

Enhanced Recovery After Surgery (ERAS)

Liver Resection
Information for patients



What is Enhanced Recovery?

Enhanced Recovery is a new way of improving the experience and well-being of people who need major surgery. It helps them to recover sooner so that life can return to normal as quickly as possible. The programme focuses on making sure that you are actively involved in your recovery.

There are four main stages:

- Planning and preparation before admission (including early nutrition).
- Reducing the physical stress of the operation.
- A structured approach to peri-operative (during surgery) and post-operative (after surgery) management, including pain relief.
- Early mobilisation (getting people moving as soon as possible).

We will give you some carbohydrate drinks (called preOp) to be taken in the hours before your surgery. Research has shown that taking carbohydrate drinks up to two hours before surgery as part of an Enhanced Recovery programme can reduce the stress of the operation on your body.

We will also give you an early mobilisation plan. The purpose of this plan is to get you moving as soon as possible and would involve getting you out of bed on the day of surgery (if you are well enough) and assisting you to walk increasing distances on the ward every day until you are discharged home. If you have problems walking, we will develop a personalised, realistic mobility plan with you during your recovery.

The Enhanced Recovery programme is a guideline for all the professionals involved in looking after you (multidisciplinary care team). The programme may not be suitable for everyone. If this is the case for you, the team looking after you can make changes, making sure that the care you receive is not only of the highest quality, but is also designed around your specific needs.

We will give you a patient diary to record your thoughts and feelings during your time in hospital after your operation and to note down your progress. Whilst we hope that you will complete this, it is not compulsory.

What to expect

Planning and preparation before admission

You will be seen in an outpatient clinic to discuss what is planned for your surgery. You will have the operation explained to you including the risks and benefits.

You will have an appointment to go to the pre-operative assessment clinic before the date of your surgery. This is to make sure you are fit for an anaesthetic and surgery.

You will see a nurse who will check your general health and do tests such as blood tests. You may see an anaesthetist to discuss the anaesthetic you will have for the operation. They will also talk with you about the pain relief which you will need after the operation. You will have the opportunity to ask any questions you might have.

We will use the information we gather to plan your care in hospital and to deal with any problems at an early stage. Please bring along a list of all your regular medications (it may be easier to bring your repeat prescription with you).

On the day of your surgery, you will come into hospital as a Theatre Direct Admission (TDA). This means you will be transferred to a bed on the relevant ward after your surgery.

Keeping active

To help you prepare physically for your operation, it is important to keep as active as you can. Try to improve your fitness by increasing the speed and frequency of your daily walking. Activity can improve your fitness and will help you to be as well as possible for your surgery.

Preventing blood clots after surgery

You may need to have a course of blood-thinning injections (dalteparin) after you have been discharged from hospital. This is to reduce the risk of you getting a blood clot in your leg or lung after your surgery. These are once daily injections which

you will need to give yourself until the course has finished. You will be taught how to inject yourself and will have the chance to practice before you go home. This course of injections is started whilst you are in hospital and continues until 28 days after your surgery.

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 longer you are smoke free before your operation the better. Continuing to smoke before surgery can increase the risk of complications involving your heart, lungs and surgical wounds, all of which may result in you having a slower recovery and a longer stay in hospital.

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 do not live in Oxfordshire, 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 quit. Call the Oxfordshire Smoking Advice Service to find one near you.
- **Oxfordshire Smoking Advice Service**
Telephone 0845 4080 300
- **National Smoking Helpline**
Telephone 0800 1690 169

Further information can be found in the following patient information booklets; these will be given to you in pre-operative assessment clinic or can be found on our website:

www.ouh.nhs.uk/patientinformation

- Preparation for your operation and Theatre Direct Admissions
- Preventing blood clots while in hospital
- General advice following Hepatobiliary and Pancreatic Surgery

Reducing the physical stress of the operation

Nutrition

You will be given four cartons of carbohydrate drinks, called Nutricia preOp, by your pre-operative assessment nurse. These are special drinks designed for patients undergoing surgery. They are clear, still, lemon flavoured drinks that contain carbohydrates and minerals. They are easy to digest so you can still take these up to two hours before your surgery. Please take these drinks according to the specific instructions given to you at the pre-operative assessment clinic.

- **Evening** before your surgery; take two cartons of preOp drinks.
- **Morning** of your surgery; take two cartons of preOp drinks to be finished at least two hours before your admission time.

The *preOp* drinks are not suitable for people with insulin-treated diabetes or delayed gastric emptying.

Most people prefer to drink these drinks chilled. Once a carton is opened you should aim to drink it within four hours. These drinks are gluten, lactose and fibre free.

If you are taking nutritional supplement drinks such as Ensure Plus or Complan Shake please note:

These drinks are different from the preOp drinks and take longer to empty from your stomach. Therefore, these should only be taken whilst you are still allowed to eat food before your operation.

If you have recently lost weight unintentionally, or you are struggling to eat, please tell your advanced nurse practitioner or pre-operative assessment nurse. They will offer first line advice, nutritional supplements and refer you to the specialist dietitian if required. It is important that you are as well-nourished as possible prior to your operation.

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

Further information can be found in the following patient information booklet, which is available from your advanced nurse practitioner and at the pre-operative assessment clinic:

- Getting the most out of food

What happens after the operation?

Peri-operative (during surgery) and post-operative (after surgery) management, including pain relief

You will get a patient diary before your operation which explains what we will do and what we expect of you. It includes goals for you to achieve during your hospital stay and to prepare yourself for leaving hospital.

Further information can be found in the following patient information booklets; these will be given to you by the advanced nurse practitioner or in pre-operative assessment clinic or can be found on our website: www.ouh.nhs.uk/patientinformation

- Anaesthesia explained
- Managing your pain after your operation

Early mobilisation

You will need to get moving (mobilise) soon after your surgery. This is one of the most important parts of the Enhanced Recovery programme and helps to prevent complications such as chest infections, pneumonia and developing blood clots (e.g. deep vein thrombosis (DVT) or pulmonary embolism (PE)). Moving around

will also get your bowels and gut working which will help to stop you from feeling sick. This means you will be able to eat and drink sooner, giving your body energy to recover. Details of how we are going to help you to mobilise are written in your patient diary. It involves sitting out of bed for increasing lengths of time and walking increasing distances. We will also help you to meet the goals in your personalised mobility plan if you have problems walking.

There are posters along the walls of the ward to remind you to keep moving as well as showing you different distances you can walk around the ward so you can measure your progress.

During the day

After the majority of your drips and drains have been removed, you will be encouraged to dress in your usual clothes during the day and nightwear during the night only. Please make sure that you have some clean clothes with you and that the clothing is suitable e.g. loose fitting and comfortable.

Leaving hospital

The Enhanced Recovery After Surgery (ERAS) programme sets out goals and targets for you to achieve at set days after your operation. Your discharge from hospital is also based on you reaching set goals. When you have achieved these, you will be discharged. These goals are:

- for staff to assess you as medically fit for discharge
- to be controlling your pain effectively with oral analgesics (painkillers)
- to be eating and drinking, with no nausea or vomiting
- to be independently mobile; able to get yourself out of bed and on/off the toilet
- to have passed wind or have opened your bowels
- to be competent with dalteparin self-administration (if applicable), or have an alternative option in place.

You will need to make your own arrangements for discharge including transport and ensuring that you have adequate support at home. Please make sure you have a supply of paracetamol at home ready for your discharge from hospital; these can be purchased cheaply from your local pharmacy or supermarket. If you have any questions or concerns about leaving hospital, please speak to your ward nurse.

Further information about leaving 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 found on our website:

www.ouh.nhs.uk/patientinformation

- Leaving Hospital: information for patients leaving hospital

Follow-up after discharge

You may be a little worried about returning home when you have been discharged from hospital after an operation; however, all the professionals involved in looking after you will have decided that you are well enough to leave hospital. You will need time to recover but try to be patient as this may take some weeks or months.

You will be seen in a Friday morning clinic at the outpatients department in the Churchill Hospital in Oxford, approximately two weeks after your discharge from hospital.

If you require urgent advice or have a problem after your discharge from hospital, please follow the information below.

Problems after discharge

If your question is non-urgent and does not need responding to immediately, within office hours, please contact your consultant's secretary, the hepatobiliary advanced nurse practitioner or dietitian on the following telephone numbers. You can also visit your GP surgery for advice after you have been discharged from hospital.

Consultant Surgeon's secretaries:

Tel: 01865 235 668

Or

Tel: 01865 235 124

(Monday to Friday, 8.00am to 4:30pm)

Hepatobiliary Advanced Nurse Practitioners:

Tel: 01865 235 130

Or

Tel: 01865 741 841 and ask for bleep 1386 or 1891

(Monday to Friday, 9.00am to 5.00pm)

Dietitian:

Tel: 01865 235 421

Or

Tel: 01865 741 841 and ask for bleep 1192

(Monday to Friday, 8.00am to 4.00pm)

If your question requires an urgent response or is outside of office hours, please contact your GP surgery or out-of-hours GP service. They can assess you and decide what further action needs to be taken. If you require an urgent review at the hospital, you may be asked to visit the Surgical Emergency Unit at the John Radcliffe Hospital for further tests and investigations.

In an emergency or life-threatening situation, you must go to your local Emergency Department for appropriate treatment.

Useful resources

smokefree.nhs.uk (NHS stop smoking advice)

www.macmillan.org.uk (Cancer care and support charity)

www.maggiescentres.org (Maggie's cancer caring centres)

cancerlinks.maggiescentres.org (Information and support for people with cancer)

www.cancerresearchuk.org/ (Information on up-to-date cancer research)

www.ouh.nhs.uk (Oxford University Hospitals NHS Trust)

www.britishpainsociety.org (The British Pain Society; patient information website)

www.rcoa.ac.uk (Royal College of Anaesthetists; information for patients and relatives)

References

Department of Health (2010) *Delivering Enhanced Recovery: helping patients to get better sooner after surgery*. Crown

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

Elaine Tustian, Enhanced Recovery Programme Facilitator
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Oxford University Hospitals NHS Trust
Oxford OX3 9DU
www.ouh.nhs.uk/information

