

Risk of heart attacks in patients with rheumatoid arthritis almost halved by biologic drugs: Data from the BSRBR-RA

Recently, the results of an analysis looking at the influence of TNFi on the risk of myocardial infarction (MI) have been published. The results represents a successful collaboration between the BSRBR-RA and the Myocardial Ischaemia National Audit Project (MINAP). We know that patients with rheumatoid arthritis (RA) are at increased risk of MI or heart attacks compared with subjects without RA, with the increased risk driven potentially by inflammation. TNF inhibitors (TNFi) may modulate the risk and severity of MI. This analysis compared the risk and severity of MI in patients treated with TNFi with that in those receiving synthetic disease-modifying anti-rheumatic drugs (sDMARDs).

The analysis included patients with RA recruited to the BSRBR-RA from 2001 to 2009 starting one of the three original TNFi (etanercept/ infliximab/ adalimumab) and a biologic-naïve comparator cohort receiving sDMARD. Only patients with no history of ischaemic heart disease were included. In addition to the regular follow-up within the BSRBR-RA, all patients were linked to MINAP, a national registry of hospitalisations for MI. This linkage provided details of any additional MI's occurring in England and Wales since 2003 not originally reported to the BSRBR-RA. It also provided more details about the MI itself, such as cardiac enzyme levels, ECG changes and occurrence of cardiac arrest. The risk of first MI was compared between cohorts using COX regression, adjusted using propensity scores to account for a wide range of possible confounding factors. MI phenotype and severity were also compared as was the 6-month mortality rates post-MI. In total, 252 verified first MIs were analysed: 58 in 3058 patients receiving sDMARD and 194 in 11 200 patients receiving TNFi (median follow-up per person 3.5 years and 5.3 years, respectively). The adjusted risk of MI in TNFi compared to sDMARD was 0.61 (95% CI 0.41 to 0.89), a 40% reduction. No statistically significant differences in MI severity or mortality were observed between treatment groups. These data suggest that patients with RA who receive TNFi have a significantly decreased risk of MI compared with patients with RA receiving sDMARD therapy over the medium term. This might be attributed to a direct action of TNFi on the atherosclerotic process or better overall disease control over time with TNFi.

Search: [Ann Rheum Dis doi:10.1136/annrheumdis-2016-209784](https://doi.org/10.1136/annrheumdis-2016-209784) for the paper: 'Relationship between exposure to tumour necrosis factor inhibitor therapy and incidence and severity of myocardial infarction in patients with rheumatoid arthritis.'

Latest News: Please recruit all biosimilar patients now!

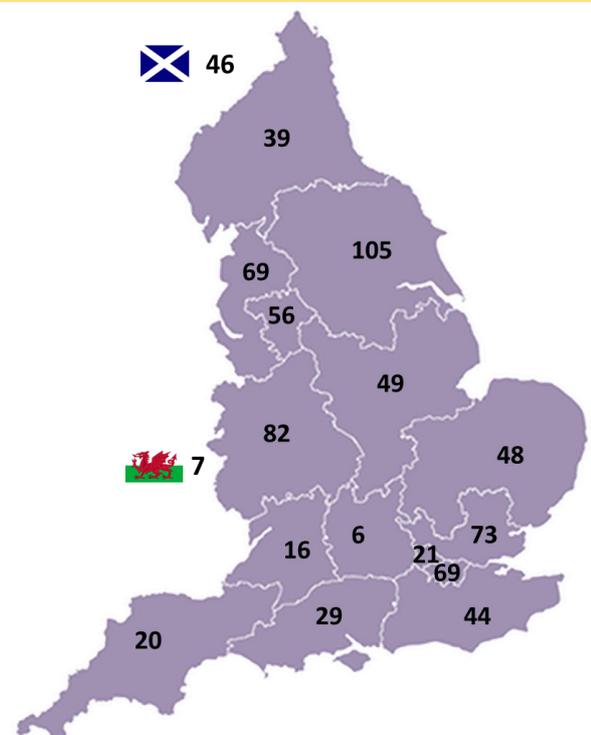
In 2016 **1275** participants were registered on the BSRBR-RA database from **139** different hospitals across the UK. Almost every regions recruitment has increased, Keep up the amazing work, thank you!

CRN Region	JUL-DEC 2015	JAN-JUN 2016	JUL-DEC 2016
East Midlands	12	28	49
Eastern	15	47	48
Greater Manchester	49	50	56
Kent, Surrey and Sussex	14	18	44
North East and North Cumbria	11	26	38
North Thames	56	61	73
North West Coast	37	51	69
North West London	4	0	21
South London	23	30	69
South West Peninsula	22	22	20
Thames Valley and South Midlands	0	4	6
Wessex	30	25	29
West Midlands	43	51	82
West of England	5	6	16
Yorkshire and Humber	24	51	105
Devolved Region	JUL-DEC 2015	JAN-JUN 2016	JUL-DEC 2016
Scotland	27	22	46
Wales	5	5	7
Northern Ireland	0	0	0

Congratulations

to all our 2016 top recruiting regions!

- ★ Yorkshire and Humber ★ West Midlands ★
- ★ North Thames ★ North West Coast ★
- ★ Greater Manchester ★



STARTING A RHEUMATOID ARTHRITIS PATIENT ON A NEW THERAPY?

Whether your patient is new to biologics/biosimilars or changing between drugs please remember to register them with us.

We currently have several open cohorts recruiting (see right). If you are ever unsure if a patient is eligible you can always contact the office or check our website.

BSRBR-RA is now taking registrations of all biosimilars. Currently Remsima, Inflectra and Benepali with more to come.

Patients starting Cimzia, Actemra or biosimilars who are already on the register can be *Re-Registered* with us. This means that they will count as a new patient for UK CRN accrual data. (BSRBR-RA UK CRN ID: 7302)

If for some reason a patient cannot be re-registered please continue to let us know about all biologic/biosimilar drug changes.

Recording therapy changes on follow ups:

Please remember to let us know the date of the *last dose* of the previous drug as well as the *new start date*. This is of particular importance where a participant may have had adverse events so we can record correctly which drug they were on at the time of event. It is equally important that we know this whether the change is between two biologics or from an originator to biosimilar drug.

- **Any Biosimilar** (including Inflectra, Remsima, Benepali)
- **Cimzia** (Certolizumab)
- **Actemra/RoActemra** (Tocilizumab)

Is this patient already registered with the BSRBR-RA study?

NO

YES

You can **re-register** this patient at any time for another accrual with the BSRBR-RA.

- **Re-consent** the patient when you next see them in clinic and attach a copy to the next scheduled follow-up form.
- Include the **new drug start details**, list of **current medication** and a copy of the **HAQ** and **EQ5D** (EuroQoL).

Information and forms for the registration of participants can be obtained on our website or by contacting the office.

- **Humira** (Adalimumab)
- **Enbrel** (Etanercept)
- **Remicade** (Infliximab)

Is this patient biologic naïve?

YES

NO

Sorry. This patient is **not** eligible for registration.

This patient can be registered as a **new** patient with the BSRBR-RA study **within 6 months of the drug start date**.

Please give the patient a the Information Sheet & register you patient by sending us:

- Clinical Baseline questionnaire
- HAQ
- EQ-5D (Euro QoL)
- Signed Consent Form

NEW: Once Flixabi becomes available later in the year we will be accepting registrations

Don't forget that you can access our publications from the [BSRBR-RA website](#).

Some of the recent papers include:

- Association between ischaemic stroke and tumour necrosis factor inhibitor therapy in patients with RA
- Risk of invasive melanoma in patients with RA treated with biologics: results from a collaborative project of 11 European biologic registers
- Risk of lymphoma in patients exposed to anti-tumour necrosis factor therapy: results from the BSRBR-RA
- The incidence of cancer in patients with rheumatoid arthritis and a prior malignancy who receive TNFi or rituximab: results from the BSRBR-RA

Web Portal

We are very excited that we have recently restarted work on the BSRBR-RA web portal. Although it will be some time before we can launch something that has been tried and tested, we need input into the system from you.

If you are interested in (i) becoming a pilot centre for testing the system, or

(ii) getting involved in a healthcare professional user requirements BSRBR-RA Focus Group, please contact Neil Wall who is our Portal Development Advisor: neil.wall@manchester.ac.uk

We are also working on the development of a patient portal to improve our communications with patients participating in the study.

Get in touch



0161 275 1652
0161 275 7390



BSRBR.org



biologics.register@manchester.ac.uk

The University of Manchester
Unit 4 Rutherford House
Manchester Science Park
M15 6SZ

Find us on social media:



@BSRBR_RA



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