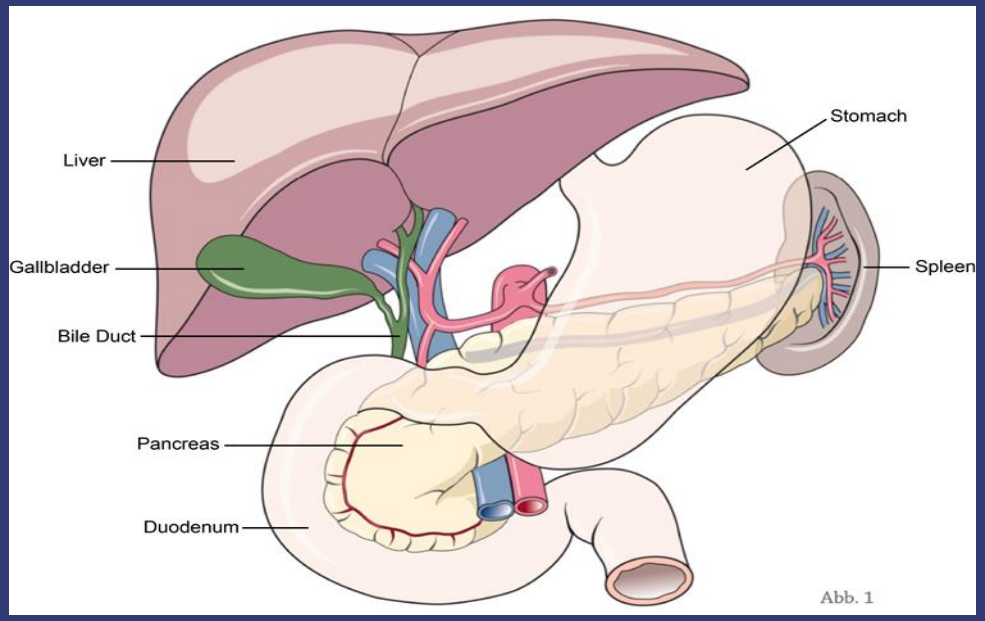
Royal Liverpool & Broadgreen
University Hospitals NHS Trust

NHS

Surgery for Pancreatic Cancer



March 2022

Phil Whelan (Macmillan Pancreatic Cancer CNS)

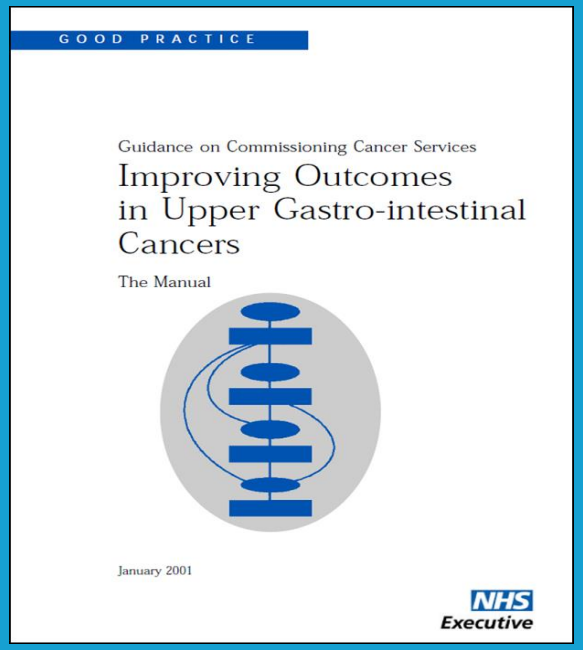
Surgery for Pancreatic Cancer

- Why only specialist / high volume units should be performing surgery
- Types of surgery
  - Resectional surgery
  - Bypass surgery
- ERAS
- PREHAB
- Case studies

Alden H Harken (Cardiothoracic surgeon): Presidential Address American College of Surgeons. Surgery 1986; 100: 129-33

Congress should pass a law making it illegal to do a Whipple operation

Specialist Pancreatic Units in the UK



- Increased patient volume (>2 million patients)
- Working in multiprofessional teams
- Improved resection rates (5% to 10%-15%)
- A reduction in post operative mortality (from≈20% to ≤5%)
- Improvement in 5 year survival post resection
- Improved access to clinical trials
- Improved access to chemotherapy drugs (palliative, neoadjuvant and adjuvant)

Improved Outcomes for Pancreatic Cancer Patients Traveling to High Volume Centers for Surgery

Further Travel to Center for Care

3 ➡ 97

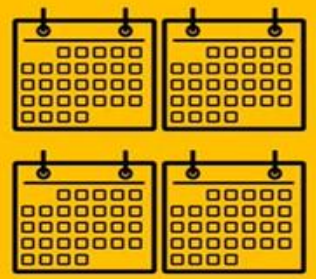
(Median Number of Miles)

Decreased Hospital Length of Stay

12 ➡ 9

(Number of days)

Increased Overall Survival



16 ➡ 20

(Avg. Number of Months)

Lidsky et al. *Ann Surg*. July 2016.

ANNALS OF SURGERY
A Monthly Review of Surgical Science Since 1885

> 80% patients not for surgery

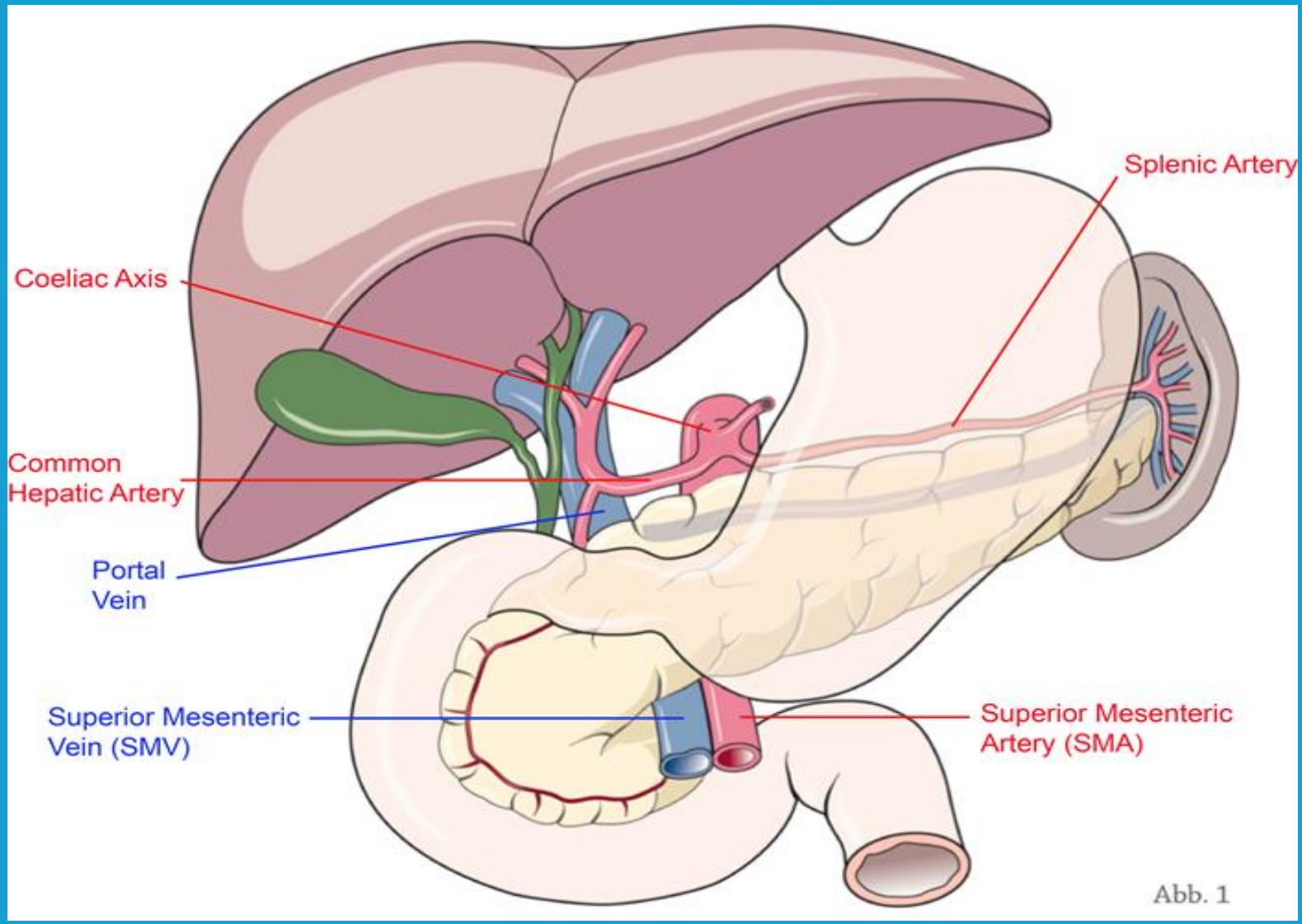
- Locally advanced pancreatic Cancer (LAPC)
- Metastatic pancreatic cancer (mPDAC)
- Anaesthetic risk
- Patient wishes

Surgery for Pancreatic Cancer

- Only 10 - 20 % of patients reviewed at MDT will get to resection
- **Our aims (2021 data)**
  - to undertake surgery quickly – Clinic / Transfer to surgery **13 days**
  - safely - **0.6% 30 day mortality**
  - commencing ADJUVANT chemotherapy – **92% patients started chemotherapy**

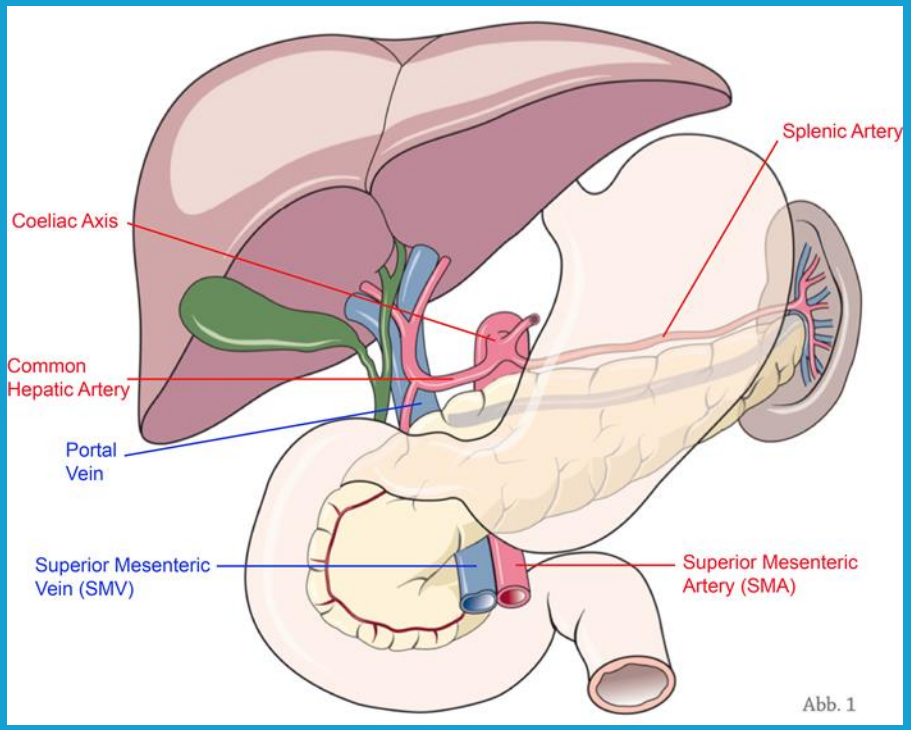
Buzz words

- Venous resections
- Arterial resections
- “Fast-track” surgery
- Neoadjuavnt treatment
- Adjuvant chemotherapy


Splenic Artery
Coeliac Axis
Common
Hepatic Artery
Portal
Vein
Superior Mesenteric
Vein (SMV)
Superior Mesenteric
Artery (SMA)
Abb. 1

Pancreas Anatomy

- Intricate vascular relationships
- Can lead to tumours being borderline resectable or unresectable



	Resectable	Borderline Resectable	Unresectable
SMV PV	<180°	>180°	Below Inf. Duodenum Non-reconstructable
CA CHA SMA	No contact	<180°	>180°

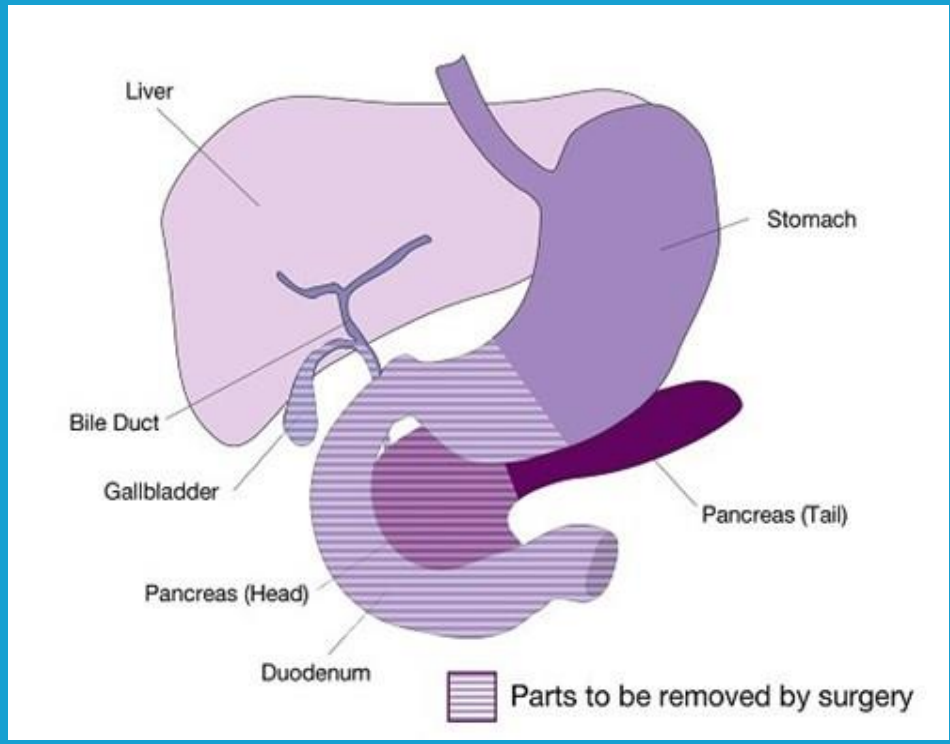
Surgical treatment – Resectable / Borderline

Tumours of the Head/Neck of Pancreas +Distal CBD/Ampulla

Pylorus-Preserving Pancreatoduodenectomy – PPPD

Tissue removed includes gall bladder, head of pancreas, duodenum and two thirds of the bile duct. The small bowel is used afterwards to join directly onto the stomach, remainder of bile duct and pancreas so that the gut can function normally

Kausch-Whipple – KWPD or "Classic Whipples" Involves removing part of the stomach plus all the above



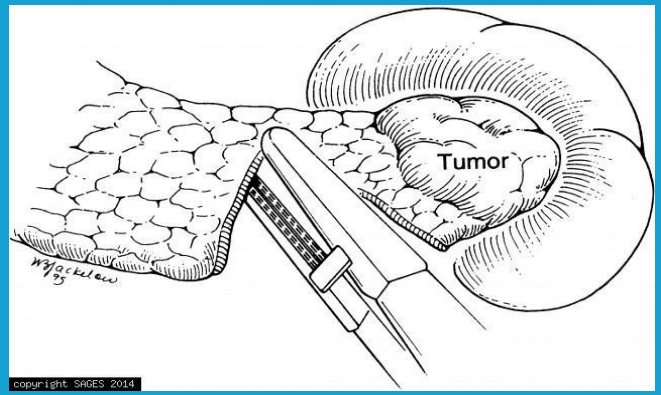
Surgical treatment

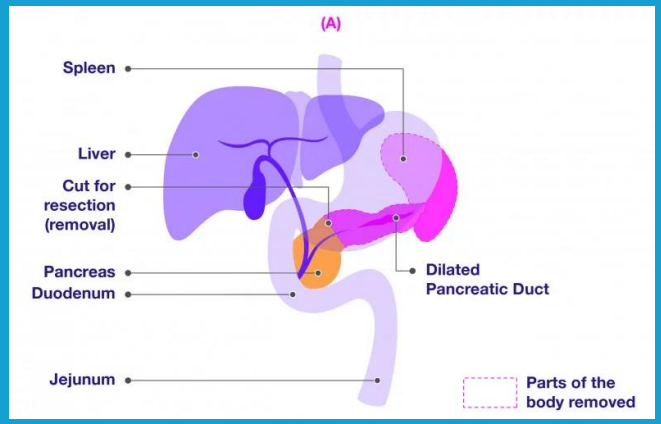
Tumours of the Body/Tail of Pancreas

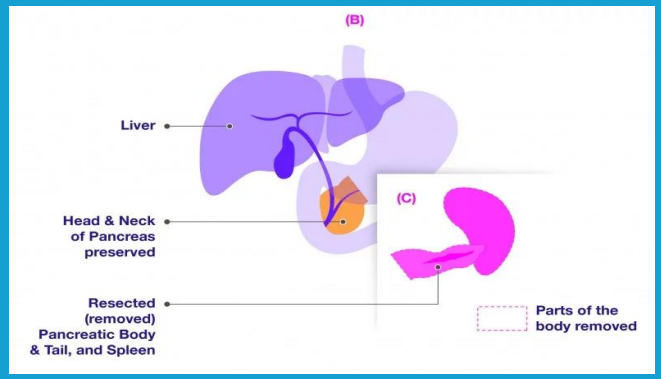
Left Pancreatectomy - Also called a Distal Pancreatectomy. Only body and tail end of pancreas removed if mass is in the tail or body of the pancreas. Often the spleen is removed.

Multifocal tumours / synchronous tumours

Often a *total pancreatecomy* is advised for tumours across the whole pancreas or where a tumour is in a position that will need removal of over 80% of the pancreas





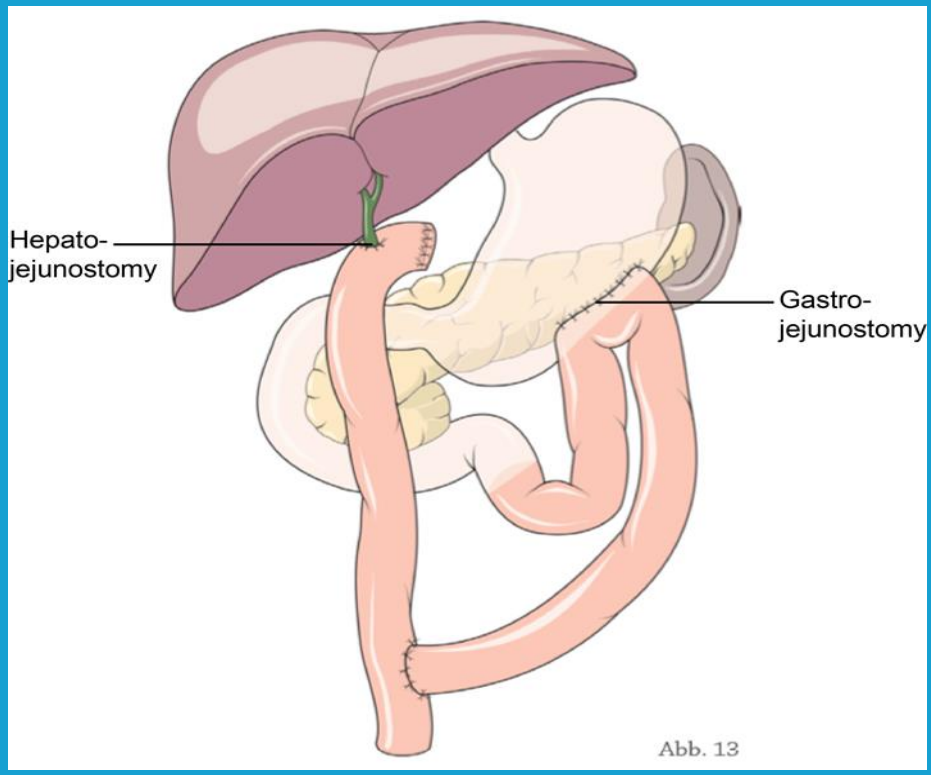


Surgical treatment – Bypass

Biliary bypass

Gastric bypass

Double bypass (both)



- Where the primary tumour is advanced and unresectable but causing obstruction of the bile duct or bowel
- Less common now due to better staging of tumor / access to biliary and duodenal stenting

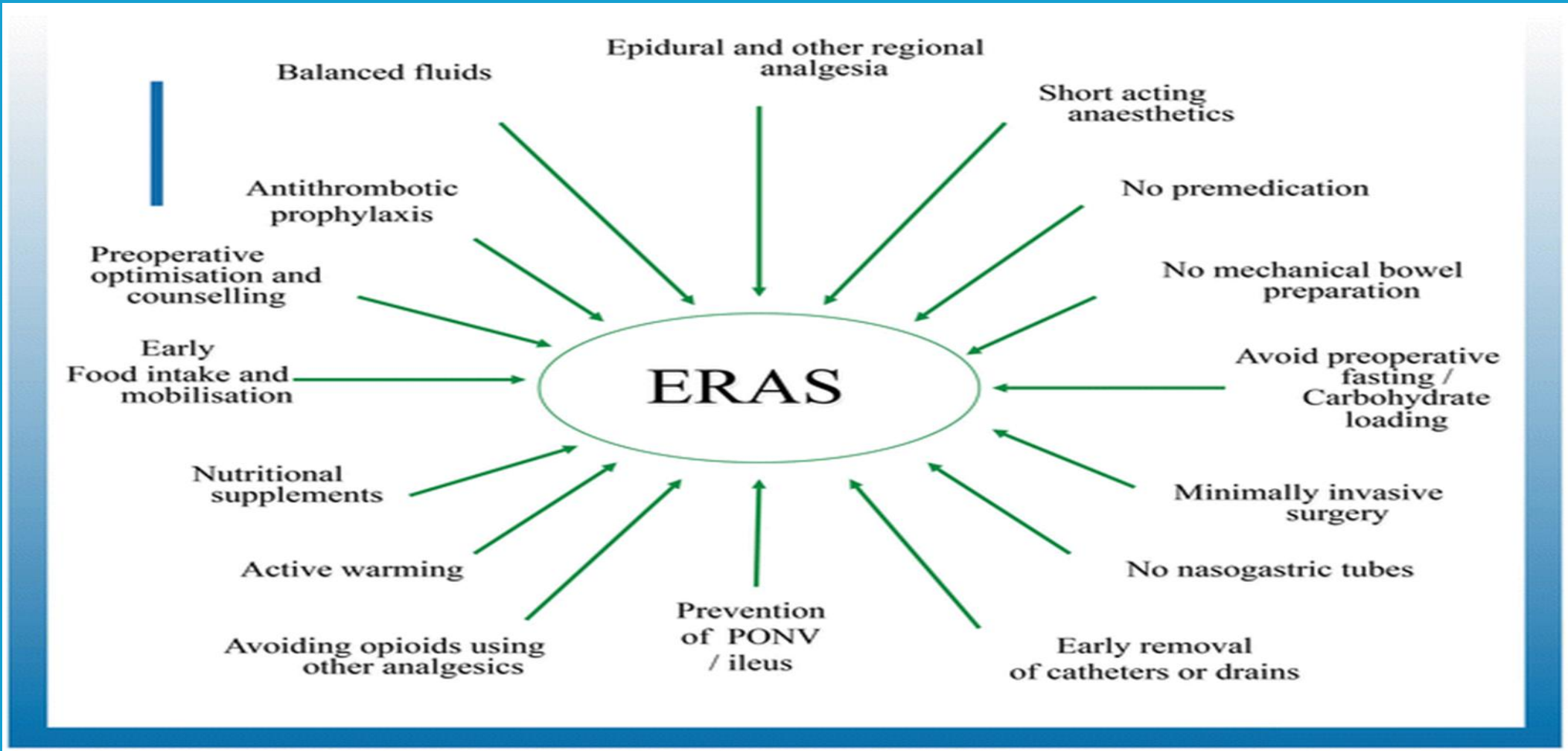
ERAS – Enhanced Recovery After Surgery

- Improve outcome and speed up recovery after surgery
- Attempt to make the patient as physiologically normal as possible

Four main elements

1. Better preoperative assessment
2. Reducing the physical stress of surgery
3. Improved perioperative management
4. Early mobilisation

ERAS – Enhanced Recovery After Surgery



PREHAB

- A form of training that aims to prevent injury before its occurrence
- Minimise the negative impact of treatment
- Pre-operative optimisation

PREHAB in Liverpool

- Advice and Education
- Surgery School – Friday pm
- Incentive spirometer
- Correction of Iron deficiency
- Smoking Cessation advice
- Rehab Service – post surgery advice / support

PREHAB in Liverpool

- Funding for non surgical patients also
- Fitter for chemotherapy > better outcomes
- Sometimes waiting and improving fitness > better outcomes

Case Study 1 – A prehab success story

66 y/o M – new onset of painless jaundice , 1 stone weight loss, CIBH, fatigue. PMH – COPD , walks with stick, current smoker, slight ETOH excess

March 2021 – GP admission on Jaundice pathway – USS and CT - 22mm HOP mass , no vascular involvement, no mets , ca19.9 over 300. PET CT – FDG mass avid mass , no Mets.

MDT outcome – Resectbale pancreatic malignancy. Bilirubin raised. For pre op review and FT surgery.

Failed pre op review – Poor PS – Frail , poor exercise tolerance (< 100 yards then SOB) poor spirometery, still smoking- Plan – ERCP/stent and brushings/biopsy – refer to oncology for ? palliative chemotherapy

March 2021 – Seen PREHAB team at Pre op – Access to dietician, physio, OT , regular exercises classes. CNS pxed PERT and BUDDY support offered.

March 2021 – started GEMCAP Chemotherapy – intention of re scan at 3//12 and repeat pre op review

June 2021 – CT scan stable disease

June 2021 – Pre op review – passes assessment (, increased weight , no smoking, baseline fitness tested improved, indepenantly mobile repeat spirometer better)

July 2021 – PPPD

Histology T3 N1 R10PDAC

Adjuvant chemotherapy – FOLFRINOX off trial

Feb 2022 – Finished chemotherapy – discharged form oncology

March 2022 – Present day – Surgical (nurse led) follow up = initially 3/12 reviews, then 6/12

Case Study 2 - Neoadjuvant chemotherapy

76 y/o F – new onset of painless jaundice , 1/12 weight loss, CIBH, fatigue, mild abdominal pain

March 2018 - USS , CT – HOP mass, encasing the SMA , no metastases , ca19.9 over 1,000

MDT outcome – LAPC, mass contact with SMA and SMV , some bulky nodes, no metastases - **Plan** – ERCP/stent and brushings/biopsy – refer to oncology for palliative chemotherapy treatment and refer to local palliative care team. 3. Dietician review and PERT

March 2018 – Started FOLFIRINOX chemotherapy

MDT outcome 2 – New CT slight downsizing of tumour, no new metastatic disease , ca19.9 less than 200 - **Plan –** For PPPD

August 2018 – PPPD

- Histology T3 N1 R1 PDAC
- Adjuvant chemotherapy – GEMCITABIME off trial

March 2019– Finished chemotherapy – discharged form oncology

March 2019 – Present day – Surgical (nurse led) follow up = initially 3/12 reviews, then 6/12 now 12/12 review – currently well, low ca19.9, active member of support group ….. **Over 4 years after being told has 6 to 12 months to live**

Supporting each other …& lots of success stories

Any questions?

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NHS

Thank you.

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