A little 'suspect'?

WORDS OF ESTIMATIVE PROBABILITY

Intelligence agencies like the CIA understand the need for precision when attempting to convey the relative degree of certainty/uncertainty about the prospects of any specific future event occurring. The words chosen to describe how likely something is to happen are important and can have far-reaching consequences in terms of effort then taken to mitigate risk or investigate. These have been coined 'words of estimative probability', or WEPs.

Whereas precise and collectively understood WEPs have the ability to give a clear indication of risk, and thus enable good decisions to be made, poorly chosen WEPs conversely mislead regarding probability, and risk wrong decisions being made. At policy level this may lead to policy failure.

O'Brien *et al*[1] studied how this might apply in everyday clinical general practice. Vocabulary chosen by doctors to convey the likelihood of an illness being present was on a spectrum of probability from 'never' to 'certain', with the halfway point being 'not certain/reasonable chance'. At the two extremes, misinterpretation is unlikely; however, between these, there is no guarantee that both the author and reader will estimate the same likelihood of an event happening, from the word chosen by the author to convey that likelihood. Thus, one person's 'probable' may represent the same level of likelihood as another person's 'almost certain', and a false impression of likelihood may have been created, spawning inappropriate actions.

PROMOTING EARLIER DIAGNOSIS OF EARLY-STAGE CANCERS

In 2015, the National Institute for Health and Care Excellence (NICE) released NG12 guidelines *Suspected Cancer: Recognition and Referral*,[2] aimed at assisting GPs in identifying those patients in whom further assessment was advised, to clarify whether or not they have cancer. Recommendations for action were as a result of a symptom or symptom complex (along with risk factors) having a positive predictive value (PPV) of >3% in adults of cancer being the explanation. Overtly, this is to promote the chances of earlier cancer diagnosis, and improve overall cancer outcomes.

Studies have shown that the public approve of further investigating scenarios, with even lower PPV scores for cancer than this.[3] A 3% PPV should therefore give a 'normal' test result in 97% of cases, thus normalising the concept of 'negative' investigations after referral.

Counter-intuitive to what seems like traditional clinical 'acumen', a lower conversion rate of referrals to cancer diagnoses is necessary, and should be celebrated, as progress towards the situation of identifying those patients who are more likely to have 'early'-stage cancer.

REPLACE THE TERM 'SUSPECTED' WITH 'POSSIBLE'?

The problem is that word 'suspected'. What level of estimated probability do you think it conjures? To me, it is all to easy to conflate it with 'expected'. I imagine this is true for other GPs and patients too. It certainly sounds higher than a 3% PPV.

The effects of this could then be to raise the threshold of triggering action within the mind of the GP assessing a symptomatic patient to the point where cancer is 'suspected/expected', which may be when symptoms have become pathognomonic for a cancer, or at least more clinically certain, and thus more likely to be at a more advanced (and incurable) stage.

Electronic clinical decision support tools, such as QCancer, are becoming integrated into GPs' computer systems, and can prompt the GP to 'think cancer' when a predetermined risk level is met, via a pop-up alert. This is based upon both patient demographics and symptom coding, and attempts to more accurately detail cancer risk. For the patient, a referral for 'suspected' cancer may be a simple 50:50 dichotomy — 'I either have it or I don't', and shades of probabilistic nuance are lost. Secondary care services may baulk at why so many GP referrals give normal investigations if they do not understand the risk level being operated, and there is a risk that the referral gets labelled 'inappropriate' when retrospectively judged by diagnosis, rather than the PPV of the symptoms that led to referral.

If, as private correspondence with one of the NICE NG12 authors suggests, 'possible' were substituted into the title and mindset to replace 'suspected', this would still equate to a 30% risk according to O'Brien,[1] much higher than the pivotal 3% PPV. The vocabulary used here needs to change.

"... there is a risk that the referral gets labelled 'inappropriate' when retrospectively judged by diagnosis, rather than the PPV of the symptoms that led to referral."

IN CONCLUSION

In the absence of a better alternative, 'possible' cancer may be a better term as it certainly portrays something with a smaller likelihood than 'suspected'. Patients, GPs, and secondary care would therefore be more likely to accept and be on board with the concept of earlier referral or investigation. As such, the current 'suspected' terminology used sets the bar too high in both the patients' and doctors' minds, with the potential for wrong decisions and worse outcomes.

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