New computer program to help GPs know when to send patients for cancer tests

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New software that estimates the likelihood that someone has cancer based on their symptoms could help GPs decide which patients to send for further tests, according to a study announced at the National Cancer Research Institute (NCRI) Cancer Conference today (Tuesday).

Known as 'electronic Cancer Decision Support' (eCDS), the program works out the risk that someone with a particular symptom or symptoms could have cancer, based on information logged by GPs during a patient visit.

It also compares these symptoms against other factors, such as whether the person smokes or is an ex-smoker and alerts GPs when the patient is at risk from cancer. It is designed to work in the background of the computer system where doctors log notes.

The work was led by Macmillan Cancer Support with part-funding from the Department of Health.

As well as knowing what risk a single symptom, such as a persistent cough, might carry; the computer program also automatically alerts GPs when it recognises a combination of symptoms that mean the patient should be tested for cancer.

By using this information to estimate a person's cancer risk, the program aims to give GPs guidance about how serious a symptom, or combination of symptoms might be. It also helps them decide which

[patients](#) they should refer for further investigation.

Crucially, alerting GPs to cancer risk as soon as a patient tells them about a symptom, could lead to earlier diagnoses of cancer– which significantly improves people's chances of beating the disease.

The programme can estimate cancer risk for oesophago-gastric, lung, colorectal, pancreatic and ovarian cancers.

Professor Willie Hamilton, a GP researcher based at the University of Exeter, and one of the researchers upon whose work the tool is based, said: "We hope that this new [computer program](#) will prove useful and effective in helping GPs make decisions about when to send their patients for further tests based on cancer risks.

"Despite the fact that more than one in three of us will be diagnosed with cancer in our lifetime, cancer cases are still relatively unusual occurrences for GPs to encounter during their day to day practice. We've designed a system that doesn't replace their knowledge or training, but could be used alongside their notes to give extra information. And what's really useful is if, for example, a patient comes to see me with one symptom such as nausea or sickness. Then three weeks later they come back and say they've had trouble swallowing, the computer will automatically ping up with an alert to say their risk of oesophageal cancer is over seven per cent which will alert me to refer the patient for tests."

Dr Rosie Loftus, lead GP adviser at Macmillan Cancer Support, said: "GPs have a vital role to play in ensuring that cancer is diagnosed at an early stage to give people the best possible chance of survival. When you've only got around ten minutes with each patient, it's vital that you ask the right questions and are able to quickly calculate someone's risk in order to facilitate an early referral. Macmillan hopes that this tool will

support GPs to identify the [symptoms](#) of cancer and help to improve cancer survival rates."

While the software is still in the testing phase of the trial the researchers hope that, if successful, it could be made available to all GPs.

Dr Harpal Kumar, chief executive of Cancer Research UK and chair of the NCRI, said: "Diagnosing cancer early is crucial to surviving this devastating disease. GPs are on the frontline when it comes to assessing possible cancer cases so it's essential that they have all the information they need to make effective referrals."

Provided by Cancer Research UK