Clinical Medicine 2016 Vol 16, No 6: 500–1

The national clinical audit for rheumatoid and early inflammatory arthritis

Authors: Simon J Bowman[A] and Laura Guest[B]

On 22 January 2016, the British Society for Rheumatology (BSR) published the first annual report of the National Clinical Audit for Rheumatoid and Early Inflammatory Arthritis (EIA) on behalf of the Healthcare Quality Improvement Partnership (HQIP) and in collaboration with Northgate Public Services and the Medical Research Council Lifecourse Epidemiology Unit at the University of Southampton.[1]

Rheumatoid arthritis (RA) is a chronic inflammatory symmetrical arthritis of unknown aetiology that causes swelling, pain and stiffness in the joints. It typically presents in the hands and wrists but can potentially affect any synovial joint and, in a proportion of patients, is associated with systemic features.[2] RA can lead to progressive deformity in the affected joints, reduced function and impaired quality of life.[2] It is approximately three times commoner in women than men and is associated with an increased mortality rate of as much as 40% above that of the general population.[3,4] Care of patients with RA is at the heart of modern rheumatology practice.

Medical treatment of RA has changed radically in the past 100 years – aspirin was introduced in 1898 (the first empirical disease-modifying drug), gold salts in 1929, corticosteroids in the 1950s and methotrexate in the 1970s. Perhaps the greatest change in treatment has occurred in the past 17 years with the introduction of biologic therapies in 1999.[2] The approach to treatment has also changed radically because of the recognition that:

- RA is a progressive, disabling disease associated with an excess mortality rate akin to that of diabetes (if left untreated), mainly due to excess deaths from infection, respiratory and cardiovascular disease,
- progressive joint damage occurs most rapidly during the first 2 years after diagnosis and is not always apparent clinically,
- early diagnosis and aggressive treatment aimed at remission can prevent or ameliorate these adverse features in most patients.[3]

RA also has significant health economic consequences. A report from the National Audit Office (NAO) in 2009[4] emphasised that a third of patients with RA stop work within 2 years of the diagnosis and half within 10 years. The report estimated that direct NHS healthcare cost is £560 million per annum with an additional £1.8 billion in indirect costs to the UK economy. In a further report by the National Rheumatoid Arthritis Society (NRAS) in 2010 that used different methodology, these costs were re-estimated at £700 million and £8 billion per annum, respectively.[6]

These are significant sums of money. To put them into context, out of the £107 billion annual NHS budget in England in 2012, the fourth largest area of spend, at £5.06 billion per annum (4.7%), was on diseases of the musculoskeletal (MSK) system, which include RA (estimated at above £700 million of this spend).[7] By means of further comparison, a study by Leal *et al* in 2012 estimated the annual costs of lung cancer at £2.4 billion, bowel cancer at £1.6 billion, breast cancer at £1.5 billion and prostate cancer at £0.8 billion.[8] If the direct healthcare costs are 35% of these estimated totals, this makes the direct healthcare costs of RA are approximately equivalent to those for any one of these major cancers seen in the UK.

In order to reduce variation in care and optimise management, in 2013 the National Institute for Health and Care Excellence (NICE) launched quality standard (QS) 33; this lists seven quality standards for adults with RA.[9] These standards in turn were derived from the 2009 NICE guidance for the diagnosis and management of RA in adults.[10] Five of these standards refer to the initial diagnosis, referral and management of patients when they first present with inflammatory arthritis. The underlying theme is that patients with potential RA should be identified quickly in general practice, referred and seen urgently by a rheumatologist and the multidisciplinary team, and started immediately on therapy, which is then escalated to achieve low disease activity or remission.

None of this information is collected routinely by the NHS. Although inpatient episodes are coded through hospital episode statistics (HES) and collated by the Health and Social Care Information Centre, there is no mandated outpatient coding process. Therefore, although data on average time from GP referral to first review in a rheumatology outpatient clinic is collected routinely, this data cannot be pulled out for specific conditions such as RA and EIA. For the first year of the audit, we took NICE QS2 (patients with suspected EIA are seen within 3 weeks of referral) as the key quality standard. Compliance with the audit was high at 97%, reflecting its mandatory nature. There was considerable variation between units and regions in the numbers of patients entered into the

Authors: [A]consultant rheumatologist, University Hospitals Birmingham NHS Foundation Trust, Birmingham, UK; [B]CEO, British Society for Rheumatology, London, UK

audit compared with expected population numbers – perhaps, at least in part, reflecting differing workload and staffing issues and level of support from clinical audit departments. There was considerable variation in the proportion of patients being seen within this timeframe, ranging from 55% in London to 28–39% elsewhere in the UK. The number of consultants per 100,000 of the population and the presence of an EIA clinic were the major identifiable factors associated with this. Anecdotally, the audit data is already being used to support arguments for additional support and the development of EIA clinics. A second iteration of the audit is planned for 2017–8 and it will be important to see whether, like other national clinical audits, it has driven measurable change in practice. All the indications so far are that it will and that it will also highlight the need to support and properly resource those units who are struggling to achieve the audit standards so as to give all patients with EIA the same high-quality care, wherever they live. ■

Conflicts of interest

SB has consulted in the field of Sjögren's syndrome clinical trials for a number of pharmaceutical companies, including Astra Zeneca/Medimmune, Cellgene, Eli Lilly, Glenmark GSK, Novartis, Ono, Roche, Takeda and UCB.

References

1 British Society for Rheumatology. *National clinical audit for rheumatoid and early inflammatory arthritis*. London: BSR, 2016.
2. Scott DL, Wolfe F, Huizinga TW. Rheumatoid Arthritis. *Lancet* 2010;376:1094–108.
3 Sparks JA, Chang SC, Liao KP *et al*. Rheumatoid arthritis and mortality among women during 36 years of prospective follow-up: Results from the Nurses' Health Study. *Arthritis Care Res* 2016;68:753–62.
4 Listing J, Kekow J, Manger B *et al*. Mortality in rheumatoid arthritis: the impact of disease activity, treatment with glucocorticoids, TNFα inhibitors and rituximab. *Ann Rheum Dis* 2015;74:415–21.
5 National Audit Office. *Services for people with rheumatoid arthritis*. London: National Audit Office, 2009.
6 National Rheumatoid Arthritis Society. *The economic burden of rheumatoid arthritis*. Maidenhead: NRAS, 2010.
7 Harker R. *NHS funding and expenditure*. London: House of Commons Library, 2012.
8 Luengo-Fernandez R, Leal J, Gray A, Sullivan R. Economic burden of cancer across the European Union: a population-based cost analysis. *Lancet Oncol* 2013;14:1165–74.
9 National Institute for Health and Care Excellence. *Rheumatoid arthritis in over 16s. NICE quality standard No 33*. London: NICE, 2013.
10 National Institute for Health and Care Excellence. *Rheumatoid arthritis in adults: management. NICE clinical guideline No 79*. London: NICE, 2015.

Address for correspondence: Professor Simon J Bowman, University Hospitals Birmingham NHS Foundation Trust, Mindelsohn Way, Birmingham B15 2TH, UK.
Email: Simon.Bowman@uhb.nhs.uk

Clinical Medicine 2016 Vol 16, No 6: 501–2 **EDITORIALS**

The NIHR at 10: transforming clinical research

Authors: Sally C Davies,[A] Tom Walley,[B] Stephen Smye,[C] Lisa Cotterill[D] and Christopher JM Whitty[E]

In the early 2000s, clinical research in the UK was at a low ebb; most universities prioritised basic biomedical research, training opportunities were limited and clinician-researchers were declining in number and felt disenfranchised. An Academy of Medical Sciences report[1] identified 'a substantial gulf between basic discoveries and converting such discoveries into innovations that directly benefit patients or prevent disease'. Government sponsored reports[2] identified the possibility of using the NHS as a testbed for interventions that would improve its efficiency and effectiveness while also promoting the UK life sciences industry. On paper, the Department of Health had a substantial budget for research and development but, in practice, most of this was historically tied into the bricks and mortar of major teaching hospitals, with little accountability for research outputs. The need for a relaunch of NHS-based clinical research was clear.

The result was a new government policy in 2006,[3] which set out the vision for a new National Institute for Health Research (NIHR), established in April that year, to 'create a health research system in which the NHS supports outstanding individuals, working in world-class facilities, conducting leading-edge research, focused on the needs of patients and the public' and a mandate to be radical in how it achieved that. This ambitious strategy was widely, but not universally, supported. The Cooksey review supported the NIHR and defined complementary roles for the two major public funders – the NIHR with clinical and applied research and the Medical Research Council biomedical and discovery science.

Authors: [A]chief medical officer, UK Department of Health, London, UK; [B]director, NIHR Evaluations, Trials and Studies (NETS), Southampton, UK; [C]NIHR Clinical Research Network specialty cluster lead, King's College London and R&I director, Leeds Teaching Hospitals NHS Trust, Leeds, UK; [D]director, NIHR Trainees Coordinating Centre, UK; [E]chief scientific adviser, UK Department of Health, London, UK