on specific criteria and when you have achieved these goals, you will be discharged. The criteria are:

- Assessed as medically fit for discharge
- Effective pain control with oral analgesics
- Eating and drinking well.
- Independently mobile; able to get self out of bed and on/off the toilet
- Bowels opened

If you are making good progress but your chest drain needs to stay in we can attach a drain that is safe for use out of the hospital and discharge you home. We will give you specific instruction and training on the care of the drain and an appointment to see the Advanced Nurse Practitioner for Thoracic Surgery at the chest drain clinic in a few days’ time.

Often it can be daunting and frightening being discharged from hospital after a major operation; however the multi-professional team have decided that you are well enough to be discharged from hospital. Your body needs time to recover from the trauma and adjust to its new condition; try to be patient: you will recover, but it takes a while.

When you leave the ward we will give you:

- A supply of medication which your nurse will explain to you and a written plan of when to take your tablets. Make sure you continue to take your pain relief as prescribed. Do not let yourself be in pain - you may require pain relief for a few weeks or months. Do not just stop your pain medication, when you are feeling better, you will need to reduce the amount of medication you are taking slowly over a number of days or weeks depending on how you are feeling.
- A letter for your GP
- An appointment for stitch removal / wound check and letter for your practice nurse at your GP surgery.
- You will be informed about your follow up appointment. This is usually 2 weeks after discharge. You will be seen in a clinic on a Thursday afternoon at the Churchill Hospital, Oxford.
Contacts

If you have any questions or concerns please contact one of the numbers below.

Within office hours you can contact your Consultant surgeon or the Advanced Nurse Practitioner for Thoracic Surgery:

Mr Edward Black
Consultant surgeon
01865 220240

Miss Elizabeth Belcher
Consultant surgeon
01865 221749

Jenny Mitchell
Advanced Nurse Practitioner, Thoracic Surgery
01865 572653
01865 741166 and ask for bleep 1184 if urgent

Outside of office hours at weekends and bank holidays you can call the cardiothoracic ward at any time and speak to a nurse:

Cardiothoracic Ward
01865 572662 or 572660
Co-ordinator:
01865 741166 and ask for bleep 1971

Other useful contacts:

Sarah Malone
Matron
01865 572649
01865 741166 and ask for bleep 1185 if urgent

Pre Admission and Discharge Liaison Nurses
01865 220274
01865 741166 and ask for bleep 4549 or 4356 if urgent

Cardiac and Thoracic Critical Care (CTCCU)
01865 572635 (Reception)
01865 572639 (Ward)
Visiting times

Cardiothoracic ward: 3pm-8pm only

Cardiac and Thoracic Critical Care (CTCCU): Open visiting but rest time between 1-3pm so visiting is limited.

References

Department of Health (2010) Delivering enhanced recovery: helping patients to get better sooner after surgery. Crown

Appendix two

Example of a patient diary

Thoracic Surgery
Enhanced Recovery Programme

Patient Diary

Name: ..............................................................

My Consultant is: .............................................

My Specialist nurse is: .....................................

My Physiotherapist is: ......................................

Admission date: .............................................

Expected Discharge Date: ................................

Discharge date: .............................................

My operation was: ...........................................

..............................................................

Date of operation: ...........................................
Check List for admission

On admission remember to bring in:

- Toiletries (shower gel rather than soap)
- Loose fitting nightwear and clothes to wear after your operation and sensible slippers
- All your medications in the green bag provided (including inhalers and dressings)
- The antiseptic lotion, mouthwash and nasal cream you were given at pre-operative admission clinic
- This Enhanced Recovery Programme diary
Enhanced Recovery Programme Patient Diary

The purpose of this diary is for you to record your thoughts and feelings throughout your hospital stay and to document your progress in line with the enhanced recovery principles of early nutrition and early mobilisation.

The diary is designed for you the patient to complete, however, relatives, friends and members of the multi-professional team (doctors, nurses, physiotherapists, and dietician) can assist you to fill it in if you are unable.

This diary sets out guidelines for what to expect on the days after your surgery, but as everyone is an individual, you may vary slightly from the programme documented. If your post-operative recovery varies from the programme set out, this is not a failure, purely a variation to the programme.

We would like to keep this diary when you go home so that we can use the information you have recorded to monitor our enhanced recovery programme. If you would like to keep this diary please let your nurse know and we will photocopy it for you.
**Recovery goals and targets**

It is important that you mobilise as much as possible. Before your “drips and drains” are removed you will be able to carry them around with you. Mobilisation is the key to your recovery. In order to mobilise you will need good pain relief. The doctors and nurses are keen to help you to manage your pain.

Below is a list of goals/targets that you should be able to achieve prior to discharge. We acknowledge that every patient is an individual and everyone will achieve these goals at their own pace, so please document the post-operative day on which the goal was achieved, for your own reference and to keep you motivated with the Enhanced Recovery Programme.

<table>
<thead>
<tr>
<th>Goal/Target</th>
<th>Post-operative day achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sit out of bed for more than 6 hours, returning to bed for a 1-2 hour rest in the afternoon.</td>
<td></td>
</tr>
<tr>
<td>Walk a lap of the ward.</td>
<td></td>
</tr>
<tr>
<td>Get dressed into your own clothes (unaided)</td>
<td></td>
</tr>
</tbody>
</table>
## Pre surgery

### Exercise

It is important that you are as active as possible prior to your surgery. This will help you to be in the best possible condition for your surgery. The fitter you are before surgery, the quicker you will recover afterwards.

Exercise may include going for a walk, going up and down the stairs a few times, cycling or more formal exercise classes. Any sort of exercise that will get you moderately short of breath is beneficial.

Please document below the exercise that you do in the **week** prior to coming in for your surgery:

<table>
<thead>
<tr>
<th>Days before Surgery</th>
<th>Exercise Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 days</td>
<td></td>
</tr>
<tr>
<td>6 days</td>
<td></td>
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<tr>
<td>5 days</td>
<td></td>
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<tr>
<td>4 days</td>
<td></td>
</tr>
<tr>
<td>3 days</td>
<td></td>
</tr>
<tr>
<td>2 days</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td></td>
</tr>
</tbody>
</table>
Nutrition

Continue to eat and drink normally in the weeks running up to your surgery.

**The day before your surgery** eat and drink normally and try to eat foods that are high in carbohydrates such as potatoes, pasta, bread and rice.

Follow the instructions in your information leaflet about when to take your nutritional drinks (Ensure) and your carbohydrate drinks (Nutricia preOp)

**Afternoon before surgery:**

1\textsuperscript{st} Ensure drink: Time finished: ………………………

2nd Ensure drink: Time finished: ………………………

**Day of surgery:**

Take both Nutricia preOp drinks: Time finished: ………………………

Document time of last clear fluids: Time finished: ………………………

For insulin dependent diabetics write down when you had your last drink of clear fluids:

Time finished: ………………………
Day of surgery

**Plan:** Achieve satisfactory pain control. Sit upright in bed. Sit out of bed (for patients who return to the ward before 3 pm)

**Pain:** Please score your pain using the following scoring.

0 = no pain       1 = mild pain       2 = moderate pain       3 = severe pain

At rest      On movement

You must tell your nurse if your pain score is more than 1

**GOALS**

**Mobility:** *(tick if achieved)*

I managed to sit upright in bed

I managed to sit out of bed for 1 hour

**Nutrition:** *(tick if achieved)*

I managed to drink

I managed to eat

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
Post op Day 1

**Plan:** Sit out of bed and walk for 2 x 40 m. Eat and drink normally. Achieve satisfactory pain control.

**Pain:** Please score your pain using the following scoring.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no pain</td>
</tr>
<tr>
<td>1</td>
<td>mild pain</td>
</tr>
<tr>
<td>2</td>
<td>moderate pain</td>
</tr>
<tr>
<td>3</td>
<td>severe pain</td>
</tr>
</tbody>
</table>

At rest [ ] On movement [ ]

You must tell your nurse if your pain score is more than 1

**GOALS**

**Mobility:** *(tick if achieved)*

I managed to sit out of bed for 3 hours am [ ] pm [ ]

I managed to go for a walk with assistance am [ ] pm [ ]

Distance walked (aim for 2 x 40 m):

**Nutrition:** *(tick if achieved)*

I managed to eat and drink [ ]

**Activities of Daily Living:**

I managed to wash with assistance [ ]

I dressed in my own clothes [ ]

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
Post op Day 2

**Plan:** Sit out of bed most of the day and walk for 4 x 80 m (80 m is a lap of the ward). Eat and drink normally. Achieve satisfactory pain control.

**Pain:** Please score your pain using the following scoring.

- 0 = no pain
- 1 = mild pain
- 2 = moderate pain
- 3 = severe pain

At rest □

On movement □

You must tell your nurse if your pain score is more than 1

**GOALS**

**Mobility:** *(tick if achieved)*

- I managed to sit out of bed for 3 hours am □ pm □
- I managed to go for a walk on my own am □ pm □

Distance walked (aim for 4 x 80 m):

- I managed to attend the exercise class □

**Nutrition:** *(tick if achieved)*

- I managed to eat and drink □

**Activities of Daily Living:**

- I managed to wash myself □
- I dressed in my own clothes □

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
Post op Day 3

Plan: Sit out of bed most of the day and walk for 6 x 80 m (80 m is a lap of the ward). Eat and drink normally. Achieve satisfactory pain control.

Pain: Please score your pain using the following scoring.

0 = no pain 1 = mild pain 2 = moderate pain 3 = severe pain

At rest ☐ On movement ☐

You must tell your nurse if your pain score is more than 1

GOALS

Mobility: (tick if achieved)

I managed to sit out of bed for 3 hours am ☐ pm ☐

I managed to go for a walk on my own am ☐ pm ☐

Distance walked (aim for 6 x 80 m):

I managed to attend the exercise class ☐

Nutrition: (tick if achieved)

I managed to eat and drink ☐

Activities of Daily Living:

I managed to wash myself ☐

I dressed in my own clothes ☐

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
Post op Day 4

**Plan:** Sit out of bed most of the day. Walk 8 x 80 m (80 m is a lap of the ward) Eat and drink normally. Achieve satisfactory pain control. Discharged home

**Pain:** Please score your pain using the following scoring.

0 = no pain   1 = mild pain   2 = moderate pain   3 = severe pain

At rest   [ ] On movement   [ ]

You must tell your nurse if your pain score is more than 1

**GOALS**

**Mobility:** *(tick if achieved)*

I managed to sit out of bed for 3 hours   am   [ ]  pm   [ ]

I managed to go for a walk on my own   am   [ ]  pm   [ ]

Distance walked (aim for 8 x 80 m):

I managed to attend the exercise class   [ ]

**Nutrition:** *(tick if achieved)*

I managed to eat and drink   [ ]

**Activities of Daily Living:**

I managed to wash myself   [ ]

I dressed in my own clothes   [ ]

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
**Post op Day 5**

If you are still in hospital on day 5 after your surgery that is not a problem. Just continue to build up your walking and continue to eat and drink normally.

**Plan:** Sit out of bed most of the day. Walk 8 x 80 m (80 m is a lap of the ward). Eat and drink normally. Achieve satisfactory pain control. Discharged home.

**Pain:** Please score your pain using the following scoring.

0 = no pain  
1 = mild pain  
2 = moderate pain  
3 = severe pain

At rest  
On movement  

You must tell your nurse if your pain score is more than 1.

**GOALS**

**Mobility:** *(tick if achieved)*

I managed to sit out of bed for 3 hours  
am  
pm  

I managed to go for a walk on my own  
am  
pm  

Distance walked (aim for 8 x 80 m):

I managed to attend the exercise class

**Nutrition:** *(tick if achieved)*

I managed to eat and drink

**Activities of Daily Living:**

I managed to wash myself

I dressed in my own clothes

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
**Post op Day 6**

**Plan:** Sit out of bed most of the day. Walk 8 x 80 m (80 m is a lap of the ward). Eat and drink normally. Achieve satisfactory pain control. Discharged home

**Pain:** Please score your pain using the following scoring.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no pain</td>
</tr>
<tr>
<td>1</td>
<td>mild pain</td>
</tr>
<tr>
<td>2</td>
<td>moderate pain</td>
</tr>
<tr>
<td>3</td>
<td>severe pain</td>
</tr>
</tbody>
</table>

At rest [ ] On movement [ ]

You must tell your nurse if your pain score is more than 1

**GOALS**

**Mobility: (tick if achieved)**

- I managed to sit out of bed for 3 hours am pm
- I managed to go for a walk on my own am pm

Distance walked (aim for 8 x 80 m):

- I managed to attend the exercise class

**Nutrition: (tick if achieved)**

- I managed to eat and drink

**Activities of Daily Living:**

- I managed to wash myself
- I dressed in my own clothes

If you have had difficulty reaching your goals, why? (e.g. pain, nausea):
Discharge from Hospital

The Enhanced Recovery Programme is based on criteria-led discharge and when you have achieved all the criteria, it is time for you to be discharged from hospital.

The criteria are listed below (please insert a date when achieved – this is for your reference only)

<table>
<thead>
<tr>
<th>Discharge Criteria</th>
<th>Date achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessed as medically fit for discharge</td>
<td></td>
</tr>
<tr>
<td>Effective pain control with oral analgesics</td>
<td></td>
</tr>
<tr>
<td>Eating and drinking well</td>
<td></td>
</tr>
<tr>
<td>Bowels opened or passing wind</td>
<td></td>
</tr>
<tr>
<td>Independently mobile; able to get self out of bed and on / off toilet</td>
<td></td>
</tr>
</tbody>
</table>
Your experience

We would like to understand how you felt about your recent stay in hospital and would be grateful if you would answer the following questions. Your answers will be treated confidentially. **Thank you**

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you feel well informed about your planned surgery?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you feel well informed about what would happen after your surgery (whilst you were still in hospital)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were you informed about the benefits of exercising in the run up to your surgery and after surgery?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you feel that you were given enough written information about your planned surgery and what would happen afterwards?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Were you offered enough advice and support to stop smoking? (If applicable)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Did you feel involved in decisions about your discharge from hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you feel that your pain has been well controlled?</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Guidelines for Patient Information on Enhanced Recovery in Thoracic Surgery

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Not sure</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Do you feel ready to go home?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you know who to contact if you have any problems when you get home?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you happy with your overall care experience?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lastly:**

What did we do well?

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

What can we do better?

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………

Any other comments?

……………………………………………………………………………………………………………………………………
……………………………………………………………………………………………………………………………………
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Acknowledgements

The guideline was produced by members of the thoracic surgical group, a sub-group of the NLCFN:

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References


