RDCs and Pancreatic Cancer
North Central London Cancer Alliance

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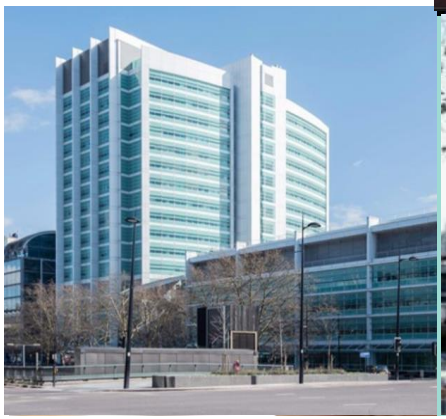
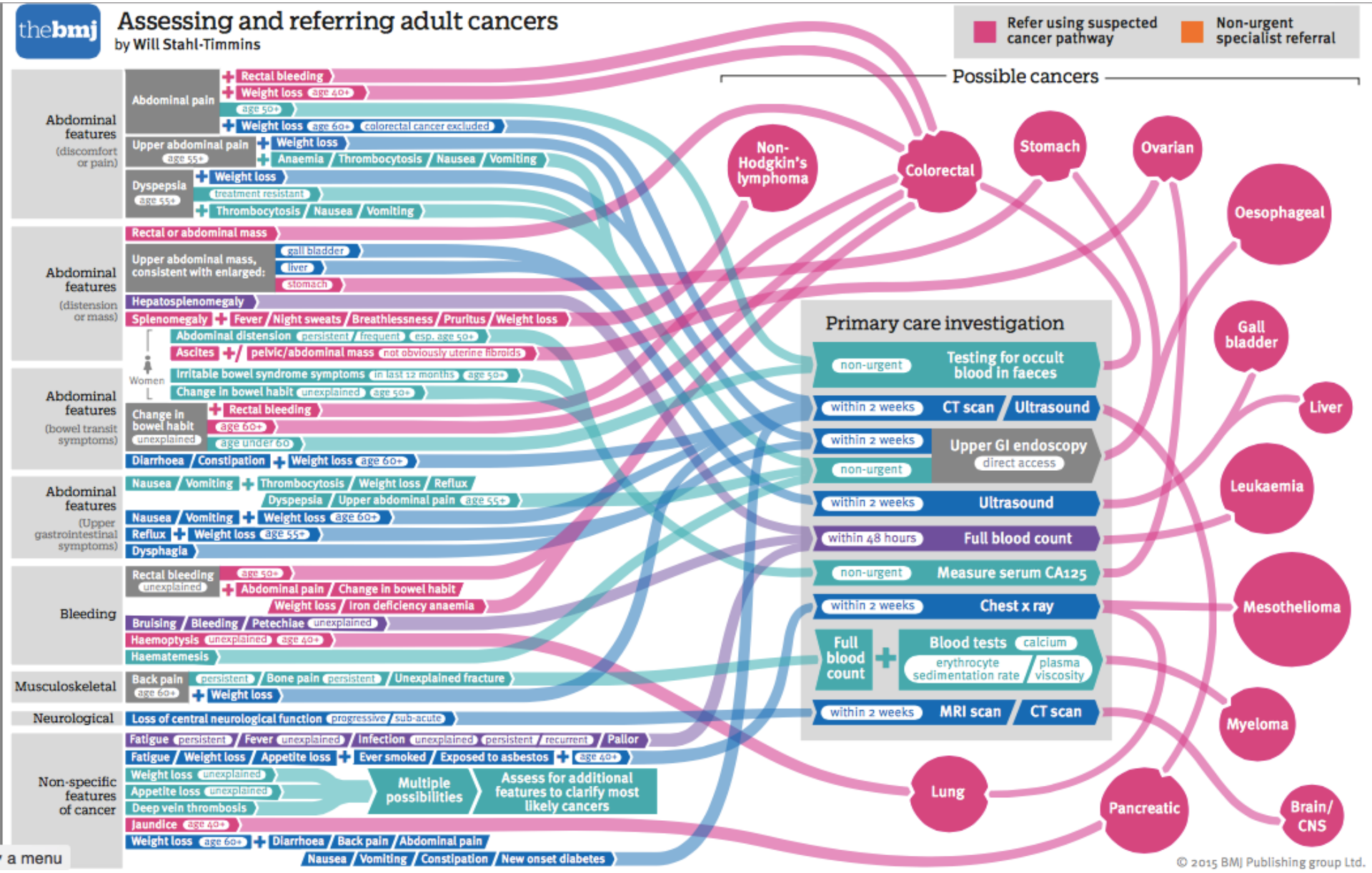


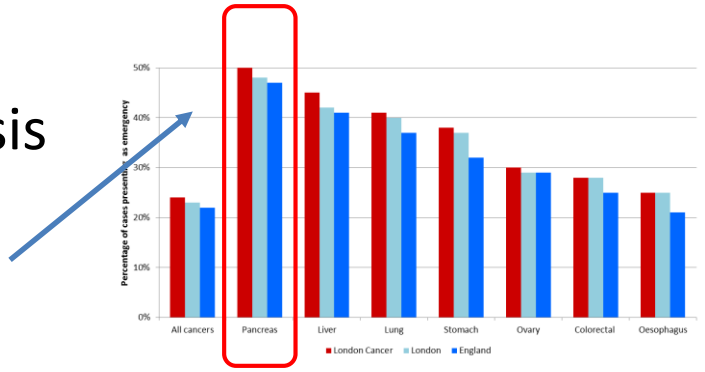
- Funding - Gilead/Janssen/Norgine/Astra Zeneca
- Shareholder Medefer Ltd
- Director GI Diagnostics Ltd
- PCUK Advisory Board

Why a simpler pathway is needed for abdominal and non-specific symptoms - NICE Guidance – 2015



Why diagnose symptomatic pancreatic cancer early?

- Progression time from stage T1 to T4 is just over 1 year [1]
- Tumours >2 cm to mets in mean of 3.5 (1.2–8.4) months [2]
- Tumour growth is exponential – later growth is faster
- Early diagnosis increases survival[3]
- Psychological effects of late diagnosis
- Healthcare costs of late diagnosis
- Avoid emergency admissions – 50%



Source: PHE Route to Diagnosis 2006-2013 (2016)

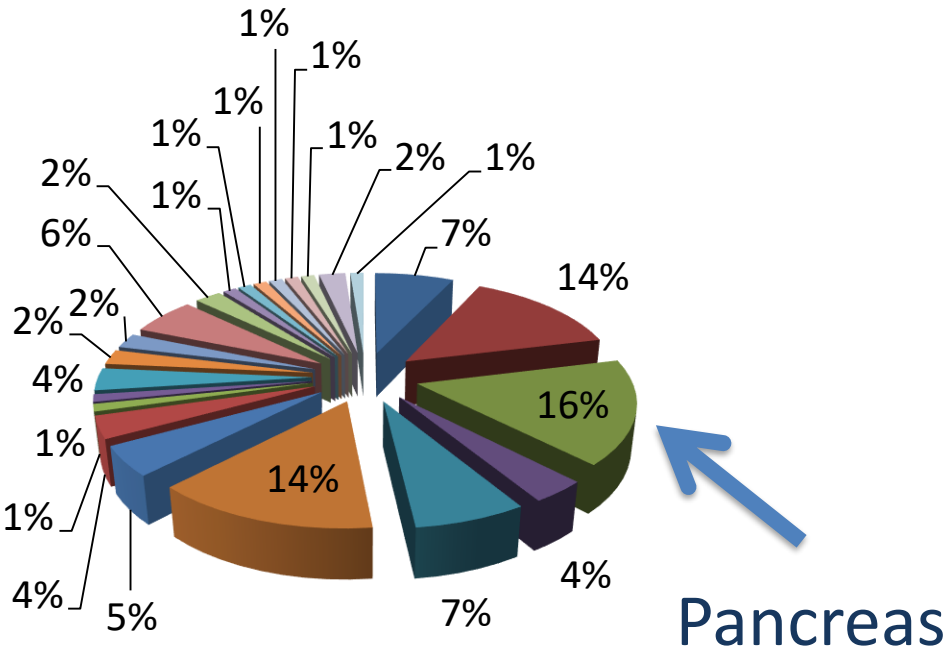
[1]Yu J, Blackford AL, Dal Molin M, et al. Gut. 2015;64(11):gutjnl-2014-308653
[2]J Gastrointest Cancer. 2017;48(2):164–169. doi:10.1007/s12029-016-9876
[3]Poruk KE et al. Ann Surg. 2013; 257: 17-26
[3]Neoptolemos JP et al. Nat Rev Gastroenterol Hepatol. 2018; 15: 333-348

NECL Alliance MDC

Cancer types (Apr 17 – Apr 19)

UCLH Cancer Collaborative
The Cancer Alliance for north and east London

- Breast
- Lung
- Pancreas
- Oesophagus
- Stomach
- Colon
- Rectosigmoid
- Gallbladder
- Unspecified Female Genital Organs
- Peripheral & Cutaneous T-cell lymphomas



- Pancreatic is the highest diagnosed cancer at 16% followed by lung and colon cancers at 14%.

Source: UCLH, NMUH, RFH, BHRUT and SUH data

Pancreatic Cancer UK

- Currently **7 Cancer Alliances** are implementing or planning a rapid diagnostic pathway/centre for pancreatic cancer (Lancashire & South Cumbria, West Yorkshire & Harrogate, Wessex, Peninsula, Greater Manchester, East of England, North Central & East London).

Greater Manchester:
Looking to incorporate a rapid jaundice pathway for HPB patients

Lancashire & South Cumbria:
Alliance wide pancreatic cancer rapid diagnostic pathway

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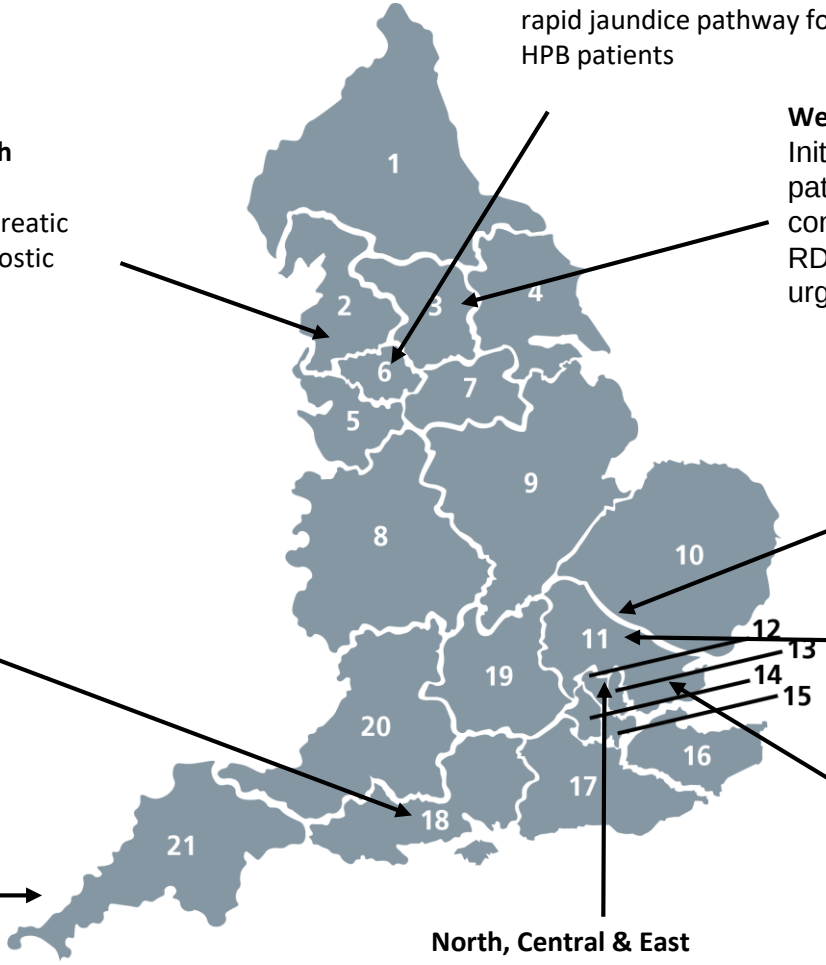
Initiated a HPB optimal pathway group which will consider a pancreatic cancer RDC pathway, with a possible urgent jaundice pathway.



East of England:
Setting up a pancreatic cancer rapid diagnostic pathway

Suffolk & North East Essex:
Accepting GP referrals for pancreatic cancer and self-referral. RDC will also incorporate upper GI referrals.

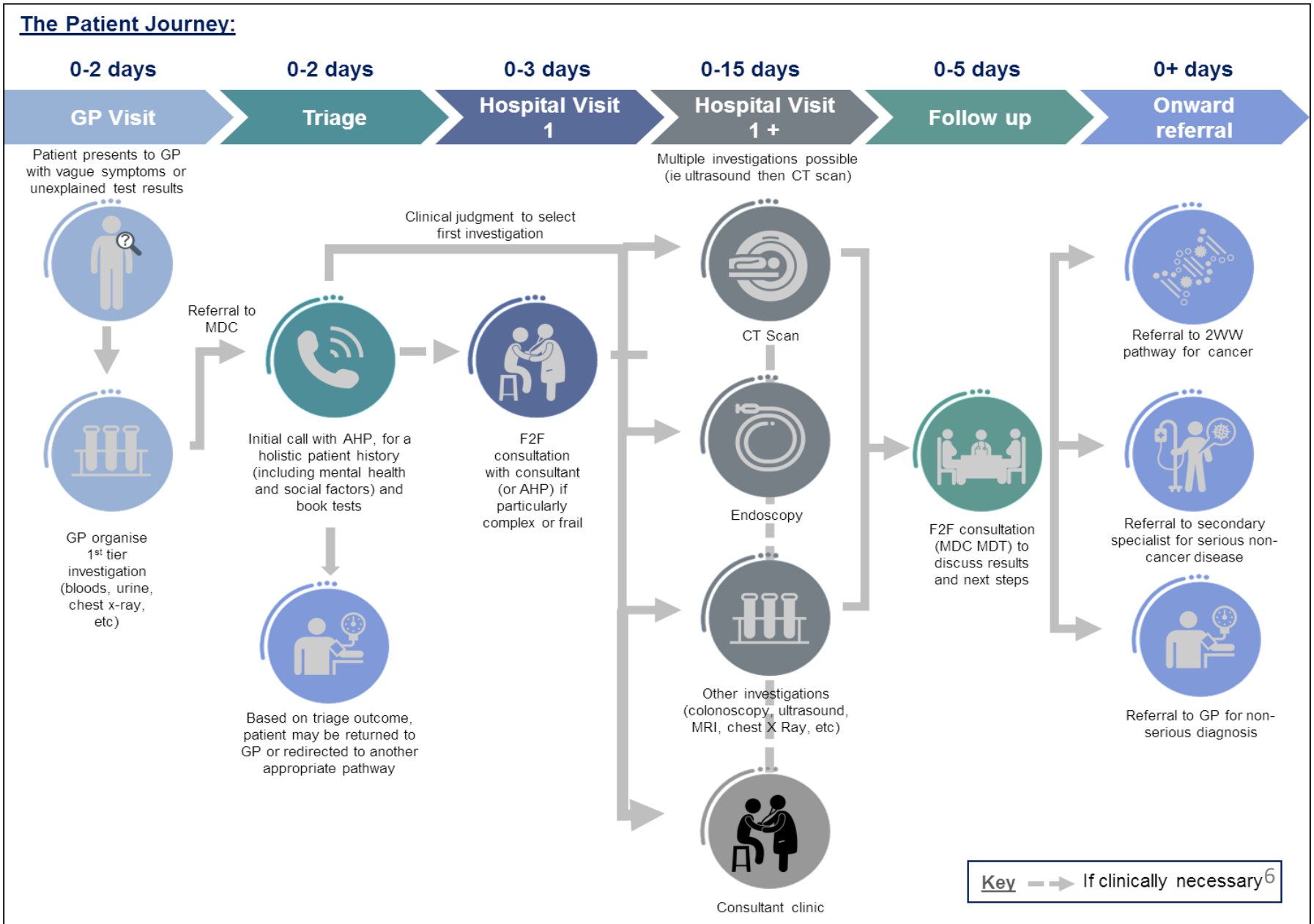
Wessex:
Will consider wider review of the current upper GI 2WW referral to separate the pancreatic cancer referrals and redirect to the rapid diagnostic service

Mid & South Essex:
RDC will include GP referrals for pancreatic cancer and referrals from A&E and radiology. RDC will also incorporate upper GI referrals as well as lower GI and NSS

Peninsula:
Rolling out a rapid jaundice clinic – with CT available to patients with rapid onset jaundice within 48 hours

North, Central & East London:

NCL RDC Pathway -The patient journey



How can RDC contribute to PDAC Management

- Communication to primary care on patient identification
- Access to rapid cross-sectional imaging if resource limitation
- Advice and guidance to primary care
- Ensure all pancreatic cancer patients have single point of access
- Supply rapid jaundice pathway

- Future
  - Research better decision support tools
  - Research into biomarkers and access point for those with positive biomarkers

NCL RDC Pathway - Referral Criteria

- New unexplained and unintentional weight loss
- New unexplained constitutional symptoms
- New unexplained vague abdominal pain
- GP 'gut feeling' of cancer diagnosis
- Suspected PDAC from symptoms or imaging (not HPB / admitted)
  - NG12 suspected pancreatic cancer – direct to RDC or divert from UGI
  - New onset diabetes > 50 with weight loss or GP suspicion
  - Suspected pancreatic cancer on ultrasound or cross-sectional imaging in primary or secondary care
  - Painless jaundice presenting in ED or SDEC

What are the exclusion criteria?

- Specific alarm symptoms warranting two week wait pathway
- NOT WELL enough to attend as an outpatient / needs acute admission
- Likely to have a non-cancer diagnosis suitable for another pathway
- Currently being investigated for the same problem by another specialist team
- Definite/almost definite diagnosis of metastatic disease on imaging/biopsy (CUP)

NCL RDC Pathway – Management

- Review within 7 days in RDC clinic or SDEC if required – at assessment:
  - All patients seen with CNS and Consultant
  - Started on PERT
  - Referred to dietician
  - Opportunity to complete Holistic Needs Assessment
- All cases will be discussed at the HPB SMDT held with RFH on Tuesday morning
- Other urgent cases will be initially discussed with the HPB Registrar at RFH – 07919 598157 – the prime indication for pre-MDT telephone referral is jaundice with operable disease on imaging to avoid ERCP.
- Patients will be reviewed in weekly or bi-weekly RDC clinic until handed over to surgical or oncology service.

NCL RDC Pathway – Example Patient

- Mr RB – 66 yr male – IDDM, Stage 3 CKD, PS 0
- Day 0 – DM Clinic c/o weight loss – referred for U/S
- Day 4 – U/S – suspected PDAC – CT Abdo/Pelvis – radiologist contacts RDC clinician
- Day 5 – RDC clinician contacts patient
- Day 7 – Patient seen by RDC Clinician and CNS – bloods Hb 58, Creat 553, eGFR 8, Bili 130, ALP 1744, AST 244, ALT 183, Ca19-9
- Day 8-13 – Admitted Fluids, renal review, HPB MDT assessment
- Day 13 – ERCP – obstructing neoplasm – likely PDAC – stented - histology negative – awaiting EUS
- Day 13-18 – Diabetic control poor – stabilised as inpatient
- Day 19 – Discharged - Awaiting HPB Surgical Assessment and Renal Review

Will RDCs improve the Pancreatic Cancer Pathway?

Now

- Improve the speed of diagnosis
  - Welsh study - 84.2 to 40.8 days if investigations booked - 5.9 days if at first appointment[1]
- Improve patient experience
- Improve primary-secondary care communication
- Potential route for ALL suspected pancreatic cancer

Future

- Improve efficiency of site specific pathways
- Support research
  - Biomarkers
  - CDST/Self-referral tools
  - Population awareness of non-specific symptoms
- Rapid access will support stage shift at diagnosis and thus improve survival

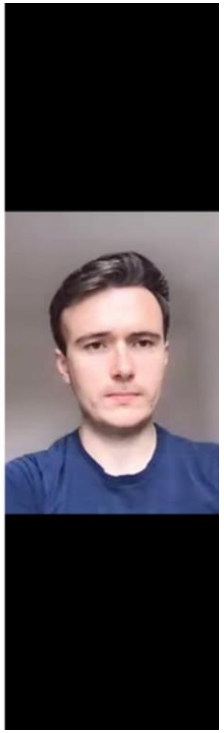
[1]Rapid cancer diagnosis for patients with vague symptoms: a cost-effectiveness study
Sewell et al British Journal of General Practice 2020; 70 (692): e186-e192

Future RDC Research – Pan London Consortium

Can patient reported symptom drive DSTs for NSCS?

RAPID DIAGNOSTIC CENTRES NON-SPECIFIC SYMPTOMS & SYMPTOM SIGNATURES

Simon Erridge
RM Partners Clinical Research Fellow in Early Cancer Diagnosis
Epidemiology in Cancer Healthcare Outcomes group, University College London
North Central London Cancer Alliance



- Collect patient reported symptoms
- Combine with primary care and outcome data
- Initial statistical analysis on symptom weighting
- AI to develop DST to guide diagnostic testing

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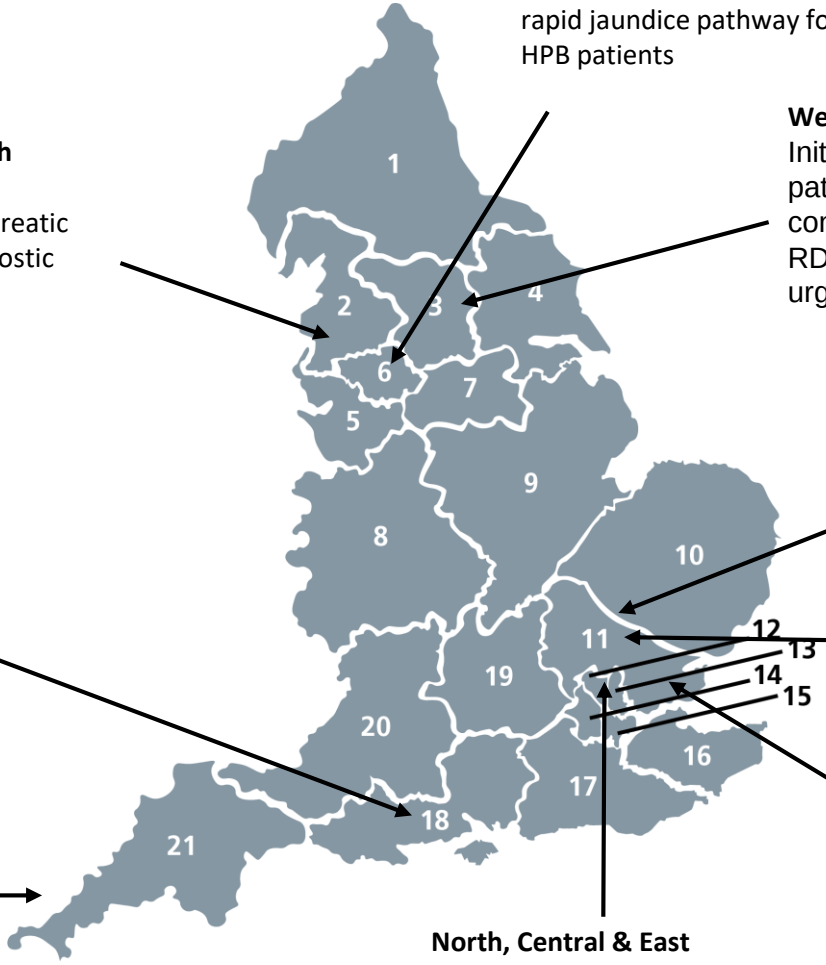

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- Sarah Hiom

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- Daniel Vulkan

Thank you


discuss...

Why do we need pathway for non-specific symptoms?

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The Cancer Alliance for north and east London

- PDAC often presents with non-specific symptoms
- Weight loss – common in PDAC and in 9 other cancers
  (Nicholson B Br J Gen Pract. 2018)
- Delayed diagnosis more common with NSCS
  (Jensen H et al BMC Cancer 2014)
- Presentation to diagnosis 47 days NSCS v. 38 days Alarm*
- Non-specific symptoms less likely to be referred on 2WW
  (Zhou et al British Journal of Cancer (2018)
- More likely to have >3 GP visits - 32% NSCS v. 21% Alarm*
- Emergency presentation - 34% NSCS v. 16 % Alarm*
- Higher proportions at stage 4 - 32% NSCS v 21% Alarm)*

*National Cancer Diagnosis Audit (NDCA 2014) – Swann R et al, Br J Gen Pract. 201

Variable Data on Evidence of Benefit of Faster Diagnosis in PDAC

NHS
North Central and East London Cancer Alliance

- **+ London Study** - 355 patients – **no effect in delay from Sx to GP** referral; prognosis **affected by delay in primary care to specialist** referral
  - *Raptis et al Surgeon 8 (5) 239; 2010*
- **- Japanese Study** – 149 patients - detection-to-diagnosis and diagnosis-to-treatment times **no effect** on prognosis in PDAC –
  - *Suzuki R et al Oncol Lett 17 (1), 587; 2019*
- **- Scottish Study** – 153 patients – retrospective - compared patients with GI investigations in prev. 18mo with nil – **no difference in groups**
  - *Apollos J Med Surg (Lond) 34, 66; 2018*
- **+ Italian Study** – 170 patients – 10 year study time from **symptom onset to diagnosis linked to survival**
  - *Gobbi PG Cancer Epidemiol, 37 (2), 186; 2013*

Neal et al 2015 'It is reasonable to assume that efforts to expedite the diagnosis of symptomatic cancer are likely to have benefits for patients in terms of improved survival, earlier-stage diagnosis and improved quality of life