A cost-effective nurse-led clinic ensures patients with rheumatoid arthritis see a health professional soon after diagnosis. This helps to achieve a better chance of remission.

**Treatment to target in rheumatoid arthritis**

**In this article...**

- The aim of the treat-to-target (T2T) approach
- Description of the T2T approach and its implementation

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Treating to target in rheumatoid arthritis means setting defined treatment goals, regularly measuring disease activity and working with, and informing, the patient of these targets at each step. This article discusses the role of the specialist nurse in developing and delivering treatment to target in RA, its impact on patient care and the development of a nurse-led clinic.

In recent years, the management of rheumatoid arthritis (RA) has been transformed by new therapeutic agents such as disease-modifying anti-rheumatic drugs (DMARDs) and biologic agents (tumour necrosis factor (TNF) inhibitors). However, a new nurse-led approach to early treatment has also benefitted patients; recommendations on a treat-to-target (T2T) approach to achieve early disease control and remission have been introduced (Vermeer et al, 2011; Schoels et al, 2010).

The aim of the T2T approach in RA is to reduce inflammation, thereby changing the disease course and progression to achieve remission (Vermeer et al, 2011; Smolen et al, 2010). This involves setting defined treatment goals for individuals and carrying out regular measurement of disease activity using assessment tools such as the Disease Activity Score in 28 joints (DAS28) (Vermeer et al, 2010). This involves setting defined treatment goals, diagnosis and treatment process for severe disease.

**The Chesterfield T2T pathway**

We designed our T2T treatment pathway using existing pathways as guides, such as those from Derby Hospitals Foundation Trust and Hampshire Hospitals Foundation Trust. The team includes:

- Two full-time and one part-time nurse;
- One registrar;
- Two consultant rheumatologists (both full-time); and
- One consultant director of the hospital.

After a GP referral and rheumatologist appointment, patients with RA are seen by a specialist nurse team within two weeks. The nurses then manage the entire assessment, diagnosis and treatment process for the first six months, from carrying out the DAS28 test at each appointment to adjusting treatment accordingly.

To achieve the Department of Health’s best-practice tariff, patients should have received their first prescription of a biologic drug within 12 weeks of diagnosis. This approach has been shown to improve function (de Wit et al, 2011). Palmer and El Miedany (2014) emphasise the need to improve the quality of care for patients with RA. In our rheumatology service, the targets set in the T2T recommendations are achieved in a nurse-led clinic for the first six months of the treatment pathway.

Nurses play an important role in the development and delivery of T2T (Palmer and El Miedany, 2014). Chesterfield Royal Hospital Foundation Trust is implementing the T2T pathway in RA care and is part of the UK-wide RA T2T audit led by Professor Paul Emery of Arthritis Research UK and the University of Leeds (Buch et al, 2014). Specialist nurses worked with other members of the multidisciplinary team to design and implement a nurse specialist early arthritis clinic and developed a local T2T care pathway (Fig 1).

**5 key points**

1. Treating to target in rheumatoid arthritis improves outcomes, with the ultimate goal being disease remission.
2. Patients are seen in a nurse-led clinic for the first six months of the treatment pathway.
3. Treatment goals are defined and progress is monitored at each step.
4. Biologic agents (tumour necrosis factor inhibitors) can be introduced faster than normal in patients with severe disease.
5. Management by nurses ensures increased patient engagement, with a speedier and more accessible first point of contact.
DMARD within six weeks of a confirmed diagnosis of inflammatory arthritis; in our service, patients are seen in the nurse-led clinic to start treatment within 1-2 weeks. The nurses can escalate or combine treatments through various pre-determined options based on current guidelines from the National Institute for Health and Care Excellence (2009) and the European League Against Rheumatism (Palmer and El Miedany, 2014; Smolen et al, 2014). NICE guidance on the management of RA in adults recommends that newly diagnosed patients are offered a combination of DMARDs (including methotrexate and at least one other DMARD, plus short-term steroids) as a first-line treatment, ideally within three months of onset of persistent symptoms. If combination DMARD therapy is not appropriate, the patient should start DMARD monotherapy. NICE (2009) recommends that fast escalation to a clinically effective dose, rather than the choice of DMARD, should be the priority. Once the patient achieves sustained and satisfactory levels of disease control, the drug doses should be cautiously reduced to levels that still maintain disease control.

After six months, patients are seen by a consultant to review the notes from the specialist nurse appointments, make an assessment and, if remission has not been achieved, decide whether to initiate a biologic agent (Smolen et al, 2014; NICE, 2009). The 2013 EULAR guidance specifies that treatment should be aimed at reaching a target of remission or low disease activity in every patient (Smolen et al, 2014).

**The stepwise approach in early arthritis**

The goal of T2T is to manage patients proactively over six months to achieve clinical remission as measured by a DAS28 score of 2.6 or below (Smolen et al, 2014; NICE, 2009). During this time, patients are monitored regularly (blood tests, DAS28, ultrasound) and counselled on their progress against the target. Nurses run and oversee the T2T pathway with support from consultants as needed. This takes the form of a medication review after escalating the dose if remission is not achieved. If patients are not seen to progress in this time, T2T offers the flexibility to escalate their medication according to the treatment pathway.

Patients are diagnosed with early RA during a consultation with a rheumatologist before they start attending the nurse-led clinic, and are given disease information including Arthritis Research UK leaflets on the condition and how it can be treated. After diagnosis the patient will be referred to the nurse-led clinic. Within a week of this consultation, patients are seen by a nurse specialist who will explain:

- **T2T** and the treatment goal (to be agreed with the patient);
- Self-management of RA;
- Treatment options (including what taking the product entails, general information, side-effects); and
- Monitoring tests: why, how and what – for example: ultrasound to monitor joint damage; DAS28 and blood tests to monitor disease activity and the side-effects of methotrexate, which are done by the patient’s GP or in hospital. Nurse consultations last for 30 minutes, during which time the patient’s condition is reviewed and the disease progression measured against remission goals.

The patient has a follow-up every 4-6 weeks with a specialist nurse who:

- Reviews their current medication;
- Performs a DAS28 test; and
- If necessary, changes the medication or increases the methotrexate dose as determined by the protocol (Fig 1).

The six-month review constitutes the second consultation with a rheumatologist.
if the patient is not in remission (DAS 2.6 or below), the rheumatologist discusses with them the next therapy option – namely, treatment with a biologic agent. A case study outlining the process is given in Box 1.

The role of the nurse

Patients with RA need support to accept their diagnosis and understand the treatment and care approach. Nurses involved in the Chesterfield T2T pathway counsel and guide patients through the disease management process, providing timely information and reassurance by helping them understand the side-effects of their medication and their risk of experiencing them. Nurses explain the T2T guidelines, including the monitoring process and tests, to ensure patients feel fully empowered and can make informed choices; patients decide on the treatment approach and next management steps as part of a shared decision-making process (Smolen et al, 2010).

A T2T nurse advice telephone line has been set up to support the cycle of consultations; patients can use this to speak to the nurses for advice or to discuss side-effects or other concerns they may have, particularly during a flare-up. The advice line allows the nurses to offer patients extra support and enables patients to gain rapid access to the nurse-led clinic during a flare-up without requiring a GP referral.

Specialist nurses will discuss the following on the telephone with patients who have a flare-up and need specialist advice:

- Self-management strategies, including heat/ice compress, use of their splints (if they have them) and rest;
- Analgesia – are they taking it as prescribed? If so, the nurse may advise them to increase the dose. If patients are on steroids, the nurse may consider increasing the dose temporarily.

Nurses can book appointments or overbook clinics if a patient needs to be seen urgently. All advice and treatment given over the telephone is documented; treatment changes are also followed up with letters to the patient and the GP.

The RA team works closely with specialist occupational therapy and physiotherapy. These services play a vital role in providing patient education and coping strategies. The British Society for Rheumatology and British Health Professionals in Rheumatology guidelines (Luqmani et al, 2006) and NICE (2009) guidelines state that every new patient with early inflammatory arthritis is seen by these health professionals for condition management. The RA team also plans to conduct a combined clinic with both OT and physiotherapy as part of the T2T pathway; this is work in progress and is reliant on securing funding.

Benefits to patients and staff

The nurse specialists in early arthritis clinics implementing the T2T treatment pathway provide a range of benefits to all stakeholders. Patients have more appointments – if they did before the pathway was introduced as the nurses can manage the treatment pathway more regularly than a consultant. This leads to a higher rate of RA being controlled more quickly, while treatments can be escalated and combined within a short period of time.

Patients with severe RA can receive a biologic agent (TNF inhibitor) much earlier than usual (six months on T2T treatment pathway via the first consultant assessment) leading to faster remission, and preventing further irreversible joint damage and disability. The nurses also provide patient education on treating and managing side-effects.

The specialist nurses are empowered, leading to personal development and a cost-effective service. They not only run nine clinics a week, but also handle an average of 19 calls a day on the advice line; this frees up consultants’ time so they can spend more time on severe cases.

Conclusion

The implementation of the T2T approach resulted in well-managed and well-organised caseloads – currently, the clinic has no waiting list. This nurse specialist-led pathway is cost effective and has a flexible clinic approach with each patient having at least eight appointments, six with a nurse and two with a consultant. This approach offers clear advantages for the NHS, such as reduced bed use, lower overheads and use of fewer consumables.

The T2T framework could be implemented as best practice in other disease management areas such as diabetes, arterial hypertension (Atar et al, 2010). Rheumatology teams looking to meet the T2T recommendations need a multidisciplinary team committed to improving the service. Specialist nurses, consultants and GPs need to work together as a single unit to provide high-quality care to improve patients’ lives and avoid irreversible joint damage.

References


BOX 1. CASE STUDY

Arthur Jenkins, aged 72 years, was diagnosed with rheumatoid factor-positive arthritis in February 2014, with a Disease Activity Score (DAS) of 5.78. He was seen in the early arthritis treat to target (T2T) clinic a week later, when the specialist nurse initiated methotrexate (MTX) and hydroxychloroquine (200mg bd). Mr Jenkins was then seen and monitored monthly, and continued to have a DAS of >5.1 despite the dose of MTX being titrated. When his oral MTX dose reached 20mg, he developed nausea and stomach cramps, and was switched onto subcutaneous MTX. His nausea and stomach cramps resolved, allowing him to continue titrating to a maximum of 25mg/0.5ml.

In August Mr Jenkins’ DAS was 5.5 and the specialist nurse assessed him for anti-tumour necrosis factors. In the meantime he was prescribed methylprednisolone 120mg for symptom relief. He is due to see the consultant at his six-monthly assessment, where he will be considered for a biologic agent according to the T2T pathway.

The patient’s name has been changed.