Upper GI cancers: How can we do better?
11.30am - 12.15pm

Dr David Watkins
Consultant Medical Oncologist
The Royal Marsden
can give you cancer, says Heather

Heather Mills McCartney has provoked controversy after calling on the Government to issue "health warnings" on 

She believes they play a part in diseases such as diabetes and some cancers.

The vocal campaigner pulled out of a conference to publicise
can give you cancer, says Heather

1. Nuggets (McDonald’s Chicken)
2. Cakes
3. Milk
4. Water
Milk can give you cancer, says Heather

Last updated at 16:42 24 May 2006

Heather Mills McCartney has provoked controversy after calling on the Government to issue “health warnings” on milk and dairy products.

She believes they play a part in diseases such as diabetes and some cancers.

The vocal campaigner pulled out of a conference to publicise
Chemotherapy/
Immunotherapy
(systemic therapy)

Surgery
(local therapy)

Radiotherapy
(locoregional therapy)

Multi-modality Cancer Management
Since the 1970’s, there has been little improvement in the 10 year survival outcomes for patients with upper GI malignancies...
Multi-modality Cancer Management

- Prevention
- Early Detection
- Rapid Diagnosis

Psychological Care

Surgery (local therapy)
Chemotherapy/Immunotherapy (systemic therapy)
Radiotherapy (locoregional therapy)
The Burden of Upper GI Cancers

Incidence and deaths related to LGI and UGI cancers. CRUK data for 2014

<table>
<thead>
<tr>
<th></th>
<th>Incidence</th>
<th>Deaths</th>
<th>Incidence</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower GI Pathway</strong></td>
<td>41265</td>
<td>15903</td>
<td>30769</td>
<td>26274</td>
</tr>
<tr>
<td><strong>Upper GI Pathway</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver</td>
<td>5550</td>
<td>5091</td>
<td>5091</td>
<td></td>
</tr>
<tr>
<td>Gast</td>
<td>6682</td>
<td>4576</td>
<td>4576</td>
<td></td>
</tr>
<tr>
<td>Oeso</td>
<td>8919</td>
<td>7790</td>
<td>7790</td>
<td></td>
</tr>
<tr>
<td>Panc</td>
<td>9618</td>
<td>8817</td>
<td>8817</td>
<td></td>
</tr>
</tbody>
</table>
Pancreatic Cancer – on the rise

- Pancreatic cancer UK incidence rates increased by 15% between 1993-1995 and 2013-2015

CRUK data: Male & Female European age-standardised (AS) incidence rate
Hepatocellular Cancer - on the rise

- Since the early 1990s, liver cancer incidence rates have increased by 151%.

CRUK data: Male & Female European age-standardised (AS) incidence rate
Oesophageal Cancer – on the rise

- The UK mortality rate is the highest in Europe for both males and females.¹

World Health Organization. Mortality database

¹CRUK
Smoking is the leading preventable cause of cancer in the UK. What is the second leading cause of preventable cancers in the UK?

1. Red meat consumption
2. Obesity
3. Diesel fumes
4. Viral infections
Figure 1. Summary of Mortality from Cancer According to Body-Mass Index for U.S. Men in the Cancer Prevention Study II, 1982 through 1998.

For each relative risk, the comparison was between men in the highest body-mass-index (BMI) category (indicated in parentheses) and men in the reference category (body-mass index, 18.5 to 24.9). Asterisks indicate relative risks for men who never smoked. Results of the linear test for trend were significant (P≤0.05) for all cancer sites.
Cameron attacks chocolate sellers

"Irresponsible" marketing techniques are being used to sell chocolate and fuel Britain's obesity problem, Tory leader David Cameron has said.

In a health speech, Mr Cameron pointed to shops, including at train stations, offering cut-price chocolate bars.

He asked: "As Britain faces an obesity crisis, why does WH Smith's promote half-price Chocolate Oranges at its checkouts instead of real oranges?"

WH Smith denies acting irresponsibly and says it offers customers choice.
Tories blasted for railing against child obesity at party conference sponsored by a sugar firm

Health Secretary Jeremy Hunt wore a Tate & Lyle Sugars lanyard while declaring child obesity had "overtaken smoking as our biggest public health risk"
How Can We Do Better?

• Prevention
  • Stop WHSmith offering chocolate at the checkout & other Public Health measures
  • Change of Government
How Can We Do Better?

- Prevention
  - Stop WHSmith offering chocolate at the checkout & other Public Health measures
  - Change of Government

Any Questions?
How Can We Do Better?

• Prevention
  • Stop WHSmith offering chocolate at the checkout & other Public Health measures
  • Change of Government

• Earlier identification

• Improved diagnostic pathways / processes
The Challenge of Upper GI Cancers

Cancers diagnosed annually via emergency presentation (London average 2006-13)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Annual Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>1477</td>
</tr>
<tr>
<td>Colorectal</td>
<td>924</td>
</tr>
<tr>
<td>Cancer of Unknown Primary</td>
<td>483</td>
</tr>
<tr>
<td>Prostate</td>
<td>385</td>
</tr>
<tr>
<td>Pancreas</td>
<td>384</td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>343</td>
</tr>
<tr>
<td>Brain</td>
<td>293</td>
</tr>
<tr>
<td>Stomach</td>
<td>246</td>
</tr>
<tr>
<td>Breast</td>
<td>237</td>
</tr>
<tr>
<td>Bladder</td>
<td>199</td>
</tr>
<tr>
<td>Ovary</td>
<td>191</td>
</tr>
<tr>
<td>Multiple myeloma</td>
<td>178</td>
</tr>
<tr>
<td>Kidney</td>
<td>162</td>
</tr>
<tr>
<td>Oesophagus</td>
<td>158</td>
</tr>
<tr>
<td>Leukaemia: acute myeloid</td>
<td>153</td>
</tr>
<tr>
<td>Liver (excl intrahepatic bile duct)</td>
<td>131</td>
</tr>
<tr>
<td>Biliary tract cancer</td>
<td>119</td>
</tr>
<tr>
<td>Other malignant neoplasms (excl NMSC*)</td>
<td>1118</td>
</tr>
</tbody>
</table>

Oesophago-Gastric (OG) Total: 404
Upper GI total: 1038
Hepato-Pancreato-Biliary (HPB) Total: 634
The Challenge of Upper GI Cancers

Cancers diagnosed annually via emergency presentation (London average 2006-13)

Upper GI / MUO pathway

Lung: 1477
Colorectal: 924
Cancer of Unknown Primary: 483
Prostate: 385
Pancreas: 384
Non-Hodgkin lymphoma: 343
Brain: 293
Stomach: 246
Breast: 237
Bladder: 199
Ovary: 191
Multiple myeloma: 178
Kidney: 162
Oesophagus: 158
Leukaemia: acute myeloid: 153
Liver (excl intrahepatic bile duct): 131
Biliary tract cancer: 119
Other malignant neoplasms (excl NMSC*): 1118

Oesophago-Gastric (OG) Total: 404
Hepato-Pancreato-Biliary (HPB) Total: 634

Upper GI total: 1038
Figure 1: Odds ratios and 95% CIs for three or more general practitioner consultations before hospital referral, by cancer type.
How delays influence outcome

Performance status is an assessment of a cancer patients' general well-being and activity

Karnofsky scoring

100 - Normal; no complaints; no evidence of disease.
90 - Able to carry on normal activity; minor signs or symptoms of disease.
80 - Normal activity with effort; some signs or symptoms of disease.
70 - Cares for self; unable to carry on normal activity or to do active work.
60 - Requires occasional assistance, but is able to care for most of his personal needs.
50 - Requires considerable assistance and frequent medical care.
40 - Disabled; requires special care and assistance.
30 - Severely disabled; hospital admission is indicated although death not imminent.
20 - Very sick; hospital admission necessary; active supportive treatment necessary.
10 - Moribund; fatal processes progressing rapidly.
Increased Survival in Pancreatic Cancer with nab-Paclitaxel plus Gemcitabine

Overall Survival

Nab-paclitaxel 8.5 mths
Gemcitabine 6.7 mths
Increased Survival in Pancreatic Cancer with nab-Paclitaxel plus Gemcitabine

Overall Survival

Nab-paclitaxel 8.5 mths
Gemcitabine 6.7 mths

<table>
<thead>
<tr>
<th>Patient Subgroups</th>
<th>nab-P + Gem</th>
<th>Gem</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPS</td>
<td>Median OS, months</td>
<td>Median OS, months</td>
</tr>
<tr>
<td>70</td>
<td>3.9</td>
<td>2.8</td>
</tr>
<tr>
<td>80</td>
<td>8.1</td>
<td>5.6</td>
</tr>
<tr>
<td>90</td>
<td>8.9</td>
<td>7.1</td>
</tr>
<tr>
<td>100</td>
<td>12.6</td>
<td>10.9</td>
</tr>
</tbody>
</table>
Delays can influence outcome

100 - Normal; no complaints; no evidence of disease.
90 - Able to carry on normal activity; minor signs or symptoms of disease.
80 - Normal activity with effort; some signs or symptoms of disease.
70 - Cares for self; unable to carry on normal activity or to do active work.
60 - Requires occasional assistance, but is able to care for most of his personal needs.
50 - Requires considerable assistance and frequent medical care.
40 - Disabled; requires special care and assistance.
30 - Severely disabled; hospital admission is indicated although death not imminent.
20 - Very sick; hospital admission necessary; active supportive treatment necessary.
10 - Moribund; fatal processes progressing rapidly.
Case 1

72yr gentleman

- Oct 15 - GP referral to A&E
  - Diabetic ketoacidosis, weight loss & altered bowel habit
**Reason for Admission & Presenting Complaints:**

- GP referral - AMS + Kezurka

<table>
<thead>
<tr>
<th>History of each Presenting Complaint:</th>
</tr>
</thead>
<tbody>
<tr>
<td>72(\frac{3}{4}) yo 720M dx 20wks ago - on Omeprazole only.</td>
</tr>
<tr>
<td>HTN.</td>
</tr>
<tr>
<td>↓ Inux by ortho / L Back pain / L Hip pain -&gt; A/f 7.3L</td>
</tr>
<tr>
<td>Ref: Med Neurorology Dr. Hart but as: Abnormal Gait / High Stepping</td>
</tr>
<tr>
<td>Systemically (?) well</td>
</tr>
</tbody>
</table>

- Hx: Attended GP Neurology & Dr. Hart to 6 months the abnormal gait, difficulty walking; A lethargy / general weakness w/ associated weight loss & > 2 stone. |

- Had Random OPA 10/5- Glucose = 23.9 |
- GP contacted pt 5 result - sugar did a stripstick - ketones 2+ |
- Ref: Med ED. |

- Pt reports DM reasonably stable, last HbA1c's: Aug 5.5; Apr 1.78. Intermittently checks AMS -> keto did this last week = 10.2. |

<table>
<thead>
<tr>
<th>History Source: Patient</th>
<th>Relatives</th>
<th>A&amp;E Notes</th>
<th>Other</th>
</tr>
</thead>
</table>
Reason for Admission & Presenting Complaints:

Referral - AMS & Kelowna.

History of each Presenting Complaint:

Female 72 y/o 72OM Ax 20yo a/o - on Depagiftin only.

HTN.

↓ Imm by ortho / Each pain / Hip pain / AFX THR.

R Reflected R Ind.one of: Knees - Abnormal Gait / High Stepping
- Systeams "? well"

HAS

Attended OP, Neuro bky to Dr. Hart & found the abnormal gait,
difficulty walking; slight legness / general wusness w/ associated
weight loss > 2 stone.

Had Past due OPA 18mo - Glucose = 23.9

CP contacted pt is result - Daughter did a chipstick - Ketones 7+

Refused ED.

Pt reports DM presently stable, last HbA1c's Aug 55, Apr 78.

Intervals check DMs - ketol did this last week = 10.2.
Case 1

72yr gentleman

- Oct 15 – GP referral to A&E
  - Diabetic ketoacidosis, weight loss & altered bowel habit
  - Commenced insulin treatment
  - CT-TAP requested for investigation of weight loss & change in bowel habit

- Nov 15 - CT shows a high probability of mid rectal tumour and dilated pancreatic duct but no obvious abnormality.
  - Colonoscopy: large 3cm pedunculated polyp in the mid rectum resected. Histology = tubulovillous adenoma.

- Feb 16: Repeat sigmoidoscopy showed no reoccurrence

- May 16: Care handed over to gastro for investigation of ongoing weight loss & loose bowels. Rpt CT-TAP
Case 1

72yr gentleman

- Oct 15 – GP referral to A&E
  - Diabetic ketoacidosis, weight loose & altered bowel habit
- Nov 15 - CT shows a high probability of mid rectal tumour and dilated pancreatic duct but no obvious abnormality.
  - Colorectal diagnostic pathway
- May 16 – Referred onto Upper GI Pathway
  - CT shows locally advanced pancreatic cancer. Biopsy confirmed adenocarcinoma

- June 16 – Review in oncology clinic
  - Karnofsky PS 60-70
  - Abdominal pain
  - Depression

} Borderline suitable for treatment 6 /12 loss in potential OS outcome
Case 2  71yr gentleman

- July 16
- Weight loss & abdominal discomfort
- No change in bowels
- Bloods unremarkable
- PMH: Hypertension – on amlodipine

How would you manage this patient?

1. Direct assess OGD
2. US / CT Pancreas
3. Lower GI TWR referral
4. Upper GI TWR referral
5. Other
Case 2

71yr gentleman

- July 16 - Weight loss & abdominal discomfort
  - No change in bowels
  - Bloods unremarkable
  - PMH: Hypertension – on amlodipine

- July 16 - OGD > NAD
- Sept 16 - UGI TWR Clinic
- Oct 16 - Colonoscopy > NAD
- Oct 16 - CT-TAP suspected pancreatic cancer
- Nov 16 - Biopsy confirmed advanced pancreatic cancer

4 month shortening of potential survival…
## Abdominal or pelvic pain

<table>
<thead>
<tr>
<th>Symptom and specific features</th>
<th>Possible cancer</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain with weight loss (unexplained), 40 and over</td>
<td>Colorectal</td>
<td>Refer adults using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]</td>
</tr>
<tr>
<td>Abdominal pain without rectal bleeding, 50 and over</td>
<td>Colorectal</td>
<td>Offer testing for occult blood in faeces [1.3.4]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See primary care investigations for more information on tests for occult blood in faeces</td>
</tr>
<tr>
<td>Upper abdominal pain with weight loss, 55 and over</td>
<td>Oesophageal or stomach</td>
<td>Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1] [1.2.7]</td>
</tr>
<tr>
<td>Upper abdominal pain with low haemoglobin levels or raised platelet count or nausea or vomiting, 55 and over</td>
<td>Oesophageal or stomach</td>
<td>Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]</td>
</tr>
<tr>
<td>Abdominal or pelvic pain (persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over</td>
<td>Ovarian</td>
<td>Carry out tests in primary care [1.5.2] Measure serum CA.125 in primary care [1.5.6]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See primary care investigations for more information on tests for ovarian cancer</td>
</tr>
<tr>
<td>Abdominal pain with weight loss, 60 and over</td>
<td>Pancreatic</td>
<td>Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available [1.2.5]</td>
</tr>
<tr>
<td>Symptom and specific features</td>
<td>Possible causes</td>
<td>Management</td>
</tr>
<tr>
<td>-------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Abdominal pain with weight loss (unexplained), 40 and over</td>
<td>Possible cancer</td>
<td></td>
</tr>
<tr>
<td>Abdominal pain without rectal bleeding, 50 and over</td>
<td>Colorectal cancer</td>
<td></td>
</tr>
<tr>
<td>Upper abdominal pain with weight loss, 55 and over</td>
<td>Oesophageal or stomach</td>
<td></td>
</tr>
<tr>
<td>Abdominal or pelvic pain (persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over</td>
<td>Ovarian</td>
<td></td>
</tr>
<tr>
<td>Abdominal pain with weight loss, 60 and over</td>
<td>Pancreatic</td>
<td></td>
</tr>
</tbody>
</table>

Significant overlap in symptoms of intra-abdominal malignancies
Abdominal pain with weight loss, 60 and over
Pancreatic (to be performed as urgent ultrasound if available) [1.2.5.6.7.8.9.10]
Consider all information. See priority guidance for primary care [1.5.6]

Early satiety – early symptom
Appetite loss (unexplained)

Abdominal pain without rectal bleeding, 50 and over
Abdominal pain with weight loss, 40 and over
Possible pancreatic cancer
Symptom and specific features

Several, including lung, colorectal, pancreatic, oesophageal, stomach, bladder or renal findings that may help to clarify which cancer is most likely
Offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks) [1.13.3]

Carry out an assessment for additional symptoms, signs or signs or symptoms of another cancer

NICE National Institute for Health and Care Excellence

TWR Pathway Ping Pong

NICE guideline
How MDCs could improve early cancer diagnosis

How delays can occur in the current system:
1. 1ST GP VISIT
2. 2ND GP VISIT
3. 3RD GP VISIT

1ST SPECIALIST
2ND SPECIALIST
3RD SPECIALIST

*If more medical specialists seen, pattern continues until a result is declared

Returning to the GP after visiting each specialist slows down the diagnosis and increases the likelihood of patient disengagement.

Result:
- Nothing found 'watchful wait'
- Late Cancer diagnosis
- Other diagnosis

PROPOSED MDC SYSTEM

Patient with non-specific but concerning symptoms

ACCESS POINT
Could be GP or other professional referral as well as self-referral eg. internet, telephone

SPECIALISTS WORKING TOGETHER
Pilot will determine the best configuration for specialists

Triage Tests
Rapid turnaround of triage tests and investigative diagnostic tests leads to earlier diagnosis


©2016 by British Journal of General Practice
**CANCER TYPE SUSPECTED**

- OESOPHAGUS
- STOMACH
- PANCREAS
- LIVER
- GALLBLADDER

**REFERRAL FOR DIRECT ACCESS INVESTIGATIONS**

**OESOPHAGUS/STOMACH**

GPs should arrange an urgent upper GI endoscopy (to be performed within 2 weeks) for patients presenting with symptoms which raise suspicion of oesophageal or stomach cancer.

GPs should arrange an urgent abdominal CT scan (to be performed within 2 weeks) for patients presenting with symptoms which raise suspicion of pancreatic cancer.

**LIVER/GALL BLADDER**

GPs should arrange an urgent ultrasound scan (to be performed within 2 weeks) for patients presenting with symptoms which raise suspicion of liver or gall bladder cancer.

Press the <Ctrl> key while you click here to view Pan London Suspected Upper GI Cancer Referral Guide.

**REASON FOR SUSPECTED CANCER REFERRAL**

**OESOPHAGUS/STOMACH**

- Abnormal upper GI endoscopy suggestive of cancer
- Upper abdominal mass consistent with stomach cancer

**PANCREAS**

- Abnormal abdominal CT or ultrasound scan suggestive of pancreatic cancer
- ≥ 40 years with jaundice

**LIVER/GALLBLADDER**

- Abnormal abdominal ultrasound scan suggestive of liver/gallbladder cancer

- Referral is due to CLINICAL CONCERNS that do not meet NICE/pan-London referral criteria (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral)

- Referral is due to GP not having direct access to relevant investigations (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral)
## REASON FOR SUSPECTED CANCER REFERRAL

| ☐ OESOPHAGUS | ☐ STOMACH | ☐ PANCREAS |
| ☐ LIVER | ☐ GALLBLADDER | ☐ UNCERTAIN |

### CONCERNING SYMPTOMS WITHOUT CLEAR PRIMARY SITE

- ☐ Weight loss associated with GI symptoms; abdominal or back pain, reduced appetite, early satiety, bloating, diarrhoea, dyspepsia, reflux, nausea or vomiting.
- ☐ Persistent early satiety or loss of appetite (> 3 weeks but < 6 months) with a clinical suspicion of upper gastrointestinal malignancy
- ☐ Upper abdominal mass

### OESOPHAGUS/STOMACH

- ☐ Abnormal upper GI endoscopy suggestive of cancer
- ☐ Treatment resistant dyspepsia / reflux
- ☐ Dysphagia

### PANCREAS

- ☐ Abnormal abdominal CT or ultrasound scan suggestive of pancreatic cancer
- ☐ ≥ 40 years old with jaundice (consider a referral for same day assessment if appropriate)
- ☐ Weight loss or nausea with any of the following; abdominal or back pain, reduced appetite, early satiety, bloating, diarrhoea, new onset diabetes

### LIVER/GALLBLADDER

- ☐ Abnormal abdominal ultrasound scan suggestive of liver/gallbladder cancer

### REFERRAL due to CLINICAL CONCERNS not meeting NICE referral criteria

- ☐ Referral is due to CLINICAL CONCERNS that do not meet NICE/pan-London referral criteria (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral)
- ☐ Referral is due to GP not having direct access to relevant investigations (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral).
### Reason for Suspected Cancer Referral

| |  
|---|---|---|---|---|---|---|
| | Oesophagus | Stomach | Pancreas | Liver | Gallbladder | Uncertain |

### Concerning Symptoms Without Clear Primary Site

- Weight loss associated with GI symptoms; abdominal pain, weight loss; anorexia, decreased appetite, early satiety, bloating, diarrhoea, dyspepsia, reflux, change in bowel habit.
- Persistent early satiety or any GI symptom (> 4 weeks but < 6 months) with a clinical suspicion of malignancy.
- Upper abdominal mass.

### Oesophagus/Stomach

- Abnormal upper GI endoscopy suggestive of cancer.
- Treatment resistant dyspepsia / reflux.
- Dysphagia.

### Pancreas

- Abnormal abdominal CT or ultrasound scan suggestive of pancreatic cancer.
- ≥ 40 years old with jaundice (consider a referral for same day assessment if appropriate).
- Weight loss or nausea with any of the following: abdominal or back pain, reduced appetite, early satiety, bloating, diarrhoea, new onset diabetes.

### Liver/Gallbladder

- Abnormal abdominal ultrasound scan suggestive of liver/gallbladder cancer.

### Referral due to Clinical Concerns Not Meeting NICE Referral Criteria

- Referral is due to CLINICAL CONCERNS that do not meet NICE/pan-London referral criteria (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral).
- Referral is due to GP not having direct access to relevant investigations (the GP MUST give full clinical details in the ‘additional clinical information’ box at time of referral).
The UGI TWR TAC Pathway

1. GP referral received

2. Telephone consultation with PA.
The UGI TWR TAC Pathway

1. GP referral received

2. Telephone consultation with PA. Electronic Record
## Implementing the TAC system for UGI

<table>
<thead>
<tr>
<th></th>
<th>Epsom Mean/Median Days</th>
<th>St Helier Mean/Median Days</th>
<th>EStH post TAC Mean/Median Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>103</td>
<td>59</td>
<td>484</td>
</tr>
<tr>
<td>Triage</td>
<td>2.3 / 2</td>
<td>2.7 / 2</td>
<td>1.9 / 1</td>
</tr>
<tr>
<td>OGD</td>
<td>14.8 / 11.5</td>
<td>17.5 / 13</td>
<td>13.6 / 12</td>
</tr>
<tr>
<td>Colonoscopy</td>
<td>36 / 36</td>
<td>35.4 / 36</td>
<td>27.3 / 21</td>
</tr>
<tr>
<td>CT</td>
<td>25.2 / 22</td>
<td>25 / 21</td>
<td>16.3 / 13</td>
</tr>
<tr>
<td>MDT Discussion</td>
<td>26.8 / 22.5</td>
<td>21 / 19</td>
<td>16 / 17</td>
</tr>
</tbody>
</table>
Benefits of TAC over Traditional UGI TWR

- Earlier use of consistent telephone triage & capture of structured clinical history
  - Reduced time to tailored investigations
  - Reduced burden on outpatient clinics
  - Improved documentation for MDT & referrals
  - UGI and LGI TWR triage now aligned!

Minimizing Pathway Ping Pong.....
TWR Pathways – Systems Approach

Optimise GP referrals
- TWR form design
- Co-operation / communication

Seamless transition $1^\circ > 2^\circ > 3^\circ$
- Patient journey / flow (repeating info)
- Records / notes
- Imaging / results

Information flow

Patient assessment
- Robust triage
- Urgent symptom guided Ix (not guess work)

Resource efficient processes
- Automated electronic communications
- Data collection to allow audit/research
- Standardised & readily transferable