NORTH LONDON PARTNERS
in health and care
North Central London's sustainability and transformation partnership

Case for change

Version 1.7 – 16 August 2018

Adult elective orthopaedic services

Draft for feedback

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Adult elective orthopaedic services: Achieving the best outcomes for patients

Contents

1. Foreword

We are pleased to present this draft case for change which sets out the rationale and evidence for changing how adult elective orthopaedic services are shaped across north central London (NCL) in the best interests of patients.

For many of our residents in Barnet, Camden, Enfield, Haringey and Islington, a single orthopaedic intervention is their first, and possibly only, significant experience of NHS services.

We are setting out our case for realising the full potential to enhance the experience and outcomes for patients across elective orthopaedic services in north central London. We also recognise the need to ensure the best configuration for patients in terms of the expert front-line staff and clinical services that interact, and are interdependent with, elective orthopaedic services.

There is strong evidence that patient care provided in dedicated ring-fenced orthopaedic facilities reduces unwarranted variation in patient experience and outcomes, and provides a more effective and efficient experience for patients and for the staff that provide these services – for example a reduction in cancelled operations, improved access at the right time, and lower rates of clinical complication.

We believe that looking at how services are shaped across NCL also provides us with an exciting opportunity to create world-class provision that could contribute significantly to teaching, research and innovation. This would allow us to recruit and retain the highest quality staff working in a culture of learning and innovation, which has been shown elsewhere to create an environment for the best quality of care for patients.

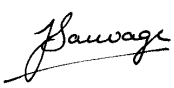
This draft case for change is deliberately being presented at a very early stage in the review process, as we want to be able to improve it as a result of our conversations with patients, residents and other stakeholders.

Over the summer and into early autumn, we will be engaging with the public, providers, clinical commissioners and other stakeholders on the evidence we are putting forward in this document, on the rationale for change and on what is important to the public in a new service. This will help us to refine the draft case for change and inform clinical commissioners' consideration of the criteria to be used to assess different service options as a part of the development of a pre-consultation business case. The intention is then to go out to public consultation, if required, in the spring of 2019 following which a final business case for a new model of care will be presented for approval.

We would welcome as many voices as possible in this conversation and look forward to hearing from you.

Professor Fares Haddad
Clinical Lead

Rob Hurd
Chief Executive Royal National Orthopaedic Hospital and Project SRO



Dr Josephine Sauvage
Co-Chair Health and Care Cabinet

Dr Richard Jennings
Co-Chair Health and Care Cabinet

2. Executive summary

Nationally, there are significant challenges for the future delivery of healthcare services. Demographic changes are leading to growing healthcare needs as we are getting older and living longer. More of us have one or more long-term chronic conditions, lifestyle risk factors are growing, as are patient expectations, which means that providing healthcare is costing more. An ageing population, with greater complexity of conditions has required thought about how we best treat patients, maintain and improve clinical standards and deliver 24/7 care.

To create a sustainable NHS for the future, hospitals now need to undergo transformational change which could affect how and where some patients are treated. By integrating health and social care services, we could deliver the required standards of care more efficiently.

We need to eliminate the significant variation in quality of care, and outcomes of this care across England, and in particular, the variation in care for people receiving treatment through elective orthopaedic services in north central London (NCL).

We currently deliver adult elective orthopaedic services[1] for NHS patients from 10 different sites in NCL. While many of these services are of good quality, we know that there is unwarranted variation[2] in the quality of care we are currently able to offer.

We also know from our initial review of evidence that there might be a case for consolidation of these services onto fewer sites in order to ensure that we are able to achieve excellent care and best value for local people.

In 2016/17, north central London hospitals carried out over 23,000 elective orthopaedic operations

Clinical leaders in orthopaedics, locally and nationally, believe there is evidence that the best clinical outcomes for patients, patient care quality, and efficiency benefits are improved through ring-fenced orthopaedic elective care brought together in fewer sites and co-located with appropriate clinical support services, such as rehabilitation services, in buildings fit for purpose. This allows replication of standardised best-practice pathways of care that are responsive to individual patient needs. It also promotes the best workforce training, research and learning environment for the recruitment and retention of staff.

There is evidence that by separating elective and emergency care, benefits can be derived for the whole hospital that are larger than just elective care.

The NCL sustainability and transformation partnership (NCL STP) health and care cabinet, which includes clinical leaders from all providers and clinical commissioning groups (CCGs) in NCL, and the Joint Commissioning Committee for the NCL CCGs, believe that there could be opportunities to achieve an enhanced quality of care for patients. This could be achieved by reducing the fragmentation of secondary care[3] that currently exists for the residents of north central London.

[1] Elective orthopaedics is for patients who are suffering from a medical condition related to bone or muscle, like a hip or knee, choose to have an operation to correct the condition, like a hip replacement

[2] Unwarranted variation is where patient outcome may vary, clinical practice can be different across different areas, or providers' costs for similar items also range widely. GIRFT

[3] The NHS is divided into primary care, secondary care, and tertiary care. Secondary care, which is sometimes referred to as hospital and community care, can either be planned (elective) care such as a cataract operation, or urgent and emergency care such as treatment for a fracture.

This draft case for change summarises the evidence which supports the adult elective orthopaedic services review which started in February 2018 and will continue to March 2019 to assess whether there are steps which could be taken to:

- Improve outcomes and experience for patients
- Improve quality and efficiency of services by reducing unwarranted variation
- Make efficiencies as a natural consequence of these improvements; improving value for money.

Our review will consider these opportunities and thoroughly assess the options for change; options which would help define the future scope and model for the service.

The review process will be split into several distinct phases:

1. Set up and planning for the review (February-July 2018)
2. Public and stakeholder engagement (summer and early autumn 2018)
3. Reflection on inputs from the engagement phase and finalising proposed service model (October - November 2018)
4. Development of a pre-consultation business case (November-March 2019)
5. Subsequent phases for consultation and decision-making; implementation to be informed by the service model decided on (dates to be determined).

This draft timeline is flexible, as we want to ensure that we are engaging properly with stakeholders and residents. If necessary, we will extend phases of the programme to achieve this.

It should be noted that the views and ideas expressed in this draft case for change do not, at this stage, represent the view of the commissioners as to the best way forward. The development and refinement of the service model is an iterative process; commissioners will make a decision in respect of the final service model following phase three, and if required, a formal consultation process.

3. How you can provide feedback on our vision

Through this process we are asking patients and residents, providers, clinical commissioners and other stakeholders to feed back on the rationale for the review as set out in the draft case for change. The responses received during this period of engagement will also form an important input for clinical commissioners in their consideration of potential service models and the options appraisal for the pre-consultation business case.

We hope to obtain as wide a range of responses as possible from members of the public, the voluntary sector, any interested providers, clinical commissioners (both in NCL and neighbouring CCGs) and other stakeholders.

As set out in section 6 we have planned a programme of engagement activities over August, September and into October and would welcome contact from any other interested organisation that would like to be included within the engagement programme.

Specifically we would welcome responses to the following questions:

Patients and residents

1. What are your views on our ideas?
2. What are the advantages and disadvantages of consolidating onto fewer sites?
3. What are the top three considerations to take into account when thinking about how these services are delivered in the future?
4. If you have used these services (or know someone who has) please tell us whether the challenges set out in this draft case for change reflect those experiences?

Providers

1. Do the challenges set out in this draft case for change reflect your experiences of delivering adult elective orthopaedic services in north central London?
2. What are your views on our ideas?
3. What are the advantages and disadvantages of consolidating onto fewer sites?
4. From your perspective, what operational considerations need to be taken into account in designing the new service model?
5. Are there some services that would be best placed locally rather than at a centre?
6. Are there key clinical dependencies that need to be taken into account?

Clinical commissioners

1. Do the challenges set out in this draft case for change reflect your experience of elective orthopaedic services in north central London?
2. What are your views on our ideas?
3. What are the advantages and disadvantages of consolidating onto fewer sites?
4. From your perspective, what operational considerations need to be taken into account in designing the new service model?
5. Are there some services that would be best placed locally rather than at a centre?
6. Are there key clinical dependencies that need to be taken into account
7. What are your views on our proposed assessment criteria?

Please feed back by 19 October 2018*

- The questions above are available as on online questionnaire at: www.northlondonpartners.org.uk/orthopaedicreview
- Email us: nclstp.orthopaedics@nhs.net
- Write to us: North London Partners in Health and Care, 5th Floor, 5 Pancras Square, London N1C 4AG

**Additional time will be allowed to hear more views if required*

4. Background

There are already many areas of good practice in elective orthopaedic care in NCL– falls prevention schemes, improving musculoskeletal[4] (MSK) pathways (how people access musculoskeletal care and treatment), people staying in hospital for a shorter time, and complications following surgery and revision rates[5] are well within expected levels. On top of this, local residents benefit from having local access to regional specialised services. We have also made progress in reducing the costs to the NHS of overly expensive implants.

There is also good work taking place to increase focus on improving orthopaedic clinical pathways so that patients access the appropriate clinical expertise that they need at the right time, reducing wasted time for patients and clinicians. For example, the Camden Integrated Musculoskeletal Service (CIMS) model has University College London Hospital as the lead provider for Camden CCG. Other providers work in partnership with these lead provider models of care, for instance Haringey and Islington have identified community outpatient musculoskeletal services as a priority area as part of their Wellbeing Partnership with Whittington Health.

However, it is also recognised that the current system does not fully realise the opportunities available to deliver the best possible care for patients. We have used two nationally available analyses to identify opportunities for improvement:

NHS RightCare – a national NHS England-supported programme committed to delivering the best care to patients, making the NHS's money go as far as possible and improving patient outcomes; and

NHS Improvement's Getting It Right First Time (GIRFT) Programme – which aims to help to improve the quality of care within the NHS by reducing unwarranted variations, bringing efficiencies and improving patient outcomes.

The analysis of historic and current activity and patient outcomes from these programmes has identified significant opportunity for reducing unwarranted variation and improved patient outcomes for elective secondary care orthopaedic services. Realising these opportunities for patients also comes with potential for significant corresponding financial benefits to the local NHS, supporting a more sustainable financial landscape for the future.

The detailed rationale for the review is set out in section 10 of this document. In summary, there is currently variation in patient clinical outcomes, there is variation in the achievement of waiting time targets and there are improvements that could be made in length of stay. Winter 2017/18 was particularly difficult across the system, and hospitals were asked to cancel non-critical elective surgery to focus capacity and resources on non-elective demand, such as emergency department attendances. This increased the number of cancellations and also resulted in breaches in the ring-fence of elective beds, increasing the risk of infection.

This draft case for change focuses specifically on opportunities to improve adult elective orthopaedic inpatient services. These services will continue to be provided within the wider context of a network of outpatient and out-of-hospital services that are out of the scope of this review.

It summarises the evidence that we have collated, and the opportunities for improvement which we have identified, to achieve the best value for patients and to ensure we use our resources wisely.

[4] Musculoskeletal (MSK) refers to your muscles, bones and joints

[5] Revision rates are the likelihood that a patient will need an operation to replace a prosthesis, such as a previously implanted knee or hip.

5. Our ambition and our plans to achieve this

Our ambition is to create comprehensive adult elective orthopaedic services for NCL which would be seen as centres for excellence with an international reputation for high-quality patient outcomes and experience, education and research.

Currently the views from clinicians on the review group suggest that a way forward is to deliver services from dedicated state-of-the-art orthopaedic elective surgical centres (also known as cold centres[6]), not linked to an existing emergency department, and co-located with high dependency units (HDU), with the size and scale to enable a full spectrum elective offering and a robust rota. Trauma activity would be maintained at the local hospital trusts. Freeing up beds and theatres would also be consistent in supporting the NCL STP urgent and emergency care strategy, and would make efficiencies as a natural consequence of these improvements; improving value for money.

During the summer and autumn of 2018, we will be holding a series of clinical design workshops and also engaging with patients and the public to finalise the proposed elective care model for north central London. These workshops are expected to work through the patient pathway and would also include examining the dependencies in the pre and post-operative stages of the pathway.

Elsewhere, care models take the form of a hub-and-spoke for elective orthopaedics, with outpatient and diagnostics continuing to be offered on all sites, with specialised centres focusing on the surgical portion of the pathway. As part of the development of the service model we will be talking to other areas that have made changes of these kind and seeking to learn from their experiences.

Improvement in Action:

South West London Elective Orthopaedic Centre

South West London Elective Orthopaedic Centre (SWLEOC) is an NHS treatment centre providing regional elective orthopaedic surgery services (including inpatient, day case and outpatient).

Established by the four south west London acute trusts to deliver strategic change in the delivery of planned orthopaedic care, SWLEOC provides high-quality, cost efficient, elective orthopaedic services ranked among the best in the world.

Since opening in January 2004, SWLEOC has earned a reputation as a centre of excellence for elective orthopaedic surgery with excellent outcomes, low complication rates and high patient satisfaction.

There are 38 visiting surgeons and three permanent surgeons who perform around 5,200 procedures a year, 3,000 of these joint replacements.

SWLEOC is recognised as the largest joint replacement centre in the UK and one of the largest in Europe.

The unit consists of five state-of-the-art operating theatres, a 17-bed post-anaesthesia care unit (PACU) recovery area with high-dependency and critical care facilities and two wards of 27 beds.

SWLEOC was rated as outstanding by the Care Quality Commission in November 2015.

For more information, visit www.eoc.nhs.uk.

There appear to be benefits in consolidating elective orthopaedic work from multiple hospitals onto a smaller number of larger units, whereby we will have an opportunity to learn from the best and most effective orthopaedic centres including:

- Elective surgery split from non-elective trauma for efficiency and quality improvements
- Elective beds separated from non-elective beds to prevent cancellations and reduce the incident of hospital acquired infections

[6] Many hospital trusts based over more than one site try to focus emergency work (hot) on one site and planned, routine surgical work (cold) on the other.

- Expansion of joint school[7] to improve quality of care through greater patient engagement and education, leading to faster recovery and improved patient experience
- Best possible perioperative care for faster recovery and better outcomes
- Co-located specialist HDU to enable all cases to be done on one site
- Access to innovations such as robotic surgery that are likely to deliver improvements in outcomes and length of stay
- Links to research could be extended and there would be much greater potential for clinical trials and the evaluation of more efficacious and cost-effective interventions.

The co-location of multiple services could give the scale necessary to create centres of excellence, which would deliver the best possible pathway improvements, and make the service efficient and affordable. Dedicated expert nurses, surgeons, therapists and allied staff would be attracted to work at such centres and would be able to provide the most appropriate interventions.

Additionally, evidence indicates that by separating elective and emergency care benefits can be derived for the whole hospital that are larger than just elective care, and efficiencies could be made, improving value for money.

Case Study:
Gloucestershire Hospitals

Two sites, Gloucestershire Royal and Cheltenham General, nine miles and 30 minutes apart, introduced a cold orthopaedic centre, in October 2017, supported by GIRFT.

In the first nine weeks they achieved impressive results:

A 14% increase in the volume of elective activity

A 50% reduction in the number of patients cancelled in the week prior to surgery and on the day

The average wait for upper limb trauma surgery (from injury) reduced from an average of 16.2 days to 8.1 days.

Reducing length of stay and **reducing complications** will **benefit patients and their families**, and can help reduce the costs of delivering care. Consolidation will enable providers to develop standard protocols and ways of working that would deliver benefits in these areas.

Creating orthopaedic-specific theatre centres would allow much **greater flexibility** and therefore **efficiency within theatres**. Also, in high-volume centres of orthopaedic activity, nursing, anaesthetic and support staff would have **accelerated learning** to become highly specialised in orthopaedic cases, enabling patients to flow through theatres and to beds/wards efficiently, smoothly and effectively.

A critical mass of work would engender **staff flexibility** to cross cover lists thereby **improving theatre utilisation**. Relative standardisation of procedures would lead to **greater productivity** as the same type of equipment is required and the scrub teams become practiced at minimising the time between cases and minimising set-up requirements.

The challenge in developing these types of centres of excellence is to design something that would truly make a difference to the patient and would provide improved outcomes, value for money, scale for efficiencies, and scope for research and development.

In order to realise this vision, it is necessary to create centres that are large enough to cope with all elective cases including the complex ones and those requiring HDUs. By creating the facilities to accommodate all cases, maximum efficiency and flexibility could be achieved and the orthopaedic centres would be able to:

- Deliver subspecialty resilience and coverage of rotas
- Attract and recruit the highest calibre in all staff groups
- Provide excellent training opportunities

[7] Joint school is a service specifically for people who are about to undergo a hip or knee replacement. It focuses on patient education and lets patients know what to expect through the various steps they will experience, from preparing for admission through to recovery at home.

- Deliver possible configuration to support an effective trauma service remaining at the 'hot' sites.

We would also need to have state-of-the-art facilities to attract the best people, enable complex work to be done, and create the efficiencies that come from multiple theatres working together on similar cases.

The minimum scale of such centres to support our ambition would be based on a complex assessment of the ability of sites to sustain the attributes set out in our vision.

We have reviewed literature on national and international centres of excellence which have high-value quality outcomes and which conduct a minimum of 4,000-5000 procedures a year, plus have all of the attributes described in the other proposed assessment criteria. The indication is that sites that deliver a minimum of 4,000 procedures a year are most likely to be able to evidence the high-value quality outcomes that we are seeking. However, our view on both the size of the centres and the other clinical attributes (listed in appendix A) that would be needed is not fixed and we would welcome feedback as part of the engagement process, so this can be fed into the design of the service model.

The NCL STP, through its sustainable service review process, has agreed that any service with fewer than four consultants should be considered as 'fragile' and should be reviewed.

Therefore, it is proposed that each of the following sub-specialties should be required to operate with a minimum of four consultants (in line with the STP sustainable services review criteria):

- Hip and knee
- Shoulder and elbow
- Foot and ankle
- Hand surgery.

"*If orthopaedic services, within a certain geographical area and with an appropriate critical mass were brought together, either onto one site or within a network … and worked within agreed quality assurance standards, not only would patient care improve but billions of pounds could be saved. These hospitals or networks would receive recognition as "Specialist Units", and have agreed ring-fenced elective beds allowing efficient throughput of patients treated to the highest standards.*

"This would in itself allow different models of working to be introduced with six or indeed seven day working and allow for much more efficient guaranteed training for young orthopaedic surgeons. More importantly, with this model, patients would feel confident with the treatment being proposed and clinicians again feeling empowered to deliver the best possible care for their patients."

Getting It Right First Time: Improving the quality of orthopaedic care within the National Health Service in England

See Section 12 for further details on the rationale supporting this vision.

6. Principles and process of the review

The review of elective orthopaedic services will follow several key principles:

- It will involve co-production between providers and commissioners of an evidence-based service model that strives for excellence and further improves clinical quality, patient experience and outcomes
- Service design will be overseen by the clinically-led adult orthopaedics services review group (the membership of the review group is set out in Appendix C, with input from the five largest providers of adult elective orthopaedic services in NCL and representatives from the local clinical commissioning groups and NHS England, together with resident and patient representatives
- It will be a process that allows for a collaborative and co-production approach[8] with meaningful engagement with all stakeholders, particularly residents, patients, carers and front-line clinical staff
- It will draw on independent experts to provide challenge and advice
- It will share learning about the process to inform the wider STP and to support future reviews in other areas
- All participants will be clear about their roles and responsibilities with a clear separation of decision-making functions
- Proposed timelines are flexible, as we want to ensure we are engaging properly with stakeholders and residents. If necessary, we will extend phases of the programme.

Governance

There will be two distinct stages to the case for change programme. The first is service design which will be overseen by the adult elective orthopaedic services review group. The second is an options appraisal to arrive at a pre-consultation business case, which will be overseen by clinical commissioners. Governance oversight and decision-making will be through the Joint Commissioning Committee of the five NCL CCGs.

Timeline

	Phase (indicative timings)	Feb 18	Mar 18	Apr 18	May 18	Jun 18	Jul 18	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19
Stage 1: Service Design	**Phase 1**: Set up and planning for the review														
	Phase 2: Public and stakeholder engagement														
	Phase 3: Reflection on inputs from the engagement phase and finalising proposed service model														
Stage 2: Options appraisal and creation of a pre-consultation business case	**Phase 4**: Develop pre-consultation business case														

[8] Co-production is a way of working that involves people who use health and care services, carers and communities in equal partnership; and which engages groups of people at the earliest stages of service design, development and evaluation. Co-production acknowledges that people with 'lived experience' of a particular condition are often best placed to advise on what support and services will make a positive difference to their lives.

Phasing

Stage 1: Service design	
Phase 1: **Set up and planning for the review** (February - July 2018)	This phase focused on the set up and planning for the review, stakeholder briefings, writing the draft case for change, formulation of outline criteria to assess service options and planning for the engagement phase of the process.
Phase 2: **Public and stakeholder engagement** (Summer and early autumn 2018)	Clinicians leading the programme firmly believe that engagement and consultation will lead to a better outcome for patients and local health services. **Public engagement** There is a legal duty on NHS organisations to involve patients and the public in the planning of service provision, the development of proposals for change, and decisions about how services operate. A comprehensive engagement plan has been developed that takes into account these responsibilities and best practice for community engagement. Engagement and communication will be coordinated by the STP with support from the five NCL clinical commissioning groups. We tested our engagement plan with the CCG communications and engagement leads, local Healthwatch teams and sought input from the chair of the joint health overview and scrutiny committee (JHOSC) following on from a presentation to the committee in March. Over August, September and October, working with each of the clinical commissioning groups and local Healthwatch teams there will be a programme of engagement activities in each borough. Meetings and events will be publicised locally and on the STP website. Stakeholder briefings have been offered to local authority lead members. Current guidance dictates public engagement and consultation should be adequate and appropriate to the scale of the issue being considered. The JHOSC, formed by the five borough councils (Barnet, Camden, Enfield, Haringey and Islington), will review future proposals. **Provider engagement** During the engagement phase we want to engage with any provider with an interest in this service. We have offered briefings with all providers in NCL delivering these services to seek their views into the service design. We would welcome contact from all

	providers with an interest to enable us to seek the widest possible views into the service design. **Commissioner engagement** During the engagement phase we want to engage with all commissioners with an interest in this service. We have offered briefings to clinical commissioners in NCL and will also reach out to other commissioners with significant flows into NCL providers, as well as specialised commissioning. **Design workshops** Over the summer and early autumn, the adult orthopaedics services review group, which is clinically-led and has input from local NHS providers and representatives from the local clinical commissioning groups and NHS England, together with resident and patient representatives, will be considering the recommended service model and specification. These will provide a more in-depth opportunity to work through some of the interdependencies in the service design. The model will also be informed by the other strands of the engagement activity with clinical commissioners, providers and the public. Responsibility for deciding the final service model sits with clinical commissioners.
Phase 3: Reflection on inputs from the engagement phase and finalising proposed service model	The review group will take stock of the feedback received and updates will be recommended to the draft case for change. They will consider how to incorporate the outcome of engagement into a more detailed proposed service model. These recommendations will be put forward to clinical commissioners for consideration. Following the period of pre-consultation engagement with patients, residents, providers, clinical commissioners and other stakeholders on the draft case for change we will identify and develop possible alternative options for the provision of adult elective orthopaedic services across NCL. To assist in the process of comparing and assessing these options, we have developed a set of draft criteria to assess the relative merits of each option and identify recommended options for consultation (as set out in Appendix A), which we will seek to refine at this stage to take on board feedback from engagement.
Stage 2: Options appraisal and creation of a pre-consultation business case	
Phase 4: **Develop pre-consultation business case** (November-March 2019)	Clinical commissioners will consider the independently reported outcome of the engagement process, alongside the proposed service model from the review group, and will then agree a preferred final service model and process for taking forward the second stage of the review.

	As part of this process commissioners will need to prepare an options appraisal to inform a pre-consultation business case (PCBC), setting out the options on which clinical commissioners propose to consult (including the preferred option), and the detail of the process which has been followed to arrive at those options. We have also commissioned an independent finance and activity assessment to support the development of the pre-consultation business case. Formal assurance from NHS England would take place at this stage.
Subsequent phases: Consultation and decision-making (Date tbc)	**Consultation and decision making** • Consultation on proposed changes • Consideration of responses to consultation • Decision-making business case • Decision to proceed (NHS England and commissioners) and communication of the outcome. JOHSC to consider the outcome of the consultation and decision/s taken. It is our the intention to go out to public consultation in the spring of 2019 following which will present a final business case for a new model of care for approval, however whether a formal consultation will be required will be informed by the service options which will be developed following the engagement phase. We recognise that if, for example, the current proposals are developed into a proposed service model following the engagement phase, that a formal consultation on the proposed changes will be required in accordance our statutory obligations.
Subsequent phases: implementation (Date tbc)	**Implementation** • Provider trust business cases and formal approval of changes (as required) • Implementation programme and transition arrangements (including benefits realisation). The process of implementation will be informed by the final agreed service model.
Assurance	Assurance by NHS England will focus on four tests: • Strong public and patient engagement • Consistency with current and prospective need for patient choice • Clear clinical evidence base • Support for the proposals from clinical commissioners. NHS England introduced a new test applicable from 1 April 2017. This requires that in any proposal including plans to reduce

	significantly hospital bed numbers, NHS England will expect commissioners to be able to evidence that they could meet one of the following three conditions: • Demonstrate that sufficient alternative provision, such as increased GP or community services, is being put in place alongside or ahead of bed closures, and that the new workforce will be there to deliver it; and/or • Show that specific new treatments or therapies, such as new anti-coagulation drugs used to treat strokes, will reduce specific categories of admissions; or • Where a hospital has been using beds less efficiently than the national average, that it has a credible plan to improve performance without affecting patient care (for example in line with the Getting it Right First Time programme). Assurance will be done in two stages: • Early strategic sense check – testing direction of travel and risk assessment • Assurance checkpoint – prior to any public consultation and covering the five tests, including review and assurance by the London Clinical Senate and a financial review.

7. Current service provision

The NHS currently delivers elective secondary care orthopaedic care for NCL patients at 10 separate NHS and independent sector sites within NCL (plus other NHS and independent sector sites outside NCL):

- Royal National Hospital Orthopaedic Hospital
- University College London Hospitals – University College Hospital
- University College London Hospitals – National Hospital for Neurology and Neurosurgery
- Whittington Health – Whittington Hospital
- North Middlesex University Hospital
- Royal Free London – Royal Free Hospital
- Royal Free London – Chase Farm Hospital
- Highgate Private Hospital (Aspen)
- The Cavell Hospital (BMI Healthcare)
- The Kings Oak Hospital (BMI Healthcare)

Activity volume information for the different sites is set out in Figures 1 and 2: Total volumes of adult surgical procedures by NHS providers in NCL 2016/17 are set out in Figure 1, whilst total volumes of NHS day case and elective admissions in 2016/17 for NCL residents for all providers are set out in Figure 2.

The range of orthopaedic services on each site (NHS providers only) is set out in Figure 3.

(Please click on the links in the document to view this information on our website. This information can also be printed as a separate file at: www.northlondonpartners.org.uk/orthopaedicreview).

8. Our population

There are five CCGs in NCL – Barnet, Camden, Enfield, Haringey and Islington, each coterminous with the local London borough, and serving a population of approximately 1.48 million.

As shown in Figure 4, older people (aged 85+) are the fastest growing segment of the population, although in total numbers this age group will remain the second smallest in 2020, after children aged 0-4 years old. Older people need more orthopaedic care services compared to other age groups.

Levels of ethnic diversity vary across NCL, ranging from 32% of people in Islington from a Black and Minority Ethnic (BME) group to 42% in Enfield. The largest such communities in NCL are Turkish, Irish, Polish and Asian (Indian and Bangladeshi). There are also high numbers of people from Black Caribbean and African communities, in particular in Enfield and Haringey. The number of people from BME communities is much greater in younger age groups.

Health needs vary across BME communities. For example, there is a greater risk of diabetes, stroke or renal disease for some BME people compared to White English people; and people from some BME communities, including Black Caribbean, African and Irish, use more hospital services. The number of BME people across NCL is expected to increase slightly from 37% in 2012 to 38% in 2020. The biggest increases in BME communities are forecast in Barnet and Enfield. The fastest growing ethnic communities across NCL are the Chinese and Other group followed by Black Other and Asian ethnic groups.

Overall, around a quarter of people in NCL do not have English as their main language. This diversity presents challenges, both in addressing potentially new and complex health needs, and delivering accessible healthcare services.

There is a wide spread of deprivation across NCL; people tend to be younger and more deprived in the east and south, and older and more affluent in the west and north. Deprivation across NCL is shown in Figure 5.

We know that there are some residents who are more likely to be affected by any proposed changes. We will use a broad range of communication and engagement activities – informed by intelligence from equalities analyses and based on the need of each group.

For example, there may be a higher proportion of older people will use these services, especially white women whose bone density changes as they age. People with physical disabilities may be more impacted if facilities do not adequately meet their access needs. There is also indicative research that people undergoing gender reassignment may have a disproportionate need for orthopaedic services as changes to hormones may affect their bone density.

9. Demographics of NCL elective orthopaedic services

Prior to the pre-consultation and engagement with patients and the public, we will conduct a high-level equalities mapping exercise specific to orthopaedics to ensure that we are reaching out to the groups most impacted by any service changes.

Generally, patients admitted for orthopaedic treatment at NCL hospital sites have:

- An overall younger profile than the national average across all sites
- Very high deprivation indicators at The Whittington Hospital, University College Hospital and North Middlesex University Hospital
- Lower than average deprivation indicators at The Royal National Orthopaedic Hospital and Royal Free London Hospital.

Overall, the hospitals in NCL have a significantly younger admissions profile when compared to the national picture. Figure 6 shows how The Whittington Hospital matches against the national average, and reflects a similar picture across the other trusts.

The exception is Royal Free London Hospital which has a slightly older than average admissions profile as seen in Figure 7.

In terms of deprivation, this is mixed across the trusts. The Whittington Hospital, University College Hospital and North Middlesex University Hospital have very high levels of deprivation with all three having around half or more of their admissions for patients within the top deprivation quintile as shown in Figure 8.

Royal Free London Hospital and The Royal National Orthopaedic Hospital both have lower than average deprivation for patients admitted. If we narrow this to look at the average Index of Multiple Deprivation (IMD) health score for each trust for patients admitted electively or in an emergency, we can see a similar picture as illustrated in Figure 9.

Equalities and engagement

The Equality Act 2010 sets out the public sector duty to give due regard to the nine protected characteristics:

- Age
- Disability
- Gender reassignment
- Marriage or civil partnership (in employment only)
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation.

Given the demographics within north central London, and best practice in other areas, it is also suggested to include socio-economic deprivation and carers within the protected characteristics.

The Public Sector Equality Duty (PSED) is contained in the Equality Act 2010 and it requires public bodies, in the exercise of their functions, to have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act
- Advance equality of opportunity between people who share a protected characteristic and those who do not
- Foster good relations between people who share a protected characteristic and those who do not.

Whilst the Equality Act 2010 and the PSED does not require organisations to complete an equalities analysis, Section.149 says that public bodies must have “due regard”.

To give proper due regard, the likely consequences of proposed changes and impacts on different communities need to be understood. At this early stage a high-level equalities review will be undertaken, via desktop research to help inform this plan and associated activities.

Further into the process a robust equalities analysis will be required to help decision makers to understand which communities will be most impacted to enable consideration of appropriate mitigations to reduce or remove negative impacts and enhance positive impacts.

Another indicator is the Charlson score and ASA (American Society of Anesthesiologists) rating of patients admitted; Charlson being a measure of comorbidity[9] and ASA a proxy for acuity[10]. Again, there is much variation across the trusts. Both the Royal Free London Hospital and University College Hospital have a higher than average Charlson score and ASA rating for patients admitted, whereas The Whittington Hospital and The Royal National Orthopaedic Hospital are lower than average. North Middlesex University Hospital has a very low average Charlson score for patients admitted, but a very high average ASA rating.

[9] The term “comorbidity” describes two or more disorders or illnesses occurring in the same person. They can occur at the same time or one after the other. Comorbidity also implies interactions between the illnesses that can worsen the course of both.

[10] Acuity is the measurement of the intensity of nursing care required by a patient.

10. Quality and outcome measures

NCL providers score well on many quality and outcome measures, however there is also wide variation in performance which suggests that there are opportunities for improvement. The following sections show examples of variation that providers in NCL have experienced over recent years, many of which change and improve over time, whilst others can appear as outliers in each new set of data. Our intention here is not to focus on individual examples of variation, rather the overarching argument driving the draft case for change, which is that variation occurs in fragmented provision and the more fragmentation there is, the more variation occurs.

The data has been summarised from nationally available datasets, as well as analysis from GIRFT. These do not necessarily adjust for case mix and are used here to illustrate variation across sites.

The STP review team expects the data that supports the draft case for change to be refined through the engagement process and is happy to have further detailed discussions about both the source data and how to improve its presentation as part of the overall rationale for change.

10.1. Patient Related Outcome Measures (PROMs)

Patient Reported Outcome Measures (PROMs) assess the quality of care delivered to NHS patients from the *patient* perspective. Currently covering four clinical procedures, including primary hip and knee procedures, PROMs calculate the health gains after surgical treatment using pre- and post-operative surveys.

PROMs average health gain across NCL is similar to that reported nationally. There are some exceptions to this however: one hospital trust reports low levels of health gain for both primary hip and primary knee procedures, while another reports low levels for primary knee procedures. In contrast, a third hospital trust reports excellent health gain for patients undergoing revision hip procedures.

10.2. Elective knee replacements in those who had an arthroscopy < 1 year previously

The GIRFT orthopaedics national specialty report[11] identifies *"Unnecessary procedures and a lack of service coordination (e.g. arthroscopy where joint replacement is inevitable)"* as one of a number of drivers of higher costs within orthopaedics. Nationally, the majority of units are performing low numbers of arthroscopy less than one year before an elective knee replacement, perhaps due to the impact of the GIRFT guidance. Only two providers in NCL performed any arthroscopy procedures, but even so both fell far below the control limit (i.e. the level at which they would be considered statistically significant).

This is an example of unwarranted clinical practice variation (carrying out an operative procedure which subsequently proves unnecessary). For example, instead of carrying out an arthroscopy procedure when a joint replacement is inevitable, it would be better for the patient to proceed straight to having the joint replaced.

10.3. Revision rates

There is also variation amongst the hospital trusts in NCL for revision rates (the likelihood that a patient will need an operation to replace a prosthesis). One hospital trust in NCL has a high rate of elective hip revisions after one year, above the two-year standard deviation control limit. This related

[11] GIRFT Orthopaedics National Specialty Report – March 2015

to a cluster of infections that was investigated and dealt with, and it is encouraging that at five years, the revision rate is within control limits. All other NCL hospitals are within the control limits for these indicators, although one differs significantly positively from the national mean.

10.4. Knee replacements

Elective knee replacement revision rates vary greatly between the different hospitals in NCL.

The scope for the improvement of knee revision rates in the elective sphere is illustrated by the variation between the best and worst performers. A discussion regarding the processes utilised at the trusts with the lowest revision rates would provide an opportunity to improve these outcomes. It is worth noting however that the majority of the group performs within the expected range.

10.5. Length of stay

Across nearly all the NCL hospitals there are opportunities to improve length of stay (LOS) for both elective knee and elective hip procedures (length of stay is how long a patient is in hospital, and is calculated subtracting the day of admission from day of discharge). Reducing hospital length of stay (LOS) can be an effective way of containing the growing demand for beds and releasing capacity in the hospital system. It also improves patient outcomes and can reduce costs. However, LOS in NCL is significantly above the England average and should provide a focus for improvement.

Patient story

"The treatment I received throughout has been excellent from all levels… there is now a 100 per cent improvement in my knee."

"I could not have asked for better attention… the team of staff that looked after me were polite, respectful and could not do enough for me whilst I was staying… I would 100 per cent recommend the hospital."

Local patients in south west London on their experience with the South West London Elective Orthopaedic Centre (SWLEOC).

Established in 2004 by the four south west London acute trusts to deliver strategic change in the delivery of planned orthopaedic care, SWLEOC provides high-quality, cost efficient, elective orthopaedic services.

It should be noted that following NHS England's specialised commissioning review of orthopaedic provision in London, complex orthopaedic referral routes were reorganised. This was organised via a quality improvement framework within NHS contracts (a CQUIN or commissioning for quality and innovation), and thus driven by commissioners. University College Hospital London and the Royal National Orthopaedic Hospital were selected as specialist hub centres. The change in case mix and centralisation of more complex revisional procedures at these centres may account for slightly different outcomes in terms of revisions and length of stay.

National Joint Register (NJR) data for cases performed up to December 2015 is now out of date and does not demonstrate the length of stay improvement and enhanced recovery pathways established over the last three years. However, this data is useful in indicating the variation which exists within NCL and the potential areas for improvement and efficiency gain. For example, one trust can be seen to be an outlier in both primary and revisional hip replacement, and there is potential for reducing that length of stay given that the length is currently seven days more than the England average for primary hip replacement. A second trust is also consistently high, although to a lesser degree. Part of the driver of this high length of stay pattern may be attributable to high patient complexity and morbidity at both sites, however it is unlikely to be the sole cause.

The length of stay for knee procedures bears similarities to the hip procedures, however, one of the trusts which demonstrated a high length of stay for hip revisions performs well with regard to knee revisions.

A point of interest is that the NCL trusts are more likely to have a significantly lower length of stay for revisional procedures than for the initial procedure. It is unclear whether this results from better patient preparation, different surgeons or some other factor. Identification of any factors which could be replicated in primary replacements offers a prospect of serious reductions.

10.6. Readmissions

Readmissions within 30 days of an elective hip replacement are reassuringly low across all NCL hospitals, constituting just over 10% of the initial procedures performed at one trust. None of the units demonstrated significantly variant readmission rates. One provider demonstrated a low readmission rate, but not to the two-year standard deviation confidence interval.

For knee readmission rates, one provider was found to be significantly lower than the England average, whilst another was significantly higher than the average, providing a rather varied picture across all the hospitals

10.7. Infection

Infection rates for the hospitals are low, with one trust demonstrating a rate of 0.22% infections for readmission spells for both hip and knee replacement. Two other trusts have similarly low rates, however, both have infection rates for hip procedures that are above one per cent. Amongst all hospitals in the NCL trusts, there were no significantly elevated rates of infection at all, and no trusts experienced a rate of knee procedure infections above one per cent.

One trust reports 0% infection rates across hip, knee and fractured neck of femur procedures; we would recommend analysis into the cause and effects of this to help inform future commissioning and shared learning.

10.8. Litigation

As with other aspects of the NCL hospital trusts' performance, litigation and the costs associated with it, show considerable variation. One trust incurred 35 litigation claims between April 2013 and March 2016, with a corresponding reserve cost of claims for the same period of £6.89 m. The largest reserve cost incurred was £7,2m, despite incurring only 30 claims over the three-year period to March 2016. By comparison, other trusts have incurred far fewer litigation claims and their reserve cost is significantly lower.

11. Waiting times

Referral to treatment (RTT) waiting times measure the patient's waiting time from GP referral to start of treatment, which may include a diagnostic test. Since April 2012, the national standard for elective care is for at least 92% of patients to begin treatment within 18 weeks of referral. Incomplete pathways are waiting times for patients waiting to start treatment at the end of the month.

NCL trauma and orthopaedic services as a whole did not achieve the national RTT target for the financial year 2017/18, but there are some centres in London, such as SWLEOC, which are delivering this target and show very strong performance in waiting times. In contrast, there are particular waiting time pressures at some other providers – see figure 10. However, it should be noted that overall, NCL providers do better than other parts of London and the national average.

With a growing population, we know pressure on services are likely to grow, however evidence has shown that bringing services together can deliver more efficiency and shorter waits.

Case study

Impact of 2017/18 winter pressures on orthopaedic care in an NCL acute hospital

During the winter, many London hospitals proactively cancel orthopaedic elective surgery to prevent on-the-day cancellations that result in poor patient experience and waste of theatre resources.

Winter 2017/18 was particularly difficult: NHS England issued a directive recommending hospitals cancel non-critical elective surgery to focus capacity and resources on non-elective demand, such as emergency department attendances.

At this hospital, the significant increase in emergency admissions, and the pressure to deliver the four-hour A&E access target, meant that orthopaedic elective operations were regularly cancelled, due to the clinical prioritisation of the beds available.

Some orthopaedic patients experienced multiple cancellations, which can cause psychological distress.

There was a significant rise in the number of complaints, reflecting the poor patient experience of multiple cancellations.

Access to post-anaesthetic care unit (PACU) beds was also a problem, with increased levels of patient acuity within the hospital, and emergency admissions for conditions such as flu, significantly reducing the availability of PACU beds for elective patients.

To counter these multiple cancellations and bed access issues, the hospital moved orthopaedic elective activity to Saturdays when admission and bed pressures were lower. However, this attracted higher staffing costs and put greater pressure on staff to work overtime.

Staff morale on the wards and in theatres was low as a result of multiple on-the-day cancellations. Reactive management of theatre sessions which resulted in reduced utilisation of time and space.

The hospital was able to avoid total cancellation of orthopaedic activity. But referral to treatment (RTT) performance deteriorated by 3% and the number of cancellations closely correlates to the increase in backlog of patients waiting over 18 weeks for treatment.

As an orthopaedic workforce cannot be ‘switched off’, the cost of having orthopaedic theatres inactive and surgeons not utilised can create significant financial pressures for providers.

During periods of increased bed pressures, when priority is given to managing emergency flow, there is a risk of ring-fenced beds being used inappropriately to admit patients directly from the emergency department who may have unknown infection status.

This places the elective orthopaedic patients at higher risk of developing an infection, and a detrimental impact on how long patients who are placed as outliers on an orthopaedic ward, stay in hospital.

Since January, the orthopaedic service in this hospital has been collecting data on ring-fencing breaches by linking incidents to the risk register. From January to March, there were 27 ring-fenced bed breaches took place.

This impacts on the rest of the patient bays and the ability of wards to clean and protect the area following contamination.

Without separation of hot and cold sites during winter periods it is inevitable, even with close management, that orthopaedic patients will be cancelled on the day, because of competing demands on elective beds from emergency flow or other factors such as norovirus and flu patients admitted via the emergency department.

12. Efficiency

The GIRFT review of elective orthopaedics in NCL suggested potential financial efficiency opportunities of potentially over £5m (figure 11). The majority of these could be achieved through quality improvements.

13. Rationale supporting change

The International Society of Orthopaedic Centres considers a centre of orthopaedic excellence (www.isocweb.org) meets the following criteria:

- Is either a dedicated orthopaedic specialty hospital or large department within a hospital
- Performs more than 5,000 orthopaedic procedures each year
- Has orthopaedic staff of more than 20 surgeons who collectively publish more than five articles in peer reviewed publications
- Conducts and exhibits a commitment to basic and clinical research
- Functions as an academic centre (i.e. has residents or fellows in training)

A recent National Orthopaedic Policy Unit report (unpublished) concluded that there is a potential link between high-volume centres and low five-year revision rates and 90-day mortality rates for patients following primary knee replacements.

The Royal College of Surgeons (RCS) report Separating Emergency and Elective Surgical Care: Recommendations for practice (2007) recommends separating elective surgical admissions from emergency admissions (particularly medical emergencies) wherever possible: "*Separating elective care from emergency pressures through the use of dedicated beds, theatres and staff can if well planned, resourced and managed reduce cancellations, achieve a more predictable workflow, provide excellent training opportunities, increase senior supervision of complex/emergency cases, and therefore improve the quality of care delivered to patients*". The RCS also suggests that separating emergency and elective care can result in earlier investigation, definitive treatment and better continuity of care, as well as reducing hospital-acquired infections and length of stay.

The King's Fund and Nuffield Trust produced a qualitative analysis of National Clinical Advisory Team reviews of proposals for hot and cold sites, and available literature[12]. They concluded that "*there is evidence that separation of the elective surgical workload can improve efficiency and avoid the cancellation of elective activity. However, the efficiency gains can be affected by patient case-mix and demand. Evaluation of the operation of the independent sector treatment centres has also suggested separating elective surgical care from emergency services could improve the quality of care*."

The authors advised more evidence was needed; in particular more evidence on relative costs and clinical benefits of standalone elective surgical units of different sizes.

A GIRFT literature review (2017, unpublished) of evidence of impact of hot and cold sites on economies of scale concludes:

"*The literature shows that increasing elective activity volumes reduces length of stay, cost and mortality rates. However, impacts are arguably small, in proportion to the degree of consolidation required, with a doubling of elective volumes resulting in cost reduction of 5.7% and length of stay*

[12] Candace Imison, Lara Sonola, Matthew Honeyman, Shilpa Ross and Nigel Edwards (2015) "Insights from the clinical assurance of service reconfiguration in the NHS: the drivers of reconfiguration and the evidence that underpins it – a mixed-methods study" *Health Services and Delivery Research* Volume 3, Issue 9

reduction of 2.2%[13]. Mortality reductions appear to be bigger, however, with increased volume reduction and increased volume reducing mortality from 1.59% to 1.5%[14].

"The literature shows that treating emergency patients at volume reduces costs and length of stay. The impacts appear to be larger in emergency care, with a doubling of activity resulting in cost reductions of 12.1% and length of stay by 8.1%[15].

"Converse to the above, doubling emergency activity increases elective length of stay by 2.1%; doubling elective activity in one service line increases costs by 2.0% and length of stay by 0.6% for emergency patients within the same service line; and a doubling of elective volumes in other service lines increases emergency costs by 13.5% and length of stay by 6.9% in the main service line.[16]

"Together, this evidence demonstrates benefits would accrue to both the hot and cold site, and benefits in emergency care may, surprisingly, given qualitative evidence, be larger than in elective care."

A GIRFT qualitative review (unpublished, 2017) concluded that:

"*For cold sites, the principle benefits of hot and cold sites are reduced on-the-day cancellations, which is principally achieved by reliable access to HDU beds.[17] The impact of this can be seen in the high volume of patients admitted with no procedure taking place, which indicates that bed capacity is insufficiently managed on a mixed site.[18] Major trauma centres also experience some of the highest on-the-day cancellations for elective activity, demonstrating that cancellations are increased by larger volumes and complexity of emergency activity.[19]. Not surprisingly, this problem is more acute in winter.[20] Building on this, evidence from GIRFT's work with Gloucestershire NHS Foundation Trust has also demonstrated planned cancelations in elective activity could be attributable to mixed site working.[21] Disruption from emergency activity may also lead to delayed start times.[22] Presumably, disruption may potentially occur during a list owing to emergency activity, leading to delay but not cancellation.*

"Secondary benefits for cold sites would include improved infection control,[23] and more predictable throughput would enable greater focus on improving length of stay and other patient outcomes.[24] This could be seen as evidence of the value of hot and cold sites, but could equally be seen as a confounding variable, as better-led providers are more likely to be efficient independent of service design, and better-led providers may be more able to implement service redesign.

Physician story

"My patients who have gone through the centre have seen and experienced the best care they can get for either hip or knee surgery and there has never been an episode where the patient has come back to me and complained about the service as they used to before the Elective Orthopaedic Centre. The centre has revolutionised the management of joint surgery and has reduced the waiting time enormously."

Local GP in south west London on their experience with the South West London Elective Orthopaedic Centre

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[13] Freeman, M. et al. Economies of Scale and Scope in Hospitals. *Forthcoming.* Available online: http://michael-freeman.net/research/articles/hospitalscalescope_june2018.pdf [accessed July 2017]

[14] Kuntz, L. et al. Separate & Concentrate: Accounting for Patient Complexity in General Hospital. *Forthcoming*. Available online: https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/health/downloads/1709_separateandconcentrate.pdf [accessed July 2017].

[15] Freeman

[16] Freeman

[17] Mike Hutton interview (spinal), Nick Phillips Interview (neurocranial)

[18] Mike Hutton interview (spinal)

[19] Mike Hutton interview

[20] Simon Kenny interview

[21] GIRFT visits to Gloucestershire Hospitals NHS Foundation Trust.

[22] Nick Phillips interview (to confirm accuracy).

[23] Anna Bachelor interview

[24] Nick Phillips interview

"For hot sites, exclusively taking emergency admissions may allow greater standardisation of pathways and may enable consultant-led triage, in that consultants would not also be managing elective activity.[25] Hot site working should only be seen as a supporting condition for consultant-led triage, not a necessary one, however, given that the GIRFT general surgery report recommended a 'strong-front door'[26] and general surgery is a specialty relatively poorly suited to hot and cold site working. This point also illustrates that some of the benefit potentially ascribed to physical separation of services would be achieved by separating elective and emergency activity within the surgical workforce."

[25] Nick Phillips interview, Simon Kenny interview

[26] Abercrombie (2017) *General Surgery GIRFT Programme National Specialty Report*

14. Conclusion

There are currently ten sites providing NHS secondary and tertiary[27] orthopaedic care in NCL. Whilst there are examples of sub-specialty networks that mitigate this fragmentation, it does represent a **fragmented model** of secondary and tertiary care sites relative to the population and geography being served

This draft case for change demonstrates **clear variation on performance** across NCL on a number of measures of quality and outcomes for elective orthopaedic services. There is also potential for **improved value for money**, releasing funds to improve services further across NCL.

Clinical leaders in orthopaedics both locally and nationally believe there is evidence that the best clinical outcomes for patients, patient care quality and efficiency benefits are optimised **through ring-fenced orthopaedic elective care consolidated in critical mass and co-located with appropriate clinical support services and infrastructure**. This allows replication of standardised best practice pathways of care responsive to individual patient needs. It also promotes the **best workforce training and research and learning environment for recruitment and retention of staff**.

The NCL STP Health and Care Cabinet, which includes clinical leaders from all providers and CCGs in NCL, and the Joint Commissioning Committee for the north central London clinical commissioning groups believe that there could be **opportunities to achieve quality of care improvements for patients** by **reducing the fragmentation of secondary care** that currently exists for the NCL population.

This draft case for change summarises the rationale to support the adult elective orthopaedics services review which will be undertaken from February 2018 to March 2019 to review whether there are steps which could be taken to:

- Improve outcomes and experience for patients
- Improve quality and efficiency of services by reducing unwarranted variation
- Make efficiencies as a natural consequence of these improvements; improving value for money.

This draft timeline is flexible, as we want to ensure we are engaging properly with stakeholders and the public; if necessary, we will extend phases of the programme.

[27] Tertiary care refers to highly specialised treatment such as neurosurgery, transplants and secure forensic mental health services.

15. Feedback

Remember, we would like to hear your thoughts in particular on:

Patients and residents

1. What are your views on our ideas?
2. What are the advantages and disadvantages of consolidating onto fewer sites?
3. What are the top three considerations to take into account when thinking about how these services are delivered in the future?
4. If you have used these services (or know someone who has) please tell us whether the challenges set out in this draft case for change reflect those experiences?

Providers

1. Do the challenges set out in this draft case for change reflect your experiences of delivering adult elective orthopaedic services in north central London?
2. What are your views on our ideas?
3. What are the advantages and disadvantages of consolidating onto fewer sites?
4. From your perspective, what operational considerations need to be taken into account in designing the new service model?
5. Are there some services that would be best placed locally rather than at a centre?
6. Are there key clinical dependencies that need to be taken into account?

Clinical commissioners

1. Do the challenges set out in this draft case for change reflect your experience of elective orthopaedic services in north central London?
2. What are your views on our ideas?
3. What are the advantages and disadvantages of consolidating onto fewer sites?
4. From your perspective, what operational considerations need to be taken into account in designing the new service model?
5. Are there some services that would be best placed locally rather than at a centre?
6. Are there key clinical dependencies that need to be taken into account?
7. What are your views on our proposed assessment criteria?

Please feed back by 19 October 2018*

- Email us: nclstp.orthopaedics@nhs.net
- Complete our online questionnaire at: www.northlondonpartners.org.uk/orthopaedicreview
- Write to us: North London Partners in Health and Care, 5th Floor, 5 Pancras Square, London N1C 4AG

We will continue to keep residents, patients and other stakeholders informed of progress throughout and you can check for updates at: www.northlondonpartners.org.uk/orthopaedicreview

*Additional time will be allowed to hear more views if required

Appendix A: Adult elective orthopaedic services review: draft assessment criteria to inform an options appraisal as part of the development of the pre-consultation business case

The purpose of the assessment criteria

As we develop a service model for provision of adult elective orthopaedic services across north central London, we will want to compare alternative options as part of an options appraisal process.

To support this process, it is possible that we will look to apply a set of criteria assess the relative merits and identify a recommended option for inclusion in a public consultation. We have prepared a draft set of assessment criteria for consideration and development throughout the process.

The current plan is that these will take into account non-financial and financial criteria. It is proposed that the financial criteria are scored separately from non-financial criteria.

The assessment criteria will contain:

- A set of **criteria** that define the dimensions which we will consider
- **A description** of what each criterion comprises
- The **analysis** that needs to be carried out for each of the assessment criteria.

It is proposed that these are in three groups:

- *Hurdle criteria* – which are essential pass/fail criteria
- *Non-financial criteria* – weighted to reflect their relative importance
- *Financial criteria* – these will be assessed separately from the non-financial assessment.

Developing and using the assessment criteria

These draft criteria have been developed by the adult orthopaedics services review group which is clinically-led and has input from local NHS providers and representatives from the local clinical commissioning groups and NHS England, together with resident and patient representatives. It is intended that these are tested and informed through discussions with patients, providers and other stakeholders during pre-consultation engagement. Finalising and approving assessment criteria and their use in any options appraisal process will be the responsibility of clinical commissioners.

Sense check of the assessment criteria

Hurdle criteria are used to create a shortlist of preferred options. They include clinical requirements, minimum quality outcomes, location, financial impact, and deliverability.

Prior to wider public and stakeholder engagement, NHS provider chief executives in north central London were asked to help test that the draft hurdle criteria were reasonable, and that there were possible sites that could be put forward to a formal process for deciding the configuration of adult elective orthopaedics.

All NCL acute providers responded positively to a request to sense check the draft hurdle criteria, indicating their readiness to explore the feasibility of bringing services together in fewer sites, and put forward options to a formal options appraisal process. The review group therefore concluded that there were a sufficient number of possible sites put forward to indicate that the draft hurdle criteria were reasonable and could be further refined through wider patient and stakeholder engagement.

In carrying out the sense check, the review group was clear that other possible sites could be identified through the process of public and stakeholder engagement. Since carrying out the sense check, the proposed hurdle criteria have been amended further to ensure that the focus is on the commissioners' desired outcomes rather than indicators alone. All responses to the sense check

were shared for the purposes of reviewing the draft hurdle criteria and do not constitute an expression of interest or prejudge the outcome of a formal assessment process. Decisions on the future configuration of services sit with clinical commissioners and specialised services.

Engaging on the draft assessment criteria

During summer 2018, we are seeking input into the draft assessment criteria to ensure that clinical commissioners can assess potential service options in a way that reflects the concerns and priorities of patients, clinical commissioners and clinical teams.

Draft criteria are set out below and we expect these to change as a result of engagement. The criteria will be used to assess the relative benefits and disadvantages of options put forward against the status quo.

Proposed assessment draft criteria

Hurdle criteria are pass/fail so only options which will pass **all the hurdle criteria** will be assessed against the other criteria.

Section One – hurdle criteria		
Criteria	**Description**	**Weight**
Clinical requirements	Meets essential clinical requirements to deliver improved patient care and makes no material ongoing negative impact on other interdependent clinical services (see below).	Pass/fail
Minimum quality outcomes	We are looking for a solution that demonstrates high value quality outcomes. This may be demonstrated by the number of procedures delivered per year, or by an equivalent indicator. Our review of literature evidenced international centres of excellence with high value quality outcomes conduct a minimum of 4,000 procedures a year for each site, but other indicators will be considered. In addition, each of the following sub-specialties are required to operate with a minimum of 4 consultants (in line with the STP sustainable services review criteria): • Hip and knee • Shoulder and elbow • Foot and ankle • Hand surgery	Pass/fail
Location	Services are delivered from sites located or hosted within north central London.	Pass/fail
Financial	The option has a favourable income and expenditure impact for the system after two years of operation, against a counterfactual that includes growth and cost of growth. At the stage of the options appraisal, this will be assessed only at a high level, but at later stages a more detailed financial analysis will need to be considered.	Pass/fail
Deliverability	There is a realistic prospect of delivering the option.	Pass/fail

The non-financial criteria will be used to assess the relative benefits and disadvantages of each shortlisted option compared to the status quo.

Section Two – non-financial criteria		
Criteria	**Description**	**Weight**
Clinical quality	Impact on clinical quality	TBC
Patient experience	Impact on patient experience, including travel times	TBC
Workforce	Impact on the ability to attract and retain high-quality workforce	TBC
Training and research	Impact on the delivery of high-quality training for clinical staff and high-quality research	TBC
Impact on other services	Impact (positive or negative) on interdependent services. See below for draft list.	TBC
Deliverability	Deliverability including: • Flexibility, adaptability and resilience to meet the requirements of growth or changes in future demand or change in national policy • Ease of implementation: timescales, risk around transition including impacts and disruption to existing services • Capacity and capability to deliver the change/transition.	TBC

Financial criteria will be assessed separately from the non-financial criteria.

Section Three – financial criteria		
Criteria	**Description**	**Weight**
Financial impact	The impact on overall system costs – capital, revenue and transition: • Net present value (NPV) of each option over 20 years incorporating future capital and revenue implications against a counterfactual that includes growth and cost of growth.	TBC
Organisational impact	Impact analysis on individual trusts • Current vs future revenue and cost Where there is an overall system benefit but negative impact on individual providers we will look to find ways of managing that impact.	TBC

Deliverability	Where investment is required, the ease of obtaining required funding or financing.	TBC

Assessing and scoring the options

Not all criteria will necessarily have equal importance and we will therefore need to agree relative weightings of each of the non-financial assessment criteria.

We would then need to agree for each option how we assess each of the non-financial criteria in comparison with the status quo.

Views on the best process for assessing options against each of the non-financial criteria will be sought as part of the planned engagement process on the criteria themselves.

Financial assessment will be undertaken separately from non-financial.

Essential clinical requirements

There are a number of essential clinical requirements for the delivery of adult elective orthopaedic services, and all options should meet these requirements. These include:

- Adherence to safety standards as judged by prevailing standards
- Ring-fenced elective care beds and dedicated elective orthopaedic theatre sessions and associated staffing
- Deteriorating patients protocols
- Compliance with NHS England service specifications for specialised orthopaedics networks (see below).

There is a range of essential services, including support services, which at this initial stage we believe would be required to be co-located with core services in scope. These include:

- Radiology, including access to CT and MRI scanning equipment
- Transfusion service
- Anaesthetics
- Theatres
- Appropriate post-operative intensive care/high dependency
- Rehabilitation (implementing the rehabilitation)
- Infection control services
- Other standard hospital support services applicable to any elective site
- Teaching, training, education and research infrastructure.

There is also a range of other essential services, including support services, which at this initial stage we believe are required to be accessible on-site of the in-scope services but not be required to be co-located. These include:

- Pre-operative assessment
- Plastic surgery
- Vascular surgery
- Medical support services (incorporating a range of general medical and medical subspecialties – e.g. cardiology, neurology, diabetes)
- Acute pain management services.

Interdependent services

There is a range of interdependent services, which are outside the direct scope of the review. However, we will want to ensure that any impact of the review on these services is included in the option appraisal. Interdependent services include:

- Paediatric orthopaedic services
- General paediatric services
- Non-elective adult orthopaedic services and trauma services
- Fractured neck of femur services
- Outpatient adult orthopaedic services
- Community and primary care orthopaedic services
- Chronic pain services
- Social services.

Specialised orthopaedics services

Each option needs to demonstrate that the resultant service model in NCL maintains compliance with NHS England service specifications for specialised orthopaedics networks.

Currently Royal National Orthopaedic Hospital and University College Hospital London hold contracts with NHS England for specialised orthopaedics and with Royal Free London for specialist pain management services. The service model, once determined, will need to ensure that across NCL the service can conduct specialised orthopaedics under the principles of a network model as indicated in NHS England guidance[28]:

"*It is not the intention in supporting a network model of delivery that all complex or specialist procedures or care is only undertaken at the specialist centre. Rather it is in the intention that by delivering care through a network model that there will be increased local access to complex or specialist procedures and care, but within an appropriate framework which ensures that the required expertise, resources, support and clinical governance are available, standards followed and outcomes reported.*

"Configuration of the network and the patient pathway will be for local determination by commissioners and clinicians informed by this specification, best practice, the location of providers and the needs of patients. Specialist orthopaedic networks should comprise one or more specialist centre hubs linked to a number of spoke units which will be deemed a specialist network.

"Networks work together collaboratively ensuring patients have seamless access to care and transfer back to their locality hospital home when medically fit. Networks will meet regularly to examine performance through formal governance processes which will include infection rate and readmission data.

"Performance improvement is undertaken through regular mortality and morbidity meetings which will generate action plans for improvement. Oversight of the network will be undertaken according to local structures and processes within a quality assurance framework."

[28] NHS standard contract for specialised orthopaedics (adult) 2013

Appendix B: Glossary of terms, names and acronyms

ASA rating	American Society of Anesthesiologists rating which is a proxy for acuity; evaluating how "sick" the patient is before administering aanaesthetic, for example.
BME	Black and Minority Ethnic
CIMS	Camden Integrated Musculoskeletal Service
CCG	Clinical Commissioning Group
Charlson score	The Charlson co-morbidity index predicts the one-year mortality for a patient who may have a range of comorbid conditions, such as heart disease, AIDS, or cancer (a total of 22 conditions). Each condition is assigned a score of 1, 2, 3, or 6, depending on the risk of dying associated with each one.
CQUIN	Commissioning for quality and innovation. The system was introduced in 2009 to make a proportion of healthcare providers' income conditional on demonstrating improvements in quality and innovation in specified areas of patient care. This means that a proportion of income depends on achieving quality improvement and innovation goals, agreed between the Trust and its commissioners. The key aim of the CQUIN framework is to secure improvements in the quality of services and better outcomes for patients, a principle fully supported at all levels of the hospital.
CT scan	Computed tomography scan. The CT scan can reveal anatomic details of internal organs that cannot be seen in conventional X-rays.
FY	Full year
GIRFT	The Getting It Right First Time (GIRFT) programme is helping to improve the quality of care within the NHS by reducing unwarranted variation, bringing efficiencies and improving patient outcomes.
HDU	A high dependency unit is an area in a hospital, usually located closely to the intensive care unit, where patients can be cared for more extensively than on a normal ward, but not to the point of intensive care, it is appropriate for patients who have had major surgery and for those with single-organ failure.
HES	Hospital Episode Statistics is a database containing details of all admissions to hospital, A&E attendances and outpatient appointments at NHS hospitals in England.

HOSC	Health overview and scrutiny committee
Hot and cold sites	Many hospital trusts based over two sites try to focus emergency work (hot) on one site and planned, routine surgical work (cold) on the other. The main benefits of this are being able to group your expert staff together in one place (e.g. emergency doctors working together as a team at the hot site) and reducing the number of operation cancellations as routine surgery at the cold site is not impacted by emergency work which can sometimes take priority.
Hub and spoke	There is no agreed definition of hub and spoke provision. A variety of terms is used to describe hub and spoke or variations of hub and spoke models of service delivery, including clusters, networks and satellites. In this instance, NHS England has stated that "*Specialist orthopaedic networks should comprise one or more specialist centre hubs linked to a number of spoke units which will be deemed a specialist network".*
Hurdle criteria:	Indicators used to create a short list of options. They include clinical requirements, minimum size, location, financial impact, and deliverability.
I&E	Income and expenditure
IMD	Index of Multiple Deprivation, a UK government qualitative study of deprived areas in English local councils. The first study (released in 2007) covers seven aspects of deprivation. The statistics described by the neighbourhood renewal unit are: • Income • Employment • Health deprivation and disability • Education, skills and training • Barriers to housing and services • Crime • Living environment
JHOSC	Joint health and overview scrutiny committee, with representatives from each of the borough HOSCs.
LOS	Length of Stay. How long a patient is in hospital, and is calculated subtracting the day of admission from day of discharge.
MDT	Multi-disciplinary team. A team of medical experts in different areas with different professional backgrounds, united as a team for the purpose of planning and implementing treatment programs for complex medical conditions.

MRI scan	Magnetic Resonance Imaging is a diagnostic technique that uses magnetic fields and radio waves to produce a detailed image of the body's soft tissue and bones.
MSK	Musculoskeletal conditions
NCL	North central London
NHS	National Health Service
NHSE	NHS England
NHSLA	NHS Litigation Authority. It changed its name in 2017 to NHS Resolution. Its purpose is to provide expertise to the NHS on resolving concerns fairly, share learning for improvement and preserve resources for patient care.
NJR	The National Joint Registry for England, Wales, Northern Ireland, and the Isle of Man (NJR) collects data about hip, knee, shoulder, elbow, and ankle joint replacement surgery. The purpose of collecting the data is to monitor the performance of orthopaedic implants, surgical teams, and hospitals in order to improve the outcomes of joint replacement surgery and to ensure patient safety.
NPV	Net present value – the value of money today, not what it might be in the future.
PACU	Post-anaesthesia care unit
PCBC	Pre-consultation business case
PSED	Public Sector Equality Duty
RCS	Royal College of Surgeons
RFL	Royal Free London NHS Foundation Trust
RNOH	Royal National Orthopaedic Hospital NHS Trust
RTT	Referral to treatment. Waiting times and the 18 weeks referral to treatment (RTT) pledge. The NHS Constitution gives patients the right to access services within maximum waiting times, or for the NHS to take all reasonable steps to offer you a range of suitable alternative providers if this is not possible.
SRO	Senior responsible officer

SWLEOC	South West London Elective Orthopaedic Centre
T&O	Trauma and orthopaedic
UCLH	University College London Hospitals NHS Foundation Trust

Appendix C: Review group membership

Chair: Professor Fares Haddad (University College Hospital London)

CEO Sponsor and Project SRO: Rob Hurd (Royal National Orthopaedic Hospital)

Review group members:

Clinical representatives from each of the five largest providers of adult orthopaedic services

Two clinical commissioning representatives from NCL CCGs

NHS England Specialised Commissioning

Two patient and public representatives (recruited by Healthwatch)

NHS England Strategy and Reconfiguration

In attendance:

Trust management leads from each of the five largest providers of adult orthopaedic services

Programme Director and Programme Manager

Other workstream leads as required