

Lay title: Identifying treatment refractory disease in people with rheumatoid arthritis.

Full title: Biologic Refractory Disease in Rheumatoid Arthritis: Results from the British Society for Rheumatology Biologics Register for Rheumatoid Arthritis.

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What was already known?

Biologic therapies have revolutionised treatment and outcomes for people with rheumatoid arthritis (RA). Over the years many different types of biologic therapies have become available (also known as different classes), each treating inflammation in different ways. The expanding choice of biologics allows patients to switch biologic if their current treatment is not working. For some patients, even after switching, their disease and symptoms may persist. The aims of this analysis were to see how many patients received at least three different classes of biologic drugs (which we called refractory RA) and identify factors associated with this.

What was discovered?

The British Society for Rheumatology Biologics Register for RA (BSRBR-RA) collects information on people with RA starting biologic therapy. Between 2001 and 2014, 13502 patients with RA started a biologic for the first time and consented to participate in the register. Of these, 6% had used at least three different classes of biologics. Many patient characteristics measured at the point of starting their first biologic drug were associated with biologic refractory disease and included being female, younger, higher level of symptoms and disability, and whether they were a current smoker. We also found that people who started their first biologic more recently were also more likely to become refractory, but this may be because there is now more choice of treatments.

Why is this important/what is the benefit to patients?

This is the first observational study to evaluate the extent of biologic refractory RA. This is important and provides information which rheumatologists can use to help identify which people might have refractory disease. It also provides information to help guide the development of rheumatology care. The information can also help with future treatment guideline development.

Should you wish to read this scientific paper in full, the text can be found online here:

<https://ard.bmj.com/content/early/2018/07/06/annrheumdis-2018-213378>

