## Section 4: burden of ill-health: disability and conditions effecting older people

# Rheumatology and orthopaedics

a single version of the truth

NHS
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| Falls and bone health | Burden of ill—health: disability and conditions effecting older people |
| Long term conditions | Burden of ill—health: disability and conditions effecting older people |
| Obesity | Health promotion and preventative services |

## Outcome Frameworks summary

The Public Health Outcomes Framework for England, 2013-2016[1] outlines the overarching vision for public health as “to improve and protect the nation’s health and wellbeing, and improve the health of the poorest fastest”. The NHS Outcomes Framework 2014/15[2] set out how the improvement of healthcare outcomes for all will be the primary purpose of the NHS. The following indicators from these frameworks are relevant to this section.

| Framework | Reference | Indicator |
|---|---|---|
| Public Health | 2.12 | Excess weight in adults |
| Public Health | 2.13 | Proportion of physically active and inactive adults |
| Public Health | 2.23 | Self-reported wellbeing |
| NHS | 2.3 (i) | Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults) |
| NHS | 3.1 | Patient Reported Outcomes Measures (PROMs) for elective hip / knee replacement. |
| NHS | 3.3 | Improving recovery from injuries and trauma |
| NHS | 3.5 | Improving recovery from fragility fractures |

## Edition

| Edition | Version no. | Changes/Comments |
|---|---|---|
| 2012/13 | 1 | N/A |
| 2013/14 | 1 | |

## Executive summary

It is estimated that nearly one-quarter of adults are affected by longstanding musculoskeletal problems. They are a major cause of ill-health, pain and disability.

Musculoskeletal conditions are the most common reason for repeat consultations with a GP, accounting for up to 30% of primary care consultations. The ageing population will further increase the demand for treatment of age-related disorders such as osteoarthritis. Lifestyle factors, such as obesity, can contribute to some musculoskeletal conditions.

In Wiltshire during 2012/2013 there were 12,205 hospital admissions for musculoskeletal conditions, resulting in 28,885 bed days. There were 1,892 hospital admissions for osteoarthritis of the hip and knee, resulting in 7,404 bed days. There has been a small increase in admissions (2.3%) but a large decrease in the bed days (-15.0%) since 2010/11.

Patient reported outcomes (PROMs) for elective hip and knee replacement surgery show that Wiltshire has similar levels of improvement to general health and joint improvement to the national average.

Wiltshire has a higher rate of total rheumatology and rheumatology follow-up outpatient attendances than England.

While most of the self-limiting non-inflammatory disorders are managed in primary care other serious or more complex conditions are treated in hospital within specialist services. Supported self-care is also a very important aspect of musculoskeletal condition management.

### Challenges for consideration

- The increasing obese and overweight population is likely to lead to a rise in joint pain and arthritis.
- A growing elderly population will also see an increase in arthritis.

## Why is this area important

Musculoskeletal conditions are common and include over 200 different conditions. They are a major cause of ill-health, pain and disability.

It is estimated that nearly one-quarter of adults are affected by longstanding musculoskeletal problems, such as arthritis, that limit everyday activities. Musculoskeletal conditions are the most common reason for repeat consultations with a GP, accounting for up to 30% of primary care consultations. The ageing population will further increase the demand for treatment of age-related disorders such as osteoarthritis and osteoporosis.[3]

- Up to 60% of people who are on long-term sick leave cite musculoskeletal problems as the reason.
- 40% of people over 70 have osteoarthritis of the knee.
- It is estimated that 8–10 million people in the UK have arthritis, including 1 million adults under the age of 45 and 70% of 70-year-olds.
- Low back pain is reported by about 80% of people at some time in their life.
- By 2020, trauma caused by road traffic injury will become the third highest ranked cause of disabling conditions.

http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4138413

Lifestyle factors can contribute to some musculoskeletal conditions. The 65% of men and 56% of women in England who are now either overweight or obese have an increased risk of developing musculoskeletal disorders such as osteoarthritis. Obesity is likely to increase the pain felt by those with osteoarthritis especially in the hips and the knees.

In 1999/2000, 36 million working days were lost due to osteoarthritis alone, at an estimated cost of £3.2 billion in lost production. At the same time, £43 million was spent on community services and £215 million was spent on social services for osteoarthritis.[4]

**National Policies**

The Musculoskeletal Services Framework 2006 describes best practice but does not contain formal standards for service delivery.

The British Society for Rheumatology has developed ten quality standards for Rheumatoid Arthritis[5]:

- People presenting in primary care with a suspected persistent synovitis affecting the hands or feet to be offered a specialist opinion within 6 weeks of symptom onset.

- People with active RA to have access to specialist prescribed and monitored evidence based disease-modifying anti-rheumatic drug regimens within 3 months of the onset of persistent symptoms.

- People with recent onset active RA are reviewed monthly with validated measures of disease activity (e.g.DAS28) until treatment has induced remission, or minimal disease activity where this is not achievable.

- People with rheumatoid arthritis are cared for by a specialist-led multidisciplinary team consisting of professionals with appropriate knowledge and skills from primary and specialist care, and are given a single point of contact responsible for co-ordinating their care.

- People with rheumatoid arthritis are offered personalised information, education, support and opportunities for discussion throughout their care to help them understand their condition and be involved in their own self-management.

- People with RA should be asked about the impact the disease is having on their ability to work, and treatment and support should be offered throughout their disease to ensure that their chances of maintaining employment are optimised.

- People with RA are offered an annual holistic review to assess and record the effect the disease is having on the person's quality of life, with an action plan to address issues identified. This will include social roles and work, disease activity, pain, mood, joint damage, functional ability, review of diagnoses, co-morbidities (including cardiovascular disease), extra-articular disease, and the need for referral to members of the multi-disciplinary team.

- People with RA to be given knowledge of how to access specialist care promptly with rapid access for appropriate interventions for persistent disease flares within 48 hours of first contact, and appointments at a frequency and location suitable to their needs.

- People with RA should be offered the opportunity to participate in national and local audit and research projects to improve their quality of their care, and that of others.

- People with RA should be offered biologic therapy as soon as possible after their condition fulfils NICE Technology Appraisal criteria, and should have their relevant clinical data on response and side effects recorded and shared with appropriate national databases.

## What are the needs of the population?

This is a group of very common health problems and disorders. Many patients experiencing such conditions will be treated in a primary care service and not require specialist care. Musculoskeletal conditions are the most common reason for repeat

consultations with a GP, accounting for up to 30% of primary care consultations. However, some patients do require hospital admission for treatment.

In Wiltshire during 2012/2013 there were 12,205 hospital admissions for musculoskeletal conditions, resulting in 28,885 bed days and an average length of stay of 5.1 days.

Table 1 illustrates hospital admissions from 2009/10 to 2012/13 for Wiltshire patients for the four most common rheumatological or orthopaedic conditions. This shows a small increase in admissions for osteoarthritis of the knee and hip, but a larger decrease in the number bed days for both conditions.

**Table 1: Rheumatological and orthopaedic hospital admissions, Wiltshire**

| | Admission spells | | | | Bed days | | | |
|---|---|---|---|---|---|---|---|---|
| | **2010/11** | **2011/12** | **2012/13** | **% change 2010/11 to 2012/13** | **2010/11** | **2011/12** | **2012/13** | **% change 2010/11 to 2012/13** |
| **Gonarthrosis (Osteoarthritis of the knee) (ICD10: M17)** | 1,051 | 1,057 | 1,100 | **+4.7%** | 4,644 | 4,496 | 4,068 | **-12.4%** |
| **Internal derangement of the knee (ICD10: M23)** | 1,088 | 1,216 | 1,204 | **+10.7%** | 312 | 298 | 265 | **-15.1%** |
| **Dorsalgia (back pain) (ICD10: M54)** | 817 | 946 | 1,048 | **+28.3%** | 1,239 | 1,433 | 1,067 | **-13.9%** |
| **Coxarthrosis (Osteoarthritis of the hip) (ICD10: M16)** | 799 | 799 | 792 | **-0.9%** | 4,071 | 3,519 | 3,336 | **-18.1%** |

Data source: Central Southern CSU, SUS data

## Osteoarthritis

Osteoarthritis refers to a clinical syndrome of joint pain accompanied by varying degrees of functional limitation and reduced quality of life. It is the most common form of arthritis and one of the leading causes of pain and disability worldwide. Knees, hips and small hand joints are most commonly affected.

The exact incidence and prevalence of osteoarthritis is difficult to determine because the clinical syndrome of osteoarthritis (joint pain and stiffness) does not always correspond with the structural changes of osteoarthritis (usually defined as abnormal changes in the appearance of joints on radiographs).

The prevalence of painful, disabling radiographic knee osteoarthritis in the UK populations aged over 55 has been estimated at approximately 10%. The prevalence of symptomatic radiographic osteoarthritis is higher in women than men,

especially after the age of 50. Although there are few good studies, rates of symptomatic radiographic hip osteoarthritis have varied from 5 to 9%.[6]

This means in Wiltshire there are approximately 14,950 people over 55 with painful, disabling radiographic knee osteoarthritis and 7,500 to 13,450 people over 55 with symptomatic radiographic hip osteoarthritis. This estimate is based on ONS 2012 mid-year estimate of 149,522 people aged 55 or over.

The Musculoskeletal service framework also highlights inequalities within musculoskeletal conditions. Disadvantaged social groups have a higher incidence of some musculoskeletal disorders such as osteoarthritis, and yet studies have shown that surgical intervention rates for disadvantaged groups have the lowest intervention rate.[7]

There were 879 elective hip replacements, costing around £5.3 million in Wiltshire in 2012/13. In the same year there were also 901 elective knee replacements costing approximately £5.7 million. Tables 2 and 3 show trends over the last 5 years for elective hip and knee replacement surgery (Standardised Admission Ratios cannot be compared over time or between organisations – only against the baseline for the year in question).

**Table 2: Elective hip replacements - 2008/09 to 2012/13**

| Year | Number of elective hip replacements | Standardised Admission Ratio (Age/Sex) | 95% confidence interval |
|---|---|---|---|
| 2008/09 | 798 | 124.7 | 116 to 134 |
| 2009/10 | 800 | 123.5 | 115 to 132 |
| 2010/11 | 894 | 132.3 | 124 to 142 |
| 2011/12 | 905 | 128.2 | 120 to 137 |
| 2012/13 | 879 | 122.9 | 115 to 131 |

Data source: The Health and Social Care Information Centre courtesy of Dr Foster Intelligence

**Table 3: Elective knee replacements - 2008/09 to 2012/13**

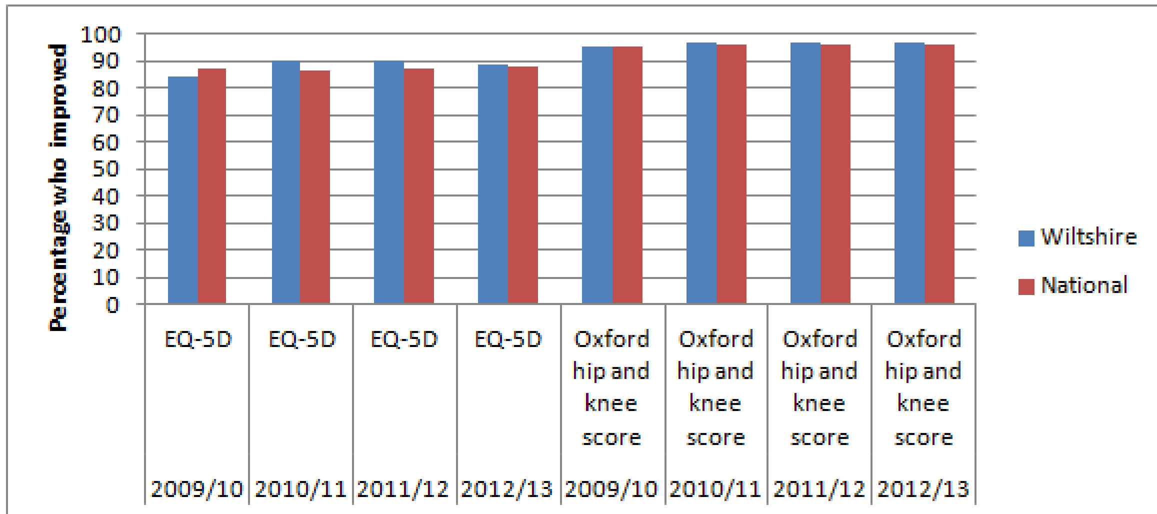
| Year | Number of elective knee replacements | Standardised Admission Ratio (Age/Sex) | 95% confidence interval |
|---|---|---|---|
| 2008/09 | 773 | 104.1 | 97 to 112 |
| 2009/10 | 779 | 102.9 | 96 to 110 |
| 2010/11 | 825 | 105.4 | 98 to 113 |
| 2011/12 | 896 | 109.1 | 102 to 116 |
| 2012/13 | 901 | 109.8 | 103 to 117 |

Data source: The Health and Social Care Information Centre courtesy of Dr Foster Intelligence

Patient reported outcomes (PROMs) for elective hip and knee replacement surgery show that Wiltshire has similar levels of improvement to general health to the national average (based on a combination of five key criteria concerning their

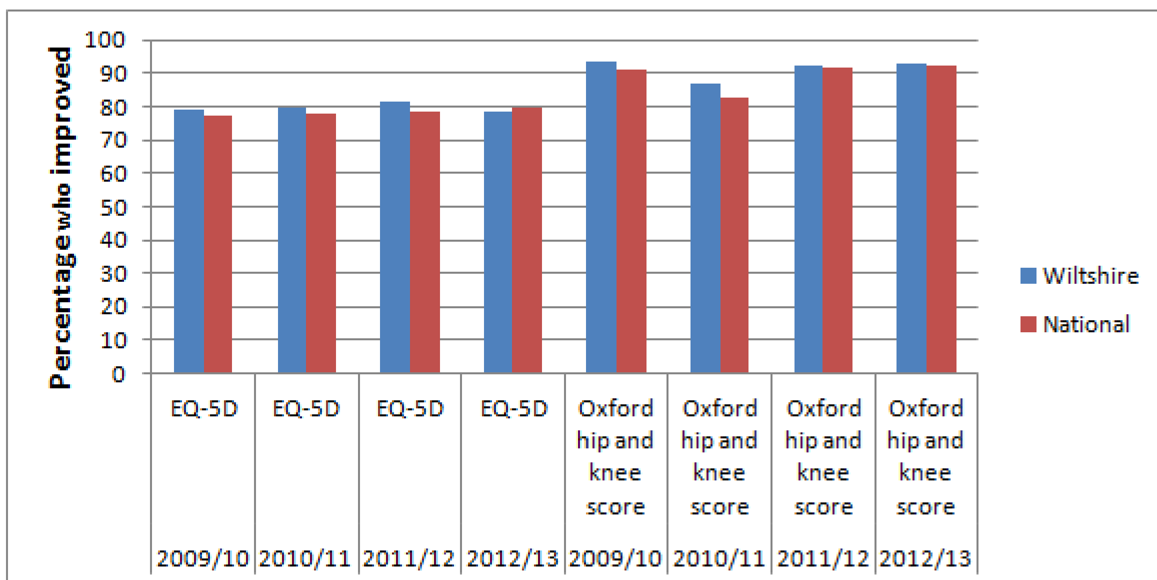
general health, EQ-5D Index score (Figure 1). In addition there are similar joint related improvements (measure using the Oxford Hip and Knee score) in Wiltshire and nationally (Figure 2).

**Figure 1: Percentage of respondents who recorded an increase in general health (EQ-5D) and percentage who recorded joint related improvement, for elective hip replacement**




Data source: HSCIC: http://www.hscic.gov.uk/catalogue/PUB11848

**Figure 2: Percentage of respondents who recorded an increase in general health (EQ-5D) and percentage who recorded joint related improvement, for elective knee replacement**




Data source: HSCIC: http://www.hscic.gov.uk/catalogue/PUB11848

Wiltshire is in the highest quintile nationally for diagnostic and therapeutic knee arthroscopy (43.2 directly standardised rate per 100,000, 190.1 directly standardised rate per 100,000).[8]

In Wiltshire, 2012/13, there were similar numbers and standardised admission ratios for elective hip and knee replacements across deprivation quintiles, suggesting that if need for hip and knee replacement is higher in those living in most deprived quintile

there is an unmet need. However the level of need in the different quintiles in Wiltshire is not known.

## Rheumatoid arthritis

Rheumatoid arthritis (RA) is an inflammatory disease that exerts its greatest impact on those joints of the body that are lined with synovium, a specialised tissue responsible for maintaining the nutrition and lubrication of the joint. It typically affects the small joints of the hands and the feet, and usually both sides equally in a symmetrical distribution.[9]

The incidence of the RA is low, with an incidence of around 1.5 males per 10,000 population per year, and 3.6 females per 10,000 population per year. Prevalence estimates in the UK are 0.8% to 1.1%.[10]

This translates into approximately 120 people being diagnosed with new RA each year in Wiltshire, with 4,750 suffering from RA[11].

In 2012/13 there were 18,578 attendances for rheumatology outpatients. The majority of these are at the Royal National Hospital for Rheumatic Diseases (53.7%) and Salisbury (32.2%). It is unknown how many of these are for rheumatological conditions. Of all of the attendances 14,862 were follow up attendances at a cost of around £1,100,964. 7,224 patients were seen in these follow up appointments. These follow-up attendances are more likely to be for rheumatic disease.

Wiltshire has a higher rate of total rheumatology and rheumatology follow-up outpatient attendances than England. The Wiltshire SAR (adjusted for age, sex and deprivation) for rheumatology follow-up attendances is 124.1 (95% confidence interval 122.1-126.1), a value of 100 is equivalent to the England level.

## Low back pain

Low back pain is a common disorder. For most people affected by low back pain substantial pain or disability is short lived and they soon return to normal activities regardless of any advice or treatment they receive. A small proportion, however, develop chronic pain and disability. Once low back pain has been present for more than a year few people with long-term pain and disability return to normal activities. It is this group who account for the majority of the health and social costs associated with low back pain.[12]

Low back pain probably affects around one-third of the UK adult population each year. Of these, around 20% will consult their GP about their back pain. This results in 2.6 million people, in the UK, seeking advice about back pain from their GP each year [13] Of those who seek care 85% are diagnosed as non-specific lower back pain.[14]

This means around 125,000 adults in Wiltshire are affected by low back pain, of whom 25,000 consult their GP[15].

## Current service provision

Musculoskeletal conditions are a very common reason for healthcare consultations. It has been estimated that up to 30% of people consulting their GPs, and about 40% of those attending NHS walk-in centres, do so because of a musculoskeletal complaint. In addition, over 3.5 million 999 calls per year relate to musculoskeletal injuries or conditions – one-fifth of all genuine (non-hoax) 999 calls. The great majority of these will result in treatment at an accident and emergency department.

In Wiltshire Musculoskeletal services are provides by primary care, intermediate orthopaedic services and specialist services such as outpatient rheumatology clinics. While most of the self-limiting non-inflammatory disorders are managed in primary care other serious or more complex conditions are treated in hospital within specialist services. Supported self-care is also a very important aspect of musculoskeletal condition management.

## What works

There are a number of NICE clinical guidelines for Musculoskeletal conditions, these include:

- Rheumatoid Arthritis, CG79.
- Osteoarthritis, CG59.
- Low back pain, CG88.

As well there are a large number of technology appraisals relating to the treatment of Musculoskeletal conditions.
http://www.nice.org.uk/guidance/index.jsp?action=byTopic&o=7299

## Challenges for Consideration

Prevention: reducing the levels of obesity and increasing the levels of physical activity in the population

Improving the current service

Preparing services for future challenges:

- The increasing obese and overweight population is likely to lead to an increase in joint pain and arthritis.
- An increasing elderly population will also see an increase in arthritis.
- Rheumatology.

Better targeting those whose needs are unmet:

- How do we know whether need in deprived areas is being met?
- Self-management.
- Management of chronic pain.

Research to fill gaps in knowledge.

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[15] This estimate is based on ONS 2012 mid-year estimates