ERICA
Electronic Risk Assessment for Cancer

Willie Hamilton, for the ERICA team, June, 2019, Exeter
Your morning reading

Daily Mail

Recipe pullout to keep you slim – and boost your health in midlife
FREE INSIDE

Alarming toll of victims sent away
THREE times without a diagnosis

GP's FAILING THOUSANDS OF CANCER PATIENTS

FAMILY doctors fail to spot cancer in tens of thousands of patients, a study reveals today. Roads to six people whose disease was missed for months were traced by expert health inspector Health Inspector Sophie Herland, who found that the number of cancer patients being diagnosed at the wrong stage is increasing. 

Zeta’s £2,000 bathroom cabinet secrets

See Page Three
...of course, that’s only one headline..
But...we do perform badly in cancer compared to our sister countries......
What is the contribution of diagnosis to the UK’s poor figures?

- It has been estimated that between 5,000 - 10,000 lives are lost annually from late diagnosis.

- GPs under pressure to strike balance between patients’ expectation for investigations and referral and flooding secondary care.

- Need for well evidence tools to support clinical decision making that benefits GPs and their patients.
The Risk Assessment Tool (RAT)

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<th>Diarrhoea</th>
<th>Rectal bleeding</th>
<th>Loss of Weight</th>
<th>Abdominal pain</th>
<th>Abdominal tenderness</th>
<th>Abnormal rectal exam</th>
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PPV as a single symptom

National Cancer Action Team
Part of the National Cancer Programme
The 20th and 21st century versions

- These moved on to electronic versions.

- Macmillan supported this and currently there is a suite of five cancer RATs in e-form

- These have been integrated into over 1,000 practices...

- BUT do they work?
How to use the eRAT – Option 1

Prompt pops up when there is at least a 2% risk of one type of cancer.
How to use the eRAT—Option 2

Oesophago gastric Cancer Decision Support

Risk Factors
- Age: 53
- Sex: Male

Tests
- Platelet count: 258
- Haemoglobin level: 14.9 g/dl

Symptoms (in last year)
- Constipation
- Dyspepsia
- Chest Pain
- Loss of Weight
- Abdominal Pain
- Dysphagia
- Nausea or Vomiting
- Epigastric Pain
- Reflux

This is a % risk of this person having cancer, based on available information and compared to a similar patient profile.

Using clinical data, last analysed on 20 April 2015
The eRAT

- Intended to help GPs:
  - make sense of multiple symptoms
  - make more accurate decisions about referrals
  - ultimately facilitate timely diagnosis of cancer

- Designed to be used in routine care to help GPs

- NOT designed to replace clinical judgement
ERICA eRATs

The chosen cancer sites
ERICA: Aims

• To assess the clinical- and cost-effectiveness of electronic risk-of-cancer assessment of patients in primary care

• Parallel process evaluation
ERICA: Design

• A cluster RCT in 530 English practices

• Simplified inclusion/exclusion criteria
  – Practices must host Vision/Microtest/SystmOne

• Practices will be randomised 1:1 with minimisation by two week wait referral rate (in national tertiles)
ERICA: Primary Outcome Measure

• All outcome measures obtained from routinely collected data (NCRAS)

• Proportion of cancers at Stage1/2 vs Stage 3/4
  – currently 35% across these six cancers
  – Targeting a 4.2% improvement
ERICA: Secondary Outcome Measures

Collecting for 6 cancer sites of interest *plus other cancers*:

- Number and stage of cancers
- Number of two-week referrals, and conversion rate
- Cancer Waiting Times
- Proportion via emergency presentation / 2WW
- 30-day, 1-year and 5-year survival
- Number of imaging investigations (and adverse events)
ERICA: Nested Studies

- Health economics
- Process evaluation
- Effects on service configuration
- Three UoE supported PhDs
ERICA: what we hope your Daily Mail says in 2023
Funding

• A very generous philanthropic donation from the D&M Gillings foundation

• Supplemented by Macmillan and CRUK support