

# Relative efficacy of topical non-steroidal anti-inflammatory drugs and topical capsaicin in osteoarthritis: protocol for an individual patient data meta-analysis.

**Persson** MS, Fu Y, Bhattacharya A, Goh SL, van Middelkoop M, Bierma-Zeinstra SM, Walsh D, Doherty M, **Zhang** W; OA Trial Bank Consortium.  
Syst Rev. 2016 Sep 29;5(1):165. PMID: [27686859](#) DOI 10.1186/s13643-016-0348-8

## **Background**

Pain is often the most troubling issue for people with osteoarthritis and treatments aim at providing pain relief. At the moment, doctors are advised to give topical non-steroidal anti-inflammatory drugs (NSAIDs) or topical capsaicin in the first instance for people with painful osteoarthritis. These treatments are both applied directly to the painful joint (topical) in the form of gels, creams, solutions, or patches. Common examples of topical NSAIDs are ibuprofen gel and Voltarol gel. Capsaicin is the substance that makes chilli peppers "spicy" and is available on prescription.

The two treatments are effective and safe for osteoarthritis, however, they do not provide sufficient pain relief for everyone. It may be that the treatments work better in some people than in others. There are many differences between people with osteoarthritis, such as what joint is painful, the amount of changes that can be seen on x-rays, and the type of pain they feel. These differences may explain why some people find a treatment helpful whilst others do not.

Finding people that benefit from the treatment and looking for characteristics that are shared between those that benefit, may give an indication of who would most benefit from the treatments. In the future, this could be used to help doctors to provide the right treatment to the right patient at the right time.

## **Aim of the study**

To identify characteristics within people taking topical NSAIDs and topical capsaicin that are linked with successful pain relief after treatment.

## **How the study will be carried out**

We are planning on carrying out an analysis of individual patient data from clinical trials. This involves identifying all drug studies that have been carried out using topical NSAIDs or topical capsaicin in people with osteoarthritis. The trial organisers are then contacted and asked to share the data collected during the trial. The data will be combined and analysed, paying particular attention to the different characteristics in people with osteoarthritis, in order to identify a subgroup of people with osteoarthritis who benefit from either treatment.

### **Significance of the study to Pain Centre's research**

The results of the study will provide information that may be used to tailor treatments to individual characteristics of a person with osteoarthritis. This will hopefully improve the treatment for people with osteoarthritis pain, which is in line with the Pain Centre's aims.