



Standards of Care
for people with

Musculoskeletal Foot Health Problems

A document setting out standards of care
for foot health services for people with
musculoskeletal and rheumatological conditions
managed in community and hospital settings



Generic foot health

Inflammatory arthritis

Osteoarthritis

Back pain

Metabolic bone diseases

Connective tissue diseases

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These Standards were developed in consultation with the following professional and service user organisations.

- Arthritis Care
- Arthritis Research Campaign
- Arthritis and Musculoskeletal Alliance
- BackCare
- British Orthopaedic Foot & Ankle Society
- British Society for Rheumatology
- Chartered Society of Physiotherapy
- College of Occupational Therapists
- Ehlers Danlos Support Group
- National Osteoporosis Society
- National Rheumatoid Arthritis Society
- Northwest Podiatry Services Clinical Effectiveness Group (Rheumatology)
- Podiatry Rheumatic Care Association
- Primary Care Rheumatology Society
- Royal College of Nursing Rheumatology Forum
- Raynaud's & Scleroderma Association
- Scleroderma Society
- The Society of Chiroprodists and Podiatrists

The Steering Group would like to acknowledge the Northwest Podiatry Services Clinical Effectiveness Group (Rheumatology) for their initial work on standards of care for foot health services, and also the chairs of the Working and Steering Groups of the ARMA Standards of Care Strategy Group for their contribution and endorsement.

Foot health services and musculoskeletal diseases

Foot health services in the UK available to people with musculoskeletal problems lack consistency and integration. Only half of all rheumatology departments report adequate basic foot care services for their patients and fewer than 1 in 10 have formal care pathways or mechanisms for referral to foot care services.¹ Aspects of foot care can be provided by a range of disciplines including consultants, medical trainees, general practitioners, nurses, orthotists, physiotherapists, occupational therapists and others, in addition to the obvious role of podiatrists. It is important that all members of the musculoskeletal care team understand the foot health needs of their patients, and are able to play their part in ensuring that people with musculoskeletal conditions are able to access the appropriate services.

People with musculoskeletal conditions often present with complex needs, and it is easy for foot health problems to be overlooked. Assessment of the feet is not as straightforward as assessment of more accessible parts of the body, and foot examination may be considered awkward by some. Where a foot assessment is performed, the management of foot problems is sometimes not well understood.² Furthermore, many treatments for foot problems are supported by relatively weak evidence. The end result of this uncertainty and inconsistency is that foot problems in the musculoskeletal community are often neglected, and services providing for them relegated to Cinderella status.

“... problems of the foot and ankle are the Cinderella of the rheumatoid world”³

The purpose of this standards document is to provide a benchmark by which foot health service standards may be evaluated by all stakeholders. A series of standard statements are presented that encompass the entirety of musculoskeletal foot health service provision supported by evidence-based justification and suggestions for foot health service configuration and implementation. These standards have been arrived at by consultation and consensus of the UK musculoskeletal, foot health and service user community. These statements describe specific standards, the achievement of which will result in services that genuinely meet the varied needs of the musculoskeletal community. The standards are directed toward all those involved in planning, delivering and receiving foot care and provide clarification of roles and responsibilities. Best practice examples are provided throughout to illustrate how these standards may be put into practice.

This standards document is supported by an implementation package, available on-line at www.prcassoc.org.uk/standards-project which includes educational materials, further examples of good practice, and suggested systems that might improve the delivery of foot care. We know that all those involved in providing foot care for the musculoskeletal community welcome improved knowledge and skills, and will recognise the benefits that come from developing better assessment and treatment processes.

The standards reflect the fact that foot health needs in the musculoskeletal community are many and varied, and that the mechanisms for addressing these myriad needs should reflect this diversity. The standards cover the complex needs of people who require dedicated, hospital-based specialist foot care services, as well as those requiring more generic community based care or improved social support.

Nearly 90% of people with rheumatoid arthritis were found to have a foot pathology, whilst only 40% had access to foot care services.⁴

How big is the problem?

Foot problems are extremely common in the musculoskeletal community. In the general population, between 20% and 24% of adults report having had an episode of foot pain in the past month, and 60% in the past 6 months.⁹ These figures are higher still in people with musculoskeletal problems. The prevalence of foot problems increases steadily with age and is also gender-biased, being five times higher in females than males.¹⁰

Despite the high prevalence of foot pain in people with musculoskeletal disorders, foot problems are often trivialised, especially when co-existing with other musculoskeletal morbidity, such as knee or hip pain.^{6,8,11,12} This is despite ample evidence that foot pain, either alone or as a co-morbidity, contributes significantly to disability.¹³⁻¹⁵

Problems in the foot may be either primary, for example those arising directly from joint/soft tissue disease such as rheumatoid arthritis, or may be secondary to change in structure or function where musculoskeletal conditions lead indirectly to an increase in the prevalence or severity of associated conditions. Plantar callosities occur in 66% of people with musculoskeletal/ connective tissue disease, digital corns/callus in 24% and ulcerations in 17%¹⁶

People with musculoskeletal problems and otherwise healthy feet may also develop difficulties because they cannot reach and/or bend to attend to routine foot care needs. The requirement to provide supplemental routine foot care to those who cannot provide their own is often overlooked in this population.

Anecdotal reports suggest a gap between the need for foot health services in the rheumatology clinic population and the provision of these straightforward and relatively low-cost services in the UK. In the general population, only one quarter of those needing foot health services have adequate access provided by NHS services, and between 30 and 40% of people who need access to foot care services simply do not have services available to them from any source, private or public.^{9,17,18} The inequity in foot health provision to patients with rheumatic disorders has been noted by rheumatologists, orthopaedic surgeons and podiatrists alike.¹⁸⁻²⁰ Expertise in dealing with foot problems is often limited among rheumatologists, and it has been argued that better integration of foot health services into rheumatology would be beneficial.²

What are the risk factors for foot health problems?

The triggers for musculoskeletal foot disorders are the same risk factors shared with all musculoskeletal conditions. The main factors are.⁵⁻⁸

- Age (the older you are, the more likely you are to develop musculoskeletal foot health problems)
- Other disorders (e.g. diabetes)
- Local mechanical or anatomical factors
- Activity
- Footwear and other environmental factors
- Diet
- Smoking

Document Organisation

This standards document is divided into two sections:

- Section 1: Generic Foot Health Standards – these are the standards of foot health care that everyone with musculoskeletal foot health problems should be able to expect.
- Section 2: Disease-Specific Foot Health Standards – these are supplementary standards that are unique to those with specific musculoskeletal conditions.

Section 1 is divided into four sections:

- Standards to improve access to effective services
- Standards to improve access to services that enable early diagnosis
- Standards to improve access to services that enable ongoing management
- Standards to improve access to services that enable ongoing support

Section 2 is divided into five disease-specific sections that map onto the Arthritis and Musculoskeletal Alliance (ARMA) standards of care:

- Standards for people with foot health problems and inflammatory arthritis
- Standards for people with foot health problems and osteoarthritis
- Standards for people with foot health problems and back pain
- Standards for people with foot health problems and metabolic bone disease
- Standards for people with foot health problems and connective tissue disorders

Key principles – the user-centred approach

This project has been driven by the needs of people living with musculoskeletal foot health problems, and has thus adopted the same guiding principles for care developed by ARMA. These principles have underpinned the development of each of the standard statements. The key principles, which can be found on ARMA's website www.arma.uk.net, affirm that 'patients' are individuals who need different types of advice and support at different times; and who need integrated services providing advice and support that cover all aspects of managing and living with the condition – clinical, personal, social and employment/education.

The standards are deliberately user centred or 'patient facing', which means that the recommendations relate to the needs of people with musculoskeletal foot health problems rather than the way in which services should be configured. The standards acknowledge the fact that those planning and delivering foot health services around the UK face differing demographic, geographic and economic factors which will affect how the standards are implemented in each locality. Thus, the standards are not treatment guidelines or algorithms of care, though they refer to these where available. The standards have been written with careful consideration of current health policy and so complement this patient facing approach with an underpinning philosophy that encourages empowered self-care, patient involvement in service design, tailoring of services to patients' needs, promotion of informed choice and timely and appropriate access to services where needed.

Each section is followed by a detailed rationale which sets out the evidence for the standard statements. Although the standard statements themselves relate to the needs of users not providers, Key interventions are also provided to indicate what services might be appropriate,



and to suggest ways of providing them effectively. Examples of good practice are also provided throughout. A database giving details of these and other examples is available online at www.arma.uk.net and www.prcassoc.org.uk/standards-project.

We hope the Standards will act as a tool for all stakeholders - service users, providers, commissioners and policy-makers - to work together to review and improve their local musculoskeletal foot health services.

How the Standards were developed

The Foot Health Standards of Care for people with musculoskeletal conditions were developed by an expert working group, facilitated by the Podiatry Rheumatic Care Association and funded by the Arthritis Research Campaign. The group included people with a range of musculoskeletal conditions, representatives of user organisations, experienced service providers and experts from many professions from around the UK. Starting with a review of the needs of people with musculoskeletal conditions and foot problems, the group met six times between April 2007 and January 2008 to determine evidence-based standards to meet those needs. Wide and public consultation throughout the development of the document ensured that the document reflects the views of the musculoskeletal community. Contributors to the standards document are listed on page 48.

Clinical experts identified the evidence and references for clinical guidelines for the management of musculoskeletal conditions. Please refer to the references quoted on page 46. Evidence has not been formally graded. The resulting standards are therefore based on the experiences and preferences of people with musculoskeletal conditions, and on evidence and good practice where this is available. The working group plans to review these standards in 2009, or sooner if there are significant developments in any relevant areas.

Next steps

The publication of these standards is the beginning of an ongoing programme involving the entire foot health community to improve musculoskeletal foot health services. We are circulating the Standards widely to people with musculoskeletal foot health problems, podiatrists, doctors, allied health practitioners, providers and commissioners of health services, voluntary organisations and policy makers. Tools to support the standards' implementation are available online at www.prcassoc.org.uk/standards-project. These include audit tools, educational resources and examples of good practice.

We invite all stakeholders to make a commitment to implementing the Standards. First steps might be to:

- audit existing services using the tools provided
- identify champions for change in musculoskeletal foot health services
- set up a working group to develop your local strategy and priorities
- work in partnership with all stakeholders, including national and local voluntary organisations, to involve service users in designing and developing services.

Above all share your success! Tell us about your initiatives; send us examples of good practice; and help to build a national resource for high-quality musculoskeletal foot health service.

1

This section sets out standards of foot health care that are common to everyone with musculoskeletal foot problems. It is divided into four sections:

- Standards to improve access to effective services
- Standards to improve access to services that enable early diagnosis
- Standards to improve access to services that enable ongoing management
- Standards to improve access to services that enable ongoing support

The generic standards set out in Section 1 form a core set that apply to all people with foot health needs associated with all musculoskeletal and rheumatological conditions.

People with specific conditions (such as rheumatoid arthritis) might also have needs over and above those outlined in this section. Standards that are unique to specific diseases are detailed in Section 2, beginning on page 22 under the appropriate subsection. To avoid repetition, the generic standards are not re-stated in each disease-specific subsection of Section 2 but should nevertheless be considered as a core set for each of the specific diseases.

Public health information

Standard 1

Health service providers, in collaboration with other service providers and organisations, e.g. leisure and educational, should make available to the public, robust and reliable information that promotes good musculoskeletal foot health.

Physical access to facilities

Standard 2

Foot health services should endeavour to provide access to health care facilities at times and locations convenient to the needs of service users, and facilitate access for people with disabilities.

Involvement of service users in service development

Standard 3

Healthcare organisations should involve people with musculoskeletal foot health problems in the planning, development and evaluation of foot health services.

Education and training of health professionals

Standard 4a

All relevant members of the primary health care team must understand the diagnosis and management of musculoskeletal foot health problems, including the mechanisms for accessing local foot health services.

Standard 4b

Foot healthcare providers must understand the consequences of systemic disease on the feet, and be able to identify the warning signs that require timely referral to specialist medical care.

The rationale

- Lifestyle changes can reduce the risk of developing foot health problems, alleviate pain and prevent disability. Foot problems may be prevented by weight reduction and by following advice about foot protection when taking part in activities that could lead to joint injury and development of osteoarthritis or other preventable musculoskeletal conditions. Information provided to the general public that emphasises these factors, as well as promoting strengthening exercises, general (aerobic) fitness, weight reduction programmes for the overweight and obese; and appropriate footwear and use of aids (sticks, insoles, braces) would prevent some foot problems from developing.²¹⁻²³
- People with musculoskeletal disorders often have mobility problems which may be exacerbated by their environment, for example, difficulty with climbing stairs,²⁴⁻²⁶ or disease-specific features, such as early morning joint stiffness in rheumatoid arthritis (RA) that requires consideration in scheduling of appointments. Corollary factors may also impact on mobility, such as the extra time taken to perform activities of daily living or fatigue associated with activity.
- The involvement of people with foot problems in the planning and development of services at both local and national level can lead to imaginative solutions, improvements to healthcare services and will help to ensure that services meet the real needs of people with musculoskeletal foot health problems.^{27,28}

- Foot health needs may be met by many members of the musculoskeletal health care team, and all those involved in foot care - not just foot specialists - should have at least a basic knowledge of the foot assessment process, management options, the scope of practice of other professionals and local referral processes. This will expedite more effective and timely assessment of foot problems and improve treatment and referral arrangements.
- Similarly, those in dedicated foot care roles should have adequate training and expertise to enable them to understand the systemic implications of the full range of musculoskeletal conditions that may present in people in their care, and be aware of lines of communication that will enable timely specialist referral where needed.^{2,20,29}

Good Practice Example - A: Innovative Triage

Applying the triage process to manage a podiatry waiting list for rheumatology patients.

Bournemouth & Poole Primary Care Trust, Podiatry Department, Bournemouth, Dorset, UK.

Contacts: Sadie A. Dewson, Specialist Podiatrist, Robert J. Field, Lead Podiatrist (Robert.field@rbch.nhs.uk).

A waiting list of twenty-seven months from referral to the specialist podiatrist working within a hospital based Rheumatology team resulted in the funding of an additional specialist podiatrist post, initially tasked with reviewing and prioritising existing referrals.

A triage system was developed to prioritise patients according to podiatric need and lower limb risk status. Poor prognosis indicators and disease severity for rheumatology condition, medication and co-morbidity (e.g. foot ulcers, immuno-compromise, diabetes) were noted, utilising hospital-based records. Secondary triage based upon telephone interview prioritised those who were identified on paper as having a current 'need' and to confirm other information not evident from patient records.

220 referrals were processed over a four week period. The initial triage process identified 21% of patients who no longer required podiatric intervention. The remaining patients were allocated appointments in relation to priority identified within the triage process:

1. **Urgent:** current foot ulcer; deformity with increased tissue viability concerns; infection
2. **Soon:** foot pain limiting activity; patients receiving anti TNF alpha therapy as part of disease management
3. **Routine:** RA under 4 years onset; foot / ankle pain and / or deformity.

Patients were allocated to podiatry interventions based on this process as follows:

- 3% required self management education
- 54% required specialist podiatrist assessment in Secondary Care plus education
- 43 %required specialist podiatry assessment in Primary Care plus education
- No patients required only community podiatry

Triage contributed significantly to reducing waiting times from 27 months to 5 months. Triage with telephone 'follow-up' is now part of our practice. Continuing service development is in line with ARMA guidelines¹ and other service and policy drivers.

1. ARMA Standards of Care for people with Inflammatory Arthritis 2004

Putting the Standards into practice: key interventions

- i The general public should have access to evidence-based information in a variety of languages and formats that explains:
 - the role of lifestyle or social choices such as physical activity, weight, footwear, footwear suitability and general hygiene on foot health
 - the role of self-management in maintaining foot health
 - awareness of general foot mechanisms and functions
 - how to prevent occupational, leisure and sports injuries such as Achilles tendonitis, plantar fasciitis and tendonopathies
 - the range of health services available to people with musculoskeletal foot health needs
 - the various professions who provide foot health services, the scope of their practice, likely treatments and locations.

This information should be available at a variety of health and non health related outlets, e.g. pharmacies, health centres, sports and leisure facilities, etc.

- ii Foot health providers and other members of the musculoskeletal care team all have a role to play in ensuring the availability of general health information (see Information Box 1). It should be noted however, that people recently diagnosed with a musculoskeletal condition, especially a serious or potentially life-long condition, may be overwhelmed with information about their diagnosis. Education should be introduced selectively, focussing on issues of particular relevance at any given time.

Foot health service providers should be aware of any barriers to access to their facilities for people whose gait is unstable or who walk with assistive devices, and ensure that these barriers are removed. Examples of barriers include stairs, narrow doorways,

Information Box 1: Public Health Information

Arthritis Care is the UK's largest user led organisation working with and for people who have arthritis. They provide a broad range of services including; online and printed information; a confidential helpline; peer support through local branches and online; and self management and personal development programmes. They also campaign for greater awareness of the needs of everyone with arthritis, improved services and an end to discrimination.
www.arthritiscare.org.uk.
Free phone help line: 0808-800-4050.

Arthritis Foundation is an American organisation that provides advocacy, services and research for more than 100 types of arthritis and related conditions.
www.arthritis.org.
Tel: 800-283-7800.

Arthritis Research Campaign (arc) is the 4th largest medical research charity in the UK and the only charity in the UK solely dedicated to investigating the cause, treatment and cure of arthritic conditions. It also provides information on arthritis to people who have the disease, medical students, doctors and allied healthcare professionals. Their website offers a wide range of leaflets about musculoskeletal diseases and links to disease specific websites.
www.arc.org.uk.
Tel: 0870-850-5000.

British Orthopaedic Foot & Ankle Society (BOFAS) is a society of orthopaedic surgeons with a special interest in surgery of the foot and ankle. BOFAS encourages interest in foot and ankle surgery among orthopaedic surgeons, basic science and clinical research in foot and ankle surgery and contributes to postgraduate training and continuing medical education. www.bofas.org.uk. Tel: 020-7405-6507.

British Footwear Association. BFA is a trade association representing British footwear manufacturers and brands. The BFA provides consumer information about hard-to-find footwear, e.g. non-standard, outsizes, "allergy free", orthopaedic adaptations and made-to-measure. www.britfoot.com. Tel: 01933-229-005.

Developing Patient Partnership (DPP) publishes quality assured, unbiased health information carefully selected and designed to improve access to health services, tackle inequalities in public health, support health providers meet local targets, promote self-care, prevent ill health and improve health literacy. www.dpp.org.uk, tel: 020 7383 6803

The Disabled Living Foundation (DLF) is a national charity that provides free, impartial advice about all types of disability equipment and mobility products. www.dlf.org.uk

National Rheumatoid Arthritis Society (UK) provides support and information for people with rheumatoid arthritis and juvenile idiopathic arthritis, their families, friends and carers, and health professionals with an interest in rheumatoid arthritis. www.rheumatoid.org.uk. Tel: 0800-298-7650.

Patients UK provides comprehensive, free, up-to-date health information as provided by GPs to patients during consultations, including leaflets for musculoskeletal disease, patient support and links to other disease related websites. www.patient.co.uk.

Society of Chiropodists and Podiatrists provides foot care advice, how to locate a chiropodist or podiatrist, podiatry news, useful information about podiatric surgery and the effect of diseases on the foot for patients and health care providers. www.feetforlife.org.

World Arthritis Day. people with arthritis from around the world join together to make their voices heard and raise awareness of arthritis in all its forms among the medical community, people with arthritis and the general public, influence public policy by making decision-makers aware of the burden of arthritis and the steps which can be taken to ease it and ensure all people with arthritis and their caregivers are aware of the vast support network available to them. Also provides leaflets about exercise and arthritis. www.worldarthritisday.org.



inadequate parking provision or inaccessibility to public transport.

Foot health service providers can also improve access to facilities by providing foot health services at times and locations convenient to the patient. This may require considerable flexibility in planning and provision, and will be influenced by nationally agreed directives. Novel approaches to flexible service provision, such as triage, telephone or internet assistance and flexible hours of provision, might be considered (see Good Practice Example A).

- iii People with musculoskeletal conditions are well placed to identify the difficulties which arise as a consequence of their symptoms. Healthcare provision can benefit from this viewpoint in tailoring service provision to user needs. To engage service users in planning, providers of foot health services should:
 - have contact with local and national user groups (see Information Box 2).
 - identify service users who would like to be involved in these groups and provide details and contacts
 - assist service users in accessing practical support to enable them to contribute actively to planning
 - ensure there is user representation at service planning meetings and consult with users and user groups during service reconfiguration
- iv Members of the musculoskeletal health care team need to be well informed of:
 - the signs and symptoms that should prompt referral to foot health services
 - the mechanisms by which to refer to foot health services.

Specialists in foot health provision (e.g. podiatrists, orthotists, orthopaedic surgeons) should be encouraged to contribute to local continuing professional development. Updates on scope of practice, advances in treatments and configuration of services should be shared with the wider musculoskeletal team.

Referral pathways should be developed in conjunction with relevant stakeholders and should set out indications for referral of people with musculoskeletal conditions and foot health problems to appropriate services (see Standard 5).

Foot health service providers need to keep themselves well informed of:

- the signs and symptoms that point to undiagnosed musculoskeletal disease
- the red flags for each musculoskeletal disease that should prompt referral to a specialist
- the clinical management of every patient in their care and the implications for treatment
- when to communicate with other members of the multi-disciplinary team regarding treatment decisions.

Education and training should be provided to primary care staff and foot health care providers to enable them to understand the systemic consequences of musculoskeletal disorders on the feet. Training should begin with undergraduate education and extend to post-registration education and continuing professional development.³⁰ (see Good Practice Example B)

Information Box 2: User Involvement in Service Organisation

Arthritis and Musculoskeletal Alliance (ARMA) is the UK umbrella association bringing together support groups, professional bodies and research organisations in the field of arthritis and other musculoskeletal conditions. ARMA is also the UK National Action Network for the Bone & Joint Decade - an international multi-disciplinary initiative to improve the health-related quality of life for people with musculoskeletal conditions. www.arma.uk.net. Tel: 020-7842-0910.

Arthritis Care is supported by volunteers across the UK who support its information, training and campaigning activities. It provides training to empower people with arthritis to engage confidently and effectively in shaping local services, including through the ARMA Networks. It also has a network of around 350 branches across the country. (see also Information Box 1). www.arthritiscare.org.uk tel: 0808-800-4050

National Rheumatoid Arthritis Society (UK) has a UK wide Volunteer Network of over 330 people with RA who work to support the charity's aims in a wide variety of ways including many supporting ARMA Networks. NRAS also have a growing number of local and regional support groups. www.rheumatoid.org.uk. Tel: 0800-298-7650.

Patient Advice and Liaison Services (PALS) provides general information about the NHS and a range of health information. www.nhs.uk.

Patients Association. The Patients Association is a national UK charity providing patients with an opportunity to raise concerns and share experiences of healthcare. Through correspondence and research we learn from patients the issues that are of concern and work towards improving healthcare. www.patients-association.com. Helpline: 0845-608-4455 or 020-8423-8999

Good Practice Example - B Education and Training

Integrated Academic and Clinical Musculoskeletal Services in Leeds.

Contact: Heidi Davys, ARC Fellow and Specialist Rheumatology Podiatrist, Leeds Teaching Hospitals NHS Trust, (h.davys@leeds.ac.uk).

Education and training has been central to the development of a tiered care pathway in musculoskeletal care in Leeds. Foot health services across the city are provided by a community-based podiatry department, a CATS-type interface team and by a range of medical and other clinical professions in secondary care.

Clear internal pathways have been drawn up by the community team in conjunction with the hospital-based specialists to provide generalist podiatrists with guidance on best management. The podiatrists in the CATS team are well integrated into both the primary care and hospital services and participate in research and training; both receiving rheumatology education and providing musculoskeletal training to GPs. This is supplemented by rheumatology teaching sessions where primary care providers, extended scope podiatrists from the CATS team and hospital specialists come together for updates on current best practice in rheumatology medicine, nursing care and foot health.

The hospital-based team has also developed close links with the rheumatology academic unit, and has led the way in developing models of best practice and generating new knowledge through research. This expertise in rheumatology foot care is shared through input to specialist registrar and academic training sessions and training across the region to GPs and primary care rheumatology physicians.

Access to foot health services

Standard 5a

People with foot symptoms of musculoskeletal origin, or whose foot health needs are increased because of systemic musculoskeletal disease, should have timely access to foot health care in community or hospital settings.

Standard 5b

Clear referral pathways should be developed locally that detail indications for referral to the various professions involved in the care of foot problems, and the mechanisms by which referrals are made.

Assessment of need

Standard 6a

On presentation, people should have a comprehensive assessment of their foot problems in an environment and manner that preserves privacy and dignity.

Standard 6b

Assessment should consider the need for referrals to, or communication with, other services and organisations, e.g. community care organisations and employers. The outcome of the assessment, along with any diagnosis and treatment plan, should be made available to the patient, referrer, and where indicated, the individual's GP.

Diagnosis

Standard 7a

Whenever possible, a specific diagnosis should be given. In circumstances where a firm diagnosis is not possible, symptom-based management should be provided and explained.

Standard 7b

People should be given written information, or information in an accessible format, and education about their condition and its impact to help them to contribute to a management plan which may include arrangements for further assessments or investigative procedures.

The rationale

- People with musculoskeletal foot health problems such as degenerative joint disease (e.g. osteoarthritis) or soft tissue complaints, may need access to foot health services. Foot symptoms can manifest directly, e.g. as joint pain, or may present as problems secondary to musculoskeletal disease, e.g. corns or callosities over deformed joints. The needs of these people should not be trivialised, as resolution, or at least symptom relief, is possible in the majority of cases.³¹
- People with systemic musculoskeletal disorders, such as RA or Ankylosing Spondylitis, may have increased foot health needs in addition to, or even in the absence of, primary foot problems. The foot health needs of people with systemic musculoskeletal conditions should be considered as a priority, and systems put in place for this group of people to access foot health services if the need arises.³
- Assessment of foot problems should be conducted by a professional with adequate experience and expertise. The definition of 'adequate' may vary according to circumstances. An initial baseline foot examination, for example, may be carried out by a suitably trained rheumatology nurse, while assessment of the at-risk, vasculitic, rheumatoid foot may require

assessment by a more specialised foot clinician with considerable expertise and experience in managing vasculitis and ulceration in the foot.

- The assessment should include all factors (both local to the foot and systemic) that will contribute to establishing a care plan. It is important that patients understand the information needs of those who care for their foot health. Achieving understanding and agreement between the health professional and the service user is important, and best achieved in an environment that provides privacy and security.
- Health care providers should consider how other professionals might contribute to, and benefit, the care of people with complex, multi-factorial conditions. This applies both to specialist providers (e.g. specialist medical care) and to providers of supplementary services, such as social care.
- The majority of people with foot disorders seen in primary care settings do not need specialist investigations such as X-rays or hospital tests and it is important to avoid delay in treatment caused by unnecessary investigations and referrals. However, a small minority of people may need investigations to help determine whether they need to be referred to specialist services (see Information Box 3). If so, these should be performed promptly.³²
- Once the assessment process is complete, the provision of a specific diagnosis is preferable as this provides reassurance to the patient and improves concordance with treatment plans. A definitive diagnosis is not always possible however, as musculoskeletal foot problems can arise as a direct consequence of activity or may evolve slowly as a result of multi-system conditions. In cases where a specific diagnosis is not possible or appropriate, discussion of a symptom based approach to care will facilitate concordance with treatment plans and thus improve treatment outcomes. Initial diagnoses may also change as circumstances develop over time and more information is gained. Management should be fluid enough to reflect potential changes.
- Written information, or information provided in an accessible format and made available to patients promotes understanding and involvement in the management process. Self determination is an important part of therapy. Understanding the nature of the condition, its impact, and potential investigations and treatments, is likely to result in better health outcomes. Again, flexible information provision will best reflect the changing nature of some of the disorders encountered in musculoskeletal care. Information provision should always be supported by education.

Good Practice Example - C Formal Referral Criteria for Podiatry

Contact: Podiatry Department, Darlington Memorial Hospital, Darlington

County Durham NHS Primary Care Trust introduced a formal set of referral criteria based upon medical risk and clinical priority. Their criteria give a clear direction for GPs on eligibility criteria and expectations of care for people who require foot health services. Following assessment against a matrix of medical risk factors and clinical prioritisation during a clinical assessment patients are allocated to 1 of 3 treatment streams.

- education and discharge for people with low clinical priority and general health risk
- short term treatment for people with symptomatic foot conditions and low general risk
- long term treatment for people with high risk and/or severe foot pathology

A mechanism has also been developed to triage patients immediately for more specialist foot health services.

Putting the Standards into practice: key interventions

- v Clear guidelines, protocols and referral pathways should be developed locally that include agreed criteria for suitability for self-management, eligibility for access to foot health services from both primary and secondary care referrals, and also for self-referral. Referral pathways in to foot health services should make clear:
 - who has access to their services (e.g. geographic location, referring agencies and organisations, children/adults, etc)
 - the signs and symptoms that indicate referral
 - red flags that indicate priority referral.

Foot health care providers, musculoskeletal service providers and service users should be involved in developing service contracts developed by purchasers and commissioners to ensure that the people who need their services are provided for.

It is not usually necessary for people with local or systemic musculoskeletal conditions to have all of their foot health needs met in a hospital setting (e.g. rheumatology or orthopaedic department). With appropriate lines of communication and adequate training, a tiered care service can provide for the more basic needs of the majority of patients, while specialist services are reserved for specific indications or for people with the most complex or high-risk problems.

- vi A musculoskeletal foot health assessment should usually include evaluation of:
 - General health
 - Foot health
 - Systemic factors
 - Lifestyle or social factors (workplace, leisure activities)
 - Pain management
 - The need for other assessments as required (imaging, biomechanical).

Depending on the purpose of the assessment (e.g. annual foot examination or pre-surgical assessment) the emphasis on these components may vary.

Note: *Foot health assessments may be carried out by any one of a range of professionals in a range of settings depending on local resources and protocols. It is not necessary to refer to a foot health specialist for all foot health assessments.*

At the first visit:

- a range of assessments should be completed (see Standard 6a)
- baseline measures recorded
- tailored education, information and advice provided signposting support services and organisations
- appropriate referrals for other interventions considered (e.g. occupational therapy, physiotherapy and other therapies as required)
- a diagnosis or symptom management plan should be discussed and reinforced in writing (or an accessible format) in association with a written care plan (see Standard 10)

The assessment process often involves verbal communication of private health information as well as exposure of areas of the body normally kept private. Curtained areas do not provide sound protection and inspection of legs and feet in public areas and corridors does little to preserve dignity.

Explanation should be provided during assessment as to procedures, examinations and equipment used. Explanation should also be provided on the impact of lifestyle or social choices on presentation, symptoms and prognosis, and the possible social impact of treatments and referrals (e.g. impact on work). Referral options should be discussed as required and consent obtained if appropriate.

- vii During or after the assessment, some explanation of why certain diagnoses or management plans are considered should be provided. Understanding that diagnosis may not be possible at that time or ever, should be conveyed where appropriate, along with explanations of symptom management versus diagnosis. Written information may be stand-alone or can take the form of advice documented in the care plan and should always be supported by education (see standard 10). Foot health providers should remember that people's information needs may change over time.

Information Box 3: Guidelines for Imaging Referral

EU Commission guidance for foot imaging indicates x-rays to be used pre-operatively but not indicated routinely for other disorders such as plantar fasciitis or calcaneal spur.

http://ec.europa.eu/energy/nuclear/radioprotection/publication/doc/118_en.pdf

Royal College of Radiologists 2007 guidelines: *Making the best use of clinical radiology services, 6th edition.*

www.rcr.ac.uk/index.asp?PageID=49, item 4. European Referral Guidelines for Imaging, musculoskeletal guidance: guidance on indications for imaging and specific pathologies such as osteomyelitis, tumours, metabolic bone disease and arthropathies are comprehensive, and details are available on the Royal College of Radiologists (RCR) website: www.rcr.ac.uk.

Information Box 4: The Trinity of Signs³³

Timely referral for rheumatology opinion should be considered if patients present with:

- three or more swollen joints
- pain on lateral compression of metacarpal or metatarsal-phalangeal joints (positive squeeze test)
- morning stiffness of 30 or more minutes duration.

There is an important role for foot health care providers in aiding early recognition of undiagnosed musculoskeletal disease as the foot may be the first site of involvement before any other manifestation of disease.³⁴

Self-management

Standard 8

People with musculoskeletal foot health problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice.

Clinical management

Standard 9a

People with foot problems should have access to safe, effective, timely care with appropriate monitoring arrangements. The health professional should ensure that the person understands management strategies, which should take into account personal circumstances both at home and at work. Agreed strategies should, preferably, be in accordance with the best available evidence from national and international guidelines.

Standard 9b

Foot health professionals should gain confirmation from service users that they understand and accept the current episode of care and know what will happen next.

Individualised care plans

Standard 10

On diagnosis or on the basis of a management plan, an appropriate, individualised plan for ongoing care should be jointly developed by the foot health provider, the service user, carer and relevant members of the multi-disciplinary team. A printed copy of the care plan should be provided for the service user.

The rationale

- There is evidence that people who are active partners in making decisions about their care have better outcomes, are better able to engage with health services, i.e. they are better able to manage and cope, than those who do not.³⁵

Self-management information, education and advice which encourages people to become well informed about their condition, empowers them to take responsibility for their foot health and supports them to make informed choices about treatments, providers and settings for care is an aid to improved health outcomes. The extent to which an individual is empowered to take this active role will depend on their individual circumstances, including their education and cultural background.

Self-management training is particularly important to help restore people's independence, build their skills to cope with their condition and enable them to make informed choices about treatments. There is evidence that education programmes, practical supporting materials, such as the FOOTSTEP programme,³⁶ and support groups help people to self-manage their symptoms. There needs to be wider recognition of the importance of self-management initiatives led by people with chronic conditions (see Good Practice Example D). Support also needs to be available for those who are not able to self-manage.

- Information and education is equally important for people receiving active care. This includes information about referrals, treatments, and follow-up arrangements, with acknowledgment at

every stage in the assessment and care process of the patient's readiness, need and requirement for information. At every stage, the person receiving care should have enough information to understand precisely what will happen next.

- An individualised care plan can enable a person with foot problems to make informed choices about treatments, healthcare providers and services, and to have a clear understanding of what to expect. It identifies who is responsible for which aspects of care, and promotes collaboration between the patient and all the professionals involved.

Research has shown that greater involvement of the individual in understanding, monitoring, reviewing and deciding their care needs is beneficial, particularly for people living with long term conditions. People who are more involved in their care may; manage their condition more effectively, feel better, manage risks to their health more effectively, have less pain, be less depressed and use health services less.³⁷

Good Practice Example - D Self-Management Initiatives

FOOTSTEP: a patient self-management program for basic foot care

Contact: Barbara Fletcher, Podiatrist, Todmorden Health Centre. barbara.fletcher@cht.nhs.uk

Podiatry (chiropody) services are one of the most frequently requested services in primary care in the UK. The FOOTSTEP programme is a means of managing non-urgent demand for podiatry services for those people who are able to self-care, whilst allowing access to the service for those with an identified clinical need. FOOTSTEP was evaluated formally in a randomized clinical trial with blinded 6-month follow-up and economic evaluation.

All new patients presenting to the Calderdale Podiatry Service are formally evaluated to determine if they are suitable for self-management. Their medical and clinical needs are assessed, and their suitability for self management is evaluated, including sight, grip and reach tests. Suitable patients are offered either one-to-one or group self-management education.

Self-management education includes demonstration and practice of basic foot care and advice on how to select and buy suitable equipment and footwear. A self-care booklet is provided to reinforce educational messages and provide contact information for the podiatry service should their medical or clinical needs change.

Waxman R, Woodburn H, Powell M, Woodburn J, Blackburn S, Helliwell P: FOOTSTEP: a randomized controlled trial investigating the clinical and cost effectiveness of a patient self-management program for basic foot care in the elderly. *Journal of Clinical Epidemiology* 2003, 56(11):1092-1099.

Information Box 5: Self-Management Initiatives

Self-management programmes are beneficial and often preferred by people with long-term conditions. People with persistent pain that is not responding to treatment may benefit from other types of management, including psychosocial support, cognitive behavioural therapy and other pain management strategies. It is important that they can access these services when needed. Foot health providers should make available information on pain management and prevention of recurrence of symptoms. This might include:

- educational programmes
- exercise programmes for functional restoration
- work based interventions
- signposting to Disability Employment Advisor
- mechanisms to access specialist pain service providing: biopsychosocial assessment, group cognitive intervention, multi-disciplinary biopsychosocial intervention

Putting the Standards into practice: key interventions

- viii People who have musculoskeletal foot health problems should receive regular information and education that emphasises the importance of self-management of their condition and provides support in making the necessary lifestyle and social changes to improve their overall health. Every interaction with a healthcare professional should be an opportunity for education.

This information should help people to:

- identify the factors that lead to musculoskeletal foot problems
- identify the signs and symptoms of relevant musculoskeletal foot problems
- manage their foot health problem safely, including access to information on pain management, and how to prevent recurrence of symptoms (see Information Box 5)
- make changes to factors such as footwear that may improve their foot health
- access appropriate equipment, e.g. insoles, assisted living devices and gadgets such as long handled shoe horns, as well as nail nippers and files, etc., that may facilitate self-care
- identify potential sources of assistance within their immediate circle of family or friends
- recognise the signs and symptoms that indicate the need for professional advice
- be aware of the health services available to people with musculoskeletal foot health needs
- be aware of the various professions who provide foot health services, the scope of their practice, likely treatments and how to access them
- understand the mechanisms for referral or self-referral
- access appropriate self-help groups and other voluntary organisations (see Information Box 2, page 13)
- access support services and organisations by signposting tailored education, information and advice.

- 
- ix People whose foot disorders are not responding to self-management should receive timely and reliable advice and management to restore them to optimal health as quickly as possible.

Note: *Good pain control is essential to enable people to maintain or regain function. Undertreated pain is linked to the development of persistent foot problems. Some people will need physical interventions or analgesics to control their pain. Foot health service providers should ensure adequate pain relief is provided either through their own interventions or through the referral pathway.*

People whose foot problems do not respond to standard support and management may benefit from other types of management, including joint injection and acupuncture, or psychosocial support, cognitive behavioural therapy and other pain management strategies. Ongoing communication with the multi-disciplinary team is vital in these circumstances to ensure that people receive the services that they require. The evidence for the effectiveness of complementary therapy is conflicting and no firm recommendations can be made.

Foot health professionals in primary care should have good communication links with other disciplines to ensure that patients are managed appropriately, with timely local access to diagnostic and other services as required. They should be able to refer individuals appropriately, either directly for investigations or for further opinion or other support.

- x Clear information should be given and documented in a written care plan (see Standard 10). The care plan should provide a summary of information gleaned from the assessment, a diagnosis or symptom-based management plan, interventions to be used and goals for treatment, frequency of follow-ups as relevant and potential referrals.

People with foot problems should also be offered:

- personalised information and education about their care
- recognised self-management programmes if appropriate (see Information Box 5 page 18)
- information on sources of reliable further information regarding interventions, treatment and prognosis
- the option of receiving copies of correspondence between services regarding their management.

The care plan should give constructive messages about their condition and set out roles for the patient, the foot health team and other relevant parties, e.g. other healthcare professionals and employers, in the management of their condition. The care plan should draw on good clinical practice and be evidence-based. The foot health practitioner should use the care plan to work with the service user to identify possible triggers or causes of their condition, and to build joint solutions for monitoring and management.

The multi-disciplinary team

Standard 11a

People with chronic symptoms or complex conditions should have timely access to appropriate multi-disciplinary care.

Standard 11b

Providers of foot health services should ensure that they are adequately integrated with the appropriate multi-disciplinary team, preferably physically, but at least through clear lines of communication.

Prompt access to care if symptoms worsen

Standard 12

People whose condition does not respond to treatment, who experience new or worsening symptoms, or whose personal situations change, should have timely access to health professionals trained to carry out specific care or treatment, or who can refer them to other specialist care if needed. Foot health service providers should be aware of indications for urgent referrals, surgical referrals and disease red flags.

The rationale

- While some musculoskeletal foot problems can be managed in isolation, complex or systemic conditions such as rheumatoid arthritis require a multi-disciplinary approach to management.^{2,20} Foot disorders can affect many aspects of a person's life, especially when associated with systemic disease, and care may need to include input from many different professionals from health and social care.

The constituent members of the care team will vary according to any underlying disorders and to local service organisation, but evidence shows that services are most effective when they are delivered through a full and well-established multi-disciplinary team.³⁸ Where resources permit, there are obvious advantages to including foot health service providers physically in the multi-disciplinary team. Where this is not feasible however, professionals providing foot care can still make a valuable contribution to multi-disciplinary care through the development of clear lines of communication.

- The right intervention at the right time is the key to preventing a foot problem becoming a persistent cause of morbidity. Where a foot problem does not respond as expected, or where specialised input may improve outcomes, then referral for further opinion should not be delayed. Clear pathways for referral, with defined eligibility criteria, minimise delay and maximise efficiency.

Some manifestations of complex diseases may occur first or most profoundly in the foot, and a small percentage of people will have warning signs for more serious disease which need to be investigated. Foot health professionals must be aware of these warning signs, or 'red flags', and refer without delay to specialist services for investigation and treatment in accordance with national guidelines, such as the National Institute for Health and Clinical Excellence (NICE).

Putting the Standards into practice: key interventions

- xii Foot health providers should ideally be fully integrated as a member of a multi-disciplinary team. If this is not possible however, clear lines of communication should exist between the foot health service provider and identified team members. Means of communication may be verbal or written, and will develop with technological or internet based advances.
- xiii Members of the multi-disciplinary team should ensure that individuals know how to access specialist services, such as orthotics, wheelchair services, providers of assistive devices and educational advice. There should be agreed care pathways for referral into these service as well as back to the coordinating specialist as required.

Referral should be in accordance with locally agreed referral pathways, guidelines or protocols, and should be accompanied by information and education to support patient choice. (see Good Practice Example A, page 7)

- xiii Foot health services should be provided by a practitioner with appropriate skills and expertise to deal effectively with the presenting symptoms. Efficient foot health service provision utilises the skills and expertise of individual practitioners most effectively by matching experienced clinicians with the most complex cases.

Similarly, complex co-morbidities may require advanced (e.g. medical specialist) input. Referral should not be delayed, and multi-disciplinary care and communication should be encouraged. Training should be provided so that foot health staff can recognise 'red flags' that indicate the need for referral. Referral pathways should be developed locally that indicate the signs and symptoms that constitute 'red flags' and make explicit the mechanisms for referral.

- xiv Surgery may be considered when severe symptoms persist and do not respond to conservative treatment. People with progressive foot problems may require specialist surgical opinion.

Foot health service providers should be aware of indications for urgent surgical referrals because some patients, e.g. those with nerve compression or tendon ruptures, may require urgent orthopaedic or other surgical intervention, which should be provided immediately.

- xv Consideration should be given to post-operative follow-up. In the peri-operative period, foot health service providers should ensure that pathways exist for post-operative rehabilitation. In the longer term, consideration should also be given to maximising the benefits to patients by ensuring that ongoing care capitalises on any immediate improvements provided by surgical interventions.



2

This section sets out standards of care for people with foot health problems that are specific to those who present with specific musculoskeletal conditions. It is divided into five sections:

- Standards of care for people with foot problems and inflammatory arthritis
- Standards of care for people with foot problems and osteoarthritis
- Standards of care for people with foot problems and back pain
- Standards of care for people with foot problems and metabolic bone disease
- Standards of care for people with foot problems and connective tissue disease

Each section describes the standard of foot care that people who present with these specific musculoskeletal diseases should expect. Each set of disease-specific standards should be used in conjunction with the generic standards, outlined in Section 1, i.e. for people with one of the specific diseases, the generic and the disease-specific standards should apply.

Some of the disease-specific standards include similar wording to the generic standards. In these cases the repetition is included for emphasis, and this is reinforced in the rationale and key interventions for the relevant disease.

Introduction

The term inflammatory arthritis (IA) describes a range of conditions, including rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis and juvenile idiopathic arthritis. These are autoimmune diseases, in which the body's immune system attacks the joints and causes them to become inflamed. Inflammatory arthritis can affect the feet directly, but also affects a range of other joints such as the knees, shoulders, elbows, hips, and spine. People with IA can have diverse foot health needs, ranging from preventive orthotic therapy, to 'high-risk' care of ulceration or infection, or simple assistance requirements due to inability to self-care.

In planning the foot care of people with inflammatory arthritis it is important to recognise the importance of the systemic disease processes and the role of the rheumatologist and the wider multi-disciplinary team.

Rheumatoid arthritis (RA) is the most common inflammatory arthritis.

- It is a chronic, immune mediated inflammatory disease which can lead to significant joint damage and functional impairment. The foot is affected in nearly all people with RA eventually, and the prevalence and impact of foot problems is strongly associated with disease severity and duration.³⁹ Modern treatments have improved systemic disease control substantially in recent years, and the consequences of RA in the feet are much reduced although complete remission is still unusual. Medical management focuses mainly on controlling disease activity, providing symptom relief and maximising quality of life.⁴⁰
- Foot health providers have a prominent role to play in symptom relief and improving quality of life because involvement of the feet, even to a mild degree, is a significant marker for impaired mobility, functional incapacity and negative psychosocial impact.⁴¹ The foot contributes to difficulty with walking in about 75% of people with RA, and is the main or only cause of walking difficulty in 25%.⁴²
- In the foot, joint pain and stiffness is the most common initial presentation, but a range of other features, including tenosynovitis, nodule formation and tarsal tunnel syndrome may also present, reflecting widespread soft-tissue involvement.

The other inflammatory forms of arthritis are often referred to as sero-negative arthritis, the two most common forms of which are psoriatic arthritis and ankylosing spondylitis. Psoriatic arthritis varies in severity from forms equivalent to, or more severe than RA, through to milder forms with relatively little active joint involvement. Ankylosing spondylitis is characterised by spinal arthritis that can limit the ability to reach and care for the feet. Sero-negative arthritis is often also characterised by inflammation and pain at the insertion of tendons and ligaments (enthesitis) including those of the feet.⁴³ Foot health service providers should be aware of these factors in their target population when planning services.

Assessment and management

Standard 13

Everyone with a diagnosis of an inflammatory arthritis should receive a foot health assessment within 3 months of diagnosis. This assessment need not be by a foot health professional.

Prompt access to care if symptoms change

Standard 14

Where there is a substantial change in disease activity (for better or worse) foot health implications should be reviewed.

The multi-disciplinary team

Standard 15

People with inflammatory arthritis have a particular need for access to multi-disciplinary care; including foot health services based in either the community or hospital settings. Practitioners providing foot health care for people with inflammatory arthritis should ensure that they are adequately integrated with other parts of the multi-disciplinary team, either physically or through excellent communication links.

Self-management

Standard 16a

People with inflammatory arthritis and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

Standard 16b

People with inflammatory arthritis should receive adequate information regarding the signs and symptoms that warn of deterioration in their condition; and advise them of when to seek prompt review by an appropriate multi-disciplinary team member.

Specialist review

Standard 17a

People with inflammatory arthritis should be offered a comprehensive, annual specialist review that includes review of foot health needs.

Standard 17b

If foot health needs are identified, mechanisms should be in place for people with inflammatory arthritis to receive timely and appropriate foot health care.

Surgery

Standard 18

To maximise the chance of the best possible outcome for people with inflammatory arthritis who may require foot surgery, early referral for a surgical opinion from a specialist experienced in the management of inflammatory foot problems should be available.



The rationale

- Patients with inflammatory arthritis have an increased need for a range of basic foot care services. Up to 90% of people with RA have foot involvement.¹⁸ Long standing inflammation leads to structural deformity and soft tissue lesions which in turn generates areas of pressure that result in callus and corn formation. There is some evidence that early intervention for existing or potential foot problems can improve long term outcomes.⁴⁴ Baseline foot examination can identify people with existing or imminent needs and provide a comparator for assessment.

Regular assessments that document the rate of structural change can aid treatment decisions and improves outcomes.

- People with IA who experience a sudden ‘flare’ in disease activity should have direct access to specialist advice, and be offered the option of an early review with appropriate multi-disciplinary team members, including foot health providers. Similar reviews of needs should be undertaken during periods of disease remission.
- Inflammatory arthritis is a complex multi-faceted disease and its effective management requires the input of professionals with a range of expertise. Two-way communication between rheumatologists responsible for overall case management and the various disciplines contributing to the care of the person with IA ensures that disease control is optimised and that supplementary care is coordinated with the medical needs of the person. Practitioners providing foot health care for people with IA should ensure that their service is adequately integrated, either geographically or through excellent communication links with the multi-disciplinary team responsible for an individual’s care.
- Foot health providers have a role to play in supporting people with IA in managing aspects of their condition themselves, as well as in providing timely and relevant foot health specific advice and education.

People with IA can experience variations in disease activity (exacerbations and remissions) and may have acute needs (e.g. infection) superimposed on the overall disease process. People with IAs should be provided with information and education to enable them to recognise the signs of these variations and understand what to do if variations occur. Increased systemic disease activity can accelerate changes in foot pathology so consideration must be taken of local as well as systemic factors.

- An annual musculoskeletal, vascular and neurological assessment which includes an assessment of the lower limbs and feet will help identify problems early.²⁹ It is well recognised that patients are sometimes reluctant to request reviews. Routine assessment will identify problems that may otherwise have been left untreated. An annual review enables problems and emerging health issues to be identified, offers the opportunity to consider treatment options and to assess the person’s wider needs and the opportunity for referral to other specialities.⁴⁵

Note: *worsening of foot symptoms may be an early sign of a systemic disease flare and foot health providers should be aware of the relevant signs and manage or refer appropriately.*

- Surgical interventions, especially for the foot affected by RA, are often delayed until too late. Referral for surgical opinion should be viewed as a priority and not be delayed until only salvage procedures can be considered.

20-25% of all surgical interventions for RA relate to manifestations in the feet, though success is only moderate. Under current protocols, fewer than 50% of people undergoing forefoot surgery for RA report very good or excellent outcomes and 13% undergoing foot surgery for IA require subsequent re-operation because of poor outcomes.⁴⁶

Putting the Standards into practice: key interventions

- xvi A mechanism should be in place whereby everyone with a diagnosis of inflammatory arthritis receives a foot examination within three months of diagnosis. This need not require referral to specialist foot health services, but may be undertaken by any appropriately trained member of the rheumatology team. Assessments should include:
- measures of structure and function
 - lifestyle and social factors
 - footwear suitability
 - tissue viability and skin and nail assessments
 - neurological and vascular factors
 - baseline and follow-up measures of foot impairment
 - the impact of any previous interventions, including surgery.

The musculoskeletal foot examination should include documentation of:

- the arch profile
- heel position
- toe deformities
- joint swelling
- pain and instability
- plantar callus
- foot ulceration.

Baseline measures of pain, function and health status are desirable.

- xvii People whose symptoms worsen, or who are at risk of significant foot disease, should be referred for examination by a professional with specialist knowledge of rheumatological foot disorders. Patients whose condition improves may also require a review of current treatment as risk factors alter and relevance of information changes. Foot health needs should be considered by medical carers and medical needs by providers of foot health services. Mechanisms should be in place to facilitate the referral of people with inflammatory arthritis to professionals with the appropriate level of expertise (either greater or lesser expertise) according to current needs.
- xviii Foot health providers should ensure that they are working effectively with a range of professions. Ideally this will involve a service integrated, at least in part, into the multi-disciplinary rheumatology team, but where this is not feasible, good communication and clear lines of (two-way) referral should be developed.

People with IA can have complex coexisting presentations and should receive foot health services from a person adequately trained and experienced to deal effectively with the



complexity of problems as they relate to inflammatory arthritis disease stage and activity. Routine foot care in people with well controlled IA may not need specialist intervention, whereas the care of the vasculitic foot or the foot undergoing rapid structural change associated with high levels of disease activity is likely to require more specialist intervention.

Providers of foot health services should ensure that there is an adequate skill mix within the (multi-disciplinary) team to most efficiently meet the range of needs associated with IA, and that care pathways exist to ensure that people with IA have access to providers of care with appropriate skills and expertise.

Advances in the management of systemic disease and the lower limb consequences of inflammatory arthritis are significant and rapid. Providers of foot health services to this group of patients should maintain an up to date knowledge of current best evidence and good practice.

- xix Foot health providers have a role to play, along with other members of the musculoskeletal team, in supporting people with IA in managing their condition effectively.²⁹ The following specific information and advice should be provided to people with foot problems and IA:
- weight management
 - smoking cessation
 - appropriate choices regarding footwear and insoles, direction towards appropriate retail footwear and/or provided with assistance in sourcing specialist footwear where standard retail footwear does not meet their needs
 - maintenance of foot hygiene
 - defining areas of self-care that are not appropriate for self-management (e.g. corns and hard skin removal)
 - changes in the foot that can occur and what signs and symptoms may warrant further investigation
 - how to access the relevant services if foot health needs change.

However, people can be overwhelmed with information at diagnosis and it may be best to introduce education selectively, focussing on issues of particular relevance at any given time.⁴⁷

People with IA should receive information and education that enables them to recognise changes in disease state. It is important that people with IA are educated to be aware of and act on the signs of increased disease activity, and that they are encouraged to recognise the cumulative effects of joint damage when inflammation is ignored.²⁹

Information and education should be provided on signs such as:

- increased joint stiffness, either severity or duration
 - joint swelling
 - changes in the foot (or other joints) such as altered structure or position
 - inflammatory flares in tendons and other soft tissue structures
 - development of nodules and bursae.
- xx Annual foot health assessments are desirable. These need not be undertaken by specialist foot health providers but can be conducted by any appropriate member of the multi-disciplinary team.



The annual foot assessment should include at least:

- lifestyle and social factors
- observation of the lower limb
- assessment of arch profile, heel position, toe deformities, pain in the foot
- assessment of skin and nail pathologies
- identification of problems with footwear.

Clear care pathways and referral guidelines should be in place to ensure that people with IA and foot health needs have timely access to relevant care.

Non-medical foot health providers should be trained adequately to be able to identify signs of poor disease control and/or disease flare and be able to liaise with medical colleagues as appropriate.

Providers of services that include foot health should be aware of the indications for surgical referral and should have access to clear referral pathways and guidelines that reflect local surgical provision. Surgical pathways can or should be included in referral pathway planning as advocated in Standards 11 and 12.



Introduction

Osteoarthritis (OA) is the commonest form of arthritis. It affects mainly the knee, hip, hand, spine and less often, the feet. OA causes damage to cartilage and the growth of new bone in affected joints which manifests as joint damage and joint failure and presents as stiffness and pain. People with osteoarthritis may have increased foot health needs because:

- OA can affect the joints of the foot directly. The most common site for OA change in the foot is the first metatarsophalangeal joint, although any foot joint may be affected, particularly after trauma. There are currently no formal diagnostic criteria for OA in the foot joints. Foot health needs can also be increased because of secondary problems such as corns and callosities that can arise because of structural changes in the feet associated with joint degeneration.
- OA elsewhere in the body can cause secondary musculoskeletal manifestations in the feet. Examples include significant varus/valgus knee malalignments causing abnormal foot postures.
- OA generally occurs in more than one joint. Assessment and management strategies for OA in the foot should be undertaken with consideration for painful joints elsewhere in the body
- People with OA in joints such as hands, hips, knees and the back may have foot problems arising from an inability to care for their own foot health.

Foot health support should be available to all patients in whom OA causes direct foot problems or impacts on their ability to self-care.

Self-management

Standard 19

People with osteoarthritis and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

Pain management

Standard 20

People with osteoarthritis should receive education and intervention to enable them to manage their pain.

The rationale

- Drug treatment for the management of OA remains relatively limited.⁴⁸ Management of OA affecting the joints of the foot must include lifestyle factors, such as activity and body weight, and local factors, such as footwear.⁴⁹ Other management options include joint aspiration or injection, and many other direct forms of intervention supported by varying degrees of evidence.
- Foot health providers have a role to play in both the general health education of people with OA and in providing timely and relevant foot health specific advice and education.
- People presenting with OA, or with problems arising secondarily to OA, often feel that their concerns are trivialised. The implications of OA for foot health, either directly, or indirectly through impaired ability for self-care, should be considered by all health care providers. OA is not an inevitable consequence of ageing nor is it true that nothing can be done.⁵⁰

Putting the Standards into practice: key interventions

- xxi People with OA and foot problems should receive information, education and support to enable them to:
- understand the impact of OA on foot health
 - understand the effect of lifestyle and social factors such as weight management, exercise and footwear
 - recognise signs and symptoms that may warrant further investigation.
 - manage joint pain.
 - understand the importance of remaining active
 - access the relevant services if foot health needs change.

Foot health service providers may need to liaise with the service user, or with other significant figures such as employers, about changes in roles or equipment, such as the provision of specialist footwear. A mechanism should be in place for people who have significant foot health needs because of OA, either in the feet or elsewhere in the body, to have some recourse to professional foot health services if self-management is not possible or is proving inadequate.

- xxii Assessment and treatment of foot problems associated with OA should consider the impact of the disease on lifestyle, social factors and work and/or education, as well as the assessment of disease process and physiological and pathological severity.

Pain relief should consider both systemic (i.e. drug-based) and local (mechanical or physical) therapies, and should be in accordance with the best available evidence and national/international guidance and guidelines, including NICE guidance and referral protocols. Management options should support people to make informed choices by providing information and education on the benefits, risks and effects on lifestyle of each option.

People with OA should receive positive messages about the importance of maintaining function. In particular it should be reinforced that pain in this context does not equate directly to damage and that function should be maximised.

People whose condition is not responding to treatment or who are experiencing worsening symptoms, should be referred promptly to appropriate specialist care in accordance with agreed protocols. This should be accompanied by information to support choice.

Surgery is an important mainstay in the management of osteoarthritis of the foot and ankle once more conservative treatments fail. Modern techniques, improved instrumentation and total joint replacement options mean that satisfactory surgical outcomes are more predictable and robust. Once recommended, patients with osteoarthritis should be offered information on procedures and postoperative care, to enable informed consent. Information should also be offered to enable an informed choice of provider.

Introduction

There are many different causes of back pain but in most cases the cause is uncertain and the condition is referred to as ‘simple’ or ‘mechanical’ back pain. In the remaining cases, it is important to make a specific diagnosis as the underlying pathology may be serious, or require a specific type of treatment. The majority of people with back pain will not require anything more than conservative management, including advice, pain control and exercises. Foot problems associated with back pain are not as significant as for problems such as inflammatory arthritis and this is reflected in the limited scope of this section.

People with Back Pain may have increased foot health needs because:

- Back problems associated with neurological change can manifest in the feet, and foot health providers should be able to recognise red flags for neurological damage.
- Mechanical back pain may, in some cases, be caused by functional imbalance in the lower limbs and therapies directed at the foot and leg may need consideration.
- Foot problems may occur in conjunction with spinal symptoms in systemic disease such as the spondyloarthropathies. Foot health providers should be aware of these associations and be able to recognise them, making appropriate referrals for further investigation.

Assessment and diagnosis

Standard 21

People with foot problems and mechanical back pain may require a lower limb assessment by a health care professional with understanding of the complex interaction between the lower limbs and back pain.

Prompt access to care if symptoms worsen

Standard 22

If a person’s back pain fails to respond to conservative management they should be offered further assessment by a practitioner who has the authority to refer for specialist assessment or investigation, including a surgical opinion if indicated.

The rationale

- For most people with back pain, any foot health needs will arise from an inability to reach the feet to perform functions of self-care.
- Most cases of back pain are mechanical in origin and arise either as a result of specific activities, local anatomical factors, or from functional or mechanical imbalances including those arising in the lower limbs.⁵¹ Providers of foot health services may be involved in the direct management of mechanical back pain⁵² but should be aware of the limitations of lower limb approaches in managing chronic back pain. An agreed pathway for referring patients to more appropriate care if symptoms worsen or fail to improve will prevent delays in accessing the best available care.
- Red flags that indicate possible serious disease may manifest in the feet of people attending incidentally for foot care.⁵³ Practitioners, including providers of foot care, should have sufficient knowledge and training to be able to identify warning signs of serious disease and be able to act accordingly.

Putting the Standards into practice: key interventions

- xxiii** Back pain may affect a person's ability to care for their feet. Consideration should be given to self-management advice, access to assistive equipment and possibly provision of basic foot care.

People with back pain of suspected mechanical origin should undergo an assessment that includes consideration of lower limb structure and function, neurological factors and footwear.

The foot assessment when back pain is present should include consideration of both cause (mechanical causes) and consequence (neurological or inflammatory).

- xxiv** Foot health service providers should be provided with adequate training to be able to recognise warning signs of serious disease. Where these warning signs are present, practitioners should refer without delay for specialist assessment. National guidance exists to identify warning signs and symptoms which indicate the need for further assessment both in terms of establishing cause and optimising management of symptoms (see Information Box 6).

- xxv** For people who have back pain of suspected mechanical origin, and where conservative care is provided by foot health providers, clear referral guidelines should be developed to ensure that patients whose foot symptoms worsen or do not improve are referred for further specialist opinion. This will often be addressed through a triage service which has the authority to refer for further specialist assessment or investigation, including a surgical opinion if indicated.

Information Box 6: Red Flags for Urgent Referral for Back Pain

The ARMA Standards of Care for Back Pain include the following criteria as red flags for urgent referral.

The person:

- is younger than 20 or older than 55 when they get back pain for the first time
- has had cancer in the past or at present
- is on steroids, is a drug user, or has HIV
- is feeling generally unwell or has lost significant weight
- continues to have great difficulty bending forwards
- has developed a number of problems in their nervous system (e.g. numbness, loss of power, etc) or has developed an obvious structural deformity of the spine.

The pain:

- is continuing for more than 4-6 weeks
- follows a violent injury, such as a road traffic accident
- is constant and getting worse
- is in the upper part of the spine

In addition, foot manifestations such as those listed below may also require further referral:

Signs of neurological impairment:

numbness, foot drop, pins and needles, parasthaesia

Signs of possible inflammatory disease:

persistent heel pain at the insertion of tendo Achilles or plantar fascia, persisting retro calcaneal bursitis, acute dactylitis (sausage digit)

Introduction

Metabolic Bone Diseases (MBD) is the term used to describe a range of conditions, including osteoporosis, Paget's disease, osteomalacia and osteogenesis Imperfecta, (otherwise known as brittle bone disease). These are all diseases which cause bones to become fragile and break easily. Common fracture sites are the wrist, hip and vertebrae but fractures may occur throughout the skeleton including the foot. Foot problems associated with MBDs are not as significant as for problems such as inflammatory arthritis and this is reflected in the limited scope of this section.

Foot health providers need not necessarily be expected to provide services tailored specifically to people with MBDs but should recognise that a proportion of the people making up their caseload will have specific foot health needs associated with incidental metabolic bone disease.

Foot health needs might encompass health education and /or assistance with self-care where this has become impossible, through to diagnosis or even direct management of local events such as fractures in foot bones.

Promoting bone health

Standard 23

Foot health service providers should make information available to the public that promotes good bone health.

Assessment and management

Standard 24

Clear referral pathways should be developed locally that detail indications for referral to the various professions involved in the care of

people with metabolic bone diseases and foot problems, and the mechanisms by which referrals are made.

Self-management

Standard 25

People with metabolic bone diseases and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

The rationale

- Foot health providers have a role to play in both the general health education of people with MBD, and in providing timely and relevant foot health specific advice and education. Advice on exercise, smoking habits, lifestyle choices and footwear can all contribute to improved bone health.
- In some cases, manifestations in the feet might be the first signs of MBD and foot health assessment should include consideration of MBD where other clinical signs exist.⁵⁴
- People with upper limb or spinal involvement may have difficulty with self-care of their feet.
- In people with MBDs, major events such as fractures may occur and may also result in longer term consequences such as altered gait and deformity.
- Abnormal neurological signs and symptoms may be detected in the feet following spinal damage and nerve root irritation.⁵³

- Bone remodelling, as seen in people with Paget's disease, can result in altered biomechanical stresses within the leg, ankle and foot.⁵⁵
- Bone metabolism is complex and involves organs such as the liver and kidney, damage to which can lead to metabolic bone disease, but may also have implications for foot health management in terms of oedema and impaired tissue viability.⁵⁶

Putting the Standards into practice: key interventions

- xxvi The general public should be provided with evidence-based information in a variety of languages and formats on factors that promote bone health and prevent bone deterioration, such as:
- lifestyle and social choices such as physical activity, nutrition, and smoking
 - prevention of injuries, including occupational and leisure injuries, and falls
 - how to identify the signs and symptoms of, or risk factors for, metabolic bone diseases and their manifestations in the feet.

- xxvii People with recognised MBDs and foot health problems should also receive information and education that emphasises the importance of self-management of their condition, and provides support in making the necessary lifestyle and social changes to improve their overall health. Specifically, this should include information on how to:
- recognise possible complications and address pain management
 - minimise the risk of secondary problems such as falls
 - obtain guidance on how and when to seek professional advice
 - identify local and national service user support organisations
 - remain active and have a healthy lifestyle by quitting smoking, controlling weight and using appropriate footwear.

- xxviii Foot care providers should understand the lower limb consequences of metabolic bone disease.

Foot health service providers should be able to identify significant developments such as stress fractures and should ensure that appropriate mechanisms and pathways are in place to enable timely specialist referral and access to diagnostic facilities.

People with foot specific presentations of MBDs such as recurrent stress fractures or increasing deformity associated with Paget's disease, should be able to access ongoing care that addresses the musculoskeletal and other consequences of their disorder.

Foot health service providers should be aware of the significance of foot morbidity as a risk factor for falls in vulnerable groups and take steps to address these risks.

- xxix People with MBD and foot health problems should receive information and education on how to:
- identify the signs and symptoms of, or risk factors for, metabolic bone diseases and their manifestations in the feet
 - recognise possible complications and address pain management
 - how and when to seek professional advice
 - identify local and national service user support organisations
 - remain active and have a healthy lifestyle by quitting smoking, controlling weight and using appropriate footwear.

Introduction

Connective tissue diseases (CTD) are a group of conditions characterised by multi-organ inflammation and autoimmunity. Symptoms vary depending on the disease, but many share the common symptoms of joint aches and pains, fatigue, muscle pain and weakness, rashes, skin changes and inflammatory changes in different organ systems.

The foot manifestations associated with the connective tissue diseases rival inflammatory arthritis in complexity and the need for coordinated care. Many of the specific implementation recommendations for the CTDs mirror those for IA. Providers of foot health services might find it helpful to consider both of these groups together when planning services and referral pathways.

Note: The term connective tissue disorder, as used in these standards, does not encompass inherited conditions such as Marfan's disease or the Ehlers-Danlos group of connective tissue disorders. We recognise that these systemic disorders do result in foot problems, but these issues are addressed within the generic standards.

Scleroderma (systemic sclerosis) is a relatively uncommon, multi-system, connective tissue disease that affects the musculoskeletal system and skin, but also can involve internal organs such as the heart, lung and kidneys. It affects women much more commonly than men, can be life-threatening, and has the highest mortality of any of the connective tissue diseases.

Scleroderma presents in systemic and localised forms. About 1500 new cases are diagnosed annually in the UK⁵⁷. Foot involvement (commonly Raynaud's phenomenon) is seen in 90% of patients with systemic sclerosis.⁵⁸ Trophic changes, vasculitis and ulceration are also relatively common. The skin changes and characteristic fat pad atrophy associated with scleroderma may also lead to mechanical foot problems such as raised plantar pressures. Chronic pain in the feet is one of the more debilitating symptoms of late stage systemic sclerosis and can have a major impact on mobility and function.

Systemic lupus erythematosus (SLE or sometimes known just as lupus) is an immune mediated connective tissue disease which typically presents in women during the childbearing years. Although the skin and joints are the most commonly affected organs, lupus is a disease which can affect any organ or system.⁵⁹ Raynaud's phenomenon, often affecting the feet, is again, common in SLE and may be associated with neuropathy and/or ulceration.

The systemic vasculitides (Wegener's granulomatosis, microscopic polyangiitis, Churg Strauss syndrome, polyarteritis nodosa) are a group of uncommon conditions characterised by inflammation of blood vessels which can lead to organ failure and death. The most common organs to be involved are the skin, kidneys and nerves. Foot involvement is uncommon.

Assessment and management

Standard 26a

All people with a diagnosis of a connective tissue disease should receive a foot health assessment within 3 months of diagnosis, with follow-up assessments annually. These assessments should consider the need for communication with other support services.

Standard 26b

People whose condition does not respond to treatment, who experience new or worsening symptoms, or whose personal situations change, should have timely access to a professional with specialist knowledge of connective tissue diseases. Foot health service providers should be aware of indications for urgent referrals, surgical referrals and disease red flags.

The multi-disciplinary team

Standard 27

People with connective tissue diseases have a particular need for access to multi-disciplinary care; including foot health services based in either community or hospital settings. Practitioners providing foot health care for people with connective tissue diseases should ensure that they are adequately integrated with other parts of the multi-disciplinary team, either geographically or through excellent communication links.

Self-management

Standard 28

People with connective tissue diseases and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

The rationale

- People with CTDs, especially where the skin or vascular system is involved, are at potentially increased risk of foot ulceration. This can be compounded in some CTDs by loss of subcutaneous fat and skin fibrosis over weight bearing areas.^{58,60}
- There is general acceptance that foot health needs are substantially increased, although there is little formal evidence for this relatively uncommon group of conditions.
- CTDs are complex and their effective management requires the input of professionals with a range of expertise. Two-way communication between rheumatologists responsible for overall case management and the various disciplines contributing to the care of the person with a CTD, ensures that disease control is optimised and that supplementary care is coordinated with the medical needs of the person. Medical specialists should be able to facilitate access to foot health services for patients with foot health needs arising from their CTDs.

Practitioners providing foot health care for people with CTDs should ensure that their service is adequately integrated, either geographically or through excellent communication links, with the multi disciplinary team responsible for an individual's care.

- An annual musculoskeletal, vascular and neurological assessment which includes an assessment of the lower limbs and feet will help identify problems early. It is well recognised that patients are sometimes reluctant to request reviews. Routine assessment will identify problems that may otherwise have been left untreated. An annual review enables problems and



emerging health issues to be identified and offers the opportunity to consider treatment options, to assess the person's wider needs, and the opportunity for referral to other specialities.

- Foot health providers have a role to play in both the general health education of people with CTDs, and in providing timely and relevant foot health specific advice and education.
- CTDs are complex and involve organs such as the liver, kidney and lungs, damage to which have implications for podiatric management in terms of oedema and impaired tissue viability.⁵⁶

Putting the Standards into practice: key interventions

xxx A mechanism should be in place whereby everyone with a diagnosis of a connective tissue disease receives a baseline foot examination within three months of diagnosis. This need not require referral to specialist foot health services and can be undertaken by any appropriately trained member of the rheumatology team. Assessments should include:

- measures of structure and function
- neurological and vascular factors
- footwear, skin and nail assessments
- lifestyle and social factors
- baseline and follow-up measures of foot impairment
- the impact of any previous interventions.

xxxi Foot health providers should ensure that they are working effectively with a range of professions. Ideally this will involve a service integrated, at least in part, into the multi-disciplinary rheumatology team, but where this is not feasible good communications and clear lines of (two way) referral should be developed.

People whose symptoms worsen or who are at risk of significant foot disease should be referred for examination by a professional with specialist knowledge of rheumatological foot disorders. Foot health needs should be considered by medical carers and medical needs by providers of foot health services. Mechanisms should be in place to facilitate the referral of people with CTDs to professionals with the appropriate level of expertise (either greater or lesser expertise) according to current needs.

Foot health professionals in primary care should be well-trained and informed about connective tissue diseases. They should recognise and be able to screen for the clinical features which may indicate connective tissue disease and know how to access appropriate secondary care services, including being able to identify people who require immediate/emergency access to secondary or specialised care.

xxxii People with CTDs and foot health problems need information and education:

- about the local and systematic consequences of connective tissue diseases
- to support smoking cessation
- about appropriate choices regarding footwear and insoles
- that promotes foot hygiene
- on appropriate and inappropriate areas of self-management, e.g. inappropriate areas of self-management including corns and hard skin removal, and recognition of disease specific features such as calcinosis or ulceration
- on local and national service user support organisations for CTDs.

Information Box 7: Disease Specific Public Health Information

Arthritis Care is the UK's largest user-led organisation working with and for people who have arthritis. They provide information and support about different types of arthritis and contact details for arthritis care "regional groups".

www.arthritiscare.org.uk, free phone help line: 0808-800-4050

National Ankylosis Spondylitis Society provides practical advice and a downloadable guidebook for patients. www.nass.co.uk, tel: 0143-587-3527.

National Association for the Relief of Paget's Disease offers support and information, sponsors research into the causes and treatment of the disease, raises awareness of the disease among the medical profession and the public.

www.paget.org.uk, tel: 0161-799-4646.

National Back Pain Association (BackCare) is an independent national charity that helps people manage and prevent back pain by providing evidence-based information, telephone support, promoting best-practice in prevention and management, funding research and promoting self-help via local branches.

www.backcare.org.uk, tel: 0870-950-0275 or 0845130-2704.

National Rheumatoid Arthritis Society (NRAS) provides support and information for people with rheumatoid arthritis and juvenile idiopathic arthritis, their families, friends and carers, and health professionals with an interest in rheumatoid arthritis.

www.rheumatoid.org.uk, tel: 0800-298-7650.

NRAS publication, *The role of the podiatrist* provides information about foot involvement in RA and the range of treatments, information about accessing locally Chiropody/ Podiatry Practitioners and links to find podiatry facilities.

www.rheumatoid.org.uk/article.php?article_id=169.

Raynaud's & Scleroderma Association (RSA) is a national charity and self help organisation, committed to supporting patients and carers who have these conditions. The Association funds both scientific and clinical research and provides information about the disease for sufferers and health professionals, including podiatrists, as well as information about products to help with Raynaud's symptoms. Newsletters are published quarterly containing information on research and treatments. Relevant publications include *The Role of the Podiatrist in Raynaud's & Scleroderma* and the patient leaflet *Foot Care in Raynaud's & Scleroderma*. For further details visit www.raynauds.org.uk or tel: 0127-087-2776.

Scleroderma Society is a registered charity whose aim is to help and support people with scleroderma, increase awareness of scleroderma, and fund scientific and medical research. It offers medical information about the disease and support to patients including help to form a local group if there is none available in the area. Information about foot symptoms and problems in the "frequently asked questions" link

www.sclerodermasociety.co.uk/newsite/faqs.php, and a leaflet on *scleroderma and the foot* www.sclerodermasociety.co.uk/newsite/leaflets/Scleroderma%20&%20the%20Foot%202007.pdf

Links to other national and international associations related to the disease are also offered. www.sclerodermasociety.co.uk, tel: 0800-311-2756.

Generic Foot Health Standards

STANDARDS TO IMPROVE ACCESS TO EFFECTIVE SERVICES

Public health information

Standard 1: Health service providers, in collaboration with other service providers and organisations, e.g. leisure and educational, should make available to the public, robust and reliable information that promotes good musculoskeletal foot health.

Physical access to facilities

Standard 2: Foot health services should endeavour to provide access to health care facilities at times and locations convenient to the needs of service users, and facilitate access for people with disabilities.

Involvement of service users in service development

Standard 3: Healthcare organisations should involve people with musculoskeletal foot health problems in the planning, development and evaluation of foot health services.

Education and training of health professionals

Standard 4a: All relevant members of the primary health care team must understand the diagnosis and management of musculoskeletal foot health problems, including the mechanisms for accessing local foot health services.

Standard 4b: Foot healthcare providers must understand the consequences of systemic disease on the feet, and be able to identify the warning signs that require timely referral to specialist medical care.

STANDARDS TO IMPROVE ACCESS TO SERVICES THAT ENABLE EARLY DIAGNOSIS

Access to foot health services

Standard 5a: People with foot symptoms of musculoskeletal origin, or whose foot health needs are increased because of systemic musculoskeletal disease, should have timely access to foot health care in community or hospital settings.

Standard 5b: Clear referral pathways should be developed locally that detail indications for referral to the various professions involved in the care of foot problems, and the mechanisms by which referrals are made.

Assessment of need

Standard 6a: On presentation, people should have a comprehensive assessment of their foot problems in an environment and manner that preserves privacy and dignity.

Standard 6b: Assessment should consider the need for referrals to, or communication with, other services and organisations, e.g. community care organisations and employers. The outcome of the assessment, along with any diagnosis and treatment plan, should be made available to the patient, referrer, and where indicated, the individual's GP.

Diagnosis

Standard 7a: Whenever possible, a specific diagnosis should be given. In circumstances where a firm diagnosis is not possible, symptom-based management should be provided and explained.

Standard 7b: People should be given written information, or information in an accessible format, and education about their condition and its impact to help them to contribute to a



management plan which may include arrangements for further assessments or investigative procedures.

STANDARDS TO IMPROVE ACCESS TO SERVICES THAT ENABLE ONGOING MANAGEMENT

Self-management

Standard 8: People with musculoskeletal foot health problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice.

Clinical management

Standard 9a: People with foot problems should have access to safe, effective, timely care with appropriate monitoring arrangements. The health professional should ensure that the person understands management strategies, which should take into account personal circumstances both at home and at work. Agreed strategies should, preferably, be in accordance with the best available evidence from national and international guidelines.

Standard 9b: Foot health professionals should gain confirmation from service users that they understand and accept the current episode of care and know what will happen next.

Individualised care plans

Standard 10: On diagnosis or on the basis of a management plan, an appropriate, individualised plan for ongoing care should be jointly developed by the foot health provider, the service user, carer and relevant members of the multi-disciplinary team. A printed copy of the care plan should be provided for the service user.

STANDARDS TO IMPROVE ACCESS TO SERVICES THAT ENABLE ONGOING SUPPORT

The multi-disciplinary team

Standard 11a: People with chronic symptoms or complex conditions should have timely access to appropriate multi-disciplinary care.

Standard 11b: Providers of foot health services should ensure that they are adequately integrated with the appropriate multi-disciplinary team, preferably physically, but at least through clear lines of communication.

Prompt access to care if symptoms worsen

Standard 12: People whose condition does not respond to treatment, who experience new or worsening symptoms, or whose personal situations change, should have timely access to health professionals trained to carry out specific care or treatment, or who can refer them to other specialist care if needed. Foot health service providers should be aware of indications for urgent referrals, surgical referrals and disease red flags.

Disease-Specific Foot Health Standards

STANDARDS OF CARE FOR PEOPLE WITH FOOT PROBLEMS AND INFLAMMATORY ARTHRITIS

Assessment and management

Standard 13: Everyone with a diagnosis of an inflammatory arthritis should receive a foot health assessment within 3 months of diagnosis. This assessment need not be by a foot health professional.

Prompt access to care if symptoms change

Standard 14: Where there is a substantial change in disease activity (for better or worse) foot health implications should be reviewed.

The multi-disciplinary team

Standard 15: People with inflammatory arthritis have a particular need for access to multi-disciplinary care; including foot health services based in either the community or hospital settings. Practitioners providing foot health care for people with inflammatory arthritis should ensure that they are adequately integrated with other parts of the multi-disciplinary team, either physically or through excellent communication links.

Self-management

Standard 16a: People with inflammatory arthritis and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

Standard 16b: People with inflammatory arthritis should receive adequate information regarding the signs and symptoms that warn of deterioration in their condition; and advise them of when to seek prompt review by an appropriate multi-disciplinary team member.

Specialist review

Standard 17a: People with inflammatory arthritis should be offered a comprehensive, annual specialist review that includes review of foot health needs.

Standard 17b: If foot health needs are identified, mechanisms should be in place for people with inflammatory arthritis to receive timely and appropriate foot health care.

Surgery

Standard 18: To maximise the chance of the best possible outcome for people with inflammatory arthritis who may require foot surgery, early referral for a surgical opinion from a specialist experienced in the management of inflammatory foot problems should be available.

STANDARDS OF CARE FOR PEOPLE WITH FOOT PROBLEMS AND OSTEOARTHRITIS

Self-management

Standard 19: People with osteoarthritis and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

Pain management

Standard 20: People with osteoarthritis should receive education and intervention to enable them to manage their pain.

STANDARDS OF CARE FOR PEOPLE WITH FOOT PROBLEMS AND BACK PAIN

Assessment and diagnosis

Standard 21: People with foot problems and mechanical back pain may require a lower limb assessment by a health care professional with understanding of the complex interaction between the lower limbs and back pain.

Prompt access to care if symptoms worsen

Standard 22: If a person's back pain fails to respond to conservative management they should be offered further assessment by a practitioner who has the authority to refer for specialist assessment or investigation, including a surgical opinion if indicated.

STANDARDS OF CARE FOR PEOPLE WITH FOOT PROBLEMS & METABOLIC BONE DISEASES

Promoting bone health

Standard 23: Foot health service providers should make information available to the public that promotes good bone health.

Assessment and management

Standard 24: Clear referral pathways should be developed locally that detail indications for referral to the various professions involved in the care of people with metabolic bone diseases and foot problems, and the mechanisms by which referrals are made.

Self-management

Standard 25: People with metabolic bone diseases and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

STANDARDS OF CARE FOR PEOPLE WITH FOOT PROBLEMS AND CONNECTIVE TISSUE DISEASES

Assessment & management

Standard 26a: All people with a diagnosis of a connective tissue disease should receive a foot health assessment within 3 months of diagnosis, with follow-up assessments annually. These assessments should consider the need for communication with other support services.

Standard 26b: People whose condition does not respond to treatment, who experience new or worsening symptoms, or whose personal situations change, should have timely access to a professional with specialist knowledge of connective tissue diseases. Foot health service providers should be aware of indications for urgent referrals, surgical referrals and disease red flags.

The multi-disciplinary team

Standard 27: People with connective tissue diseases have a particular need for access to multi-disciplinary care; including foot health services based in either community or hospital settings. Practitioners providing foot health care for people with connective tissue diseases should ensure that they are adequately integrated with other parts of the multi-disciplinary team, either geographically or through excellent communication links.

Self-management

Standard 28: People with connective tissue diseases and foot problems should be supported to manage their condition appropriately. Assistance may take the form of information, education, training or advice that emphasises the specific aspects of their condition.

analgesics

drugs that relieve pain

biomechanical

relating to the mechanical function of the body or parts of the body

biopsychosocial

the biopsychosocial model stresses the importance of a holistic approach to treatment by considering factors outside the biological process of a condition. In this approach, a person's social context and psychological wellbeing are key factors, along with their thoughts, beliefs and emotions

care pathway

a person's route or journey through care, which can include a range of different treatments and services

CATS

Clinical Assessment and Treatment Services (usually provided at the interface between primary and secondary care)

care plan

a written statement about a person's health needs; the treatment, support and advice they should have; and who should provide these and when

chiropodist

A chiropodist/podiatrist is a clinician who specialises in the evaluation and treatment of diseases of the foot. In the UK, a chiropodist should be registered with the Health Professions Council (the terms chiropodist and podiatrist may be used interchangeably, the title podiatrist reflecting the modern scope of practice - see podiatrist)

chronic disease

a long-term illness for which there is no cure but where the activity of the disease can be controlled.

clinical feature

involvement of part of the body that can be detected by careful examination or investigation

cognitive behavioural therapy

a combination of cognitive therapy, which can modify or eliminate unwanted thoughts and beliefs, and behavioural therapy, which can help to change behaviour in response to those thoughts

community care or community services

services that are based in or around primary care

co-morbidity

other diseases that one person might have. complications secondary conditions or negative reactions occurring during the course of the condition

concordance

a process by which a person and their health professional agree on the best use of medicines and treatments

conservative management or treatment

management to reduce the impact of illness without using invasive or high-risk measures, typically non-surgical

deformity

change in the shape of joints and/or bones

episode

a period of time during which someone experiences a condition

foot health provider

any health professional who provides, or could provide, assessment or treatment for foot problems

guidelines

official statements that define the parameters of practice

healthcare professional

a person who offers advice and clinical care who is not necessarily medically qualified. For example, this would include a nurse, pharmacist, physiotherapist, occupational therapist and podiatrist. These healthcare professionals are registered with, and regulated by the Health Professions Council. Other healthcare professionals, such as manual therapists (osteopaths and chiropractors) should also be qualified and registered with their own professional body

integrated services

services which achieve seamless care across primary, secondary and tertiary care

interventions

a general term covering treatments, advice, education and other care that a practitioner may give

multi-disciplinary team

a healthcare team that includes professionals from different disciplines, working together to provide a comprehensive service for people with musculoskeletal foot health problems

multi-system diseases

conditions involving more than one part of the body or organ, e.g. muscles, lungs, heart, kidneys, skin, etc

musculoskeletal

referring to the muscles, tendons, ligaments, cartilage, bones, joints, and spinal discs. Musculoskeletal problems can arise as a result of disorders of other systems, e.g. neurological disorders, but in this document the term refers to primary problems of the musculoskeletal system (see rheumatology)

orthoses [orthotics]

devices intended to alter or stabilise the mechanical function of a joint or limb. This includes a range of splints, insoles and braces

pain management programmes

combinations of treatments, advice and education designed to enable people to manage and cope with pain. They may include, for example, cognitive behavioural therapy, relaxation training, pacing of activities, use of Transcutaneous Electrical Nerve Stimulation (TENS)

pathway

a person's route or journey through care, which can include a range of different treatments and services

persistent pain

pain that has lasted for more than three months or has been present in episodes on more than half the days of the previous year; sometimes alternatively referred to as chronic pain

podiatrist

a podiatrist is a clinician who specialises in the evaluation and treatment of diseases of the foot. In the UK, a podiatrist should be registered with the Health Professions Council (see chiropodist)

primary care

care services available in the community, for example through a community pharmacist or the care provided by a GP. This is often a person's first point of contact for advice, information and treatment

providers

organisations responsible for delivering care and treatment, such as NHS trusts. Also called healthcare providers, service providers

psychosocial support

professional care which addresses a person's psychological and social health needs; this may include support to reduce a person's distress, fear or ability to cope, support for social and family relationships, and support/advice about employment or benefits

red flags

a group of symptoms or signs (clinical indicators), any one or more of which may suggest a possibility of serious disease

rheumatology

diagnosis and treatment of diseases and disorders of the joints, muscles, bones and tendons such as arthritis and degenerative joint disease. Rheumatological conditions are a subset of the broader group of musculoskeletal problems (see musculoskeletal)

secondary care

care available usually in a hospital setting. People generally need referral from a professional in primary care

self-management

learning a range of techniques to help manage life with a condition more effectively, including exercise, eating healthily, etc.

service user

a person who accesses healthcare services

specialist

a provider who has been specially trained in and practices a specific type of care other than general practice. The term specialist is often used to refer to a consultant physician, although in this document it refers to any clinician with a special interest in rheumatological and/or musculoskeletal problems

standards

a set of expected norms and acceptable outcomes (see guidelines)

treatment

drugs or other interventions intended to alleviate symptoms

triage

the process by which appropriate treatments and/or referrals are decided

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Other Contributions Gratefully Acknowledged

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Project funded by the Arthritis Research Campaign (**arc**)
registered charity number 207711

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