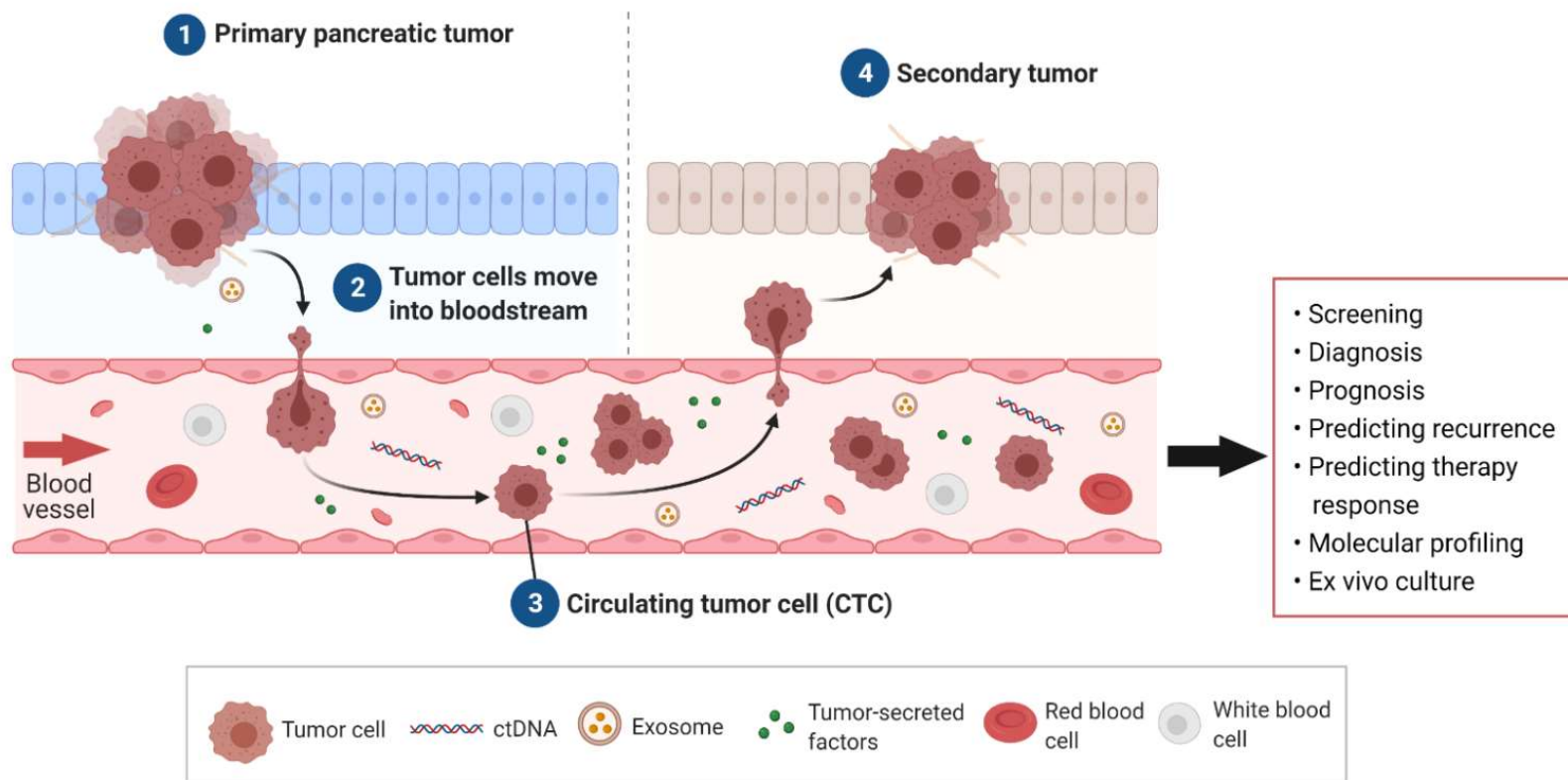


# Pancreatic cancer

- >90% will be Pancreatic ductal adenocarcinoma (PDAC)
- <5% is curable
- **Lowest survival rate** of all cancers
- Marginal increase improvement in outcomes
  - 5 year medial survival <2% in 1970 versus 5-7% in 2015
  - Resectable stage at diagnosis 15% in 1970 versus 20% in 2015
- **Unmodifiable** risk factors
  - Age (average 70yo)
  - Men>Woman
  - Family history (BRCA, Familial pancreatitis, Lynch syndrome, PJS)
- Common **modifiable** risk factors
  - Smoking (25% attributable to tobacco)
  - Obesity (BMI >30 are 20% more likely to have PDAC)
  - Diabetes
  - Chronic pancreatitis (including alcohol related)

# Pancreatic cancer

- **Early diagnosis is key**, survival at 5 years improved x10 fold if resectable
- **No effective screening programme**

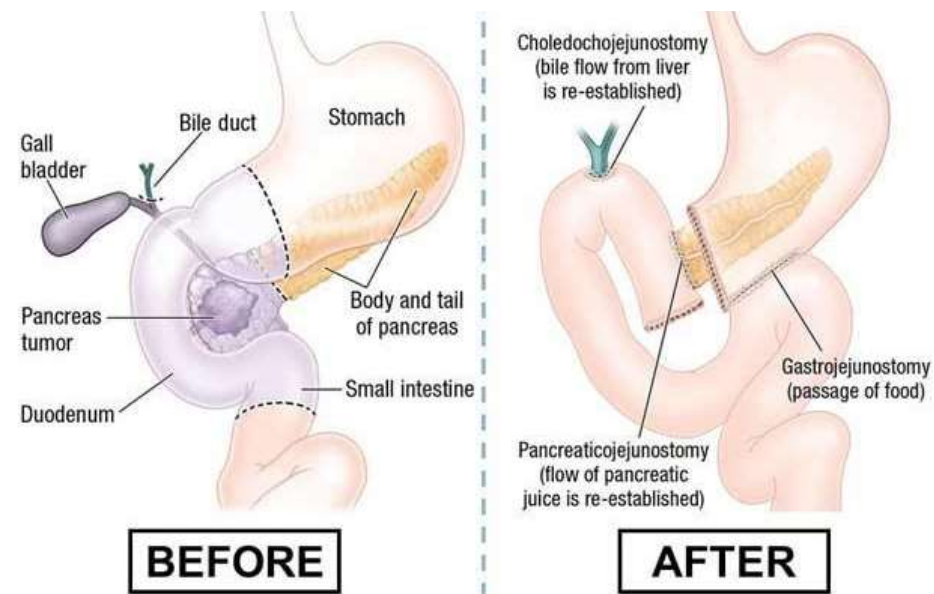


## Case 4: Mr P 72yo ♂

- Proceeded to surgery (Whipple)
- Uneventful recovery
- Clinic follow up
  - 45 year old son with no symptoms
  - Mr P asks if his son should undergo screening for pancreatic cancer?

### Which is FALSE regarding recommendations for Pancreatic cancer screening

- A) Screening for asymptomatic average risk individuals should be avoided
- B) Recommendations are based on poor quality data
- C) Limitations and risks should be discussed with patients before initiating a screening program
- D) All patients at increased risk of pancreatic cancer should undergo pancreatic cancer screening



Expert consensus but **low quality evidence**

Population screening is not recommended

**No consensus on when to end surveillance**

Management of patients with increased risk for familial pancreatic cancer: updated recommendations from the International Cancer of the Pancreas Screening (CAPS) Consortium

Who?	When to start?	How?	What
<b>Peutz-Jeghers syndrome</b> and <b>germline CDKN2A</b> mutation	Age 40 or 10 years younger than youngest affected relative	<u>Baseline:</u> MRI/MRCP + EUS  Fasting glucose or HbA1c	Surgery if positive FNA and/or high suspicion of cancer on malignancy
<b>BRCA, Lynch syndrome, PALB2, ATM</b> mutation <b>with at least one first degree relative affected</b>	Age 45 or 10 years younger than youngest affected relative	<u>Follow up:</u> Alternate MRI/MRCP + EUS* 6-12 monthly	Goal: Detect and resect stage 1 cancer confined to the pancreas with negative margins.
No germline mutation but at least 1x affected FDR who in turn has another FDR (Familial Pancreatic Cancer)	Age 50 or 55* or 10 years younger than youngest affected relative	<u>If concerns:</u> CA 19-9, EUS FNA	
<b>Consider:</b> comorbidities, life expectancy and compliance with surveillance			* No consensus reached

### Genetic service referral

- Germline mutation in blood relative
- Several close relatives on same side of family with pancreatic cancer
- Young age at diagnosis of affected individual
- Individual with clusters of associated cancers (e.g. BRCA, breast ovarian, Lynch, colorectal and Uterine)
- Jewish ancestry

# Diagnostic Yield From Screening Asymptomatic Individuals at High Risk for Pancreatic Cancer: A Meta-analysis of Cohort Studies

## What You Need to Know

### Background

The CAPS Consortium recommends periodic abdominal imaging (with EUS or MRI) in high-risk individuals to screen for pancreatic cancer.

### Findings

We estimate that screening 135 high-risk individuals can identify one case with adenocarcinoma or high-grade dysplasia. EUS and MRI identified similar number of high-risk pancreatic lesions. Diagnostic yield depends largely on patients' genetic background.

### Implications for patient care

Pancreatic cancer surveillance in high-risk individuals is comparable with other preventive services. Questions regarding harms of screening and surgery, and cost-effectiveness need to be answered before scale-up implementation.

- **Risk of unnecessary surgery for benign lesions identified during screening**
  - Study of 1551 high risk subjects
  - 135 had surgery for pancreatic lesions
  - Only 30 (1.8%) were PDAC related
  - 105 (6.3%) were “resected unnecessary” (no PDAC or high risk pre-malignant lesions)

Paiella et al, Pancreatology

## Case 4: Mr P 72yo ♂

- Proceeded to surgery (Whipple)
- Uneventful recovery
- Clinic follow up
  - 45 year old son with no symptoms
  - Mr P asks if his son should undergo screening for pancreatic cancer?
  
- Single relative
- Age >50 years at diagnosis
- Single cancer
- No germline mutation detected
  - ➔ Does not require genetic testing
  - ➔ Advised against asymptomatic screening

# Summary

Consider non-GI causes of upper abdominal pain

USS is a good first line investigation when suspecting HPB disorders

Rapid weight loss and pregnancy are risk factors for gallstone disease

Risk of gallstone complications increase after first colic → consider surgery

90% of elevated ferritin is from non-iron overload conditions, where venesection is NOT indicated.

Asymptomatic GB polyps with no risk factors do not require intervention

Asymptomatic hepatic haemangioma <3cm with no risk factors do not require intervention

Pancreatic cancer has the worst survival of all cancers and outcomes have barely changed over time

Pancreatic cancer screening is only recommended for high risk individuals, after consultation of the pros and cons.

