



West Yorkshire R & D

Cancer and palliative care workshop

Richard D Neal

Professor of Primary Care Oncology

r.d.neal@leeds.ac.uk

@richarddneal



UNIVERSITY OF LEEDS

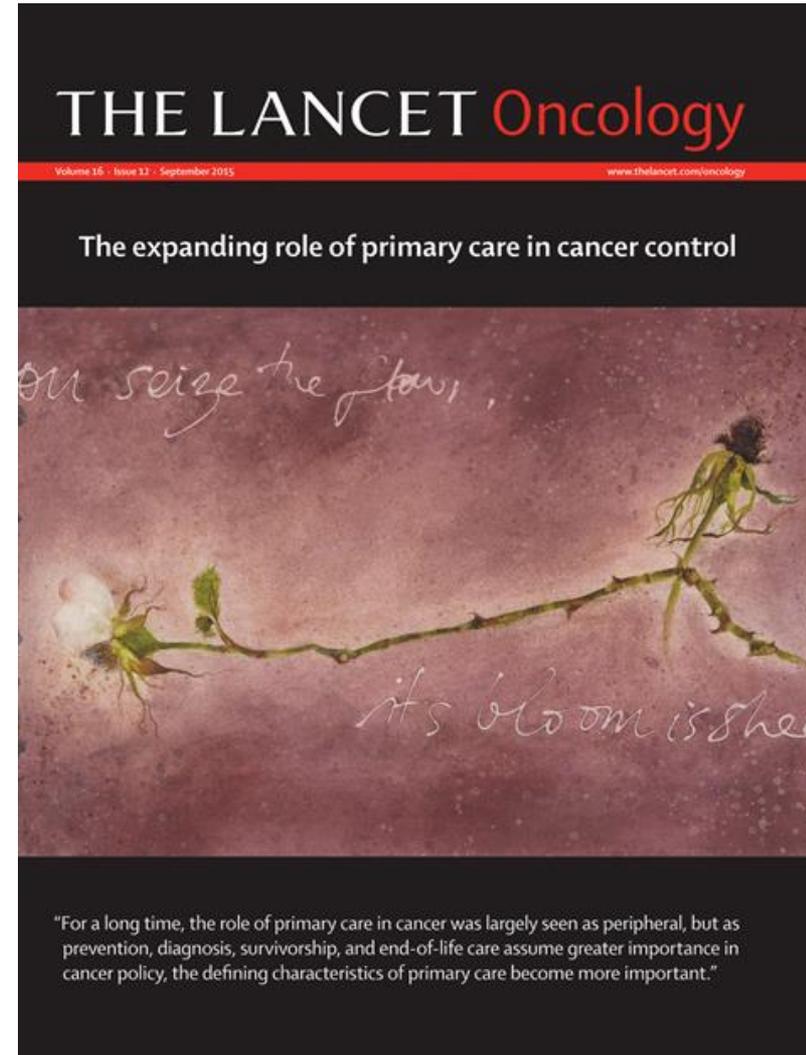
Reducing diagnostic delays in cancer





The expanding role of primary care in cancer control

'For a long time, the role of primary care in cancer was largely seen as peripheral, but as prevention, diagnosis, survivorship and end-of-life care assume greater importance in cancer policy, the defining characteristics of primary care can become more important'





What is the problem that needs fixing, and why?

- Currently ~90% cancer patients initially present with symptoms in primary care, and the selection of patients for onward referral, or for diagnostic investigation is mostly predicated on the predictive values of symptoms
- Many cancers are diagnosed in a timely and efficient manner
- Some diagnoses are easy for GPs, some are hard, some are near impossible

Rethinking diagnostic delay in cancer: how difficult is the diagnosis?

Georgios Lyratzopoulos, Jane Wardle, and Greg Rubin *BMJ* 2014

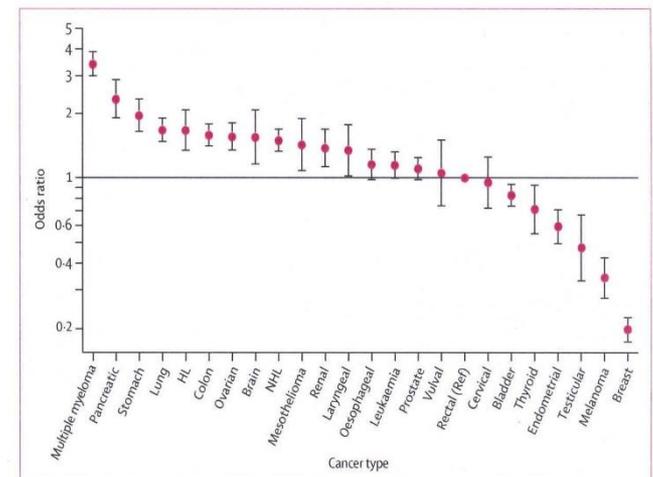


Figure 1: Odds ratios and 95% CIs for three or more general practitioner consultations before hospital referral, by cancer type



What is the problem that needs fixing, and why?

Does timelier diagnosis lead to better outcomes?

'..we believe 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, although this varies between cancers'



Is increased time to diagnosis and treatment in symptomatic cancer associated with poorer outcomes? Systematic review

R D Neal^{1,2}, P Tharmanathan², B France¹, N U Din¹, S Cotton³, J Fallon-Ferguson⁴, W Hamilton⁵, A Hendry¹, M Hendry¹, R Lewis², U Macleod⁶, E D Mitchell⁷, M Pickett³, T Rai⁸, K Shaw⁴, N Stuart⁹, M L Topping¹⁰, C Wilkinson¹, B Williams⁴, N Williams^{1,8} and J Emery^{4,11}



What is the problem that needs fixing, and why?

- For all cancers, including the 'easier to diagnose' ones, there is a very skewed distribution of diagnostic intervals.
- For example, for breast, in England, whilst median total interval is 57 days, 90th centile is 138 days – so there is a real task to try and shift this distribution.
- The same is true for all cancers



What is the problem that needs fixing, and why?

1. Earlier diagnosis is associated with better cancer outcomes
2. Diagnostic times vary quite significantly between health systems
3. Cancer outcomes vary quite significantly between health systems



How to change 'health systems' (for earlier cancer diagnosis)

- Patients' awareness of cancer symptoms, and ability to seek help when symptoms are experienced **THIS IS MODIFIABLE**
- GPs' consulting style (readiness to investigate and refer, dealing with uncertainty, safety netting practice, use of guidelines, use of decision support tools) **THIS IS MODIFIABLE**
- GPs' access to investigations, specialist opinion, other health services, and the speed of this **THIS IS MODIFIABLE**
- Give GPs better tests **THIS IS MODIFIABLE**
- Secondary care diagnostics **THIS IS MODIFIABLE**



Patients' awareness of cancer symptoms, and ability to seek help when symptoms are experienced

- There have been many forms of 'public awareness of symptoms' campaigns
- In England 'Be Clear on Cancer'
- Low symptom awareness has been tackled with public education campaigns about specific symptoms, often linked with messaging about GPs wanting to see people with these symptoms

NHS

Dr Ian Watson

If you've been coughing for 3 weeks, it might not be 'only a cough', so tell your doctor.

Everyone gets a cough now and again, but if you've had one for over three weeks you should see your doctor. Coughing could be a sign of lung cancer. Of course, in the vast majority of cases it won't be serious. But if there is something wrong, finding it early means it's more likely to be treatable, so tell your doctor.

BE CLEAR ON CANCER

nhs.uk/lungcancer



Patients' awareness of cancer symptoms, and ability to seek help when symptoms are experienced

- Public awareness of cancer symptoms in the UK is similar to other comparable countries, but barriers to help-seeking (e.g. worry about wasting the doctor's time) are more prevalent
- There is some evidence that these lead to improved outcomes in the short term (and relatively few harms), but there is no evidence for long term benefit
- Lung cancer awareness campaigns have reported short term increases in x-rays, a stage shift towards earlier stage disease and a rise in potentially curative treatment, coupled with only minor increases in GP consultations
- There is significant socio-demographic variation in cancer awareness (a RCT of cancer symptom awareness raising is opening this year in Yorkshire)



Primary care management of potential cancer symptoms

- Improving earlier diagnosis is predicted to save up to 10000 lives annually
- NICE guidance NG12 (2015) predicates urgent action for adult patients presenting with symptoms that are deemed to represent a risk of 3% or more of having underlying cancer
- Greater use of 2-week referral pathways are associated with reduced mortality
- There is huge variation in the use of 2-week wait pathways and of adherence to guidelines
- Many cancer patients do not get 'NICE-qualifying symptoms' (low-risk-but-not-no-risk) therefore GPs must rely on good clinical medicine and local pathways for investigation and referral
- Safety-netting, use of significant event audit, decision support tools, and PHE practice profiles are all likely to be associated with better cancer outcomes



GPs' consulting style

When presented with a symptom, what can GPs do? Not many options:

- Ignore/reassure
- Safety net
- Low level investigation (varying degrees of urgency)
- More specific investigation (varying degrees of urgency)
- Refer for specialist opinion (where / varying degrees of urgency)
- Arrange urgent admission to hospital
- Arrange assessment in A&E





GPs' consulting style

So the response depends upon:

- Readiness to investigate and refer
- Dealing with uncertainty (often a good thing, but when it comes to cancer...)
- Safety netting practice [Can safety-netting improve cancer detection in patients with vague symptoms? Nicholson BD, Mant D, Bankhead C, *BMJ* 2016]
- Use of guidelines [International variation in adherence to referral guidelines for suspected cancer. Nicholson BD, Mant D, Neal RD, et al. *Br J Gen Pract*, 2016]
- Use of decision support tools



Consequences of increasing diagnostic activity in primary care

- Propensity to use the urgent referral pathway is associated with reduced mortality

RESEARCH

 OPEN ACCESS



¹Cancer Epidemiology and Population Health, King's College London, London SE1 9RT, UK

²Public Health England, Knowledge & Intelligence Team (East Midlands), Sheffield, UK

Use of the English urgent referral pathway for suspected cancer and mortality in patients with cancer: cohort study

Henrik Møller,^{1,5}Carolynn Gildea,²David Meechan,²Greg Rubin,³Thomas Round,⁴Peter Vedsted⁵

ABSTRACT

OBJECTIVE

To assess the overall effect of the English urgent referral pathway on cancer survival.

SETTING

8049 general practices in England.

propensity to use urgent referrals could consider increasing the use of this pathway to improve the survival of their patients with cancer.

Introduction

Achieving an earlier diagnosis of cancer at a less

- But, if increase activity in cancer, what will primary care do less of? The answer lies in doing things in smarter, quicker ways, and this inevitably will involve 'IT' solutions



Preventing delayed diagnosis of cancer: clinicians' views on main problems and solutions

- Priority setting approach (PRIORITIZE) with cancer care clinicians in NW London
- 15 oncologists, 15 oncology trainees, 10 GPs from
- Car LC et al. Preventing delayed diagnosis of cancer: clinicians' views on main problems and solutions. *Journal of Global Health* 2016, doi: 10.7189/jogh.06.020901



Preventing delayed diagnosis of cancer: clinicians' views on main **problems** and solutions

1. Lack of patient awareness of cancer symptoms mean that they do not attend for advice and investigation in a timely manner
2. Poor continuity of care for patients leads to symptoms being missed and delayed diagnosis
3. Delays in referrals eg, GPs not following two–week referral guidelines mean that patients are diagnosed late in the course of the disease
4. Patients not having a GP mean that they may use other services such as the Emergency Department which are not designed to detect or diagnose cancer and hence present late
5. GPs not having enough time mean that they do not take a full history or examine patients fully and miss cancers



Preventing delayed diagnosis of cancer: clinicians' views on main **problems** and solutions

6. Delays in accessing diagnostics in the community mean that patients wait longer for hospital appointments

7. Patient fears of the diagnosis of cancer mean that they do not seek health advice early in the course of their illness

8. Inefficient processes and bureaucracy in hospitals leads to delays in processing referrals and arranging appointments

9. Co-morbidities make it more difficult to diagnose cancer as the symptoms may be confused with those of other existing illnesses

10. GPs ignoring alarm symptoms eg, rectal bleeding leads to delays in diagnosis



Preventing delayed diagnosis of cancer: clinicians' views on main problems and **solutions**

1. Encourage public awareness campaigns on common symptoms of cancer to ensure patients present early in the course of their disease
2. Improve adherence to referral guidelines to ensure earlier diagnosis
3. Improve communication between general and oncology teams in hospitals to improve the standard of care
4. Provide prompt feedback to primary care if delayed diagnosis to encourage learning about incidents
5. Facilitate rapid referrals from primary care to hospitals



Preventing delayed diagnosis of cancer: clinicians' views on main problems and **solutions**

6. Improve specialist education for doctors and nurses to ensure better standards of care
7. Improve funding provided to improve services available and provide quicker access to diagnostics and specialists
8. Improve access to GPs for patients to ensure earlier diagnosis
9. Improve referral and follow up processes to ensure referrals are not lost
10. Ensure sufficient staff available to deal with referrals to ensure no delay in processing referrals



Cancer diagnostic testing in primary care: a paradigm shift for cancer diagnosis (CanTest)

- CRUK £5M Catalyst award 2017-22
- Cambridge / Exeter / Leeds / UCL & 4 international partners
- An international collaboration that aims to transform the primary care physician's (PCP's) office to a hub of diagnostic excellence.



CanTest - Aims:

- Increase capacity and sustainability of clinical cancer detection research in the UK and internationally
- Identify existing and emerging tests, and alternative international models of care delivery related to diagnostic evaluation for cancer and assess their potential for UK use
- Establish an International School for Cancer Detection Research in Primary Care
- Evaluate the availability, acceptability to patients and PCPs, accuracy, and cost-effectiveness of cancer tests when used in primary care. This includes optimising the use of existing tests, of tests currently used solely in secondary care, and of as yet unused tests
- Quantify any possible harms arising from increased testing for cancer in primary care, and create strategies to balance harms and benefits



Wales Interventions for Cancer Knowledge about Early Diagnosis (WICKED)

- The development and evaluation of primary care interventions to expedite the diagnosis of symptomatic cancer in Wales
- The programme aims to develop and evaluate an intervention for GPs and their teams, with the intention of achieving prompter referral of suspected cancer and achieving earlier, and cost-effective, diagnosis of symptomatic cancer in Wales; thus improving survival.
- Cancer Research Wales 2016-2021



Understanding the effectiveness, cost-effectiveness and current use of cancer diagnostic tools to aid decision-making in primary care

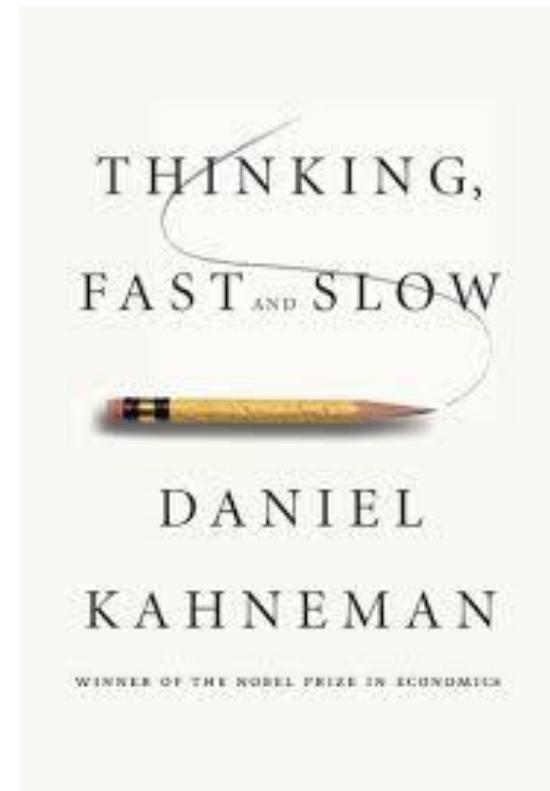
- Aims to review the effectiveness and cost-effectiveness of cancer diagnostic tools in primary care, and understand the extent to which existing tools are currently used in the primary care setting in the NHS.
- NIHR HTA Programme 2017-2018



Consequences of increasing diagnostic activity in primary care

“Simple, statistical rules are superior to intuitive “clinical” judgements.”

“Whenever we can replace human judgment by a formula, we should at least consider it.”





Keeping patients at the centre of the process

- Good communication is essential throughout the diagnostic process
- What sort of diagnostic process would you want for your mother / brother / child...?