

Rheumatology

i Description of the specialty and clinical needs of patients

Rheumatology deals with the investigation, diagnosis, management and treatment of patients with arthritis and other musculoskeletal conditions. The term ‘musculoskeletal conditions’ incorporates over 200 disorders affecting joints, bones, muscles and soft tissues. These include inflammatory arthritis, soft tissue conditions, autoimmune rheumatic disorders, osteoarthritis, spinal pain and metabolic bone disease. While a large number of musculoskeletal conditions are confined to the musculoskeletal system, many also affect other organ systems, making their management complex.

Arthritis and musculoskeletal conditions affect one in five people in the UK.¹ Of these more than two million people visited their GP in the last year because of osteoarthritis.² Around 387,000 people in the UK have rheumatoid arthritis.² Musculoskeletal conditions affect people of all ages, gender and race. There is a common perception that all musculoskeletal conditions are long term and persistent and that nothing can be done to treat them, when in reality modern treatments can be highly effective. Conditions can vary dramatically in their severity and different joints can be affected. A range of effective management options are available and in all cases the person with arthritis needs to be at the centre of the decision-making process about the most appropriate treatment options.

Rheumatology is a multidisciplinary specialty and the rheumatology department works in close liaison with orthopaedic surgeons, physiotherapists, occupational therapists, podiatrists and specialist nurses amongst others. Rheumatology requires interdisciplinary knowledge and awareness of new research in internal medicine, immunology, orthopaedics, neurology and pain management, rehabilitation, psychiatry and professions allied to medicine. Training may also include specialist experience in paediatric and adolescent rheumatology and sports medicine.

In 2002, the National Institute for Clinical Excellence (NICE) approved the use of biologic therapies for people with severe rheumatoid arthritis. This development has had a significant impact on the work of rheumatologists and on resources and staffing, as patients on these drugs need careful monitoring and have to be registered on the British Society for Rheumatology’s Biologics Register (BSRBR), which monitors the long-term safety of patients on biologic therapies.

ii Organisation of the service and patterns of referral

Primary, secondary and tertiary levels

Primary care In the last year, 8.9 million adults in the UK (19% of the adult population) attended their GP for arthritis or a related condition.¹ Most of these are non-inflammatory problems such as back pain and osteoarthritis which can usually be managed effectively in primary care. Referral to secondary care is appropriate for the small minority with ‘red flags’, or where there is diagnostic uncertainty or the need for further specialist investigation with the view to intervention (eg surgery). Current evidence suggests that many patients referred to orthopaedic surgeons do not need an orthopaedic opinion and, even amongst those on a surgical waiting list, 10–15% do not need an operation.³ Increasingly, some form of triage by practitioners with special interests (usually

GPs or physiotherapists) is being used as a way to improve the efficiency and appropriateness of the referral process (see www.doh.gov.uk/pricare/gp-specialinterests). This approach has been shown to have tangible benefits for patients, including reduced waiting times, convenient access, high levels of patient satisfaction, reduction in waiting times for orthopaedic referral and increased conversion rate for surgery.

Secondary care Secondary care rheumatology services are provided largely by consultant rheumatologists and the multidisciplinary team (MDT) which works alongside them. Clinics may take place within a general outpatient department or a dedicated rheumatology unit. The majority of rheumatologists practise whole-time in the specialty, however, some 16% of rheumatologists also practise general internal medicine (GIM) and approximately 9% have a commitment to rehabilitation medicine.⁴ Although many patients' conditions and treatment can be managed within primary care, others benefit from the diagnostic expertise and skills of a specialist hospital unit, including education, medication, and investigative and therapeutic procedures. Some areas offer a 'hub-and-spoke' model of service provision, whereby members of the rheumatology MDT come out of the 'hub' to do regular clinics within primary care settings.

Tertiary care There is provision for specialised services that cover the needs of a small group of patients with rare conditions who may require specialised investigation or management not available in a local hospital setting. Examples of these are tertiary referral for complex connective tissue diseases, rare metabolic bone disease and other rare musculoskeletal conditions. These services allow access to a multiprofessional team, skilled and experienced in certain conditions which may include specialised surgery such as cardiac surgery, neurosurgery and hand surgery, and to a specialist rheumatology MDT including rehabilitation therapists, specialist nurses, podiatry and orthotics services. Tertiary care services also include specialist paediatric and adolescent rheumatology clinics in centres of excellence for complex paediatric conditions.

Clinical networks and community arrangements

The development and delivery of a rheumatology service needs to take account of the needs of the local population and the current local service provision, including the skills and interests of practitioners. Activities of those delivering the service are not prescriptive and will depend upon how the service is configured. Various models for incorporating practitioners with special interests into rheumatology services have been implemented, including hospital-based triage, GP initial assessment clinic, and physiotherapy-led back pain services. National guidelines (eg for back pain and chronic pain) are a useful starting point for developing integrated care packages but work best if guidelines are customised to the needs of the local health economy.

Relationship with other services/agencies

The nature of the rheumatology specialty means that close collaboration with other services and agencies as well as the MDT is vital in order to provide a patient-centred service. Therefore, all rheumatology departments work closely with other departments including social services, occupational therapy, physiotherapy, dietetics and chiropody. An effective working relationship between rheumatologists and providers of other services is vital to the model of patient-centred care embraced by the rheumatology community, as it ensures quick and appropriate access to the treatments and services that the patient requires.

The key voluntary sector organisations with an interest in rheumatology issues have developed excellent collaborative methods of working. Arthritis Care, the National Rheumatoid Arthritis Society (NRAS), the British Society for Rheumatology (BSR) and the Arthritis Research Campaign (arc) have worked together on a number of specific campaigns under the auspices of the Arthritis and Musculoskeletal Alliance (ARMA), including submissions to NICE appraisals and lobbying work on access to biologic agents including anti-TNFalpha. Rheumatology teams may also work closely with other patient support organisations such as the National Osteoporosis Society and Lupus UK.

Complementary services

Complementary therapies have become more popular and more widely available over the last few years. Although conventional treatment is safe and effective for most people, for some, drugs and surgery cannot fully control the symptoms of arthritis. People are increasingly concerned about the side effects of some of the more potent drugs. Complementary therapies cannot cure arthritis but they may ease pain, stiffness and some of the side effects of taking drugs. It should be noted that some herbal remedies may have side effects of their own and it may be wise to consult a rheumatologist before embarking on any such therapy, although they may have little or no knowledge of the remedy concerned.

There are a wide variety of complementary therapies available for people with arthritis and musculoskeletal conditions. They range from ancient systems of medicine such as acupuncture and homeopathy to treatments such as chiropractic, osteopathy and reflexology. Treatments are described as complementary when they have not been used traditionally in conventional medical settings. Rheumatologists would wish to be kept informed of patients undergoing complementary therapies as they may affect other medicines that have been prescribed.

iii Working with patients: patient-centred care

Involving patients in decisions about their treatment

‘The era of the patient as the passive recipient of care is changing. Health professionals and patients should be genuine partners seeking together the best solutions to each patient’s problems.’⁵

The patient should, when at all possible, be an equal partner in decisions about appropriate treatments and therapies to help manage their condition. Not only will this contribute to the patient feeling that they have been treated as a ‘person’ rather than a ‘patient’, but also they are more likely to comply with any treatment offered if they understand and feel happy with the course of treatment agreed upon.

Availability of clinical records/results

With increased emphasis on access to personal information in society in general, there is a growing demand from patients to have access to their clinical records on demand. Furthermore, if patients are to be more actively involved in their treatment they need to be fully aware of records and results in order to make fully informed decisions.

In an increasing number of cases, particularly where disease-modifying anti-rheumatic drugs (DMARDs) including biologic therapies are being used, patients are being asked to keep a personal

diary and to self-report any adverse events that they experience in the course of treatment. In this way patients are becoming an equal partner in producing their own records. There is certainly a trend towards greater patient access to records and results within rheumatology services. Patients are often encouraged to keep monitoring cards on which recent relevant blood tests and drug dosage changes are recorded.

Ethical and religious considerations

Rheumatology departments should consider the potential needs of the local population and may consider the following when planning local services:

- Literature should be provided in other languages and alternative formats. The Birmingham Arthritis Resource Centre has audio information available to borrow in Gujarati, Bengali, Punjabi, Urdu, Arabic and Chinese. They can be contacted by telephone on 0121 464 2708.
- Local support groups and services that may be able to provide additional advice and support for people from different ethnic groups should be explored.
- A translator may be needed when a diagnosis is given and decisions about treatment are being made. Different trusts will have different local arrangements for providing this support.
- Female patients may wish to be seen by a female doctor for ethical or religious reasons and to have access to chaperones when requested.
- Services should aim to allow patients to uphold their religious beliefs, keep religious festivals, holy days or follow rituals of prayer. Some examples of this might be a flexible appointments system or allowing patients to express a preference to see a female consultant where possible. The new system of electronic booking may well introduce this flexibility.

Access to information

Voluntary organisations working across the UK with and for people with arthritis produce a wide range of patient literature on arthritis and other musculoskeletal conditions, and related topics such as independent living, diet and exercise. The arc and Arthritis Care regularly produce information of a consistently high quality which is easily digestible.

The arc publishes over 80 booklets, leaflets and information sheets about arthritis. Medical practitioners, hospital departments or GP surgeries can order large quantities of educational material and, as part of arc's commitment to raising awareness and educating the public and medical profession about rheumatic diseases, all their medical and patient literature is available free of charge. Orders can be placed via their website (www.arc.org.uk). Patients can also order their own literature via the site free of charge.

Arthritis Care, the UK's largest voluntary sector organisation working with and for people with arthritis, also produces a wide range of patient information booklets, many of which have won British Medical Association Patient Information Awards. Patients can order free of charge via their website (www.arthritiscare.org.uk).

Patients should be informed of the potential advantages and disadvantages of searching the Internet for general research and information on their condition, particularly at the early stages of diagnosis, as some of the unsolicited information may not be helpful. Members of the rheumatology team should guide patients to websites of trusted organisations such as those above.

Opportunities for education

Arthritis Care offers a range of courses to people with arthritis and musculoskeletal conditions. These include a popular course called ‘Challenging arthritis’ which promotes independence and taking control of arthritis, and was used by the Department of Health (DH) as a model for their expert patient programme. Personal development courses, courses specifically aimed at young people, and an arthritis awareness course for employers are also available. Details of their local arthritis care groups and courses in their area can be found via the website (www.arthritiscare.org.uk).

The DH’s new expert patient programme brings together the valuable work of patients and clinical organisations in developing self-management initiatives. More than half of the primary care trusts (PCTs) in England are now either actively implementing the expert patient programme or have committed to joining in the near future. Initial pilot groups set up between 2001–2004 will be extensively evaluated and the programme will then be mainstreamed and rolled out across the NHS between 2004–2007.

Supporting patients to manage their condition

People who have a chronic condition of any kind may experience similar issues. Fatigue and depression are often strongly linked to chronic conditions and, unlike other symptoms, are often invisible. Patients may deal with the diagnosis and day-to-day experience of managing their conditions in different ways, and rheumatology departments may provide access to counselling services where appropriate and available.

Voluntary sector organisations such as Arthritis Care provide information and support for patients via their helpline or via email: help@arthritiscare.org.uk, and through local group activities and membership schemes. They also run specific information and support services for young people. Other disease-specific organisations such as the National Rheumatoid Arthritis Society, National Osteoporosis Society and Lupus UK provide useful resources, membership schemes, information helplines and informative websites.

The role of the carer

The care arrangements that are in place for a person with arthritis or other musculoskeletal conditions vary significantly between individuals. Care and support at home can range from the help of a friend, partner or child to professional care that is paid for by the individual or provided by local social services.

Members of the rheumatology MDT involved in making decisions about an individual’s treatment will need to know about arrangements at home and will take great care to respect the individual’s feelings. There are related issues of professional ethics and confidentiality and any involvement that a relative or friend has in a patient’s treatment should be based firmly on the wishes of the patient.

Carers who provide day-to-day support for somebody with arthritis or another musculoskeletal condition may benefit greatly from knowing more about the condition and may need some support themselves. Again, voluntary sector organisations may be able to offer free information and support. Carers UK, a UK wide organisation offering support to carers, can be contacted via their website (www.carersonline.org.uk). The Arthritis Care booklet *Reaching independence* also offers useful advice.

iv Interspecialty and interdisciplinary liaison

The rheumatology specialty has embraced the concept that in order to provide the best standards of care for patients' needs, access to a MDT must be made available. Also, as some musculoskeletal conditions require treatment and management outside the rheumatology department, effective interspecialty working relationships are essential, for example between rheumatologists and orthopaedic surgeons. In several areas acute back pain services have been established, often run by a physiotherapist working closely with medical and surgical backup, resulting in rapid access for patients and reduced surgical spinal outpatient waiting lists.

The provision of dedicated rheumatology practitioners is becoming ever more important. In many units specialist rheumatology nurse practitioners are an important link between the patient and primary and secondary care. They are key to ensuring that patients are made aware of the range of services available locally and helping them to make considered decisions about treatment options. They also manage their own patient caseload, run management and education clinics, and perform joint injections.

General practitioners with special interests (GPSIs) also usually work as part of a MDT which aims to provide an integrated service spanning primary and secondary care. Practitioners working in isolation, unsupported by a clinical team, pose a potential clinical governance risk. It is the responsibility of the local rheumatologists, hospital trusts and PCTs to ensure that practitioners with special interests working within the clinical service have appropriate training and experience, evidence of continuing professional development (CPD) in their specialist area, and adequate clinical facilities and support. As with all practitioners, robust and transparent procedures for clinical governance, audit, evaluation and accountability are essential.

v Delivering a high quality service

Characteristics of a high quality service

In conjunction with several users of services, the ARMA has identified certain basic principles and characteristics that are necessary to provide a high quality patient-centred rheumatology service. These form the basis of the ARMA Standards of Care project.⁶

- Access to services is fundamental. Rheumatology services should offer access to consistently high quality and prompt services across the country without any postcode limitations. All patients should have access to services and receive treatment and care on the basis of need. All services should be fully physically accessible and should be located and designed appropriately for people with a range of mobility impairments. Patients with musculoskeletal conditions should receive early assessment and diagnosis from an appropriately trained specialist (usually a rheumatologist) as well as speedy access to appropriate treatments and services. Patients should have rapid access to appropriate healthcare professionals for further management.
- Access to high quality information for people with musculoskeletal conditions is a key priority. People should have access to information on health conditions, treatments and their potential side effects, support services and signposting, for example helplines for further information and support at all stages of care.
- Of crucial importance in the delivery of high quality services is the principle that services should be centred on the needs of users. All healthcare services should be designed to improve quality of life, preserve independence, limit the impact of the condition on a person's

work and/or daily activities, and empower people with musculoskeletal conditions to manage their condition effectively. In order to enhance continuity of care, people with musculoskeletal conditions should be able to see the same healthcare professionals wherever possible.

- People with musculoskeletal conditions should be regarded as equal partners in decision making regarding their own healthcare options. People should have access to local user-led self-management training courses and support networks or self-help groups.

Basic resources required for a high quality service

In order to provide a high quality patient-centred service there are several resources which rheumatology services should offer:

Outpatient facilities

- All services should have appropriate access including disabled parking and 'drop-off' points, appropriate disabled seating and toilets, and a suitable waiting area for patients.
- There should be sufficient consulting rooms and examination rooms and a clean area should be available for procedures such as epidurals and joint injections.
- When necessary, nursing assistance should be available to help with procedures such as intra-articular injections.
- Where local arrangements include drug-monitoring clinics they may be undertaken by an appropriately trained nurse or other healthcare professional with specialist rheumatology expertise.
- There should be an adequate booking system for outpatient appointments, flexible enough to allow for fluctuations in doctor availability and adequate for both urgent and long-term appointments.
- Some units provide day case facilities in rheumatology departments. These can provide facilities for many patients requiring lengthy treatments that may include intravenous infusions and joint injections. These units allow patients to have their treatment administered in a more relaxed and friendly environment away from the hospital ward or rheumatology outpatient department.
- Changes in clinical practice, patient expectation and financial pressures have resulted in a trend for care to be provided in outpatients. This means that more patients with severe complicated disorders are being managed as outpatients, and procedures such as joint injections and epidurals are usually undertaken on an outpatient basis. Provision of patient information is very important to any rheumatology service and should be readily available. There is an increasing quantity of patient literature available from the *arc*, Arthritis Care and other specialist societies. Addresses and contact numbers of useful support groups and information on social security should also be provided. Patients should be given written instructions on how to manage their conditions.
- Referral to departments of physiotherapy, occupational therapy, appliances and orthotics, chiropody and social work should be straightforward. Patients should be able to have blood tests and X-rays at the time of their outpatient visit. Haematology, biochemistry, immunology and microbiology services are needed. Facilities for electrophysical tests should be available. Polarising light microscopy must be available, either within the department or in one or other

of the laboratory services. Convenient and speedy mechanisms for cross-referral to other specialties, in particular orthopaedics, should be available. Many rheumatologists also run combined clinics with orthopaedic surgeons, respiratory physicians, renal physicians and paediatricians.

- A rheumatology service should provide appropriate imaging facilities including access to a magnetic resonance imaging (MRI) scanner and a computed tomography (CT) scanner, facilities for isotope bone scans and bone densitometry.
- Departments should provide means whereby professional (but non-medical) advice can be given to patients or carers by telephone, usually by an experienced senior nurse trained in telephone helpline work. This may be provided on an answerphone basis or by direct telephone access at set times.
- The need for close liaison between primary care teams and secondary care teams has become more important as shared care of patients on second line or cytotoxic and biologic therapies is now accepted practice. A senior liaison nurse is most useful in supporting non-specialist groups with telephone helplines, visits to surgery and ensuring printed protocols and record cards are provided. BSR guidelines on the monitoring of people on DMARDs might be provided to GPs to ensure uniformity of monitoring standards and to help the primary care team in the management of these patients. The new General Medical Services GP contract determines that 'near patient testing' may impact on systems of drug monitoring in place locally.

Inpatient facilities

- Many patients with rheumatoid arthritis or connective tissue disorders will require inpatient care as a direct consequence of their disease or its treatment at some stage. Medical care during admission should involve, and usually be directed by, the rheumatologist.
- Inpatient facilities (including items such as cutlery and bedding) should be appropriate for patients with all levels of physical disability. Self-medication, which empowers patients to retain control of their treatment whilst allowing education regarding the action and side effects of their drugs should be encouraged.

Staffing support

- Consultant rheumatologists should not work in isolation and should have access to appropriate support staff including specialist practitioners. The availability of TNF α for rheumatoid arthritis has made this need for adequate support from nursing and administrative staff even more important, due to the time involved in administering the drugs and in the paperwork for registering patients and providing follow-up data for the BSRBR. Therefore, the BSR has published a set of business cases for the funding of TNF α in order that rheumatologists can put forward cases for adequate resources.
- A rheumatology department should have dedicated physiotherapy and occupational therapy sessional time and access to hydrotherapy.
- A rheumatology department must have access to adequate secretarial staff of sufficient experience and grade to be able to deal with patient enquiries and to arrange appointments. A rheumatology service follows a large number of patients over a long period of time, many of whom may require urgent specialist access between appointments. Secretarial and medical records staff have important roles in coordinating this care.

Innovative approaches in rheumatology practice

There are many examples of good practice in rheumatology services across the country. Many areas have developed priority and referral guidelines for common musculoskeletal conditions. These guidelines form the basis of electronic bookings, which are now available for some rheumatology, physiotherapy and bone densitometry referrals and will be introduced nationally for all referrals by 2005. These fully booked appointments, made at the time of GP consultation and decision to refer, may increase patient choice and satisfaction by giving patients the opportunity to choose when and at what time to attend appointments and also increase efficiency of hospital resources.

Many units now run a rheumatology advice service for GPs and patients about the management of musculoskeletal conditions. GPs can be empowered to manage rheumatological conditions in primary care. Therefore, the patient gets the treatment they need from their GP quickly and without having to be unnecessarily referred to secondary care, avoiding lengthy waiting lists.

vi Quality standards and measures of the quality of specialist services*Specialist society guidelines*

The BSR commissions and produces its own clinical guidelines which are published under the publications, guidelines and library section of the BSR website (www.rheumatology.org.uk). The BSR standards, guidelines and audit working group looks at existing guidelines and assesses whether they need to be updated. The working group also commissions new guidelines for treatments and therapies for arthritis and other musculoskeletal conditions. All new BSR guidelines have to be auditable. Examples of current BSR guidance are biologic therapies for rheumatoid arthritis, monitoring of second line drugs, and epidural steroids for spinal pain. BSR guidelines are all measured against the Appraisal of Guidelines research and Evaluation (AGREE) standard.

Following the issuing of NICE guidance on anti-TNF α for people with rheumatoid arthritis, many rheumatologists have experienced difficulty in obtaining appropriate funding for patients who fulfil the criteria for treatment.⁷ Although there is an obligation for trusts and PCTs to fund compounds approved by NICE, in practice funding remains difficult, particularly for administrative and nursing support in administering therapy. The set of business cases produced by the BSR can help rheumatologists secure the necessary funding. These can be found on the BSR website.

Several patient organisations produce excellent literature intended for people with arthritis and musculoskeletal conditions. Please see section iii for further details.

National Institute for Clinical Excellence guidelines

The BSR has been actively involved in producing submissions for several NICE technology appraisals. On a number of occasions BSR has adopted a successful joint working approach with the ARMA and its members in order to give a balanced submission response from the whole arthritis community. BSR also works closely with the College on NICE appraisals. Previous NICE appraisal topics which the BSR has had involvement with include cox II inhibitors for osteoarthritis and rheumatoid arthritis; etanercept and infliximab for rheumatoid arthritis; and anakinra for rheumatoid arthritis. The BSR is also currently contributing to the NICE guideline on osteoporosis. Some of BSR's previous submissions to NICE appraisals can be found on the BSR website under the policy and campaigns section (www.rheumatology.org.uk).

ARMA Standards of Care project

The BSR is contributing to the ARMA Standards of Care project which aims to identify reasonable expectations of care and services for all people with musculoskeletal conditions, including access to quality services for all people with musculoskeletal conditions, timely diagnosis and treatment, information, services which are centred on the needs of users, independence and self-determination.⁶

CLINICAL WORK AND/OR LABORATORY WORK OF CONSULTANTS IN RHEUMATOLOGY

Contributions made to acute medicine

As part of the hospital acute physician team, 16% of consultant rheumatologists practise GIM. The BSR, in reference to potential conflict between specialty care (largely outpatient) and general medicine (largely inpatient), maintains that no single-handed consultant rheumatologist should be expected to do GIM. This negotiation will become part of the new consultant contract arrangements.

2003 consultant contract

Consultants opting for the new consultant contract will have negotiated contractual work plans. In many cases, year one negotiations have not run smoothly and the BSR has produced guidance and examples of job templates to facilitate this process for year two arrangements (2005 negotiations). This advice and job plan guidance is not designed to be comprehensive and rheumatologists have also been referred to the DH job-planning guidelines available on the DH website (www.dh.gov.uk/Home/fs/en uk).

Job plan examples are available from the BSR for the work of a full-time consultant with GIM, without GIM, and for those in research.

Sessions of four hours previously considered to be a notional half day (NHD) are now known as programmed activities (PAs). Job plans are based on a template of 10 PAs together with allowances for predictable on-call work.

Where the physician also has a general medical commitment and participates in the on-take rota with post-take rounds, the number of clinics is usually reduced accordingly. Undergraduate and postgraduate teaching or supervision of specialist registrars (SpRs) will also reduce the number of patients seen by the consultant in a clinic.

Direct clinical care

Outpatient work

Workload figures are based on recommendations of best practice from the BSR.

A full-time consultant rheumatologist would be expected to undertake four to five clinics weekly and those performing GIM up to four. These would include routine and special clinics and activities such as combined clinics with orthopaedic surgeons or paediatricians. The exact number will depend on other duties, the geography of the service (eg split sites), responsibility for a rehabilitation unit and administrative duties.

Ideally, 30 minutes should be allocated for a new patient and 10–15 minutes for a follow-up appointment. If junior staff are shared with general medicine then they may be absent from clinics depending on their on-call rota and clinic structure. Numbers booked will need to take this into account.

Numbers of patients

New patients It is suggested that six to seven new patients should be booked into a clinic for a single consultant. Five of these patients would be routine or soon bookings, with one always held for urgent cases. The optimum number depends on casemix.

Review clinics 10–15 review patients is considered a reasonable load for a single-handed consultant depending on casemix.

Mixed clinics One new patient takes the time of two review patients, depending to an extent on casemix.

The impact of additional staff in a rheumatology clinic Junior staff see fewer patients than a consultant, who must also oversee their work. It is recommended that for each GP clinical assistant, senior house officer (SHO) or SpR, the number of additional patients booked per clinic should be as follows:

	New patients	or Review patients
GP clinical assistant	3–4 extra	or 7–10 extra
SHO/SpR	2 extra	or 7 extra
Experienced SpR	4 extra	or 10 extra

This is to allow time for supervision by the consultant.

When a rheumatology specialist practitioner (nurse, physiotherapist or occupational therapist) is present and can undertake monitoring or some procedures, a consultant can see more patients.

The impact of teaching in outpatient clinics

To allow for teaching in a clinic there should be about 25% fewer patients.

Inpatient work

Time should be allowed for day case work and for the small number of patients who are admitted acutely ill with rheumatological conditions due to complications of such conditions or their treatment.

On-call work

Many large rheumatology departments have their own consultant on-call rota. This is essential if the trainees have on-call commitments. Even where consultant rheumatologists have no acute general medical responsibility there are rheumatology emergencies. Some may be dealt with by the acute on-call team but consultant rheumatologist advice should always be available. Providing an emergency opinion service to A&E departments may also be an appropriate on-call activity.

Work to maintain and improve the quality of care

This work encompasses duties in clinical governance, professional self-regulation, CPD, education, appraisal and training of others.

Service developments that deliver improved care

Rheumatology services have evolved in recent years to operate around a patient-centred model of providing treatment and care. Developments include specialist nurse-led clinics, back pain services, the introduction of dedicated rheumatology day units, physiotherapy triage systems and combined clinics with orthopaedics.

Leadership role and the introduction of service developments

Rheumatologists have a responsibility to develop and guide the MDT; to hold team meetings; plan service developments; and introduce new treatments and management plans as they are developed. Rheumatologists frequently have major roles in medical management within their trusts.

Education and training

Rheumatologists are often involved in the formal training of undergraduate medical students and postgraduate medical doctors. Specialist registrar rotations require a structured curriculum-based training programme and such programmes are in place for hospitals involved in this training process.

Opportunities for education and training are widespread in the rheumatology specialty. The BSR has an education and training committee and the arc an education subcommittee. The BSR holds an annual meeting usually attended by more than 1,400 people. The meeting features a large exhibition, keynote speakers, the latest education updates, and cutting-edge clinical case reports. Abstract presentations report breaking news and the latest scientific advances in the specialty. The most important aspect of the meeting is the opportunity for people working in the field to communicate and learn about the latest developments in rheumatology. The BSR also offers several education courses across the year for health professionals working in the rheumatology specialty. All of these courses and meetings are important in providing opportunities for CME.

Mentoring and appraisal of medical staff and other professional staff

Within the specialty, appraisal follows individual trust requirements and is often carried out within clinical disciplines, for example doctors appraised by doctors and nurses by nurses, or within departments. Given the multidisciplinary nature of the rheumatology team, there may be an interest in introducing 360-degree multidisciplinary appraisal but, as yet, there are no national models for this approach. The BSR has also developed a peer review scheme which operates at a local and regional level between hospital and community trusts.

Clinical governance

Specialists in rheumatology aim to offer patients high quality patient-centred care for their individual clinical needs. Systems for clinical governance vary between trusts and are increasingly likely to become based on best practice as defined by ARMA standards of care and BSR guidelines.

Research – clinical studies and basic science

Research within the specialty occurs both within academic institutions and in rheumatology departments within district hospitals. Rheumatology research may be funded by grants for national bodies, for example arc/Medical Research Council, or through the NHS research and development programme. The specialty is developing a range of nationally recognised programmes to attract DH research and development funding. Developments in research include the BSRBR which was set up to monitor the long-term safety of people taking biologic agents for musculoskeletal conditions.

Regional and national work

The BSR has set up several regional groups across the UK, with the aim of meeting to consider local issues and sharing good practice. The BSR has developed an effective working relationship with the College, including representation on its joint specialty committee for rheumatology. The rheumatology community is developing effective links with parliament and the DH, and regularly responds to NICE appraisal consultations and other consultations from the DH and associated bodies such as the Commission for Healthcare Audit and Inspection (CHAI). The BSR has a very active external relations department.

ACADEMIC MEDICINE

Rheumatology has an active research base with many flourishing academic departments throughout the UK. These departments are often associated with departments of immunology and/or pathology. International recognition of the UK's contribution in this area has come in the form of the Albert Lasker prize to Professors Feldmann and Maini based at the Kennedy Institute, Imperial College London.

It is vital to maintain a flow of clinicians who can bridge the gap between the laboratory bench and the clinic, and one must be mindful of the need to establish conditions which facilitate both good clinical training and the acquisition of laboratory skills.

Clinical contribution to the NHS

Nearly all academic rheumatologists in the UK provide support for their clinical colleagues in the NHS, undertaking both outpatient clinics and providing some ward cover. This contribution is important and likely to continue but it is also essential that an academic rheumatologist is not overwhelmed by NHS commitments.

Teaching

Academic rheumatologists often play the lead in organising undergraduate and or postgraduate teaching of rheumatology within individual medical schools. This effort is clearly vital in terms of providing undergraduate students with a good grounding in diseases of the musculoskeletal system and in encouraging an academic approach to this important subject. Likewise, postgraduate students need to be inspired by their academic teachers and encouraged to continue their career in musculoskeletal research.

Research

It is only through a more profound understanding of the aetiopathogenesis of musculoskeletal disease that we will ultimately develop more specific forms of therapy with fewer side effects. Thus, a key role for the academic rheumatologist is to develop programmes of research into the causes, methods of assessment and therapies of musculoskeletal disease. The UK has a number of outstanding academic units with international research reputations.

Other academic duties

Most academic rheumatologists serve on a variety of committees, both NHS and more overtly academic. These range from clinical and/or research governance committees at a local level to national research committees such as those run by the arc or the Wellcome Trust.

WORKFORCE REQUIREMENTS FOR RHEUMATOLOGY

Consultant programmed activities required to provide a service in rheumatology for a population of 250,000

The consultant requirement, measured as the number of PAs, needed to provide a service depends on the volume of inpatient and outpatient work. The figures below are based on an epidemiological needs-based assessment of the number of incident and prevalent cases of musculoskeletal conditions likely to present to primary care, and the proportion of these cases who would benefit from assessment, treatment and follow-up in secondary care.⁸ The assessment is based on providing services to adults (aged 16 and over) in a total population of 250,000.

Cases seen by rheumatologists can be broadly divided into four main categories: inflammatory disorders of joints and connective tissues; osteoarthritis; back pain; and other regional and widespread pain syndromes (soft tissue rheumatism).

The following assumptions were made:

- 90% of incident cases of inflammatory disorders should be referred to a rheumatologist.
- 60% of prevalent cases should be under hospital review 2.5 times per year on average.
- Of the 40% of prevalent cases not under regular review, 10% would be referred as new cases each year.
- 5% of incident cases of osteoarthritis would be referred for rheumatology assessment.
- 2.5% of prevalent cases of osteoarthritis would be referred for assessment each year.
- 70% of new patient referrals would be seen on one further occasion.
- 5% of those aged under 45 and 10% of those aged over 45 with incident back pain would be referred to secondary care.
- Of those referred to secondary care, 75% would see a rheumatologist.
- Of those seen by a rheumatologist, 50% would have one further appointment.
- 7% of those with incident regional or widespread pain would be referred to a rheumatologist.
- 50% of those referred would be seen on one further occasion.

Based on these assumptions a population of 250,000 would generate the following workload per annum:

	New cases	Follow-up cases
Inflammatory disorders	84	2,190
Osteoarthritis	502	351
Back pain (including osteoporosis)	500	250
Regional and widespread pain	657	328
Total	1,743	3,119

If we assume that a consultant can see six new or 12 follow-up patients per clinic (as described above) then this volume of outpatient work equates to 551 clinics per year. If we assume that a consultant provides four and a half clinics a week for 44 weeks per year then one consultant can provide 198 clinics per year. Thus, a population of 250,000 requires 2.8 whole time equivalent (WTE) consultants. This equates to one consultant per 90,000 population.

According to the database held by the arc Epidemiology Research Unit at the University of Manchester, there were 469 consultants with a commitment to rheumatology in England and Wales as at 1 September 2003. Based on the latest population estimate for England and Wales of 52,455,000 this is equivalent to one rheumatologist per 111,844 of the population.⁹ The majority of consultants with a commitment to rheumatology practise whole-time. However, approximately 16% of consultant rheumatologists also have a commitment to general medicine and 9% have a commitment to rehabilitation. There are 50 academic posts. Assuming that maximum part-time consultants work full-time, and allowing for part-time consultants and for sessional commitments to academic work, general medicine or rehabilitation, there are 365 WTEs in rheumatology in England and Wales, equivalent to one per 143,712 of the population. This represents a 10% increase in WTEs since 2001.¹⁰

To achieve one WTE consultant rheumatologist per 90,000 population would require a total of 583 consultants. On the basis of the current figure of 365 WTEs in England and Wales, there is currently a shortfall of 217 as at 1 September 2003.

CONSULTANT WORK PROGRAMME/SPECIMEN JOB PLANS

Rheumatologist with GIM

Activity	Workload	Programmed activities (PAs)
Direct clinical care	3–4 outpatient clinics and associated administration (1.25 PAs per clinic)	3.75–5
	2 GIM and specialty ward rounds	2
	Patient-related administration, relatives and contact	0.5–1
On call	Peri and post take ward rounds weekdays and weekends – predictable and unpredictable – (1:8)	1–2
Total number of direct clinical care PAs		7.5 on average
Supporting professional activities (SPA)		
Work to maintain and improve the quality of healthcare	Education and training, appraisal, departmental management and service development, audit and clinical governance, CPD and revalidation, research	2.5 on average
Other NHS responsibilities	eg medical director/clinical director/lead consultant in specialty/clinical tutor	Local agreement with trust
External duties	eg work for deaneries/Royal Colleges/specialist societies/Department of Health or other government bodies etc	Local agreement with trust

Rheumatologist without GIM; on-call rheumatology rota

Activity	Workload	Programmed activities (PAs)
Direct clinical care	3–5 outpatient clinics and associated administration (1.25 PAs per clinic)	3.75–6.25
	Ward round, inpatient referrals and MDT	1
	Monthly combined clinic with orthopaedics	0.25
	Patient-related administration	0.5–1
On call	Annualised on call – predictable and unpredictable	0.5
Total number of direct clinical care PAs		7.5 on average
Supporting professional activities (SPA)		
Work to maintain and improve the quality of healthcare	Education and training, appraisal, departmental management and service development, audit and clinical governance, CPD and revalidation, research	2.5 on average
Other NHS responsibilities	eg medical director/clinical director/lead consultant in specialty/clinical tutor	Local agreement with trust
External duties	eg work for deaneries/Royal Colleges/specialist societies/Department of Health or other government bodies etc	Local agreement with trust

Full-time academic clinical rheumatologist; on-call rheumatology rota

Activity	Workload	Programmed activities (PAs)
Direct clinical care – acute trust	Specialist patient clinics plus associated administration	1.25–2.5
	1 ward round and inpatient referrals	1.0–1.5
On call	Annualised on call predictable and unpredictable on rheumatology rota	0.5
Total number of direct clinical care PAs		3.5 on average
Research academic sessions – university	6 full academic sessions	5–6
Supporting professional activities (SPA)		
Work to maintain and improve the quality of healthcare	Education and training, appraisal, departmental management and service development, audit and clinical governance, CPD and revalidation, research	1.5 on average
Other NHS responsibilities	eg medical director/clinical director/lead consultant in specialty/clinical tutor	Local agreement with trust
External duties	eg work for deaneries/Royal Colleges/specialist societies/Department of Health or other government bodies etc	Local agreement with trust

References

- McCormick A, Fleming D, Charlton J. *Morbidity statistics from general practice, fourth national study 1991–1992*. RCGP 1991 statistics applied to year 2000 population. London: HMSO, 1995.
- Arthritis Research Campaign. *Arthritis: the big picture*. Derbyshire: arc, 2002.
- NHS Modernisation Agency. *Improving orthopedic services: a guide for clinicians, managers and service commissioners*. London: Action on orthopedics and the orthopedic services collaborative, December 2002. www.modern.nhs.uk/action-on
- Data from the British Society for Rheumatology/Arthritis Research Campaign consultant workforce register, 2003.
- Department of Health. *The expert patient: a new approach to chronic disease management for the 21st century*. London: DH, 2001.
- Arthritis and Musculoskeletal Alliance. *Standards of care for people with back pain; Standards of care for people with inflammatory arthritis; Standards of care for people with osteoarthritis*. London: ARMA, 2004.
- National institute for Clinical Excellence. *Guidance on the use of etanercept and infliximab for the treatment of rheumatoid arthritis*, March 2002. www.nice.org.uk/page.aspx?o=35993
- Symmons D, Asten P, McNally R, Webb R. *Healthcare needs assessment for the musculoskeletal diseases*. 2nd edition. Derbyshire: Arthritis Research Campaign, 2002.
- Office for National Statistics. *Health statistics quarterly*. Winter 2003. London: TSO, 2003.
- Turner G, Symmons D, Bamji A, Palferman T. Consultant rheumatology workforce in the UK: changing patterns of provision 1997–2001. *Rheumatology* 2002;41(6):680–684.