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North of England Clinical Senates – Independent Clinical Review to Support Decision Making by the Committee in Common for the Greater Manchester Healthier Together Programme

Date of Report: 25th June 2015

Chair's foreword

This is the third independent clinical assessment requested by the Healthier Together programme to support them in their ambition to improve quality and save lives in Greater Manchester by bringing together in-hospital and out-of-hospital care into more effective, robust, safe and sustainable service streams.

The first review was undertaken by the National Clinical Assessment Team (NCAT) in December 2013 to give the Healthier Together Committee in Common (CiC) assurance around the programmes proposals prior to public consultation. The second was undertaken by the Greater Manchester, Lancashire and South Cumbria Clinical Senate (June 2014) and provided further clinical advice to commissioners to support the assurance of the recommendations made by the NCAT Review.

This third review, jointly undertaken by the Clinical Senates from across the north of England, was requested by the Healthier Together programme to give further, and independent, additional clinical advice on issues raised during consultation and to support the decision-making process of the CiC as the programme progresses.

Like the previous reports, this review recognises the considerable amount of high quality thorough ground work undertaken by the Healthier Together programme concluding that this represents a genuinely clinically-led process to define new service models that could unlock step changes in the quality of care for the patients of Greater Manchester.

These service models look set to make a much more efficient use of the most skilled clinical staff and the facilities they use, which should in turn lead to significant improvement in clinical outcomes for patients. The process used to devise these models has been incredibly thorough and the consultation on the proposals around them wide-ranging and extensive.

This Review has also identified future actions that should be considered as the programme moves past the "proof-of-concept" stage, into the development of more detailed plans that will be necessary prior to any implementation.

I would like to thank the Healthier Together Team for providing a wealth of relevant information and for explaining their ideas so clearly. I am indebted to the Review Panel members, who gave up their personal time around already hectic clinical schedules, and worked very hard to a very tight timetable, yet have given carefully considered and thoughtful advice based on their expert knowledge.

We trust that the Senates' input will further facilitate this ambitious yet exciting programme that has the potential to greatly improve patient outcomes and experience.

Prof Andrew J Cant
North of England Clinical Senates Review Panel Chair, and
Chair – Northern England Clinical Senate

1. Introduction and background to the review

In May 2015, the four clinical senates across the North of England were asked to undertake an independent clinical assessment of the Healthier Together programme proposals for new models of care across Greater Manchester.

The Healthier Together programme has agreed a model of four Single Service streams for Greater Manchester and preparations are beginning for implementation. This clinical review will provide independent clinical advice to the CCGs' Committees in Common (CiC) to support decision making and will make recommendations for consideration in implementation. Advice will be given on the work undertaken by Healthier Together on the impact of their proposed clinical model on the wider health system, identifying from existing information and using a test of reasonableness, where there might be any unintended consequences of the proposed service changes.

The Review Panel was asked to specifically address the following questions:

- Are there any implications of formal commissioning decisions (taken by NHSE) since public consultation that has implication for HT and that have not as yet been identified?
- Have HT properly addressed the potential co-dependency issues raised in consultation feedback comments?
- Assess the extent to which work undertaken by the Healthier Together programme has been successful in identifying clinical risk in light of the potential impact of the proposed service changes on specifically (but not necessarily exclusively) the following service areas: paediatric surgery; maternity services; vascular surgery; and upper GI surgery.

The scope of the review was to cover:

- all hospital sites that may be designated as either 'specialist' or 'local' under the Healthier Together proposals;
- all potential service co-dependencies arising from formal commissioning changes made since public consultation and those issues arising through the public consultation by respondents. This was anticipated to be particularly, but not necessarily exclusively, paediatric surgery; maternity services; vascular surgery; acute medicine and upper GI surgery.

2. Methodology

It was agreed by the four clinical senate Chairs, that the independent Review Panel would be made up of clinicians drawn from the areas of three of the four senates in the North of England (the Northern Clinical Senate, the Yorkshire and the Humber Clinical Senate and the Cheshire and Mersey Clinical Senate) with Prof Andrew Cant, Chair of the Northern Clinical Senate acting as Chair of the Review Panel. Due to potential conflicts of interest, the Greater Manchester, Lancashire and South Cumbria Clinical Senate did not participate in the following review process.

The North of England Clinical Senate Review Panel was made up of clinicians who were not involved in the Healthier Together programme work to ensure there was no conflict of interest. The membership of the Review Panel was as follows:

Name	Substantive role
Prof Andrew Cant (Panel Chair)	• Chair: Northern England Clinical Senate • Consultant in Paediatric Immunology & Infectious Diseases, Director of the Children's Bone Marrow Transplant Unit and Clinical Director for Children's Services: Newcastle Upon Tyne Hospitals NHS Foundation Trust • Professor of Paediatric Immunology: University of Newcastle
Dr Jeff Perring	• Vice Chair: Yorkshire and Humber Clinical Senate • Consultant Intensivist and Associate Medical Director: Sheffield Children's Hospital NHS Foundation Trust • Joint-Lead for the Yorkshire and Humber Paediatric Critical Care Operational Delivery Network (South) • Regional representative on the Paediatric Critical Care Clinical Reference Group
Mr Gareth Hosie	• Consultant Paediatric Surgeon: Newcastle upon Tyne Hospitals NHS Foundation Trust. • Chair: North East and Cumbria Paediatric Surgical Network.
Prof John Brennan	• Consultant Vascular Surgeon: The Royal Liverpool and Broadgreen University Hospitals NHS Trust
Prof Gerard Stansby	• Consultant Vascular Surgeon: Newcastle upon Tyne Hospitals NHS Foundation Trust
Prof Muntzher Mughal	• Honorary Clinical Professor in Surgery, Consultant Surgeon and Head of Upper Gastrointestinal Services: University College Hospitals, London • Joint Oesophago-gastric Pathways Director for London Cancer
Prof Chris Holcombe	• Consultant Oncoplastic Breast Surgeon and Lead Cancer Clinician: The Royal Liverpool and Broadgreen University Hospitals NHS Trust • Previously Medical Director for the Cheshire and Merseyside Cancer Network

Mr Jon Ausobsky	• Consultant Surgeon: Bradford Teaching Hospitals NHS Foundation Trust • Training Programme Director, General Surgery, Yorkshire and the Humber • Royal College of Surgeons of England Director for Professional Affairs (Regional Advisor) for Yorkshire and the Humber • Yorkshire and Humber Clinical Senate: Senate Council Member
Dr Mike Jones	• Consultant Acute Physician and Clinical Lead: County Durham and Darlington NHS Foundation Trust. • Director of Standards: Royal College of Physicians of Edinburgh
Dr Caroline Hibbert	• Consultant in Anaesthesia and Intensive Care and Joint Medical Director: Hull and East Yorkshire NHS Trust • Member of the Clinical Directors Executive Committee of the Royal College of Anaesthetists • Yorkshire and Humber Clinical Senate: Senate Council Member
Dr Michael Stewart	• Consultant Cardiologist and Chief of Cardiothoracic Services: South Tees Hospital NHS Foundation Trust • Previously Chair of the Northern Cardiovascular Disease Network
Dr John Bourke	• Consultant Cardiologist: Newcastle Upon Tyne Hospitals NHS Foundation Trust • Cardiac Clinical Lead for the Northern Cardiovascular Disease Network
Dr Sarah Winfield	• Consultant in Obstetrics with special interest in Maternal Medicine: Leeds Teaching Hospitals NHS Trust • Clinical Lead for Maternity Services: Yorkshire and Humber Strategic Clinical Network
Dr Stephen Sturgiss	• Consultant Obstetrician: Newcastle Upon Tyne Hospitals NHS Foundation Trust and Chair • North East and Cumbria Maternity and Child Health Strategic Clinical Network

To meet the objectives of the review the Review Panel undertook a desktop review of the information supplied by the Healthier Together programme. The information supplied was as follows:

- Healthier Together Pre-Consultation Business Case Parts 1 and 2
- Healthier Together: Greater Manchester Quality Safety Standards
- Healthier Together: Workforce Chapter
- Healthier Together Post-consultation Co-dependencies Review
- Healthier Together Hospital Future Model of Care
- National Clinical Assessment Team (NCAT) Formal review of the Future Model of Care
- Greater Manchester and Lancashire Clinical Senate Independent Clinical Review of NCAT Recommendations
- Healthier Together Clinical Engagement Record
- Healthier Together Co-dependency Framework
- Healthier Together Independent Literature Review

- NHS England Headline Impact Assessment of Healthier Together Options on the Provision of Prescribed Specialised Services in Manchester
- Healthier Together Management Report summarising the NHS England Headline Impact Assessment of Healthier Together options on the provision of Prescribed Specialised Services in Manchester
- Healthier Together Outline Implementation Proposal
- Healthier Together: Final Report of the Consultation Outcomes
- Healthier Together: Thematic Analysis on Consultation Feedback

The assessment of this information was then tested in two sessions between members of the Review Panel and representatives of the Healthier Together programme before the production of the Review Panel Report.

Finally, the Review Panel process and report was assessed and tested by Prof Martin Lombard, Chair for the Cheshire and Merseyside Clinical Senate and Prof Chris Welsh, Chair of the Yorkshire and the Humber Clinical Senates, to complete the governance element of the work.

3. Review Panel's Assessment

It is important to note that this review is not of fully worked-up, detailed plans for the implementation of the new Single Service models, rather a test of the concept of how the specialties within each Single Service will work together. As such, the Review Panels findings have been separated into two sections:

- Findings that are related to the direct questions asked to support decision-making at this point in the development process around the Single Service concept;
- Observations and suggestions that will not necessarily apply to the proposals as they stand now, but may be helpful to the Healthier Together programme as they move into the more detailed, implementation stage of the work.

3.1 Vascular Surgery

3.1.1 In relation to the specific questions asked

Overall, the Review Panel were very impressed by the process used to assess national guidance and clinical standards and evaluate the clinical co-dependencies that would be necessary to deliver a high quality Vascular Surgery service within the Single Service Model.

Recommendations from the Vascular Society (Provision of Vascular Services 2012) and Specialised Commissioning are that Vascular services are best provided on a hub-and-spoke model in which all inpatient care and arterial operating, including major lower limb amputation surgery, is provided in a central hub, or Arterial Centre. This concentrates the expertise around inpatient care to a single site and generates caseload volumes that are known to lead to improved outcomes. Such a model also facilitates compliant on-call rotas for Vascular Surgery and Vascular Interventional Radiology services, as well as training requirements.

In this model, a significant amount of activity and vascular surgical presence can continue at spoke sites (Non-Arterial centres) such as outpatient clinics, review of ward referrals, day case lists (varicose veins, vascular access), collaborative working with allied specialties (diabetes, stroke, renal), and some peripheral interventional radiology. Support may also be required for some other specialties such as pelvic cancer surgery. To a large extent this model very closely mirrors the Healthier Together proposals for General Surgery in Greater Manchester, except for the general recommendation that there are no named vascular beds in Non-Arterial centres.

The concept of Arterial Centres providing inpatient care working closely with linked Non-Arterial Centres, at which all other aspects of a vascular service is provided, is entirely in keeping with the Healthier Together Single Service proposals.

3.1.2 For future consideration as more detailed plans are developed

As well as anaesthesia, critical care and renal support, the two services which are most often linked with vascular services are Major Trauma and Cardiac Surgery. Preferably these are co-located with an Arterial Centre but if this is not possible then clear arrangements for vascular cover need to be established. As far as Major Trauma is concerned the number of times vascular input is required is relatively few but if required vascular support should be available within 30 minutes, and increasingly Interventional Radiology input is also required.

The relationship between Cardiac Surgery, Interventional Cardiology and Vascular is similar to Trauma in that there is relatively little routine cross-working between the two specialties. However for complex thoracic aortic work there is an increasing need for joint working, primarily through Multi-Disciplinary Team (MDT) meetings, and Interventional Cardiology also requires Vascular Surgical backup to be rapidly available on occasion. It is of note that such joint working can usually be done in a planned way and is rarely needed out-of-hours.

Vascular Interventional Radiology co-exists with vascular services, rather than being a co-dependency. One of the major concerns voiced about vascular reconfiguration is that it threatens the non-vascular aspects of Interventional Radiology.

In reality many trusts struggle to maintain Interventional Radiology services and perceive loss of vascular activity as a tipping point to their overall viability as an acute provider.

As these proposals are developed, a great deal of consideration must be given to how Interventional Radiology operates as part of the Healthier Together programme. An example of this would be to perhaps adopt a system-wide approach to the concentration of Interventional Radiology specialists into teams based primarily at the Specialist sites. The majority of cases could be dealt with at the Specialist sites but it should also be possible to maintain some activity peripherally. This would also rationalise on-call arrangements, which are often a major concern to many interventionists.

It is likely in this scenario that centralisation into well-organised teams would significantly reduce the amount of out-of-hours activity that is again often a major concern to those working in Interventional Radiology. Instead most emergencies would (and should) be managed during the working day, usually by transfer into the Specialist site. The Review Panel recognises that this would be a challenging issue to address (particularly when considering how to treat patients with life threatening haemorrhage, usually of gastrointestinal (GI) origin, presenting out-of-hours) but one that would present a real opportunity to the improvement of patient outcomes should the Healthier Together programme succeed.

Whilst the benefits of the centralisation model are widely acknowledged it's important that the implications of implementation are clearly understood. Most crucial in this respect are the provision of an adequate inpatient bed base (including critical care support), adequate operating theatre capacity and interventional radiology support to enable throughput of the increased caseload in the Arterial Centre. In order to facilitate vascular centralisation it is frequently necessary to relocate one or more other clinical services in order to enable the Arterial Centre to function adequately and realise the advantages.

Much of the momentum around vascular reconfiguration has been based on generating sufficient volumes of aortic aneurysms and carotid endarterectomies to improve outcomes. Operationally, however, the biggest problem arises as a result of the large numbers of cases of critical lower limb ischaemia, often in diabetics. These patients are generally elderly, with multiple co-morbidities, and often have significant social needs. They generally have prolonged lengths of stay for non-medical needs, especially following amputation.

As part of reconfiguration there are usually agreements to repatriate these patients closer to home as part of their pathway, either to their base hospital or to a community facility, but in reality this may not happen and they end up with a prolonged stay at the Arterial Centre. The Review Panel strongly recommend that that appropriate repatriation and rehabilitation models need to be agreed as part of the detailed plans to support these reconfiguration proposals.

It is also strongly recommended that there should be no Vascular inpatient beds in Non-Arterial Centres. Instead, patients with ongoing medical needs who require repatriation to a Non-Arterial Centre should have their care transferred to the appropriate non-vascular team such as Diabetes, Stroke, Gerontology or Rehabilitation, with Vascular input provided in outreach fashion.

The alternative for patients, who are medically stable but not fit to return home, is for care to transfer to an Intermediate Care Facility, where the focus is primarily on rehabilitation. This aspect of patient management is well recognised but often overlooked in the desire to centralise care. Adequate solutions, however, are essential in order to maintain flow through large specialist sites when complex care episodes are completed.

Finally, in terms of Vascular Surgery, it is recommended by the Review Panel that the Healthier Together programme takes the size and balance of activity levels of the Arterial Centres into account when reviewing the various possible configurations in order to maximise potential economies of scale whilst mitigating against the risks of the units becoming too big (and operational efficiency begins to suffer as a result).

In discussion, the review panel also commented on the need to consider medical speciality support to Specialist Surgical and Vascular Surgery centres further, as it was unlikely that all necessary support could be provided through Acute Medicine. Specifically, it was noted in the literature review that prompt access to urgent cardiac intervention for peri-operative myocardial infarction had been identified as a key determinant in improved outcomes after complex surgery. Given this, it is also suggested that Interventional Cardiology be considered as a separate inter-dependent specialty for specialist surgical units, with clearly defined pathways of care and ideally direct access to the specialty from within any hospital grouping proposed. This is referred to again in the section on Acute Medicine.

3.2 Paediatric Surgery

3.2.1 In relation to the specific questions asked

Overall, the Review Panel agreed with the clinical co-dependencies identified between Paediatric Surgery and the other main specialties within the Healthier Together programme. Some smaller clinical co-dependencies were identified by the Review Panel, particularly Paediatric ENT and Paediatric Orthopaedics which will require similar models of care which the Programme should also take into consideration.

There are differing views within the clinical community nationally on the need for Emergency Departments (ED) to have resident, in-house paediatric clinicians. The Review Panel accepts that the Healthier Together Single Service model with co-located observation units with ED and general surgical clinicians with the appropriate skill-set and who feel supported by clear pathways to inpatient units is a valid one. It will be crucial to ensure that ED staff in local units have and maintain the skills to recognise, assess, and initiate management for paediatric surgical emergencies. This model will also need to be supported by a highly effective by-pass protocol for the site's deemed "Local" within the Single Service and the effective operational performance of the North West Ambulance Service Paediatric Pathfinder project. Serious ongoing consideration will need to be given to these "safety nets" as detailed plans are developed.

The Review Panel feel that changing the way the new model is described (away from "Virtual Network" to "Hub-and-spoke") would clarify the interaction between it and the established Children's Surgical Operational Delivery Network.

3.2.2 For future consideration as more detailed plans are developed

The Review Panel felt that there are several areas that the Healthier Together programme should consider more fully as it moves into the implementation stage and it develops more detailed plans.

Detailed activity and capacity modelling and workforce will need to take place in order to be assured that the proposed model will work in practice. By limiting the number of sites carrying out small volumes of specialist paediatric surgery activity in order to improve clinical outcomes, an assessment will need to be made so that the most specialist site does not become overwhelmed as an unintended consequence of the change. Paediatric Surgeons in this site should support the surgeons at other sites with training and education aligned to smaller units to ensure there is a resilient paediatric surgical network. In particular, the common elective paediatric surgical procedures in the groin can often be performed in local centres by a general surgeon with a paediatric "interest" or a paediatric surgeon "outreaching".

This work will need to not only take into account paediatric surgery, but also the capacity / availability requirements of anaesthetists in order for them to be available in significant numbers whilst also maintaining their clinical competencies and covering the total number of on-call rotas.

In particular, significant consideration will need to be given to the paediatric skills (in terms of both competence and confidence) for anaesthetists working in sites designated as a “Local” hospital. This is important because although these local hospitals will generally have low volumes of children passing through their Emergency Departments, there will be the occasional critically- ill child admitted that will require skilled anaesthetic input.

Whilst the proposal of the Managing Emergencies in Paediatric Anaesthesia for Consultants (MEPAFC) and rotation through single service will help to mitigate this risk, further work is needed to identify how many anaesthetists will be available and what level of support they require to maintain competence in order to assess (and therefore mitigate) the risk fully.

As well as emergency Paediatric Surgery, consideration will need to be given to the sustainability of elective paediatric surgery as the detailed implementation plans are developed.

Finally, there will need to be clear pathways of care, communications with the public and effective working of the NWAS Pathfinder to ensure that paediatric patients present at the correct site within the Single Service model. This is particularly important if there are configuration options where a “Specialist” Emergency Department is also only a “Local” Emergency Department for Paediatrics (or vice versa).

3.3 General and Upper GI Surgery

3.3.1 In relation to the specific questions asked

Overall, the Review Panel were very impressed by the process used to assess national guidance and clinical standards ,and evaluate the clinical co-dependencies that would be necessary to deliver both high quality General Surgery and Upper GI Surgery services within the Single Service Model.

The Healthier Together programme has based their assessment of General Surgery on the latest clinical quality standards for (in particular the Royal College of Surgeons 2011 publication "Emergency Surgery: Standard for unscheduled surgical care: Guidance for providers, commissioners and service planners"[1]).

The Review Panel also feel that the correct critical co-dependencies for General Surgery have been identified - Vascular Interventional Radiology and Gastro-intestinal Interventional Radiology, together with Critical Care, Vascular Surgery and Gastroenterology to support emergency General Surgery and high risk inpatient General Surgery. The Review Panel note that ready access to a pluripotent Hepato-Pancreato-Biliary (HPB) Unit will also be required for General Surgery services.

Regarding oesophagogastric (OG) cancer surgery, the Review Panel agreed with the clinical co-dependency with ITU/Critical Care, Anaesthesia, 24/7 Radiological Imaging and Interventional Radiology identified by the Healthier Together programme.

The Review Panel thought it would be helpful to more clearly identify the clinical co-dependencies of Endoscopy with diagnostic and therapeutic facilities, Histopathology (with frozen section), Nutritional Support, Acute Oncology and Palliative Care with Upper GI Surgery.

3.3.2 For future consideration as more detailed plans are developed

As the Healthier Together Programme moves in the implementation stage, further consideration will need to be given in regards to both General and Upper GI Surgery.

For General Surgery, it will be important to support the “Local” sites to ensure they remain able to provide the range of services required. Preservation of high-quality diagnostics and supporting services are of paramount import. In addition, there are instances when low-risk/intermediate day case surgery can go wrong; clear protocols and pathways for management of unexpected events will be necessary. There is an urgent need (as correctly identified by the Healthier Together programme) to develop an overall management solution for GI bleeding for Greater Manchester.

The proposals for General Surgery represent a very significant change in practice. Having “one team of GS staff” is a very important component of this programme that will abrogate a significant element of the risk of centralising services to ensure that there should not be de-skilling of either the surgical or other staff. Thought will need to be given to ensure staff engagement is maintained throughout and that team ethic propounded.

[1] https://www.rcseng.ac.uk/publications/docs/emergency-surgery-standards-for-unscheduled-care

One area that will need particular consideration so as not to be adversely affected is surgical training. Specialty Registrars require exposure to all facets of General Surgery, with increasing complexity of cases as training progresses. However, trainees of all grades require exposure to Emergency General Surgery to enable progression and also accretion of cases required for CCT. The introduction of "Specialist" sites will change the dynamics of the training programme which will require careful rostering and a possible decrease in the number of trainees.

Consideration will need to be given to the number of Upper GI Surgical sites when deciding upon the final configuration across Greater Manchester. The annual incidence of oesophageal and stomach cancer in England and Wales is 260 per million and currently only 20% of cases are suitable for resection. Therefore, for a population of 2.8 million, it would be reasonable to expect 728 new cases a year (of whom 145 would be suitable for resection).

Three centres sharing the resections equally would provide a case load on 49 per year, which would be insufficient to maintain expertise and would not be compliant with commissioning guidance. It is also likely that through improvements in staging investigations which will reveal metastatic disease which is not picked up by the current staging tests, thus there will be a future fall in the resection rate. The resection rate has fallen steadily from about 40% to 20% over the last 20 years (mainly for this reason) and future activity modelling work should take this into account when deciding the correct number of units for Greater Manchester.

OG cancer surgery is currently provided at three sites with Greater Manchester, with two designated as "fixed points" within the programme documentation. The Commissioning Specification[2] for OG cancer centres specifies a minimum institutional volume of 60 cases and individual consultant volume of 20 resections a year. Since it is also a requirement that there should be a dedicated OG on-call rota, the only way this can be delivered (with a minimum of 3 OG surgeons) is if there was an institutional volume of at least 60 resections. This will need to be taken into account when determining the final configuration so as not to leave any OG Cancer Unit as non-compliant.

Given the likely future level activity in Greater Manchester will only support a maximum of two compliant specialist cancer sites for OG surgery in the new configuration, the Review Panel recommend that they be based in two of the four Specialist Emergency Department sites. Further consideration will need to be given to the management of rare but catastrophic benign UGI emergencies (such as oesophageal perforation and UGI bleeding), where the treatment of these conditions needs the skills and expertise of the OG Cancer team, in the other two sites.

[2] http://www.england.nhs.uk/commissioning/spec-services/npc-crg/group-b/b11/

It would be possible to implement OG Cancer surgery services on a hub-and-spoke model in the future configuration, where OG surgeons from the "spoke" OG Cancer Surgery Site can operate on their patients at one of the other "hub" centres. This more centralised model for OG cancer surgery was successfully implemented in the Lancashire and South Cumbria Cancer Network in 2009 whilst a hub-and-spoke model has also been adopted in the reconfiguration of OG cancer services in London Cancer (an Integrated Cancer System with a population of 3.5m that is set to commence at the end of this year).

In this model, patient pathways will need careful re-working so that those having surgery only need to travel to the new centre for their operation and continue to have pre-operative staging and neoadjuvant chemotherapy and follow-up at the "spoke" OG Cancer Surgery site. It would be possible for the MDT at a Local site to continue as approximately 70 - 80% of patients diagnosed with OG cancer have disease that is either not amenable to surgery (too advanced) or can be treated definitively by non-surgical means (e.g. chemoradiotherapy). These patients can have the appropriate interventions at the "spoke" OG Cancer Surgery site.

Finally, if the number of OG Cancer Surgery Sites is reduced or a hub-and-spoke model introduced in the future decisions around the final configuration for Greater Manchester, consideration will need to be given to the impact on the wider emergency surgery on-call rotas (to which OG Surgeons generally contribute).

3.4 Acute Medicine

3.4.1 In relation to the specific questions asked

Overall, the Review Panel were very impressed by the thoroughness of the process used to assess national guidance and clinical standards and evaluate the clinical co-dependencies that would be necessary to deliver a high quality Acute Medical service within the Single Service Model.

The Review Panel largely agreed with the Healthier Together programme's views on the co-dependencies surrounding Acute Medicine other than for cardiothoracic surgery, where the Review Panel felt that this should be classed as "Minimally Dependent" with Acute Medicine within a Specialist Emergency Department.

The Review Panel felt that the Healthier Together programme had taken into account the appropriate clinical guidance when defining the programme's quality standards and subsequent service models. The Review Panel would ask the Programme to double check these standards with the new Intensive Care Society's *Guidelines for the Provision of Intensive Care Services 2015* to ensure they continue to represent national best practice[3].

The Review Panel agreed with the Healthier Together programme that the effective operation of the NWAS Pathfinder and modelling medical and surgical bed capacity will be crucial to ensuring the majority of cases are managed at the appropriate hospital in the Single Service model. This is particularly the case where Acute Medicine and Acute Surgery are offered on the same Specialist site; as if there is not accurate modelling, surgical admissions could take the majority of the bed capacity forcing Acute Medical admissions to be diverted to other sites.

The Review Panel felt it was important for the Programme to clarify within the documentation what the support there would be for Acute Medicine from other medical specialties. As Acute Medicine now plays a more "front-of-house" role, medical support to the "back of house" will need to come from the other "*ologies*" such as Cardiology and Medicine for the Elderly.

The Review Panel also felt it might be helpful to delineate between Interventional Cardiology (i.e. primary percutaneous intervention; primary pacemaker implantation; urgent advanced rhythm management) and General Cardiology when outlining how Acute Medicine and the supporting medical specialties would work within the Single Service model.

3.4.2 For future consideration as more detailed plans are developed

Whilst mentioned briefly within the programme documentation, much greater consideration will need to be given to the provision of Anaesthesia and Critical Care in relation to Acute Medicine as the work progresses to the more detailed implementation stage.

Whilst Anaesthesia is likely to be adaptable to the proposed service model, plans for robust and effective Critical Care within the Single Service model will need significant focus. The Programme will need to make a clear decision on the level of critical care to be provided at "Local" and "Specialist" site level and rigorously model the potential impact that inter-site transfer may have on the operational running of a Single Service. Consideration should be given to the benefits of a Critical Care Transfer Team to support the new Single Service Model.

[3] http://www.ics.ac.uk/ics-homepage/latest-news/guidelines-for-the-provision-of-intensive-care-services/

Finally, further workforce modelling and planning will be required for Acute Medicine Anaesthesia, Critical Care and all the supporting "*ologies*".

3.5 Obstetrics

3.5.1 In relation to the specific questions asked

Overall, the Review Panel was very impressed by the thoroughness of the process used to assess national guidance and clinical standards and evaluate the clinical co-dependencies that would be necessary to deliver a high quality Obstetric service within the Single Service Model.

The Programme had identified all the main co-dependencies associated with Obstetrics (anaesthetics, neonatology, critical care, acute medicine and general surgery etc) but may look to include Perinatal Mental Health as a co-dependency when describing the full pathway of care in future documentation.

3.5.2 For future consideration as more detailed plans are developed

The Review Panel felt that the Healthier Together programme had taken into account the appropriate clinical guidance when defining the programme's quality standards and subsequent service models but, like all Maternity Services nationally, will need to take into account the findings of the confidential enquiry into MBRRACE-UK: Saving Lives, Improving Mothers' Care (December 2014)[4], the Morecombe Bay Investigation Report (March 2015)[5] and the forthcoming National Maternity Review[6] when further developing the detailed plans.

As the Healthier Together programme moves into the development of detailed planning and implementation, further detailed modelling is likely to be required to understand and meet the increasingly complex case-mix of maternity services due to changing demographics (women giving birth later in life) and lifestyle/health factors (more significant pre-existing medical problems, higher levels of gestational diabetes etc). This rapidly changing case-mix will present a greater risk to non-consultant obstetric service models and will present challenges to Obstetric consultant workforce sustainability.

[4] https://www.npeu.ox.ac.uk/mbrrace-uk/reports
[5] https://www.gov.uk/government/publications/morecambe-bay-investigation-report
[6] http://www.england.nhs.uk/wp-content/uploads/2015/03/maternity-rev-tor.pdf

The Review Panel felt it was important that Gynaecology, whilst out-of-scope in the current programme, should be recognised as a key clinical co-dependency for Obstetrics as the programme progresses (particularly in order to ensure patients requiring an emergency hysterectomy can receive one within thirty minutes).

The Programme should also engage with future work to develop a national Morbidly-adherent Placenta Service which will have a clinical co-dependency with Interventional Radiology and Vascular Surgery.

4. Conclusions and Recommendations

The North of England Clinical Senate Review Panel concludes that:

- the Healthier Together programme has gone to great lengths to ensure that at this stage in their work, the clinical co-dependencies of the in-scope specialties have been considered and understood;
- there is good evidence of a robust and wide ranging consultation process;
- the conclusions reached by the programme on the clinical co-dependencies of the in-scope services in the context of the proposed Single Service model-of-care are consistent with the views of the Review Panel and with other significant studies of clinical co-dependencies[7] [8] ;
- the programme's Quality and Safety standards meet, and in some cases go further than, the most recent national clinical guidance;
- that detailed work needs to take place (particularly workforce modelling and capacity planning in all specialties) and significant consideration given to the Interventional Radiology model as a cross-cutting service once the programme progresses past the agreement on the Single Service model.

The Healthier Together programme should accept the recommendations made in the report regarding the small points of clarification in describing the current proposals and take note of the recommendations that will help inform the next stage of the work to develop the detailed implementation plans for the Single Service models of care.

[7] Cardiovascular Project: Co-dependencies Framework (August 2010)
[8] The Clinical Co-dependencies of Acute Hospital Services: A Clinical Senate Review (December 2014)