

Tapering sequence does not affect costs



Slowly reducing medicines for people in remission can save money

INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory disease that can affect a person's joints, and may cause pain and disability. Rheumatoid arthritis affects people of all ages, and is more common in women than men.

When people reach sustained remission (no signs or symptoms of the disease), current treatment guidelines recommend *tapering* medicines for rheumatoid arthritis. Tapering means gradually reducing the dose or how often the medicine is taken. Tapering can help to reduce discomfort, side effects, and save money. However, there is not much evidence about the best way to taper, nor when or how it should be done.

WHAT DID THE AUTHORS HOPE TO FIND?

The authors hoped to be able to show which medicine should be tapered first in people who are taking a combination of conventional and biologic treatments. Since cost is a major reason for tapering, they investigated which strategy would be the most cost-effective. *Cost effectiveness* does not necessarily mean the cheapest – it is a balance between money spent and the benefits people get from treatment.

WHO WAS STUDIED?

The study included 189 people with rheumatoid arthritis who were taking a combination of a TNF-inhibitor (a biologic medicine) and a conventional synthetic DMARD (shortened to csDMARD). Most people's csDMARD was methotrexate. Everyone's disease in the study was well controlled. This was defined by having a disease activity score of 2.4 or less, and a maximum of one swollen joint. The study took place at 12 clinics in the Netherlands.

HOW WAS THE STUDY CONDUCTED?

This was a randomised controlled trial, which meant that people were assigned by chance to one of two tapering methods. Using chance in this way meant that the groups would be similar and could be compared objectively. The first group had their csDMARD tapered in the first year, and the biologic tapered in the second year. The other group tapered the two medicines the other way around.

Both types of medicine were gradually tapered in three steps. The csDMARD tapering was done by cutting the dosage in half, a quarter and then stopping it completely. The biologic was tapered by doubling the time between doses, followed by cutting the dosage in half, and then stopping it. If people did well and had no flares or worsening of their disease, the first drug was completely stopped after 6 months.

Cost-effectiveness was measured by looking at both costs and *QALYs*, which measure people's quality of life over time. Costs included the money spent on the medicine, the time of the rheumatologist or other healthcare professionals, and also any wider costs to society because of sick leave, unemployment, and reduced productivity that a person might have had because of their rheumatoid arthritis.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?

The main finding was that medication costs are lower when the biologic is tapered first, but this was balanced with higher loss of productivity in people who tapered their biologic. Overall, the costs were similar for both tapering strategies: €38,833 for tapering csDMARD first, and €39,442 for tapering the biologic first. This means that from a cost point of view it does not matter which medicine is tapered first.

ARE THESE FINDINGS NEW?

Yes, this has not been investigated before.

WHAT ARE THE LIMITATIONS OF THE STUDY?

The main limitation was that the study did not include as many people as it had planned to, but the authors are confident the results are still valid. Another limitation is that the study lasted only 2 years.

Ideally, the long-term effects of tapering and stopping treatment should be considered as well. Any flares that people had later after the study had been closed might have changed the results. It might also be difficult to generalise the results of this study outside the Netherlands. This is because every country has its own social security and healthcare system. Also, treatment prices and wages differ.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

The authors hope that these results will be confirmed in other studies.

WHAT DOES THIS MEAN FOR ME?

If you have rheumatoid arthritis, your treatment might be tapered once you are in remission. If you are on a combination of a csDMARD and a biologic, your doctor will probably gradually taper one drug at a time. This study shows that from a cost point of view, the order does not matter. However, there are other things to consider when making the decision, including your personal disease history and your preferences. It is very important that you do not try to taper medicines yourself by changing the dose or how often you take them.

If you have any concerns about your disease or its treatment, you should talk to your doctor.

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