

# Doctors overestimate the size of benefits and harms of treatments

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UK general practitioners tend to overestimate the benefit or harm associated with prescription drugs for long-term conditions, meaning they rely on their broad understanding rather than precise knowledge of treatment effects, according to a survey by Oxford University researchers.

Patients with multiple long-term conditions are often recommended several different treatments by clinical guidelines, each with varying degrees of benefit and harm (such as [side-effects](#)) associated with their use.

GPs try to balance the use of these medicines in light of the often complex needs and preferences of their patient, aiming to decide which treatment combination will deliver the greatest overall benefit.

Yet when surveyed to find UK GPs' level of knowledge about the risk values associated with treatments for ten long-term conditions, most respondents (87.7%) overestimated the extent to which a patient would reduce their risk of a condition worsening or developing a side-effect.

This research has similar findings to other studies done around the world involving other doctors, including specialists.

The survey quizzed 443 [general practitioners](#) about the treatment effects for conditions such as osteoporosis, diabetes and atrial fibrillation. For

example, it asked GPs to estimate the effect of aspirin over five years after a transient ischemic attack (sometimes called a mini-stroke), asking about both the [reduced risk](#) of developing stroke and the increased risk of experiencing a major gastrointestinal bleed as a side-effect of the treatment.

Funded by the National Institute for Health Research, the survey found only around one-fifth (23.3 percent) of GPs gave correct answers when allowing for a 3 percent margin of error.

Lead researcher Dr. Julian Treadwell, a GP and NIHR Doctoral Research Fellow in Oxford University's Nuffield Department of Primary Care Health Sciences, said "Looking after patients with complex medical needs is one of the most difficult areas of patient care. No one would expect us to have encyclopaedic knowledge, but our survey found the range of GPs' estimates of the benefits and harms of treatment to be highly varied and often inaccurate. When we are sitting in our surgeries, this is likely to affect the choices we make with our patients, particularly when faced with deciding which combination of several options will suit them best."

"This isn't the fault of individual GPs not keeping up to date. It is a system-wide failure in how we receive up-to date information about treatments. This kind of detailed information isn't available to us via clinical guidelines. There is so much research being produced, it is impossible for [healthcare professionals](#) across the world to read original research papers to extract the figures they need."

Reported in BJGP Open, the survey also found GPs are aware of this knowledge gap, with two-thirds (64.8%) reporting 'low' or 'very low' confidence in their answers and just 5 percent reporting they were 'quite' or 'very' confident.

Dr. Treadwell added, "When I've talked to fellow GPs in depth about this, it's clear that we really want easy access to this kind of information and know we can better serve our patients if we are armed with it."

To address this, the research team at Oxford University are working on an open-access online resource, focused on usability and relevance to patients' needs, for GPs to use to support their conversations with patients about the pros and cons of treatments.

**More information:** Julian Stephen Treadwell et al. GPs' understanding of the benefits and harms of treatments for long-term conditions: an online survey, *BJGP Open* (2020). [DOI: 10.3399/bjgpopen20X101016](https://doi.org/10.3399/bjgpopen20X101016)

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