A report on the outcomes achieved by specialist hospitals

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Federation of Specialist Hospitals

Contents

FOREWORD

Modern 21st century health systems demand that all patients with rare and complex conditions receive high quality treatment and that the incidence of costly complications is minimised. Specialist hospitals treat high volumes of patients with the most complex conditions, whilst facilitating integration of care in community and generalist settings as appropriate. In this way, specialist hospitals demonstrate their value to the NHS, both by treating patients who may not otherwise receive the care they need, and by sharing expertise with other healthcare providers to ensure high quality care is provided right across the system.

More broadly, specialist hospitals are leaders in the development and early adoption of new therapies and techniques. They are at the forefront of innovation, and for patients with rare or complex conditions, specialist hospitals offer dedicated services that often cannot be provided elsewhere.

The Federation of Specialist Hospitals provides a voice for specialist hospitals and units in the UK. Specialist providers play a major role within the NHS with respect to patient care, training and research. Indeed, 24 specialist hospitals carry out 250,000 procedures and 2.5 million outpatient appointments each year, mainly for patients with rare and complex conditions.

This report seeks to demonstrate the contribution of specialist hospitals to the NHS on three fronts: their ability to treat the most complex cases where treatment may not otherwise be available, their excellent outcomes in more routine services which arise as a result of specialisation, and the non-clinical outcomes that show specialist hospitals perform highly against the requirements of modern hospitals – they are safe, compassionate and recommended by staff and patients alike. The report also considers the ways in which funding and commissioning models can support efforts to ensure equitable and sustainable access to the specialist sector.

As part of wider conversations about the sustainability of the NHS, and as NHS England sets out further detail on its plans to concentrate the delivery of specialised services in fewer centres over the next five years, the track record of specialist hospitals delivering superior outcomes for patients must be harnessed. Crucially, evidence of the outcomes achieved by providers should guide future reconfigurations of provision.

We therefore look forward to working with NHS England in developing and implementing its five-year strategy for specialised services, and with Sir Mike Richards, the Chief Inspector of Hospitals in his important work benchmarking quality for the sector as a whole. Equally, I would ask readers to consider how the vital role of specialist hospitals in producing excellent patient outcomes can be supported over the long-term.

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EXECUTIVE SUMMARY

A clear strategic vision is desperately needed for the future of healthcare delivery in the NHS. NHS England's clarion call in its Call to Action has initiated an important discussion, complementing other reviews conducted by the Royal Colleges and others.

Specialist hospitals must be an important component of such a vision. This is demonstrated by consideration of the health service's future requirements and an assessment of how the outcomes achieved by specialist hospitals meet these needs.

It will no longer be sufficient for hospitals simply to deliver good care at reasonable value. The NHS needs to focus relentlessly on outcomes to meet the challenges ahead and to deliver against the measures set out in the NHS Outcomes Framework. This report shows that specialist hospitals have a strong lead in delivering exceptional quality across clinical and non-clinical measures, providing a model to draw on for the future.

Individual patients benefit from the quality of services provided in specialist hospitals. Often, such patients present with the rarest and most complex conditions to treat and require the expertise and resources that are concentrated in specialist centres. For patients with more common conditions, specialist hospitals are also exceptional in the quality of care and the satisfaction levels reported by their patients and staff.

However, the importance of specialist hospitals to the broader health service also needs to be considered. In concentrating expertise and investment, specialist providers have the ability to disseminate innovation throughout the NHS; by entering shared care agreements with local providers, specialist hospitals can support appropriate care closer to patients' homes; and in offering first-class training to junior clinicians in areas of distinct specialism, specialist hospitals help to address the workforce challenge facing many clinical disciplines within the NHS.

In developing a model of the health service for the future, policymakers should be guided by evidence of success in priority areas. By reinforcing successful organisations and more closely integrating them into the system as a whole, a vision of a modern NHS, with expert care delivered in the right place at the right time, can be made a reality.

The recommendations of this report include:

- Calling for explicit recognition of the place of specialist hospitals within a 'hub and spokes' or chain model of care;
- Acknowledging and responding to the concerns of specialist hospitals about implementation of the new specialised commissioning arrangements; and
- Ensuring the payment system recognises and supports the full costs incurred by specialist providers.

I. SETTING THE SCENE FOR SPECIALIST HOSPITALS

It is widely accepted that the NHS faces a major financial challenge. The prospect of flat funding until 2020/21 is set to lead to an estimated £30 billion funding gap[1], and voices from all quarters are calling for transformational change to ensure that the health service can continue to deliver improved quality, along with greater efficiency.

Against this backdrop, the latest in a long line of NHS reforms was introduced in April 2013 under the Health and Social Care Act 2012. This saw the formation of 211 Clinical Commissioning Groups (CCGs) and the establishment of NHS England to manage the health service on a daily basis and commission some services directly. Though the latest reforms follow a long history of health service restructuring, the hospitals that provide NHS care to those with acute needs have proven steady and durable.

Nonetheless, NHS hospitals have faced significant challenges. While relatively free of the risk of wholesale reorganisations of the kind visited upon successive generations of commissioning organisations, NHS hospitals have been subject to longer-term pressures. The complexion of these pressures is varied, comprising historic legacy challenges and more immediate threats to hospitals across the country. In an important survey of these challenges, the Royal College of Physicians' Future Hospital Commission identified a series of issues. Chief amongst these were the ageing population, heralding a higher number of people to treat along with an associated increase in the number of people with more complex care requirements; repeated failures to improve co-ordination in the health service as a whole; and a looming workforce crisis, with changes needed to junior doctor specialism training.[2]

This report adds to the consensus on the general challenges facing NHS hospitals by presenting the particular pressures facing specialist trusts. While many of these are shared with the generality of NHS hospitals, some pressures are unique. Further, this report will argue that reinforcing the role of specialist hospitals can serve to address many of the challenges facing the wider health service, driven by a focus on fostering and diffusing exceptional patient outcomes.

What are specialist hospitals?

Specialist hospitals are centres of excellence. In one form, this could be through the expertise generated by treatment of a very high number of patients for a particular medical specialty. Another form of specialism is the ability to treat some of the rarest and most complex conditions. Many specialist hospitals combine both of these elements of specialism to provide exemplary care within a particular specialty, across rare and more routine conditions.

In many respects, NHS specialist hospitals are heterogeneous. Not only are a large range of medical specialties covered, from neurology to cancer, cardiac to women's and children's health, but many specialist hospitals come in different forms. Most are freestanding trusts, such as the Walton Centre in Liverpool or the Royal

[1] NHS England, *The NHS Belongs to the People: A Call to Action,* July 2013, p. 15.
[2] Royal College of Physicians, *Future hospital: caring for medical patients*, 2013, p2-3.

Brompton & Harefield Hospitals in London. Some are incorporated within larger hospital trusts or Foundation Trusts, such as the National Centre for Neurology and Neurosurgery, which sits within University College London Hospitals (UCLH).

There are, however, a number of distinguishing features of specialist hospitals. The casemix for specialist hospitals tends to be disproportionately weighted towards specialised services, currently commissioned by NHS England directly. More so than other hospitals, specialist hospitals might expect at least 50% of their contracts to be held with NHS England, rather than with CCGs for more routine services. Further, specialist hospitals are distinguished from specialist units within larger hospitals and from large teaching and children's hospitals. Many of the challenges facing these hospitals will be similar, though often different in impact. For example, where payment pressures for specialist treatments are severe, larger hospitals are better able to cross-subsidise specialist units from other services than standalone specialist trusts.

A further feature distinguishing specialist hospitals is the outcomes that they are consistently able to achieve in their fields of expertise. Across the board, specialist hospitals are able to demonstrate exceptional clinical and non-clinical outcomes, which will be the focus of this report.

Challenges facing specialist hospitals

A number of challenges face specialist hospitals in 2014. The trend for greater amalgamation of services within larger trusts can provide a threat to the continued existence of dedicated specialist trusts. The ability of standalone specialist hospitals to remain independent should hinge on the quality and value of the services that they deliver to patients and to the wider health service. Instead, the fear is that other, primarily financial factors, threaten the future viability of specialist trusts.

Longstanding challenges include the problems arising from the national tariff, or Payment by Results. Despite efforts to recognise the additional costs incurred in delivering complex, specialised services, primarily through the specialist uplift to tariff pricing, the tariff fails to reflect adequately the true costs of these services. As the number of referrals to specialist hospitals increases, so does the burden of inadequate reimbursement, threatening the bottom line of specialist hospitals providing complex care at the cutting edge of medicine.

Other challenges owe more to recent developments. Since April 2013, NHS England has been the sole direct commissioner of specialised services. While specialist hospitals have been supportive of this new approach in principle, recognising the opportunity to achieve consistent, clinically-led specialised services across the country, the new system also presents risks, particularly in its infancy.

The service specifications developed by NHS England need to recognise the best practice delivered in specialist hospitals, and crucially must align with the levers and incentives of the payment system. Otherwise, the risk is that specialist providers will be contracted to deliver services which are inadequately incentivised through tariff. Furthermore, service specifications need to facilitate the strong leadership specialist hospitals provide within provider networks, enabling elements of care to be provided more locally, where appropriate.

Finally, as NHS England seeks to reduce the number of centres providing specialised services in order to improve quality, it will need to take account of the excellent outcomes achieved by specialist hospitals. Concentration of provision should be planned with the intention of sharing this expertise across the NHS rather than bundling responsibility for service provision through a small number of the largest hospitals.

Over and above these immediate issues, several additional factors represent a threat to specialist trusts. The difficult financial climate is exerting pressure across the health service and exacerbating longstanding issues, such as with tariff. The higher costs often associated with complex care make specialist hospitals potentially more vulnerable to crude cost-cutting. This might imperil their role as vehicles for innovation to enter the health service, as well as their ability to achieve the other outcomes demonstrated later in this report.

There is at present little vision articulated for the role of specialist hospitals within the broader NHS. NHS England's Call to Action marks the start of an important discussion on the future of the NHS and provides an opportunity to articulate a clear vision for the health service. A more strategic vision is required to ensure that clarity on the future function of specialist trusts is given to providers and commissioners across the NHS. Once articulated, this vision would help to guide policy, provider development and commissioning activity in the coming years to embed specialist hospitals within seamless care pathways, providing benefit to other hospitals, clinicians, commissioners and, most importantly, individual patients.

Specialist trusts are subject to the same regulatory infrastructure as larger organisations – all hospitals are required to comply with a range of regulations from health and safety, to Monitor and Care Quality Commission requirements. Whilst the wider activity base of larger organisations often allows for corporate and back office functions to be subsidised by activity costs, this is not the case for specialist hospitals. The typical scale and size of specialist providers means they are disadvantaged by a regulatory structure that does not recognise the circumstances of smaller, specialist providers. This diseconomy of scale will particularly impact on those specialist hospitals that are not part of a larger group of hospitals.

The Care Quality Commission (CQC) hospital inspection regime being led by Sir Mike Richards, has recently completed a pilot stage which did not include any specialist hospitals. Whilst there is a commitment from the CQC to consider carefully the application of the methodology to specialist trusts for future stages, there is some anxiety about the inspection team's ability to respond adequately to the unique considerations of specialist hospitals. The Federation notes the CQC's recognition of these issues and welcomes engagement with specialist trusts to identify the most sensible approach for the assessment of specialist hospitals.

Future focus

The pace of change in the health service shows no signs of slowing. Indeed, in order to achieve the financial and quality requirements set for the NHS as a whole over the coming years, swifter transformational change to the provider landscape will be necessary.

The NHS will need to pull together to deliver this. A lead has been provided by NHS England in its Call to Action, launched last summer to significant fanfare. This called for the development of a strategy for change in the NHS, and raises the impetus for providers at the cutting edge of the health service to demonstrate the way forward for high quality services based around patients' needs. This action can be seen in a broader context as following on from the strategic thinking initially set out by Lord Darzi in 2007 with the principle to "localise where possible, centralise where necessary."[3]

As Sir Bruce Keogh suggested in his report on hospital mortality rates in 2013, no hospital can be "an island unto itself".[4] Provider networks, sharing the expertise of individual expert hospitals and ensuring that patients are seen in the right place at the right time will be essential for the future. In serving as the 'hub' in a 'hub and spokes' model of care delivery, specialist hospitals play a crucial part in this system.

In justifying this model for services, there can be no substitute for hard evidence. The Berwick Report,[5] and the Royal College of Surgeons' report on Reshaping Surgical Services,[6] amongst many other recent reviews, are clear that change in the NHS should be planned with the sole objectives of maintaining and improving patient outcomes and quality of care. In that context, this report demonstrates the exemplary outcomes achieved by specialist hospitals across all elements of specialism, with a view to better demonstrating their central role in modern care delivery.

[3] NHS London, *A Framework for Action,* July 2007, p 7.
[4] Professor Sir Bruce Keogh, *Review into the quality of care and treatment provided at 14 hospital trusts in England: overview report*, July 2013, p. 11
[5] Professor Don Berwick, *A promise to learn – a commitment to act: improving the safety of patients in England*, August 2013
[6] Royal College of Surgeons, *Reshaping surgical services: principles for change*, January 2013

II. THE ROLE OF SPECIALIST HOSPITALS IN DELIVERING HIGH QUALITY OUTCOMES FOR PATIENTS WITH RARE AND COMPLEX CONDITIONS

One of the two elements of specialism demonstrated by specialist hospitals is the ability to treat some of the rarest and most complex conditions. A comprehensive health service with the pledge to ensure that nobody is "left behind"[7] has a duty to ensure that people with all conditions have access to exceptional quality care, no matter how complex their needs.

Specialist hospitals are at the forefront of delivering such care, bringing significant advantages to the health service as a whole. The Carter Report into specialised commissioning in 2006 recommended the designation of specialist centres to concentrate clinical expertise in a smaller number of sites in order to improve outcomes.[8] Specialist hospitals have proven the validity of this recommendation through the clinical outcomes they have achieved through such concentration of expertise.

However, the benefits of this approach are broader. There are clear advantages in terms of innovation, with specialist hospitals a proven route for new products, technologies and techniques to enter the health service. Often, cutting-edge innovations at specialist centres are later generalised across the broader health service as a standard treatment. The role of specialist teams in dedicated providers to test and improve techniques and products is a vital contribution of specialist centres to the wider NHS, and will be key for the future objectives of a health service predicated on innovative change.

Within such specialties, training is also provided to junior clinicians to the highest standards. Specialist hospitals are able to develop newly trained clinicians' skills in a distinct specialty, helping to address the acute workforce challenges that the Royal College of Physicians and the Royal College of Surgeons have identified as major issues for the future of the health service.[9]

More broadly, the clinical training that specialist hospitals are able to provide equips clinicians with expertise which is often taken to other NHS providers, for the benefit of the health service as a whole.

Since the benefits arising from the focus of specialist hospitals on particular areas of expertise are diffused throughout the health service, assessing the indirect outcomes of specialist hospitals can be an inexact science. For example, by putting in place shared care arrangements with a hospital closer to a patient's home, a specialist hospital can help this local hospital to improve its patient experience outcomes, while also directly administering specialist care where necessary.

Assessing the quality of the care directly given to patients by specialist hospitals is easier. A range of clinical outcomes demonstrate the superior results achieved by specialist hospitals for their patients, justifying Lord Darzi's dictum. For these

[7] Department of Health, *The NHS Constitution for England,* March 2013, p.5
[8] David Carter, *Review Report: Review of Commissioning Arrangements for Specialised Services,* May 2006
[9] Royal College of Physicians, *Future hospital: caring for medical patients*, 2013, and Royal College of Surgeons, *Reshaping surgical services: principles for change*, January 2013

specialised elements of the care pathway, the clinical outcomes achieved by specialist hospitals are exemplary.

The reasons for this are many. The principles behind Carter's support of concentrating clinical expertise to treat the most complex conditions still holds good. Such clinical expertise is, in turn, related to the ability of specialist hospitals to make significant investments in complex technologies. Services such as extracorporeal membrane oxygenation (ECMO) or complex neurosurgery both require the alignment of sophisticated clinical expertise and significant technological investment in order to achieve the best clinical outcomes. With their focus on particular service areas, specialist hospitals provide such an alignment and consequently deliver high outcomes.

Across the Federation's membership, specialist hospitals provide complex care in a range of specialties. The following case studies give brief examples of the complex work undertaken by specialist providers and the excellent outcomes they achieve.

Case study 1: Drainage tube surgery for intractable glaucoma

Moorfields Eye Hospital performs drainage tube surgery for intractable glaucoma (i.e. the placement of a small permanent plastic tube to allow fluid to escape from inside the eye), where traditional trabeculectomy drainage has already failed or has a very high risk of failure.

- Moorfields performs approximately 330 cases each year, all on highly complex patients.
- 2012 audit of cases performed in 2011 with at least 1 year follow up found the procedure had a success rate of 98% (pressure lowered successfully and no progression of the disease).
- 3.4% of those patients audited had a complication. The complications were treated and did not affect the overall success of the procedure or cause major harm.
- This is compared to outcomes elsewhere, where success rates are usually only 80% and complications occur in 20% of cases, with many complications causing significant harm or loss of vision.

Case study 2: Acute intervention in ischaemic stroke

The Walton Centre is the only standalone neurosciences centre in Merseyside which has the facility to provide acute arterial interventions in ischaemic stroke. All team members have experience in this service and many have undergone stroke-specific training courses in the world-renowned Karolinska Institute. The intervention involves intra-arterial thrombolysis or thrombectomy.

- During 2008-2012 there were only six patients who underwent such stroke interventions at The Walton Centre, purely on an ad hoc basis. However, since the beginning of 2013 this service has been offered on a regular basis and so far 10 patients have been treated successfully in the neurointerventional suite at The Walton Centre.
- To date, there have not been any mortality or procedure-related complications.
- Of the 10 patients who have been treated with this procedure, three had a stroke due to occlusion of the basilar artery, which carries an approximately 90% mortality rate and survivors usually develop a significant disability, including locked-in syndrome. Two of the three patients who presented with basilar strokes were elderly patients. Despite their age and other co-morbidities, the procedure worked well.
- All patients were discharged conscious and cognitively intact with very minimal neurological deficit.

Where care for complex cases is not provided by specialist hospitals, the NHS risks losing expertise, services and capacity, as well as a decrease in overall service standards. Hospitals and individual clinicians who treat very low numbers of patients with rare and complex conditions are less likely to produce the best outcomes and are less likely to provide value for money.[10] For patients who require a complex procedure, their care experience is more likely to be positive when it is carried out in hospitals with sufficient experience of similar cases.[11]

[10] NHS England, *NHS Standard Contract for Specialised Orthopaedics (Adult): Schedule 2 – The Services A. Service Specifications*, 2013

[11] Department of Health, *Report of the High Level Group on Clinical Effectiveness,* October 2007

Case study 3: Laparoscopic radical hysterectomy

Laparoscopic radical hysterectomy for cervical cancer is performed at the Liverpool Women's Hospital for 30 to 40 patients per year.

- Improvements in care have led to reduced hospital stays (2.3 days compared to 4.3 days with open surgery).
- The procedure performed by Liverpool Women's Hospital has seen reduced blood loss (150ml compared to 600-800ml elsewhere) and swifter return to normal daily living.
- Patients at the Liverpool Women's Hospital have reduced complications upon discharge and improved patient satisfaction, compared with other providers of the same procedure.

Case study 4: OxPARC – Oxford Paediatric and Adolescent Rheumatology Centre

OxPARC (Oxford Paediatric and Adolescent Rheumatology Centre) based at the Nuffield Orthopaedic Centre, is the Lead Tertiary Centre for paediatric rheumatology for the Thames Valley. It has used its position within a Specialist Trust to diversify and deliver expert care to large groups of patients with unmet needs outside its immediate catchment area. It delivers holistic, age-appropriate care with the aim of delivering as much care as possible locally in order to minimise the impact and cost of hospital visits.

Most of the patients are seen on a long-term basis and, owing to the complexity of their conditions, require review by many clinicians in different areas, including physiotherapy, occupational therapy, psychology and ophthalmology, as well as specialist doctors and nurses, potentially placing a significant burden on hospital appointments. In addition, as these conditions are rare, local services are unable to provide the expertise to manage them. As a result OxPARC has developed a one-stop holistic clinic whereby the patient and family can see all of the above professionals. This drastically reduces the number of appointments needed per patient and thereby minimises travel.

Since adherence to the medical treatment plan is a major cause of treatment failure in the adolescent population, a similar adolescent clinic has been set up to address their individual needs at a time of increasing independence. As a result of this, adherence rates are greatly improved and as a marker of this clinic attendance is almost 90%.

Case study 5: Malignant Primary Bone Tumours (bone sarcomas)

Bone sarcomas have an overall incidence of around 10 per million population, making it a very rare form of cancer. Five-year survival ranges between 50% and 90% and is dependent on the diagnosis, stage of cancer and response to treatment.

Treatment varies between patients but complex surgery forms the foundation of treatment for this type of cancer, in combination with either chemotherapy or radiotherapy. The main surgical procedures include:

- endoprosthetic replacement;
- biological reconstruction; and
- composite reconstruction.

The Royal Orthopaedic Hospital (ROH) is one of five designated centres in the country which specialise in the care and treatment of patients who suffer from bone sarcomas.

It is well established that sarcoma is most effectively diagnosed and treated in specialist centres. For instance, NICE guidance notes lower error rates and fewer delays in diagnosis of bone sarcoma where patients are referred to specialist centres. The guidance also notes a UK cohort study of patterns of care and survival in patients younger than 40 years with bone sarcoma, which found that patients with forms of bone sarcoma who are initially treated at specialist centres have better overall survival than those treated elsewhere.

Sources:

- NHS England, *2013/14 NHS Standard Contract for Primary Malignant Bone Tumours Service (Adults and Adolescents)*, July 2013
- NICE Guidance on Cancer Services, *Improving Outcomes for People with Sarcoma – the Manual,* March 2006

As pioneers of some of the most complex and innovative treatments, specialist providers accrue expertise that not only improves patient wellbeing but also has the potential to trickle down to improve treatment throughout the rest of the health service. Certain specialist centres deliver training programmes to support the spread of good practice. This can also improve understanding of when complex cases should be referred to a specialist for a particular procedure.

The Royal College of Surgeons has supported such an approach, stating that where possible patients should be treated closer to home with referrals to a specialist centre for more complex operations. This will ensure that surgeons undertaking surgery in district general hospitals are able to do so to an acceptable standard, while the more complex cases will be referred to specialists. A higher volume of activity has been proven to deliver better outcomes in a number of areas, including vascular surgery and stroke care.[12]

[12] Royal College of Surgeons, *Reshaping Surgical Services: Principles for Change*, January 2013

Case study 6: Type A aortic dissection at Liverpool Heart and Chest Hospital

Liverpool Heart and Chest Hospital has changed the service delivery model for emergency surgery on acute Type A aortic dissection (a tear in a major artery of the body), a life-threatening condition, with a dramatic improvement in outcomes. Acute Type A aortic dissection carries a mortality of 1% per hour from occurrence unless treated. Even with surgery, outcomes are less than satisfactory.

In Liverpool Heart and Chest Hospital prior to 2007 this operation was performed by all local cardiac surgeons on a rotational basis with comparable outcomes. After 2007, a reorganisation of services resulted in three surgeons sub-specialising in aortic surgery. They performed all elective and emergency aortic surgery, effectively functioning as an "aortic centre". The effect on surgical outcomes was dramatic with current mortality rates at less than 10%, compared to a rate of 22.8% across Britain.

Liverpool Heart and Chest Hospital was the first Trust to establish such a service in the UK and subsequently have been followed by areas of London. With improvements in outcomes have come regional and national referrals of complex cases to the Liverpool Heart and Chest Hospital. The knowledge and technical skills learnt are also being imparted to other centres with the establishment of a Thoracic Aortic Fellowship.

III. SPECIALIST HOSPITALS: RAISING THE BAR FOR ROUTINE TREATMENTS

The second element of specialism practised by specialist hospitals is the treatment of large numbers of people with more common conditions within the same field. These are often services that can be provided at many different hospitals, including non-specialist providers, but the concentration of expertise and patient volumes at specialist centres has resulted in superior clinical outcomes for routine treatments.

By performing routine procedures, specialist hospitals are able to develop the skills of younger staff before progressing onto more challenging cases. This also strengthens their ability to support the wider health service as clinicians may go on to work at different hospitals and share these skills.

In particular, specialist centres are well-placed to handle any complications resulting from treatments. As experts in treating complex cases, such complications can be addressed more swiftly and effectively in specialist centres, rather than requiring an onward referral to a specialist, as might happen in a non-specialist trust. This may explain, in part, why the outcomes at specialist centres are often better than in non-specialist hospitals.

Further, specialist providers have strong partnerships with other service providers to deliver the complementary and supporting services that treat these co-morbidities at the specialist centre's site. Generally, as they are consultant-led, within prescribed access times and on-call availability, these arrangements are of higher quality than many of those within non-specialist centres.

Across the board, the lower readmission rates for specialist hospitals providing routine services demonstrate their value beyond the treatment of the rarest and most complex cases, and their contribution to helping the health service meet its outcome requirements.

Case study 7: Cataract surgery

Moorfields Eye Hospital achieves excellent outcomes for cataract surgery, which is one of the most common operations undertaken in the UK. These operations vary from routine surgery on eyes which are otherwise healthy, through to complex post-trauma surgery and on eyes with other conditions making the procedure more complex.

Moorfields performs over 14,000 cataract surgeries per year. The level of complexity is significantly higher than most other providers due to the fact that many of their patients have other conditions such as glaucoma or uveitis. In these cases, cataract surgery arises during their care, and the hospital also receives numerous complex cases on referral from elsewhere.

Moorfields assesses the key outcomes for cataract surgery monthly, which have been found to be significantly better than elsewhere. This is despite the fact that most other institutions or publications provide outcomes for routine cataracts with exclusions for other co-morbidities, whereas the results for Moorfields comprise all cases, including the most complex. Key measures include:

- Biometry accuracy (correct refractive error): 97.6%;
- Posterior capsular rupture (PCR) rate (the main serious intraoperative complication): 0.92%; and
- Endophthalmitis after surgery (the main post-operative infection): 0.03%

This compares favourably to success rates achieved elsewhere. The following results are for lower risk category populations:

- Biometry accuracy: +/- 1D in the UK 85% and 77-79% Europe;
- PCR: 1.92% in the UK, 1.2-1.9% in Europe, 3.5% in the US; and
- Endophthalmitis after surgery: up to 0.2% in the US and 0.07% in Europe

Sources:

- Royal College of Ophthalmologists, *Royal College of Ophthalmologists Cataract Surgery Guidelines* 2010.
- Narendran N et al. *The Cataract National Dataset electronic multicentre audit of 55,567 operations: risk stratification for posterior capsule and vitreous loss.* Eye 2009; 23:31-37.
- American Academy of Ophthalmology Preferred Practice Pattern. Cataract in the Adult Eye (Cataract Surgery Guidelines). AAO 2011
- Lundstrom M et al. J. *Cataract Refract Surg Evidence-based guidelines for cataract surgery: Guidelines based on data in the European Registry of Quality Outcomes for Cataract and Refractive Surgery database*. 2012;38:1086-93
- Gale RP et al. *Benchmark standards for refractive outcomes after NHS cataract surgery*. Eye 2009; 23:149-152.

The high quality of services at specialist hospitals may also serve to drive improvements in the services that are delivered at non-specialist centres. Data and information on service quality and outcomes are now regularly published by the Health and Social Care Information Centre across a range of health and social care services.

Data from the National Lung Cancer Audit show that publishing data on surgical and active cancer treatment rates has led to improvements in services at a provider and cancer network level[13]. Creating a competitive environment between providers of routine services has been shown to encourage improvements across the board.

Andrew Lansley's intention for this policy was to drive quality improvement through patient choice, stating that, "*armed with the right information, patients themselves will drive up standards in the NHS - as they vote with their feet for the services which are succeeding*".[14] Although the extent of patient empowerment and how this impacts on quality has not yet been tested, having to justify poorer outcomes should help to drive improvements at all hospitals.

[13] Health and Social Care Information Centre, *National Lung Cancer Audit 2012*, December 2012
[14] The Conservative Party, *Andrew Lansley: Speech to the Conservative Party Conference*, October 2010

Case study 8: CT Colonography at St Mark's Hospital

St. Mark's CT Colonography (CTC) service has pioneered development and use of CTC, helping to create a credible alternative to colonoscopy and serving as a model of practice for other NHS CTC teams. St. Mark's CTC service was strategically structured from inception and now provides more research, audit and training activity than any other UK CTC service. The Director of St. Mark's CTC chairs the National Co-ordinating Group for the Quality Assurance of Radiology in the Bowel Cancer Screening Programme and was the principal author and co-editor of the first UK Standards documents on screening and symptomatic practice.

St. Mark's contributed the largest number of patients to the recent multi-centre SIGGAR study, examining CTC performance in older symptomatic patients (published in *The Lancet* in 2013). The team also recently submitted (Clinical Radiology in Press) its audit data for over 4300 patients, showing highest level performance with positive predictive value (PPV) of 99% for cancer, 94% for polyps and negative predictive value for cancer of 99.9%. This data will help benchmark other UK services seeking to improve CTC quality.

Translating clinical and research experience to other NHS centres is at the core of the hospital's ambitions. To this end, it has trained over 300 radiologists and 200 radiographers in CTC technique and interpretation, utilising state of the art computer workstations and 'real-life, hands-on' patient experience.

IV. SPECIALIST HOSPITALS: DELIVERING SUPERIOR NON-CLINICAL OUTCOMES

While the excellent clinical outcomes attained by specialist hospitals provide a strong demonstration of their value to the health service, further non-clinical outcomes need to be considered when developing an overall assessment of quality.

The NHS Outcomes Framework for 2013/14 recognises these broader considerations and rightly so since the technical aspects of care should not be divorced from the environment in which it takes place. In looking towards a future vision of the provider landscape, the five elements of the Outcomes Framework are instructive of key priorities and a general direction of travel. The first sections of this report have demonstrated the clinical outcomes achieved by specialist hospitals, which place them well for achieving the first three, clinically-focused domains of the NHS Outcomes Framework.

This section considers the final two outcome domains which relate to the broader non-clinical outcomes required of care providers in the health service. Specialist hospitals contribute significantly to the health service's progress against these requirements and show every sign of being vital to help improve these outcomes in future.

Ensuring that people have a positive experience of care

Specialist hospitals have an exceptional track record of demonstrating patient and staff satisfaction. Indeed, specialist hospitals consistently outperform other acute hospitals across the country on these measures.

With regard to patient satisfaction, Federation members have a strong record. For example, the official results of the NHS Friends and Family Test proved favourable for specialist providers. This test was introduced nationally in April 2013, and the results for the first three months revealed that specialist hospitals tend to have higher scores than other providers for inpatient services.[15]

This overall success is reflected in the results for individual specialist hospitals. For instance, in August 2013, the Robert Jones and Agnes Hunt Orthopaedic & District Hospital NHS Trust received a score of 90 in the friends and family inpatient test. Wrightington, Leigh and Wigan Foundation Trust includes the Wrightington Hospital and had a score of 100. This compares to a national average of 72.[16]

High levels of patient satisfaction often correlate to high scores for staff satisfaction in successful hospitals. Accordingly, specialist hospitals also have a strong record on this measure. For example, 93% of staff at The Christie who responded to a recent NHS staff survey responded that they would recommend the hospital to their family and friends. Similarly, in a 2012 staff survey, 89% of staff at the Royal National Orthopaedic Hospital either agreed or strongly agreed that they would recommend

[15] http://www.england.nhs.uk/2013/07/30/nhsfft/ accessed 30 July 2013

[16] http://www.england.nhs.uk/statistics/statistical-work-areas/friends-and-family-test/friends-and-family-test-data/ accessed 4 October 2013.

the trust to their family and friends. This compares favourably with the NHS staff survey national average, where only 63% of NHS staff said they would recommend treatment by their organisation to family and friends.[17]

In commanding the strong support of the patients and staff with direct experience of their services, specialist hospitals can demonstrate their value to a health service which aspires to the highest standards of patient and public satisfaction. The strength of specialist hospitals' clinical outcomes is given greater weight from the legitimacy conferred by the endorsement of patients and staff for their experiences of care.

Case study 9: Multi-disciplinary team (MDT) working at St Mark's Hospital

St Mark's Hospital in London is a national and international referral centre for inflammatory bowel diseases (IBD), ulcerative colitis and Crohn's disease. The conditions affect the quality of life and wellbeing of one in 400 people in the UK, and the number of people with IBD is increasing.

The hospital provides surgical, medical, nutritional and endoscopy expertise and comprehensive specialist nursing services. Daily and specialist IBD clinics are provided and the specialist nurse service also offers a telephone helpline which receives around 3,500 telephone calls each year, 85% of which prevent the need for a face-to-face consultation.

The MDT service at St Mark's IBD Unit sets it apart from other services as it recognises the importance of individualised, multi-disciplinary care of people with IBD to help heal their disease and empower them to lead normal lives. In the National IBD Audit, the unit scores particularly highly for the comprehensive multi-disciplinary team, including access to its 'Psychological Medicine Unit'.

Treating and caring for people in a safe environment; and protecting them from avoidable harm

The first duty of a hospital must be to ensure patient safety, the focus of Domain 5 of the NHS Outcomes Framework. The Berwick Report is a recent reminder of the importance of prioritising patient safety in everything the NHS does.[18] We have already outlined examples of where complications for patients have been avoided as a result of the care and support provided at specialist hospitals.

The reduction of hospital acquired infections should also be a priority. The overall frequency of *C. difficile* cases in English hospitals is 17.3 per 100,000 bed days. Among the members of the Federation of Specialist Hospitals where data were available, almost all had an infection rate lower than the national average and

[17] http://www.nhsstaffsurveys.com/Page/1006/Latest-Results/2012-Results/ accessed 4 October 2013

[18] Berwick, D (National Advisory Group on the Safety of Patients in England) *A promise to learn – a commitment to act: Improving the Safety of Patients in England.*

three hospitals (Moorfields, Liverpool Women's Hospital and Queen Victoria Hospital) had no cases of *C. difficile* during 2012 to 2013.[19]

[19] http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1179745282388 accessed 4 October 2013

V. HARNESSING THE POTENTIAL OF SPECIALIST HOSPITALS

Having set out the challenges facing the wider health service and the current contribution of specialist hospitals to improving outcomes across a range of measures, what further change will be needed to ensure that specialist hospitals can play an effective role as part of a sustainable, outcomes-focused health service?

This report makes a series of recommendations for how specialist hospitals can help the health service achieve its longer-term objectives.

Recommendation 1: Develop a vision of networked care – local where possible, specialist where necessary

As part of NHS England's Call to Action on setting a strategy for the future of the health service, specific consideration should be given to how reinforcing care pathways and provider networks can facilitate seamless services for patients. For the most complex cases, specialist hospitals can provide exceptional quality care, with shared care arrangements with more local hospitals where possible. Through such networks, the diffusion of innovation can also be better spread throughout the service.

Recommendation 2: Refine the payment systems for specialist services

A longstanding concern of specialist hospitals has been the inaccurate reimbursement of specialist procedures through top-ups to national tariff pricing. Unless specialist procedures are more economically viable to deliver, the future sustainability of the specialist provider base will be uncertain. Safeguarding specialist hospitals will be crucial to meet the broader imperatives on the health service.

Recommendation 3: Improve the new commissioning model

National commissioning of specialised services by NHS England represents a positive development. However, significant contracting difficulties were evident in the first months of the new system's operation. Clear priorities should be established ensuring that innovation is still fostered within specialist hospitals outside national commissioning policies, and that the importance of coding is recognised within the development of service specifications. Without this link between contracts and coding, confusion is set to continue, to the detriment of services.