

The impact of enhanced recovery programme on readmission rates after liver surgery

A tertiary centre experience.

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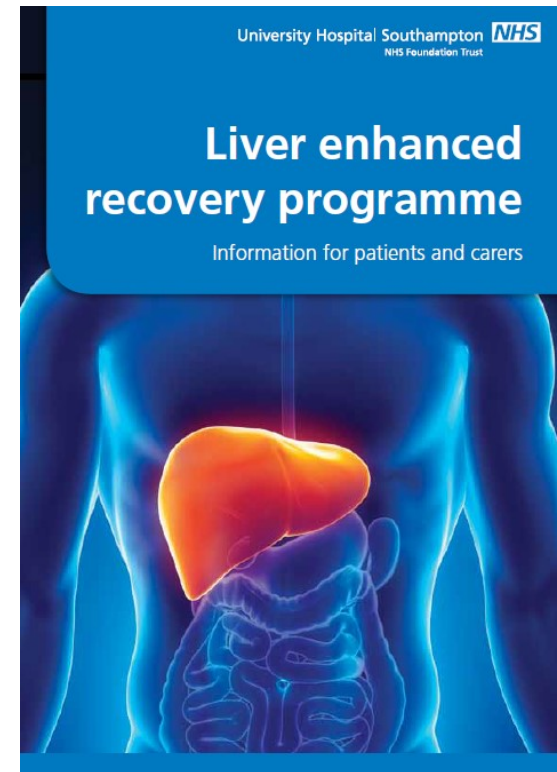


Commencing our liver enhanced recovery programme (ERP) at Southampton

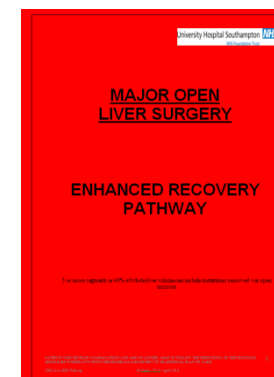
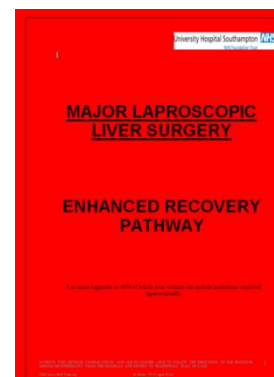
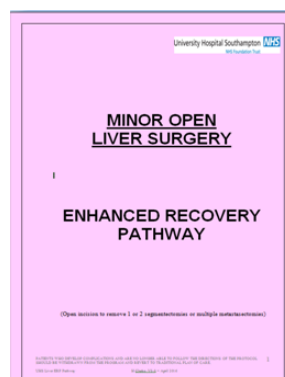
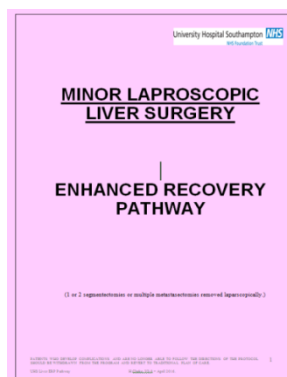
- Tertiary referral HPB centre covering the central south coast.
- 4.5 WTE HPB surgeons with daily theatre lists.
- Colorectal had lead the way at UHS proving the ER approach.
- After a pilot, our Pancreaticoduodenectomy ERP was launched in 2012 & published pilot results in 2012 .
- Launched our Liver ERP in 2013.

Aims of the liver ERP

- Standardise care across Consultants
- Early mobilisation
- Reduce length of stay
- Reduce readmissions
- Maintaining or reducing complications
- Improve staff satisfaction
- Inform patients and families with written leaflet
- Improve patient experience with the support of the Nurse Practitioner



Defining the pathways



Pathway	<u>Lap Minor</u>	<u>Open Minor</u>	<u>Lap Major</u>	<u>Open Major</u>
Selection criteria	1-3 segments and less than 40% of total liver	1-3 segments and less than 40% of total liver	More than 3 segments or more than 40% total liver	More than 3 segments or more than 40% total liver
Colour of paperwork	Pink	Pink	Red	Red
Length of stay	2 days	5 days	5 days	7 days

Initial challenges

University Hospital Southampton **NHS**
NHS Foundation Trust

LIVER SURGERY

ENHANCED RECOVERY AFTER
LIVER SURGERY
CARE PATHWAY

Patient Label

Consultant:
Date of Admission:
Predicted Discharge Date:

All staff signing for care within this pathway please record overleaf your full name and a sample of your initial signature (this is a legal requirement). Record any variances from management goals.

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Identifying the correct pathway for pre assessment.

Intra-operative changes, lap to open, minor to major.

Consultants not being explicit what pathway was required.

Access to pathways and coloured paper.

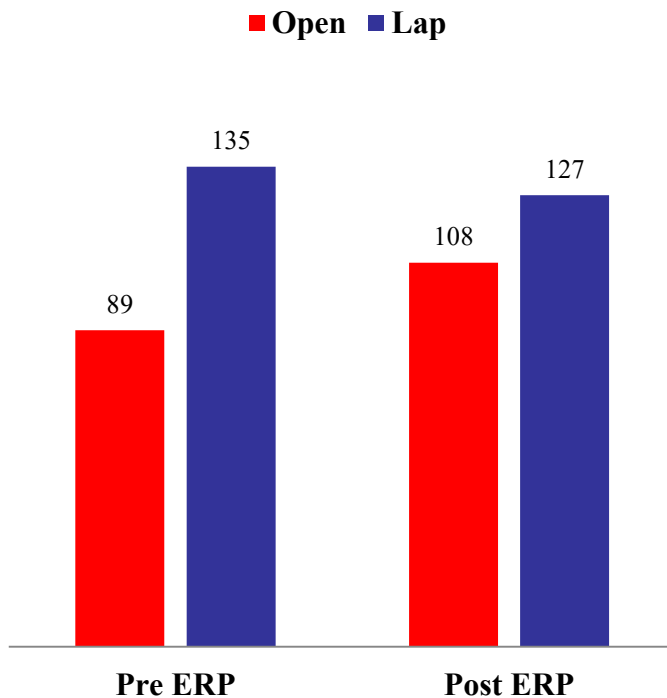
What our patients can expect

- ERP being introduced in clinic and pre-assessment.
- Standardise care for ERP patients.
- Understanding rationale for the ERP.
- Daily inpatient visits from specialised nurse practitioner.
- Handover to GP's.
- Access to 24 hour phone-line for the 2 weeks post discharge.
- Post discharge follow up phone call by nurse practitioner.
- Defined readmission process.

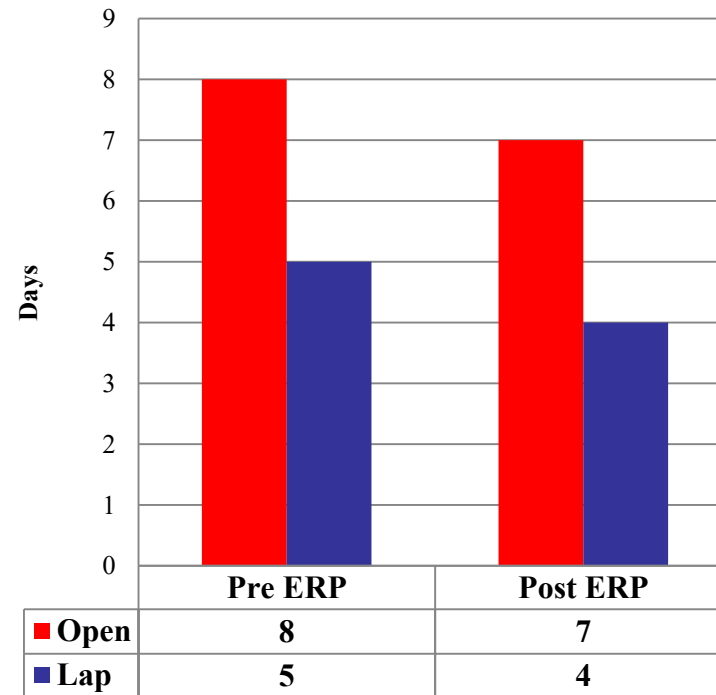
Outcomes

This study prospectively examined 459 (224 pre ERP vs 235 post ERP) NHS patients who underwent liver surgery between 2010 – 2016.

Volume of patients



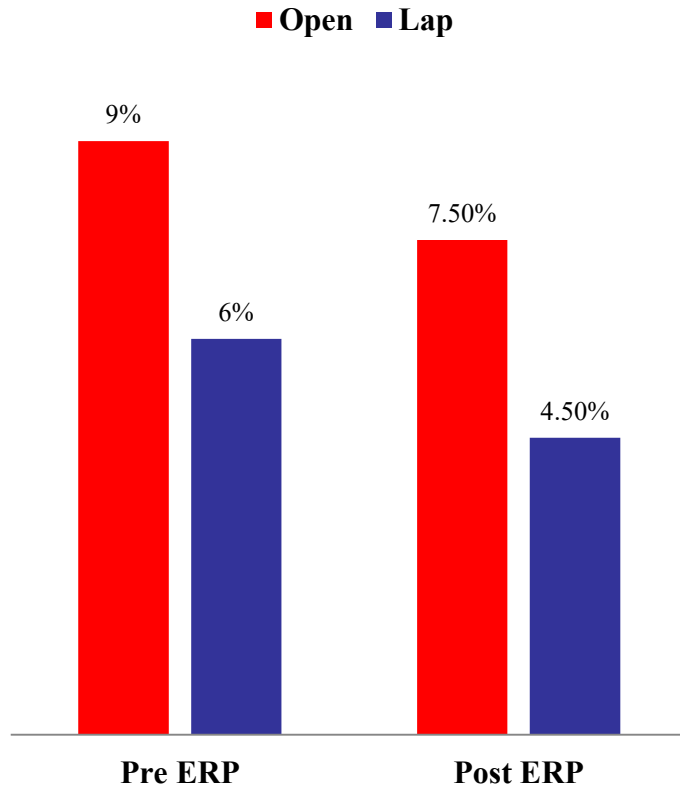
Mean Length of Stay



Readmission rates

This study prospectively examined 459 included 224 pre ERP vs 235 post ERP

Readmission rates



Post ERP a noticeable reduction in readmissions potentially due to ...

- Patient access to 24 hour phone line
- Follow up phone call by nurse practitioner.
- Defined readmission process.
- Nurse led clinic & ward attender appointments.

The future of our Liver Enhanced Recovery?

Patients as partners

Perioperative medicine

Making the most of the resources we have

Pre & Post rehabilitation

Continuously adapting pathways to research

Super Enhanced Recovery Pathways

Conclusion

From Southampton's experience

- ERP in liver surgery is safe & feasible
- Having 4 pathways allows targeted goals
- Can result in reductions in LOS and readmissions

However...

- Does not run itself
- Needs dedicated enhanced recovery nurse
- Needs backing of executive and clinical champions and leaders
- Rolling programme of education for MDT
- Continuous updating against latest evidence

Thank you

Special thank you to

Mr Salvatore Barbaro specialist clinical fellow for the data collection.

Professor Abu Hilal, University Hospitals Southampton HPB department Clinical Lead & HPB ERP Lead.

HPB Surgical team Professor Primrose, Mr Armstrong, Mr Takhar & Mr Hamady.