

The NHS must achieve better value from musculoskeletal services

Musculoskeletal conditions are both a health system and a societal concern. Up to 30% of GP visits in England and £4.76 billion of NHS spending each year are the result of a musculoskeletal condition (NHS England, 2017a). Alongside this, there is the indirect cost through comorbidities, for example people with osteoarthritis being at increased risk of cardiovascular disease (Arthritis Research UK, 2014). The cost to society is that up to 7.5 million working days are lost as a result of ill health secondary to a musculoskeletal condition and 60% of those currently on long-term incapacity benefit have a musculoskeletal condition (NHS Waltham Forest Clinical Commissioning Group, 2015).

To meet the financial challenge and rising demand, the NHS must rethink the way in which musculoskeletal services are delivered. The required change in approach to service delivery is likely to be catalysed by the NHS' move towards value-based health care (NHS England, 2017b). Value in health care is often described as achieving the best outcomes at the lowest cost (The Economist, 2017).

Within a universal health-care system such as the NHS, there are three aspects of value. First, personalized value, which

relates to how well the intervention meets the expectations of the patient in addressing the concerns which led him/her to seek help. Second, allocative value, which describes how well resources are allocated between different sub-programmes. In 2013–14 there was a 1.9-fold variation in the amount allocated to musculoskeletal programmes by clinical commissioning groups in England. Furthermore allocative value encompasses the allocation of resource within systems, for example between hip, knee and spinal surgery within each musculoskeletal programme budget. Third, utilisation value, which includes not only evaluating how well resources are being used to achieve good outcomes for the patients treated but also whether the right people are being seen and if the balance of resource between prevention and long-term care is adequate.

Reducing variation

The NHS must approach increasing efficiency within musculoskeletal services in two ways. First, by taking a population-based approach in looking at how musculoskeletal services add value. Clinical commissioning groups, who are responsible for two thirds of the NHS budget, need a better understanding of what works. In an analysis by the Royal College of Surgeons (2014), 73% of clinical commissioning groups did not follow clinical and National Institute for Health and Care Excellence guidelines for referral for hip replacements.

Initiatives such as 'Getting it Right First Time' will help to reduce unwarranted variation in musculoskeletal care. A review of national elective orthopaedic care in England suggests there is a need to optimize musculoskeletal service provision within hospitals (Briggs, 2015). For example, 80.1% of surgeons performing knee revisions performed 10 or fewer procedures per year despite evidence that higher volume leads to better outcomes (Briggs, 2015). There is a large variation in joint replacement procedure costs as a result of hospitals not following guidance from national registries

(Briggs, 2015). Lack of coordinated care has meant that despite evidence demonstrating that early and frequent physiotherapy helps to reduce postoperative complications and increase quality of life, there is currently underfunding of an adequate 7-day service and lack of integrated commissioning, leading to fragmented care among multiple providers (Briggs, 2015).

Using resources effectively

Second, the NHS can do more to improve productivity. A key dimension underpinning value-based care is the integration of clinical practice (Kainu et al, 2016). The Virginia Mason Centre in Seattle, USA set up a central telephone number for patients who had back pain to call and schedule an appointment (Porter and Lee, 2013). Patients would be seen on their first visit by a physiotherapist and a doctor with an interest in rehabilitation, allowing stratification of patients, with those requiring urgent attention being escalated to the relevant teams and others started on a rehabilitation programme immediately (Porter and Lee, 2013). Co-locating spinal team members has enabled the Virginia Mason Centre to reduce the use of magnetic resonance imaging for patients with lower back pain by 23% since its inception in 2005 but also to increase clinic throughput, seeing 2300 new patients per year compared with 1404 previously (Porter and Lee, 2013).

There are examples of greater integration of musculoskeletal services within the NHS to achieve value (Boyle, 2014) and increase productivity. In Bedfordshire, England, Circle (as prime contractor) acts as an integrator for all musculoskeletal providers, with financial accountability for the whole musculoskeletal pathway. The integrated practice hub ensures that GP referrals are triaged to ensure patients receive the 'right treatment, at the right time, in the right place, with the right person'. By consolidating services, Circle aims to reduce inefficiencies such as repeat treatments and outpatient appointments, but also support local secondary care providers by tackling

Dr Naeem Ahmed, Radiology Specialty Registrar, St George's University Hospitals, London SW17 0QT

Dr Faheem Ahmed, National Clinical Entrepreneur Fellow, NHS England, London

Dr Gajan Rajeswaran, Consultant Musculoskeletal Radiologist, Department of Clinical Radiology, University College London Medical School, London

Professor Tim RW Briggs, Consultant Orthopaedic Surgeon, Royal National Orthopaedic Hospital NHS Trust, London

Sir Muir Gray, Honorary Clinical Researcher, Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford

Correspondence to: Dr N Ahmed (naeem.ahmed@nhs.net)

low value work in the community, allowing hospitals to focus on low volume but high value activity (Boyle, 2014). Integral to Circle's success will be its ability to take a multidisciplinary team approach to musculoskeletal care. Deploying podiatrists, extended scope practitioners and therapists appropriately ensures that specialists are working to the 'top of their licence' (Sullivan Sibert, 2016). However, moves to improve efficiency in upfront services, for example access to imaging, should be mindful of not causing increased use of resources downstream (Doss, 2017).

Addressing inequality

Wider societal issues also need to be addressed as part of improving use of resources. Inequalities in health care are thought to cost the NHS £4.8 billion a year (Asaria et al, 2016). There must be a concerted effort to address the wider social determinants of health. There is an association with musculoskeletal ill health and job insecurity and lower incomes (Health and Safety Executive, 2002). Average hospital costs for the poorest are almost 50% higher than those for the richest (Asaria et al, 2016). Men and women living in the poorest neighbourhoods cost the NHS 16% and 22% respectively more than those living in more affluent areas (Asaria et al, 2016).

Tackling the underlying causes of ill health will require a system-wide approach involving the third sector and social care providers, along with sustained community engagement. The formation of musculoskeletal networks will enable this multidisciplinary and multi-professional approach to tackle variations in care (Arthritis and Musculoskeletal Alliance and NHS Confederation, 2016). Local musculoskeletal networks will incorporate primary and secondary care providers, commissioners, members from local authorities and patients

collaborating to plan and monitor high quality musculoskeletal services for the local community (Arthritis and Musculoskeletal Alliance and NHS Confederation, 2016).

Conclusions

Ensuring maximum value from musculoskeletal services will be a challenge. However, these account for the fourth largest area of NHS England spend and musculoskeletal conditions affect 10 million adults and 150 000 children in the UK (Arthritis and Musculoskeletal Alliance and NHS Confederation, 2016). The NHS must optimize delivery of musculoskeletal services by focusing on achieving better value. This will require increasing efficiency through taking a population-based approach to how resources are allocated and increasing productivity by reforming how services are organized. **BJHM**

Arthritis and Musculoskeletal Alliance, NHS Confederation (2016) Developing MSK Networks. www.nhsconfed.org/-/media/Confederation/Files/Publications/Documents/Developing%20MSK%20networks%20a%20resource%20pack.pdf (accessed 17 September 2017)

Arthritis Research UK (2014) Musculoskeletal health – a public health approach. www.arthritisresearchuk.org/policy-and-public-affairs/policy-reports/musculoskeletal-health-a-public-health-approach.aspx

Asaria M, Doran T, Cookson R (2016) The costs of inequality: whole-population modelling study of lifetime inpatient hospital costs in the English National Health Service by level of neighbourhood deprivation. *J Epidemiol Community Health* **70**(10): 990–996. <https://doi.org/10.1136/jech-2016-207447>

Boyle N (2014) Prime Contractor Model. www.kingsfund.org.uk/sites/files/kf/media/nick-boyle-prime-contractor-27.03.14.pdf (accessed 17 September 2017)

Briggs T (2015) A national review of adult elective orthopaedic services in England. Getting it right first time. www.boa.ac.uk/wp-content/uploads/2015/03/GIRFT-National-Report-Mar15..pdf (accessed 17 September 2017)

Doss W (2017) Non-radiologist reads can increase resource utilization. [http://www.radiologybusiness.com/topics/care-delivery/non-](http://www.radiologybusiness.com/topics/care-delivery/non-radiologist-reads-can-increase-resource-utilization-down-line)

KEY POINTS

- Up to 30% of GP visits in England and £4.76 billion of NHS spending each year are the result of a musculoskeletal condition.
- To achieve maximum value, we must focus on reducing variation and ensuring our resources are used effectively.
- The social determinants of health must be considered in our health-care delivery planning.

radiologist-reads-can-increase-resource-utilization-down-line (accessed 17 September 2017)

Health and Safety Executive (2002) Work, inequality and musculoskeletal health. www.hse.gov.uk/research/crr_pdf/2002/crr02421.pdf (accessed 17 September 2017)

Kainu T, Köhler A, Larsson S (2016) The missing piece in Finnish Health Care Reform. <https://media-publications.bcg.com/BCG-The-Missing-Piece-in-Finnish-Health-Care-Reform-July-2016.pdf> (accessed 17 September 2017)

NHS England (2017a) Musculoskeletal conditions. www.england.nhs.uk/ourwork/lrc-op-eolc/lrc-eolc/si-areas/musculoskeletal/ (accessed 17 September 2017)

NHS England (2017b) NHS RightCare and the shift to value-based healthcare. www.england.nhs.uk/rightcare/2017/02/13/value-based-healthcare/ (accessed 17 September 2017)

NHS Waltham Forest Clinical Commissioning Group (2015) Improving musculoskeletal services in Waltham Forest. www.walthamforestccg.nhs.uk/downloads/news/Improving%20MSK%20services.pdf (accessed 17 September 2017)

Porter ME, Lee TH (2013) The Strategy That Will Fix Healthcare. <https://hbr.org/2013/10/the-strategy-that-will-fix-health-care> (accessed 17 September 2017)

Royal College of Surgeons (2014) Is access to surgery a postcode lottery? www.rcseng.ac.uk/-/media/files/rcs/news-and-events/is-access-to-surgery-a-postcode-lottery.pdf?la=en (accessed 21 September 2017)

Sullivan Sibert K (2016) Michael Porter at the ASA: Is anesthesiology a specialist silo? <http://apennedpoint.com/michael-porter-at-the-asa-is-anesthesiology-a-specialist-silo/> (accessed 17 September 2017)

The Economist (2017) The UK: Value-based strategy in a changing NHS. <http://vbhcglobassessment.eiu.com/the-uk-value-based-strategy-in-a-changing-nhs/> (accessed 17 September 2017)

BRITISH JOURNAL OF

**HOSPITAL
MEDICINE**

Follow us on Twitter  **@bjhospmed** and join the debate

