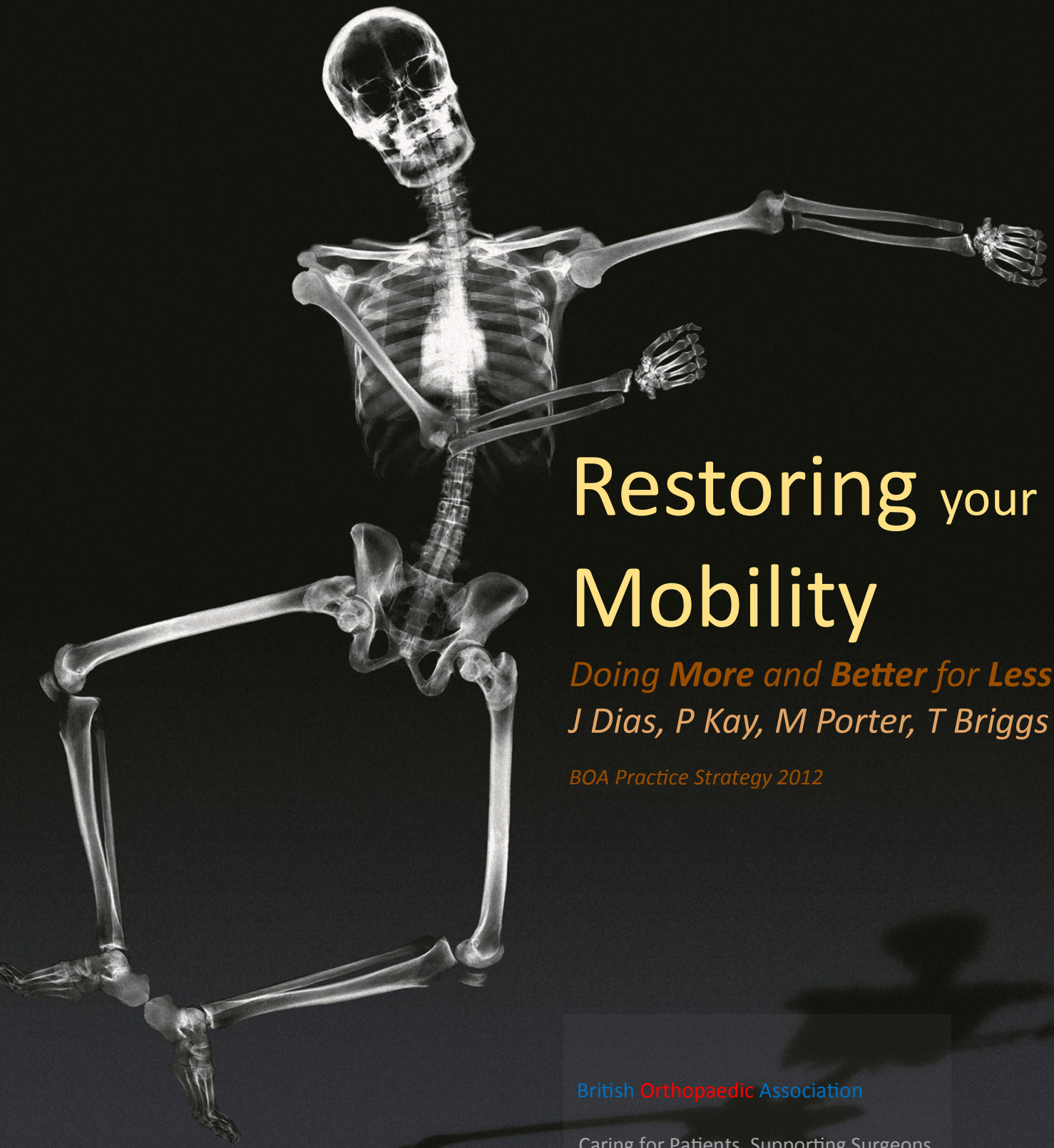

Restoring your Mobility

*Doing **More** and **Better** for **Less***

J Dias, P Kay, M Porter, T Briggs

BOA Practice Strategy 2012

British Orthopaedic Association

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Restoring your Mobility

Doing more and better for less

The British Orthopaedic Association Practice Strategy 2012

J Dias, P Kay, M Porter, T Briggs

The aim of orthopaedic surgery is to restore pain free mobility.

The burden of long term musculoskeletal conditions, which impair mobility and therefore independence, is increasing due to an aging but healthier population.

Although the science and practice of orthopaedic surgery has developed the demand has stretched the capacity of current NHS surgical resources and infrastructure, manifested by steadily rising waiting lists. The current financial situation constrains the ability of the NHS to increase sustainable capacity.

The NHS Operating Framework for 2012/13 highlights the current problem with waiting lists and emphasises the patients' right to a maximum wait of 18 weeks between referral and treatment. It indicates that pilots, focused especially on orthopaedic surgery, will be carried out in 2012/13 to identify the best way(s) in which NHS Trusts can meet their responsibility in the best interests of patients – and that the lessons will be available for full roll out from April 2013.

This is a critically important initiative.

Conventional solutions to the mismatch between demand and capacity of withholding access to care or increasing short term capacity – for example the use of the independent sector treatment centres, risk the safety and quality of care and neither are sustainable.

Innovative approaches are required that optimise existing structures, resources and programmes in ways not previously considered, harness the opportunities in the emerging healthcare landscape, and focus on many of the benefits available through the QIPP. In this way we can safely improve quality, decrease unexpected variation optimise expenditure and release resource.

The British Orthopaedic Association stands ready to assist in this work.

More than 6.5 million cases of musculoskeletal disorder occur in individuals of working age in the UK; by 2030 that number will increase to more than 7 million cases.

Vaughan-Jones H, Barham L. Healthy Work Challenges and Opportunities to 2030. London: BUPA, 2009.

The Problem

There are six interconnected elements to the problem: the volume of demand; geographical variation in rates of surgery; sustainable capacity within the NHS; risks associated with implants and surgical interventions; the cost of complications; and the challenge to clinicians.

The last element of the problem – the challenge - is potentially the most difficult for the current generation of clinicians, whose approach to practice will need to adjust. This will require support from the Department of Health and the senior echelons of the NHS, to create and sustain the necessary momentum and will need leadership from the BOA and Clinical Directors.

The following paragraphs address each element of the problem in turn.

Element 1: Demand

In 2010/11 there were 1,402,261 admissions requiring musculoskeletal care (Source HES data) of which trauma, planned and complex activity accounted for the following volume and cost:

	Number	Cost
Trauma	445,325	£1,011,728,073
Planned	924,204	£2,227,841,611
Complex	33,342	£291,751,338
Total	1,402,961	£3,531,321,022

Given a capacity gap of some 15% described below on waiting list performance, expenditure is running well below actual current demand and affordability is already an issue for commissioners (as evidenced by the 2010/11 proliferation of lists of Procedures of Limited Clinical Effectiveness and the demand management schemes which restricted access to care). With our ageing but healthier population, this burden of musculoskeletal disease is set to increase over the next five to twenty years.

Element 2: Variation

There is variation in rates of orthopaedic surgery and this is higher for some disorders than others, although surgical outcomes may be similar (RightCare 2nd atlas of variation). This variation may reflect fluctuations in the disease burden across different health economies with dissimilar indices of social deprivation; or it could be the consequence of commissioning decisions to introduce orthopaedic demand management as a tool for expenditure control; alternatively it could be an indication of a capacity gap highlighting unmet need. Although we know there is variation we do not yet know which rate is right.

The total cost of osteoarthritis to the UK economy is estimated at 1 per cent of GNP per year. Each year, over 2 million adults visit their GP because of osteoarthritis.

Adding Value: The Economic and Societal Benefits of Medical Technology. London: The Work Foundation, 2011.

Element 3: Sustainable capacity

Nearly 8,400 patients out of a total of around 55,000 patients who started admitted trauma and orthopaedic treatment in January 2012 had waited more than 18 weeks. Of these

In 2010/11 around 26.4 million working days were lost in total, 22.1 million due to work-related illness and 4.4 million due to workplace injuries which cost £5.4 billion. Musculoskeletal disorders are the leading cause of disability and time off work for sick leave worldwide. This led to 7.6 million working days lost and cost £1.4 billion, over a quarter of the total for all disorders.

Health, work and well-being – Caring for our future: A strategy for the health and well-being of working age people. London: Department of Work and Pensions, Department of Health, 2005.

Self-reported work-related illness (SWI) and workplace injuries: Results from the Labour Force Survey (LFS) Health and Safety Executive, 2012.

8,400 patients, almost 4,300 waited more than 26 weeks.

Roughly 110,000 patients out of a total of 660,000 patients who started admitted orthopaedic treatment during 2011 had waited more than 18 weeks to start treatment. Of these 110,000 patients, nearly 57,000 waited more than 26 weeks, a very significant increase over the previous year.

These figures indicate an orthopaedic capacity gap of some 15%.

Element 5: the Cost of Complications

Of 68,676 hip replacements logged on HES in 2010/11 and costing £409,951,118, 6922 complications were recorded, including attention to implants and dislocations but excluding infections. These cost an additional £24,620,449 to treat, and in all probability the replacements in patients with these complications will not last as long, adding further to the revision burden.

Element 4: Implants and interventions

In 2010/11, 211,868 joint replacements were implanted at a cost of £1,248,339,156. The DePuy ASR metal on metal hip replacement system has been recalled, and the recent MHRA alert covering all metal on metal hip replacements will increase the revision burden. There is clear and incontrovertible public perception that new implants and surgical procedures are being introduced without adequate monitoring - to the detriment of patients. Implants that fail early create an iatrogenic disease burden that our patients and the country can ill afford.

In 2009 in the region of 11,000 people in England and Wales were enabled to return to work by a hip replacement surgery, saving the UK welfare system £37.4 million each year of their working lives.

Adding Value: The Economic and Societal Benefits of Medical Technology. London: The Work Foundation, 2011

Element 6: the Challenge to Clinicians

The challenge to the current generation of clinicians is significant.

The Francis review of the Mid Staffs NHS Trust has highlighted the disengagement of clinicians due to the methods of management which disenfranchised clinician engagement.

In November 2011 nearly 1.1 million people receive disability living allowance as a result of musculoskeletal disorders and injury, representing 32.3% of all claims.

Hansard source (Citation: HC Deb, 3 November 2011, c709W). *Written Answers to Questions: Thursday 3 November 2011*. London: Independent Parliamentary Standards Authority Committee,

Reversing this and harnessing the potential of clinicians is fundamental to doing more and better for less.

This change in culture from disillusioned disengagement to caring engagement could constitute a threat to individual practice and could be perceived by many Consultants as unwarranted and unprecedented interference with their professional life. Hospital managers may not want to relinquish control. This poses major challenges to the Government, NHS leaders and the BOA.

The Solution

We can meet the challenge of doing more and better for less, improve the quality of our care, and mitigate the risks of the planned changes in the NHS structure - which include increase in variation caused by commissioning and clinical decisions, substandard surgery and complications - by:

1. Specifying quality.
2. Integrating providers: the musculoskeletal clinical network.
3. Forging Provider partnerships.
4. Implementing “Beyond Compliance” surveillance.
5. Changing clinician culture.

This five part solution will allow us to rise to the challenge of “doing more and better for less”, while recognising that the capacity gap in trauma and orthopaedic surgery needs to be addressed and may need an adjustment of the relative deployment of available resources.

The rate in 2009 of hip replacement was 194/100,000/year and Knee replacement was 141/100,000/year in the UK. This rate is lower than most like sized countries with adequate data. This may reflect better health, better management in primary care or a large unmet need.

Hip and Knee Replacement. *Health at a Glance 2011: OECD Indicators*. Paris: OECD Publishing, 2011.

There is large variation in intervention rates, inpatient stays in England but we do not understand the variation in disease prevalence and severity yet.

The NHS Atlas of Variation in Healthcare: Reducing unwarranted variation to increase value and improve quality. In: Department of Health R, editor. London: Department of Health, 2011.

Part 1: Specifying Quality

We expect commissioners to require the provider to deliver a safe and high quality service.

Commission good quality care:

We can improve quality through the development of orthopaedic clinical commissioning guidelines:

Designed for high volume and value pathways, these will address variation, improve quality and help reduce complications.

33 pathways are being developed by the BOA accounting for £1.7 billion of the £2.5 billion spent on Planned Orthopaedic interventions.

The guideline template developed by Right Care and populated by surgeons in the Orthopaedic Specialist Societies (members of the BOA Board) will underpin the specification of what good care looks like.

These guidelines are being produced to NICE standards.

This will be supported by present and future NICE Guidelines, and eventually by NICE Quality Standards.

Further clinical guidelines and standards will continue to be developed by the BOA (Blue Books, BOASTs) using a process accredited by NHS Evidence.

Clinical Reference Groups for specialised orthopaedics, trauma and emergency will develop specific definition lists to inform specialised commissioning at the national level.

High quality Enhanced Recovery Programme will be translated into practice to improve outcomes and utilisation of resource (beds, theatre, aftercare, outreach).

Monitoring

Quality will be monitored by the NHS Atlas of Variation, National Audits such as the National Joint Registry, National Hip Fracture Database, Fracture Liaison Service, PROMs and analysis of HES and overseen by CQC.

Compliance with the clinical commissioning guidelines will ensure Shared Decision Making and appropriate rate and quality of interventions.

Monitoring and transparent feedback will improve quality and reduce complications. Data will identify outliers and

Orthopaedic Surgery is cost-effective. The estimated 10-year cost per QALY gained was EUR 5000 for hip replacement surgery this translates to less than £10/week for sustained relief of pain.

Osnes-Ringen H, Kvamme MK, Kristiansen IS, Thingstad M, Henriksen JE, Kvien TK, et al. Cost-effectiveness analyses of elective orthopaedic surgical procedures in patients with inflammatory arthropathies. *Scandinavian Journal of Rheumatology* 2011;40(2):108-15.

will permit appropriate challenge and remediation. The BOA has the expertise to deliver this (NJR, NHFD outlier management).

Incentives

Specific projects likely to have a large impact on quality, efficiency and cost will benefit from inclusion in CQUIN and Best Practice Tariff (e.g. Total Hip Replacement, Total Knee Replacement, Fractured Neck of Femur, Rotator Cuff repair, Dupuytren's release, Distal Radius Fracture).

Commissioning contracts that use these guidelines with monitoring and incentives will ensure that variation is addressed, the quality of care is maintained and transparency will improve the quality and safety of treatments releasing cost by avoiding complications.

1.6 million Procedures are performed for trauma and non-trauma in the UK each year and the rate of surgery is increasing but is still lower than comparable countries.

The NHS Information Centre, Hospital Episode Statistics for England. Inpatient statistics, 2005-09. Activity in English NHS Hospitals and English NHS commissioned activity in the independent sector. Leeds: The Health and Social Care Information Centre. HES Analysis, 2010.

Part 2: Integration

Care pathways for common symptoms are being developed in collaboration with other clinicians such as GPs, Physicians, Therapists and Nurses. These will be supported by good quality advice and delivered across primary, intermediate and secondary care. To support this part of the solution:

- Clinical Musculoskeletal networks (currently being developed under the aegis of the Arthritis and Musculoskeletal Alliance (ARMA)) between GPs, Therapists, Physicians and Surgeons will ensure high quality integration and promote the “Year of care” philosophy through a dynamic network.
- Shared Decision Making will support and enhance this integration by helping our patients to cope.
- The preadmission, acute care, rehabilitation and community phases will be integrated, and patients will be supported on return to their community.

The Patient Pathway Groupers could form the basis of payment.

Part 3: Provider Partnerships

Clinical commissioning guidance should facilitate the formation of strong provider partnerships, dedicating time and resources to building collaboration between local providers, so that the delivery of care really will place patients at the heart of the decisions:

- This will allow provider organisations to look beyond organisational boundaries and take account of all the options available across the system.
- Integrated services with long term clinical and financial sustainability will not be achieved without partnerships that promote greater collaboration and dialogue between provider organisations.
- Commissioners must ensure that service specification and contracts do not give an un-

fair advantage to some providers.

- Commissioners will have to work with a range of providers and practitioners to develop innovative and deliverable service models, which contribute towards the delivery of Quality, Innovation, Productivity and Prevention (QIPP).

> The failure of Trauma & Orthopaedic Surgery to meet the 18 week RTT standard in 15% of cases and the Nicholson Challenge requires innovative ways to deliver good and more care at a lower cost.
>
> 18 Week Referral to Treatment Statistics. Leeds: Department of Health, Commissioning Directorate, 2012.
> Annual Report. London: Department of Health, 2009.

Commissioning guidance and contracts should promote collaborative working between providers as detailed below.

For orthopaedic surgery in particular, development of clinical provider partnerships with a hub unit working closely with other providers in spoke units, including Any Qualified Provider (AQP), will help to share the strain of service delivery, education, research, and innovation while assuring safety and quality of services. This will allow a level playing field and will support all provider units.

- The spoke unit (AQP, DGH, Private hospital or otherwise) should:

o Participate in **education** so the training capacity is optimally utilised.

o Provide access to patients for recruitment in portfolio **research** studies.

o Participate in all **audits**.

o Provide **infrastructure** to support these activities.

o In return the hub unit must provide, at a cost,

o full support to investigate and manage adverse events.

o facilities to appraise the staff employed by the spoke unit if needed.

All units in such a partnership would peer review each others work in an open and transparent fashion.

- This will permit a safe increase in sustainable capacity and will avoid the problems encountered when Independent Sector Treatment Centres were introduced. Proof of Intent to Collaborate should be required by commissioners.

- The provider partnership should also explore other models of capacity building – for example:

o Promoting patient friendly and efficient “Ambulatory” services for surgical interventions.

Systems where at least some clinicians work in both the hub and spoke units.

The provider partnerships offer important opportunities to share experiences in the management of stock and allows smarter procurement, both of which have significant potential to improve costs.

The reasons behind and an outline plan for another type of hub and spoke network to provide complex surgery in hub hospitals was articulated in Professor Briggs report, ‘Getting it Right First Time’, which is welcomed by the BOA. The report explores some of the megatrends of ageing, obesity, the well older person, and suggests that the demand for orthopaedic interventions will rise.

Trauma remains the fourth leading cause of death in western countries and the leading cause of death in the first four decades of life:

- The incidence of trauma is particularly high in the younger population; an average of 36 life years are lost per trauma death.
- For each trauma fatality there are two survivors with serious or permanent disability. Trauma the cause of a large socio -economic burden.
- In the UK, injury is the commonest cause of death between the ages of one and forty.
- In 2006 every trauma death cost the nation in excess of £0.75 million and every major injury £50,000.

Trauma, who cares? A report of the National Confidential Enquiry into Patient Outcome and Death. London: National Confidential Enquiry into Patient Outcome and Death, 2007.
Chiara O, Cimbanassi S. Organized trauma care: does volume matter and do trauma centers save lives? *Curr Opin Crit Care*. 2003;9(6):510-4.
The Trauma Audit & Research Network. An overview. Salford: The Trauma Audit & Research Network, 2006

Part 4: Beyond Compliance

Improved premarket testing and careful, staged introduction with better quality post market surveillance should improve the quality of orthopaedic care and save money in the medium term. This should avoid problems such as those generated by the DePuy ASR metal on metal hip system and the PIP breast implant. Both increased the burden of disease,

The BOA has been working closely with the Medicines and Healthcare products Regulatory Agency (MHRA) over many years to assist with decisions when a higher than the expected rate of failing replacement joints is identified:

- Internationally, the UK was the first to take action in 2010, and again in 2012, as information gathered clearly indicated concerns about some metal -on-metal hip replacements.
- Many orthopaedic surgeons, who are members of the BOA, have worked tirelessly to make sure that we were taking the best possible and most responsible decisions which did not unduly raise patients concern and anxiety.

This experience has made us reflect on the current system of introduction of implants and their monitoring. The BOA and the MHRA have spearheaded the development of the project called “Beyond Compliance”.

- This promotes the concept that the safest, best and most successful systems are those that always go beyond merely complying to the bare minimum that regulations require.
- We need to innovate to improve patient care. We believe that our approach

will not only provide the maximum possible protection for patients, but will also allow the early identification of successful innovation and help promote its adoption.

There are three main processes that "Beyond Compliance" has sought to address, all of which improve the quality and safety of care we give our patients:

- Improve the rigour of processes around CE marking before an implant is sold by offering good quality advice.
- Provide guidance and support for the safe and agreed introduction of innovations

Provide high quality surveillance and a decision making process to identify failures at the earliest point and suggest appropriate actions.

We believe that surgeons need to know what failed, for what reasons, how failure was identified and whether failure could have been identified even earlier.

The "Beyond Compliance" project therefore has great potential to help us practice safer surgery.

Further important detail is available and has stimulated international interest among regulators in the USA, Canada and Australia. It has also generated considerable debate within the implant industry, where an initially cautious approach to change has developed into a more engaged stance.

Part 5: Culture Change

It is essential that the preceding four parts be underpinned by a specific project that sets out to change the culture of clinical engagement. The project should seek to change the attitude of surgeons from disillusioned disengagement to caring engagement. This will ensure that surgeons and other clinicians do not abdicate their responsibility of ensuring safe and high quality care for our patients.

Above all the Culture Change project must aim to deliver the BOA's six guiding principles for surgery (see below), all of which will improve quality, reduce complications, reduce variation, and reduce costs without unreasonably withholding care.

This should be underpinned by:

- Good and transparent feedback (eg via the National Joint Registry and the National Hip Fracture Database),
- Robust challenge to identify variation within commissioning and the reasons for that variation with surgeons given and taking responsibility to manage it.

Targeted education (through the annual BOA Congress, linked to the GMC's revalidation process) on methods of improving quality of care.

In November 2011 nearly 1.1 million people receive disability living allowance as a result of musculoskeletal disorders and injury, representing 32.3% of all claims.

Hansard source (Citation: HC Deb, 3 November 2011, c709W). *Written Answers to Questions: Thursday 3 November 2011*. London: Independent Parliamentary Standards Authority Committee, 2011.

Conclusion

The aim of orthopaedic surgery is to restore pain free mobility.

We are currently faced with unprecedented levels of patient demand for orthopaedic surgery that are beyond our capacity to deliver: this situation will only get worse with an ageing but healthier population that expects to remain independent and active.

There are opportunities within QIPP and the healthcare reforms to harness innovative changes that will reduce the capacity gap for Trauma and Orthopaedics.

Our ***"Restoring your Mobility"*** Practice Strategy identifies a problem with six elements and sets out an actionable five part plan to solve the problem. This could form a blueprint for the BOA's contribution to the orthopaedically focused initiatives announced in the NHS Operating Framework for 2012/13.

In looking forward to working with the Department of Health and other partners to make this plan a reality, we relish the leadership challenge that it presents and that falls to us as the Surgical Specialty Association and Professional Body for Trauma and Orthopaedic Surgery.

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Royalty Free Images

Acknowledgements:

Mr Mike Kimmons, as CEO and Executive member helped to prepare the text of the document

All BOA Council Members contributed to the review and ratification of this strategy. Please contact the BOA Office if you need copies of this document

The Strategy will be reviewed each year and a full review will be conducted every five years

BOA's Six Guiding Principles

In developing this plan we have been guided by the BOA's Six Guiding Principles for Trauma and Orthopaedic Surgery:

- The right patient should receive the right treatment at the right time.
- Investigations should only be undertaken if needed. They should be based on good evidence and should not replace a considered and informed clinical assessment.
- The choice of surgical intervention should be appropriate to the condition of the patient and to its severity.
- Patients, rather than clinicians or commissioners, should be able to choose their treatment for a non-urgent disorder, having been provided information on a variety of alternatives from multiple sources.
- Each treatment must be accompanied by:
    - A good evidence base.
    - An assessment of its expected duration and magnitude of benefit.
    - A risk assessment.
    - A clear definition of the required inpatient and outpatient care.
- Any changes, including those in service delivery, must:
    - Improve the quality of care.
    - Be effective.
    - Be capable of independent assessment.