

The QCancer tool

What evidence is QCancer based on?

The QCancer algorithms have been developed using data from a large database of over 12 million routinely collected anonymised patient records from more than 600 general practices in the UK. Cancer alarm symptoms were identified from these patient records and followed up over a 2 year period to determine who went on to develop a cancer in a series of prospective cohort studies. Using a combination of this symptom data and risk factor information, the algorithm is able to calculate absolute risk of having an existing but as yet undiagnosed cancer, giving a probability for each cancer type, while also providing an overall 'cancer risk'.

[See more about the database](#)

A similar method was adopted to determine cancer risk over time. A large group of patients were followed up over a 10 year period, with details of those who developed cancer recorded, including their type of cancer and any associated factors. This calculator may be more useful for guiding lifestyle interventions.

These studies benefit from the use of a large representative dataset but rely on the accuracy of information recorded by GPs which may vary.

The research underpinning QCancer:

The current QCancer algorithms, which give the probability of having a current cancer as yet undiagnosed, and include the following tumour sites:
prostate, other, colorectal, blood, lung, gastro-oesophageal, renal tract, pancreatic, testicular, breast, ovarian, uterine, cervical, and a "catch all" other site.

[For men](#)

[For women](#)

The QCancer-10year algorithms, which give the risk of developing a cancer within the next 10 years. These are yet to appear in clinical systems.

[QCancer-10year algorithms](#)

The early QCancer algorithms, which the 10year algorithms has replaced:

[Lung](#)

[Ovarian](#)

[Colorectal](#)

[Pancreatic](#)

[Renal](#)

[Gastro-oesophageal](#)

How effective is QCancer in practice?

The algorithm behind the QCancer tool has been both internally and externally validated, consistently suggesting the tool performs well at identifying overall cancer risk for both men and women, as well as by cancer type for lung, ovarian, colorectal, pancreatic, renal and gastro-oesophageal. We don't yet know whether its use leads to patients being diagnosed earlier.

Further research could help to determine whether it has any impact on the stage of cancer at diagnosis and subsequent survival. However, this is challenging given the rollout of different algorithms and a range of other activities within the early diagnosis sphere.

A study based in Australia assessed use of a web-based version of the QCancer tool, which was specifically developed into a simple, single browser page for the purpose of the study. Interviews with around 20 GPs suggested the tool could be potentially useful for patients with complex histories, however significant barriers relating to the design, integration and variable risk outputs were also reported.

[Read more about the Australian study](#)

How can I use QCancer?

Online calculators:

QCancer is available online together with guidance on how to use it and background information. There are two main calculators for symptomatic patients, one for men and one for women, which estimate the risk of a patient having a currently undiagnosed cancer

[Use the QCancer calculator for men](#)

[Use the QCancer calculator for women](#)

[Download information on how to use QCancer calculator](#)

[Download an overview of QCancer](#) from the development team

Future cancer risk calculator:

QCancer have also developed a new calculator, which works out the risk of a patient developing cancer over the next 10 years.

[Use the QCancer 10 year risk calculator for men](#)

[Use the QCancer 10 year risk calculator for women](#)

GP computer system integration:

GP software providers have integrated QCancer into software known as electronic Cancer Decision Support (eCDS) in order to provide easier access to it.

[Find out more about rollout for different GP systems](#)

[How to switch on the QCancer alerts in EMIS web \(2 mins\)](#)

[How to use the symptom checker in EMIS web \(5 mins\)](#)

[Conference presentation including a Q&A session \(50 mins\)](#)