

**Hamilton, W., Green, T, Martins, T, Elliott, K., Rubin, G, and Macleod, U. 2013. Evaluation of risk assessment tools for suspected cancer in general practice: a cohort study. Br J Gen Pract, 63(606), pp.e30-e36.**

Population: primary care patients presenting with possible cancer symptoms

Intervention: Risk assessment tools for suspected cancer symptoms

Comparison: Do risk assessment tools help with the diagnosis of cancer in primary care setting

Outcome: Showed to improve pick up rate in lung cancer diagnosis with increased use of CXR in a select cohort of patients

The UK has poor cancer outcomes, when compared with Europe, most likely due to diagnostic delay. With 9 out of 10 patients presenting with symptoms and most present in the primary care setting, how can this be improved?

This Study looked at risk assessment tools for possible lung and colon cancer for use in primary care, to see if this could increase the pick up rate of new cancer diagnosis. These tools looked at patients >40 years old presenting with symptoms of possible cancer. These symptoms could be single symptoms, pairs of symptoms or repeat attendances. A colour coded scoring chart was given to GPs to aid interpretation.

There were quantitative and qualitative arms to the study. The quantitative arm looked at how effective the risk assessment tools were in new cancer diagnosis. The qualitative arm was in-depth telephone interviews with GPs who used the tools to see if they found them helpful and if they changed clinical practice.

Total 614 GPs from 165 practices were recruited, with a total of 2720 risk assessment tools completed (127 excluded).

The use of risk assessment tools in this study showed increase in cancer investigation and urgent referrals and more cancers were subsequently diagnosed. There was a 60% increase in the number of CXR performed in primary care, with an abnormal CXR triggering a 2 week wait urgent referral. There was a rise in diagnosis of lung cancers by 37% and a rise in new colorectal cancers by 7%.

The qualitative arm of the study interviewed 23 GPs who used the tool and shows it aided diagnosis, both with confirming decision to refer and urged referral which would have not been made.

This study showed that there is a role and interest in using risk assessment tools to help cancer diagnosis.

# Impact of the risk assessment tools study

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**CANCER**

## Tools will aid GPs in assessing people with possible cancer

1 October 2015

Experts from Macmillan Cancer Support show how tools developed by Macmillan can support GPs in decision making and facilitate earlier diagnosis of suspected cancer

Read this article to learn more about:

- the challenge in primary care of identifying people who may have cancer

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Health professional | Diagnosis | Suspected cancer referral best practice | Risk Assessment Tool (RAT)

### Risk Assessment Tool (RAT)

Health professional	Diagnosis	Suspected cancer referral best practice	Clinical decision support tools overview	Risk Assessment tool (RAT)	NICE cancer referral guidelines	QCancer	Safety netting
0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

The cancer Risk Assessment Tool (RAT) is an algorithm that can be used to calculate the absolute risk that a patient has an undiagnosed cancer based on certain risk factors and their current symptoms.

The RATs are designed to support GP decision making when deciding which patients require further investigation or referral. The RAT does not replace clinical judgement, but gives more information on which to base patient management decisions.

What is the cancer Risk Assessment Tool? +

What evidence is the RAT based on? +

Questions about the RATs? Contact us if you have questions about the tools. Email us

This study led on to further research in this area, including the CAPER group led by Prof Hamilton

**Research team:**



**Willie Hamilton** is a professor of primary care diagnostics at the university. Within this, his main topic area is cancer diagnosis, though he also researches other relevant primary care diagnostic areas. In cancer, his main expertise is in identifying and quantifying the risk of cancer in patients presenting to their general practitioner with a particular symptom or symptoms, and what testing should be available.



**Tanimola Martins** is a post-doctoral Research Fellow at the University of Exeter Medical School who has been part of the DISCO group (Diagnosis of Symptomatic Cancer Optimally) since 2011. He has a background in Medical Rehabilitation and Public Health. His workstream aims to identify and quantify sociodemographic differences in primary care of diagnosis of cancer, with the intention of formulating appropriate interventions to address such inequalities. Presently, Tanimola is working in collaboration with researchers from Cambridge University to examine ethnic differences in health care use in men with symptoms suggestive of prostate cancer.

**Thinking points:**

1. Why might the UK have poor cancer outcomes? Discuss

2. Have a look at risk assessment tools on the Cancer Research UK website, do you think they would help you in clinical practice?
3. What is the benefit of adding qualitative data to this research study? How does it enrich this study?
4. Could risk assessment tools be used in other conditions to aid diagnosis, if so what sort of conditions might benefit from them?