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DEPARTMENT OF HEALTH

BLUEPRINT DOCUMENT

Rebuilding, Transition and Transformation of Elective Orthopaedic Care (EOC) delivered by Health and Social Care in Northern Ireland

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FOREWORD BY ROBIN SWANN MLA, MINISTER OF HEALTH

My Department has commissioned this blueprint document to provide a programme of work to quickly rebuild Orthopaedic Care, provided by Health and Social Care (HSC) Trusts, to address the aftermath of the first wave of the Covid-19 pandemic.

During the pandemic we lost significant amounts of elective care capacity and we now must turn our efforts to incrementally build-up this capacity as quickly as possible within the funding available to my Department. At the same time the new service delivery model outlined in the blueprint will provide us with the basis for protecting orthopaedic care, in the event of further waves of Covid-19, by ring-fencing this service in dedicated delivery centres.

The new model also provides us with the basis for transforming the delivery of orthopaedic care over the medium to long-term.

Normally at this stage of a service review either the Department, Health and Social Care Board or HSC Trusts would launch a public consultation and engagement process with staff representatives and professional bodies on proposals such as those in this document to inform their final shape. However, due to the adverse impact of the Covid-19 pandemic on elective care waiting times my Department needs to move swiftly ahead of potential further waves of the pandemic to establish this new model as quickly as we can. This is because the dedicated centres will allow us to maintain robust infection control preventative measures at these centres to enable procedures to continue during any future outbreaks of Covid-19. While we cannot guarantee that this can be achieved under all circumstances it should however give us a high level of confidence in our ability to continue to deliver this service while other hospitals are treating Covid-19 patients should this occur.

While we have stepped outside the normal consultation arrangements my Department is committed to ensuring that consultation and engagement by HSC Trusts with patients, trade unions and professional bodies will be carried out as part of the planning of the implementation of the new model and the new network. This approach reflects a balancing of conflicting responsibilities, made all the more real by the pandemic, to ensure that appropriate consultation is carried out while at the same time continuing to take every available opportunity to rebuild and sustain the delivery of elective care services throughout the period of the pandemic.

I hope that all stakeholders will understand that because of the difficult position facing elective care services, in the wake of the first wave of Covid-19, my Department is taking this approach because we believe that the public interest is best served by this.

SECTION A: Rebuilding, Transition and Transformation of Elective Orthopaedic Care (EOC)

1.0 Introduction

1.1 Prior to the Covid-19 pandemic, the Department's Transformation Implementation Group (TIG) had approved Departmental Plans to take forward a regional review of elective orthopaedic services (March 2020) to be led by John Barr (Consultant Trauma and Orthopaedic Surgeon) and Niall Eames (Clinical Director and Consultant Spinal Surgeon) from the Belfast Health and Social Care Trust.

1.2 However, as a result of the emergency arising from the pandemic, this meant that the Department had to redirect significant resources to address all aspects of the immediate and critical issues associated with Covid-19. As result of this, the work on the orthopaedic services review, as with many other elements of high priority work for the Department, had to be put on hold.

1.3 The vast majority of elective orthopaedic surgery was halted due to the pandemic and as a result these services have been significantly adversely affected with increased and growing waiting lists. It is now critical to refocus efforts on this work. The Department therefore commissioned Mr Barr and Mr Eames to accelerate their initial work on the review and produce this blueprint for rebuilding orthopaedic care. In developing the blueprint they have engaged with their professional colleagues providing this service across all HSC Trusts in order to build consensus supporting the action to be taken to rebuild orthopaedic care, while at the same time addressing some of the key transformational changes required to improve the service over the medium to longer term.

2.0 Aim

2.1 The key aim of this blueprint is to provide a programme of work designed to**:**

- Provide a single system of Elective Orthopaedic Care (EOC) delivery for Northern Ireland;
- Create equity of access for all patients in Northern Ireland (Abolish 'Post Code Lottery');
- Develop standardised care pathways;
- Develop use of standardised implants;
- Encourage evidence based practice;
- Apply continuous improvement methods; and
- Explore cross specialty possibilities with Neuro and Plastic Surgeons.

3.0 Strategic Context

3.1 Waiting times in Northern Ireland for Orthopaedic Surgery are among the worst in the UK, with patients waiting up to four or five years for operations such as hip replacements. Earlier this year (March 2020) as part of the Department of Health's (DoH) strategic transformation agenda, the Department secured endorsement from the Transformation Implementation Group (TIG) to take forward a Regional Review of Orthopaedic Services in Northern Ireland. The key objective of this work was to introduce a new, streamlined end-to-end pathway for orthopaedic surgery, to ensure a reduction in regional variation in clinical practice, and to standardise processes so that patients could have timely access to the same quality of care, regardless of postcode.

3.2 Subsequent to this and in line with Health Departments across the UK, many aspects of strategic planning programmes had to be put on hold as the DoH and the Health and Social Care (HSC) sector devoted significant resources to address all aspects of the critical and unprecedented Coronavirus Covid-19 Pandemic.

3.3 During the Covid-19 pandemic, most elective orthopaedic procedures have been deemed to be non-essential procedures and have therefore been halted to ensure

both the availability of resources and patient safety for those affected by Covid-19. While these measures will have an immediate positive effect on the incoming Covid-19 patients, they will unfortunately mean that other patients in the healthcare system will become de-prioritised and in particular, this will have a significant impact on those patients who are already waiting the longest.

3.4 While work on Covid-19 remains a top priority for the DoH and the HSC, we are now at a stage in the pandemic where some resources can be redirected to address other key priorities of the DoH strategic planning programme to ensure the continued planning and development of key services across critical areas of HSC services in Northern Ireland.

3.5 It is in that respect, as we now move into the recovery phase of the pandemic, the DoH has commissioned work to develop plans to re-establish Orthopaedic Elective Surgery in Northern Ireland. The purpose of this paper is to outline plans for a phased approach to the re-establishment of much needed elective orthopaedic services, within the context of planning for potential further waves of Covid-19, in a safe and sustainable manner and to set out a blueprint for long-term transformation.

SECTION B: REBUILDING, TRANSITION AND TRANSFORMATION

4.0 Surgical practice

4.1 In order to re-establish elective orthopaedics, initial rebuilding will involve the phased re-introduction of orthopaedic practice. An analysis of potential sites to deliver a regional orthopaedic service have been set out at **Annex A**, and building on that, options to the rebuild the service are set out at **Annex B**. The key aim of this work is to provide a service in line with both the Bengoa[1] report and the Getting it Right First Time (GIRFT)[2] principles, looking at systems of healthcare based on best practice, standardised care and equity of practice, which could be achieved with the application of continuous improvement methodology.

4.2 In light of the Covid-19 pandemic, it is critical that in the first stage, 'green' pathways would need to be established to ensure patient safety during the rebuilding phase.

4.3 The initial phase of rebuilding should first address patients categorised according to Royal College of Surgeons (RCS) guidelines, addressing clinical need rather than the length of time waiting. The overall direction of travel should be clinically led and managerially facilitated. As a consequence, the new transformed orthopaedic service will mirror the principles outlined in The Strategic Framework for Rebuilding HSC Services. A regional management structure would be required, which should also attract regional funding. Regional oversight and governance would also be required, along with central staff appointments to the service. Such contracts to the regional service could provide the opportunity for flexible working, but would also allow standardisation of care across the region. Established principles of day of surgery admission, early recovery after surgery, patient recorded outcome measures and Allied Health Professional (AHP) review protocols should be utilised where applicable.

[1] https://www.health-ni.gov.uk/sites/default/files/publications/health/expert-panel-full-report.pdf
[2] https://www.boa.ac.uk/standards-guidance/getting-it-right-first-time.html

5.0 Ring-fencing of Orthopaedics

5.1 Historically, Trauma and Orthopaedics (T&O) have been regarded as a single entity often to the detriment of each constituent part. It may be time to consider the separation of orthopaedics from trauma, with a ring fenced orthopaedic facility to ensure a predictable delivery of care throughout the year and the abolition of a 'post code lottery' across the region, irrespective of the time of year or pressures upon the fracture service.

6.0 Opportunities for Combined Care

6.1 T & O already provide regional services for paediatrics, spine and sarcoma. In the longer term there may be opportunities to provide combined care between specialties in amalgamated practices of spine & neurosurgery, orthopaedics & plastics (hand & wrist). This approach is already being applied within training and clinical practice across the UK in the Interface Groups.

7.0 Outpatient Practice

7.1 The principles of consultant triage, collocation, one stop clinics, mini and mega clinics utilising outpatient hubs should be adopted. Review protocols, already established and being introduced, should become standard practice, reducing demand on consultant clinics. Clinical practice during the Covid-19 pandemic has highlighted that new technology can be embraced rapidly and with correct application can facilitate the underlying principles of ensuring the patient is seen in the right place at the right time by the right persons.

8.0 Elective Daycase Reform

8.1 The introduction of an elective daycase unit is essential and the work already undertaken under the Daycase Elective Care Centres (DECC) project[3] should be

[3] The 'Health and Wellbeing 2026: Delivering Together' document published in 2016 provides the blueprint for transforming health and social care services in Northern Ireland. A key commitment in the blueprint is to establish elective care centres to provide a dedicated resource for less complex planned surgery and other procedures. This work is being taken forward as a key work stream under the Strategic Framework for Rebuilding Health and Social Care Services

utilised to establish such a pathway and an agreed centre. The general consensus is that a two centre model would be preferable.

SECTION C: DEVELOPMENT OF A REGIONAL MODEL

9.0 Consideration of Options

9.1 Following engagement with key stakeholders across the orthopaedic specialty in Northern Ireland, an analysis of potential locations to deliver orthopaedic services was carried out, setting out the pros and cons of each site. A summary of this analysis is included at **Annex A**. Building on that, options for a phased approach to the regional rebuilding of elective orthopaedics were developed, as set out at **Annex B**. On the basis of the analysis carried out, Option A, utilising a two-centre 'hub and spoke' model, has been identified as the preferred model. This option focuses on the delivery of orthopaedic services using existing facilities and will produce the greatest sustainable return in the fastest time.

10.0 Phased approach

10.1 It is proposed that the regional model will be developed incrementally, according to the phased approach set out as follows:

PHASE 1 (JULY – SEPT 2020)

- Reconfiguration of Musgrave Park Hospital (MPH) and Altnagelvin Area Hospital (AAH) as regional 'hubs' for elective orthopaedic services;
- Belfast HSC Trust to "host" the regional management for the new service delivery model;
- Consideration to be given to the relocation of day case fractures presently undertaken in the MPH site to Belfast City Hospital (BCH) or the Independent Sector (IS), as an interim measure[4];
- Establishment of green pathways in AAH and MPH – this will involve a rigid repatriation protocol for fracture patients from the Royal Victoria Hospital

[4] Currently there are approximately 4-5 daycase fractures per day presently undertaken at MPH

(RVH), as presently significant numbers of these patients await repatriation utilising MPH beds. This would have to stop to allow a green pathway to be introduced on MPH site;

- Recommencement orthopaedic activity, with a stratified approach to patient selection/procedures – patients would be selected from a regional pool which would be agreed through case conferences/ MDMs (multi-disciplinary meetings) with clinicians, based around patient risk and procedure complexity; and
- Development of proposals for renovation of existing theatre and adjoining areas in Duke of Connaught (DoC) building on the MPH site to support the delivery of daycase fractures during the current Covid-19 environment. The works required for this would involve:
    - Reinstate lift to first floor;
    - First floor theatre with associated anaesthetic room and scrub room;
    - Adjacent recovery ward;
    - Adjacent admissions ward;
    - Adjacent admin offices.

PHASE 2 (OCT – DEC 2020)

- Development of Northern Ireland Orthopaedic Network (NION) tasked with the commissioning and performance monitoring of the regional service;
- Development of regional waiting lists to improve equity of access, moving to longest waiters on waiting lists;
- Development of regional standardised patient pathways;
- Phased move of daycase fractures to DoC Unit; and
- Recommence new patient appointments, utilising a new collocated outpatient hub in DoC unit (this requires conversion of the existing Outpatients Department/Emergency Department area) involving works related to:
    - Ground floor;
    - 5-10 consulting rooms;
    - One central clinical area;

- Patient waiting area.
- Xray facility.

PHASE 3 (JAN 2021 – ONGOING)

- Consideration of Professorial Orthopaedic Academic Department, in association with Queens University Belfast (QUB) and / or the University of Ulster (UU) Magee campus;
- Consideration of the development of a discreet spine service; and
- Consideration of the development of a discreet hand/wrist service.

10.2 **Annex C** sets out detail on pre-Covid capacity in elective orthopaedics, and the challenges that will be faced as we work towards rebuilding capacity into the service are reflected in **Annex D**. Whilst initially, capacity will not be at the pre-Covid level, it is intended that the phased approach to rebuilding and transformation as set out in this blueprint will work towards incrementally building capacity as quickly as possible.

11.0Conclusion

11.1 This blueprint is designed to set out plans for a sustainable, high quality and timely Orthopaedic service for Northern Ireland, with improved access for patients and continuous reduction in waiting times. A strategic shift is required from the existing T&O service, to a HSC ring fenced regionally coordinated, managed and funded orthopaedic service based on one or two 'hub' sites in Northern Ireland.

11.2 The utilisation of a two-centre model, initially focussed at Musgrave Park Hospital and Altnagelvin Area Hospital as the 'hubs', is the preferred option. This would include the adoption of modern outpatient practices, resulting in a service which aims to provide a cohesive, protected regional orthopaedic service un-effected by the fluctuations in fracture care.

11.3 Delivery of this plan will be incremental, through a carefully planned and phased approach, moving through recovery, transition and transformation. Implementation of

this plan will be overseen and facilitated by a central project team with regional Trust representation, who will provide the focus for achieving change.

Annex A

Location Analysis

Unit	Positives	Difficulties	Potential solutions	Covid status if utilised
MPH	• Large established orthopaedic unit • Could accommodate regional approach • Could be reverted if Covid surge • Multiple side rooms giving potential for 50 patients per day	• Fracture patient lists • Fracture clinics • Repatriation patients • Nursing staff shortage • Ability to manage increased acuity patients • Wards only able to accommodate 2 patients per bay	• Duke of Connaught Day case fracture list • BCH day case fracture list • Re Establish Enhanced acuity unit • Utilise BCH HDU • Utilise CAH HDU • Repatriation policy/agreement	Amber moving to green
Altnagelvin	• Large established orthopaedic unit • Could accommodate North West area • Laminar flow theatres • Stand-alone unit	• Competing specialties		Green
CAH	• Established orthopaedic unit • HDU/ICU	• Lack of capacity • Covid status	• Utilise HDU as part of phased approach for higher acuity cases	Red moving to amber
BCH	• Large hospital • HDU/ICU	• Covid centre	• Utilise for day case fractures • Utilise for higher acuity cases	Red moving to amber

Independent sector UIC/KPH/NWIH	• Previously performed orthopaedic procedures as WLI or PP • Available capacity • Staffed • Could be reverted if Covid surge • Side rooms	• Other competing specialties • Not improving system • Temporary solution • No HDU		Green
SWAH	• Multiple side rooms • HDU/ICU • Regional	• Distance • Staffing • Competing specialties		Red moving to amber

Annex B Rebuilding Elective Orthopaedics – Options

Option A	Elective	Day case fractures	Higher acuity cases
Phase 1 Two Elective Centre Model	MPH (Eastern Elective)	BCH (Eastern)	
	Altnagelvin Day Case Unit (Western Elective)	Altnagelvin (Western)	
Phase 2		Duke of Connaught Fracture Day Case Unit or Kingsbridge Private Hospital (Eastern)	
Phase 3			BCH (Eastern) CAH (Eastern) MPH (Eastern)

Option B	Elective	Day case fractures	Higher acuity cases
Phase 1 One Elective Centre Model	MPH (All region)	BCH (Eastern)	
		Altnagelvin (Western)	
Phase 2		Duke of Connaught Fracture Day Case Unit or Kingsbridge Private Hospital (Eastern)	
Phase 3			BCH (Eastern) CAH (Eastern) MPH (Eastern)

Option C	Elective	Day case fractures	Higher acuity cases
Phase 1 Utilise Independent Sector	Ulster Independent Clinic (Eastern) KIngsbribdge Private Hospital (Eastern)	BCH (Eastern)	
	North West Independent Clinic (Western)	Altnagelvin (Western)	

Phase 2		Duke of Connaught Fracture Day Case Unit (Eastern)	
Phase 3			BCH (Eastern) CAH (Eastern) MPH (Eastern)

Option D	Elective	Day case fractures	Higher acuity cases
Phase 1 One Elective Centre Model	South West Acute Hospital (SWAH)	MPH Eastern	
		Altnagelvin (Western)	
Phase 2		Duke of Connaught Fracture Day Case Unit (Eastern)	
Phase 3			BCH (Eastern) CAH (Eastern) MPH (Eastern)

Option E	Elective	Day case fractures	Higher acuity cases
Phase 1 Each unit alone	MPH	BCH	
	Altnagelvin	Altnagelvin	
	CAH	CAH	
Phase 2		Duke of Connaught Fracture Day Case Unit	
Phase 3			BCH MPH CAH

Annex C

Capacity Analysis – Elective Orthopaedics (Inpatient/ Day Case)

Pre-Covid-19

Full Year 18/19 – Orthopaedic Operative Cases by Trust and Body Part (FY19/20 has been significantly adversely affected by both Covid-19 and Nursing strike)

			INPATIENT/ DAYCASE
BACK	Belfast		1,014
HIP/KNEE	Southern		1,161
	Belfast		5,012
	Western		992
UPPER LIMB	Southern		581
	Belfast		1,515
	Western		532
FOOT & ANKLE	Southern		188
	Belfast		875
	Western		494
		TOTAL	12,364

- Belfast Trust cases are mainly delivered in Musgrave Park Hospital (MPH), with some spine cases and medically complex cases delivered in the Royal Victoria Hospital (RVH). Estimated 92-5% of cases delivered in MPH.
- Southern Trust cases are mainly delivered in Craigavon Area Hospital (CAH), with c.100-150 cases (estimate) delivered in South Tyrone Hospital (STH) as Day-Cases.
- Western Trust cases are delivered in Altnagelvin Area Hospital (AAH).
- *Annual demand for Orthopaedic Surgery is between 26,255 – 28,143/year

Annex D

Capacity Expectation

There will be a number of challenges to resumption of Elective Orthopaedic Surgery in the post- Covid era as follows:

1. Staffing:
    - All three Trusts who deliver elective Orthopaedic Surgery are currently impacted by re-deployment of staff, particularly nurses, to other areas. Potentially these re-deployments could be seen as being used to address pre- Covid staff shortages, making re-patriation more difficult. In MPH, surgery is only being delivered in two out of ten theatres.

2. Ward space:
    - Post-Covid, fewer patients can be accommodated on a ward. In a hospital, like MPH, a typical 20 bed ward has 2 x 6 bedded bays and 1 x 4 bedded bay (each now taking 2 patients), as well as 4 side-wards, which are mainly occupied by patients undergoing treatment for Musculoskeletal Infection and the beds are not available for routing patient turn-over.

3. Theatre Space:
    - Use of Personal Protective Equipment (PPE) and Covid precautions increase the theatre time of each patient episode in theatre. In South Eastern Trust, this has added an average of 40-45 minutes to each case.

4. Staff and Patient Screening:
    - Covid screening is available for all healthcare workers who are showing symptoms of Covid-19, or in the incidence of a nosocomial outbreak

(including those who are asymptomatic). There is currently not however a routine programme of PCR testing for healthcare workers.

- Patient screen would require a regional approach with different approaches for ambulatory cases, day-cases and in-patients in terms of length of self-isolation and testing/screening.

Taking all of these factors into account, resumption of elective operating is unlikely to be possible at much more that 25-50% of previous activity. Evidence from the Far East would indicate that 10-20% of previous capacity is a reasonable goal in the early rebuilding phase.

At present uncertainty about re-deployment of theatre nursing staff back to Orthopaedic Theatres and creation of Green (clean/ Covid light) pathways are the biggest obstacles to any resumption of elective operating. Western Trust is currently at a more advanced stage in resumption of planned orthopaedic surgery than Southern or Belfast trusts.

Prudent approach – 20% of previous productivity expected in the initial rebuilding phase.