

THE CONVERSATION

Academic rigour, journalistic flair

Billions are spent on clinical research that gets ignored – here's the answer

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Worth the effort? Paradise Picture

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Heart failure is a major killer, affecting well over a million people in the UK alone. We now have over 20 years' worth of evidence from clinical trials that show strong benefits for a package of treatment involving not only drugs and devices but also where patients stay, how they are cared for and how the different healthcare professionals work with one another. Yet in many cases, doctors are not acting on the findings.

This is just one example of a major problem in healthcare across the world. Billions of pounds are spent each year researching clinical treatments, but a staggering 85% of all research ends up not being put into practice – much of it passed over for reasons that could be avoided. Even when research findings are taken up by clinicians and those in charge of health policy, the average delay between publication and practice is 17 years.

The more medical conditions you consider, the more examples crop up. Research into a new care package for chronic kidney disease was shown to be effective, for example, but it is not implemented by GPs because they are struggling to prioritise it over other conditions and competing demands.

Or take Bell's palsy, a condition where muscle weaknesses cause a sufferer's facial features to droop on one side. Many patients are not **being given** the treatment shown in trials to be the most effective. In lung cancer of the non-small cells, meanwhile, a new radiotherapy treatment **has been proven** to be a better cure than conventional radiotherapy. Yet it is not widely given because of doctors' preferences and the practicalities of providing it in hospitals.

Trials and context

So what's the problem? This gap between evidence and practice has produced a whole field of research in its own right called **implementation science** or knowledge transfer, which has identified various issues. Some trials are not of high enough quality. This can be for any number of reasons including problems with the way participants are selected, conducting the wrong trials or conducting the right trials the wrong way.

Other trials are **not published** because they did not produce a result in favour of the new treatment being tested. Initiatives such as the **All Trials campaign** aim to get all trials registered and their results published so that we can see the full picture, not a distorted one.

Yet this won't solve everything. This is because one of the biggest problems, which has perhaps not received enough attention in the past, is that research findings are frequently much less meaningful to clinicians and policymakers in the real world than they could be.

Trials **don't** collect sufficient information about the context in which they were conducted, or about how contextual factors affected the results. So outside the direct trial setting, the results can either be less useful or it can be hard to judge whether they will be useful or not.

Even a seemingly simple switch from one pill to another can stumble because of things like its cost and availability, patient preferences, or beliefs among staff as to the benefits of the old drug. And when it comes to complex team-delivered treatments such as surgery or rehabilitation, the scope for context to matter increases enormously.

The need to look closer

Many specialists believe the answer is to run separate studies alongside clinical trials that aim to understand their context, their processes and all the relevant variables that come into play. These are expensive, though not prohibitively so, and **work is going on** into how to make them cheaper. The UK Medical Research Council last year **published guidance** on how such studies should be conducted.



Never simple. Jaroon Magnuch

One thing lacking from this guidance, however, was much explanation of how context should be explored in these studies. This is because we've yet to fully understand the problem. An overview of 70 reviews looking at why GPs and other professionals in primary care don't put research findings into practice recently concluded that future research needs to concentrate on how and why contextual factors play a part.



GP's perspective still poorly understood. Nonwarit

There also appears to be another obstacle. There is growing pressure to prioritise funding for research that has the greatest impact on clinical care. Methodology research into the context problem doesn't have an immediate impact on clinical care, which makes it harder to attract funding. It currently attracts only a small part of the overall budget for healthcare research.

The paradox is that until we properly understand how context influences trials, their results will continue failing to achieve their potential impact on clinical care. In other words, 85% of research will continue to be wasted. When the alternative is that millions of people do not get the best treatment available, the only logical move is to make this a top priority.



Research Osteoarthritis Healthcare NHS heart failure