Diagnosing Cancer in Grampian
An Academic GP’s Perspective

Dr Peter Murchie

Academic Primary Care, Research Group

Hilton Edinburgh Carlton 6th September 2018
“The fact that we live at the bottom of a deep gravity well, on the surface of a gas covered planet spinning around a nuclear fireball at 67,000 miles-per-hour and think this to be normal is obviously some indication of how skewed our perspective tends to be.”

Douglas Adams
The cancer journey

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TODAY’S FOCUS

- Patients who get their diagnosis via emergency routes
- What can we learn and can we improve?
A YEAR IN FOCUS – DIAGNOSING CANCER IN 2015

- 598 GPs working at 101 practices in Grampian, Orkney, Shetland

- 2587 recorded on Cancer Care Pathway database

- 1728 (67%) via “Urgent-Suspected Cancer” or “Urgent”

- 6207 non-cancer USC referrals, conversion of 17.9%
EXCLUSIVE: GPs who fail to spot cancer to be named and shamed as Health Secretary tells Mail on Sunday about radical new policy to crack down on doctors who miss vital diagnosis

- Jeremy Hunt vows to root out doctors who fail to send patients for tests
- Doctors found to be dismissing cancer symptoms will be identified on an NHS website
- Figures show one in ten cancer sufferers have to see GP at least five times before being referred to hospital
- Every year 80,000 people are only diagnosed with cancer at A&E due to GPs missing the signs

By STEPHEN ADAMS FOR THE MAIL ON SUNDAY

Alarm symptoms missed in bowel cancer emergency patients

One in five bowel cancer patients diagnosed in an emergency had "red flag" symptoms that should have been picked up earlier, a study in the British Journal of Cancer suggests.

And 10% of emergency bowel cancer patients had seen their GP three times or more with relevant symptoms.
EMERGENCY HOSPITAL ADMISSION AS A ROUTE TO DIAGNOSIS

• In the UK, 20% of cancer diagnoses are made following an unplanned hospital admission

• Emergency presentations are associated with poorer survival

• Emergency presentations more likely in certain patient groups and certain cancers (esp. brain, lung, and upper GI)
BUT...

Existing evidence comes from:

**Large routinely collected-datasets**
(CPRD, National Cancer Registries)

Or

**Detailed selected populations**
(Patient survey, selective case-note audits)
FORMATION OF A UNIQUELY DETAILED CLINICAL DATA-SET

- Scottish Government Detect Cancer Early campaign
- Breast, colorectal, lung, prostate, melanoma, & upper GI cancers
- Presentations to daytime or out of hours primary care resulting in same day hospital admission. Presentations directly to A+E
METHODS

- All GP practices in Grampian, Orkney, and Shetland invited (n=101)

- 55 agreed, and 35 randomly selected (stratified list size, location, deprivation)

- NHS Grampian CCP database, 2200 patients with cancer (registered at one of the 35 practices) selected for detailed case-note review

- Included patients diagnosed with breast, lung, prostate colorectal, melanoma or upper GI cancer from 2007-2013
DATA COLLECTION

GP consulting for 18/12 pre-diagnosis
Details on symptoms, investigations, comorbidities, lifestyle, etc.

Regional hospital data: appointments, investigations, admissions, treatment
CANCER DIAGNOSTIC ROUTES

- 2102 case notes reviewed, 300 screening detected removed

<table>
<thead>
<tr>
<th>Cancer type</th>
<th>GP USC(^a)</th>
<th>GP urgent(^b)</th>
<th>GP routine(^c)</th>
<th>Other(^d)</th>
<th>GP/A&amp;E</th>
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Route to diagnosis (\(N = 1802\))

Non-emergency presentation (\(N = 1437\))

Emergency presentation (\(N = 365\))
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### Emergency presentation (N = 365)
RISK FACTORS FOR AN EMERGENCY PRESENTATION

• Strong predictor: no previous GP contact – odds ratio (OR) 3.89 (95% CI 2.14 – 7.09)

• Cancer type (breast as reference):
  • Lung – OR 23.24 (7.91-68.21)
  • Colorectal – OR 18.49 (6.60-51.82)
  • Upper gastrointestinal – OR 18.97 (6.08-59.23)

• Non-white ethnicity – OR 2.78 (1.27-6.06)

• Current smoker – OR 2.08 (1.52-2.82)

• No difference by deprivation or urban/rural status
A CLOSER LOOK AT EMERGENCY PRESENTATIONS

Emergency cancer presentation (ECP) (n=360*)

- Relevant primary care contact before ECP (n=259**)
  - ECP occurred within an appropriate episode of care (n=115)
  - ECP occurred whilst awaiting relevant secondary care appointment (n=78)
  - ECP occurred following a missed opportunity for earlier referral / investigation (n=50)
  - ECP occurred following non-attendance of follow-up appointment / declined further input (n=14)

- No relevant primary care contact before ECP (n=101)
  - ECP to A&E after relevant primary care contact (n=2)

Cancer alarm symptoms did not prompt appropriate referral*** (n=25)
Appropriate investigation not performed according to guidelines*** (n=22)
Administrative error (n=2)
Symptoms meeting guideline USC referral criteria but referred routinely*** (n=1)
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A SHARE OF £1,000 TO BE WON EVERY DAY!

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YOU COULD WIN WITH THIS PAPER
SEE PAGE 18

1 IN 5 N-EAST CANCER CASES COULD BE CAUGHT SOONER

GPS in the North-east are missing the chance to diagnose cancer earlier in nearly 20% of patients, it can be revealed today.

NEWswire
Probe into £200k ‘to fix councillor’s wall’

Which EastEnders legend is coming to Granite City?

COUNCIL: PAGE 2

HEALTH
By Louise Alther
The findings come after 1,800 cases in the region were analysed.

MILLS STREET PAGS

TELEVISION: PAGE 19
What are the challenges of diagnosing cancer in primary care?

Can we prevent emergency presentation of cancer and do always want to?

How to best learn from 50 missed opportunities?
SOME OBSERVATIONS

• Many patients who present as an emergency with cancer don’t see us at all – one third in this study
• Emergency admission often represents the most appropriate care pathway for individual patients

REMEMBER Urgent CXR for:
• Haemoptysis
• >3 week change in cough/dyspnoea/chest/shoulder pain/weight loss/chest signs/hoarseness/fatigue in smoker >50yrs
• New finger clubbing
• Features of metastatic disease
• Cervical/persistent supraclavicular lymphadenopathy
NATIONAL CANCER DIAGNOSIS AUDIT
SCOTLAND

END OF AUDIT SURVEY
NATIONAL CANCER DIAGNOSTIC AUDIT

• 11 practices from Grampian, Shetland and Orkney
• 391 patients diagnosed in 2014
• Detailed data collection of randomly selected cases
• Conducted by colleagues in own practices
• Data returned to ISD Scotland
• Practice and Health-Board reports
• Whole-Scotland analysis ongoing
• Is this a valid snapshot?
• 80 cases (20.5%) were emergency presentations
• 25 Lung + 13 CRC versus 2 Prostate + 0 Breast
• Majority had not been seen or referred already
• Real opportunity for individual practice learning
Of 80 Emergency Cancer Presentations

- 34 had no previous GP contact
- 9 were referred and awaiting an hospital appointment
- 24 had previous contact but not referred
STRENGTHS OF THE NCDA

• Pinpoints where in the diagnostic pathway delays occur

• Identifies “avoidable delay” where practice may act in future

• Detailed analysis of these cases can:
  • Signpost future research
  • Inform policy
  • Enable practice-level change (support from CRUK facilitator)

• Consider signing-up next time around!
BUT CAVEAT AUDITOR!

NCDA-type data should **NOT** be used to compare individual GP or practice performance
THANK YOU FOR LISTENING!

Follow us on Twitter!  
@CAPCAberdeen
CAN WE PREVENT EP? CURRENT LITERATURE

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Percentage of patients with ≥ 3 GP consultations before diagnosis