specialist staff including specialist physio, OT, SLT, Neuro-psychology and specialist nurses. Unit is supported by pharmacist and dieticians.

Specialist Neurological Rehabilitation Unit (SNRU)

The Specialist Neurological Rehabilitation Unit, formerly known as the Younger Disabled Unit, has been open since the 1970's. The unit is a 16 bedded unit providing Specialist Rehabilitation services to the population of Leicester, Leicestershire and Rutland. It is one of the two Level 2 A Local/ District Specialist Rehabilitation Unit in East Midlands taking patients with a range of Complexity Including those with Highly Complex Rehabilitation Needs.

We are a specialist service offering rehabilitation to adults with complex disabilities, predominantly of working age who have a neurological disability.

We give priority to patients with an acute neurological disability; hence most of our patients are transferred from Neurology ward at the Leicester Royal Infirmary (LRI) ward 24 and Major trauma unit or neurosurgical ward at Queen's Medical Centre. Patients are transferred from other wards of UHL with neurological diagnoses as well as from other nearby hospitals

LLR patients are offered specialist community Neuro-Rehabilitation via CINSS (Community Integrated Neurology & Stroke Service) with a lead consultant for neuro-rehabilitation working with this team one day

Demand and capacity/flow

- It is acknowledged that the pressures and intensity of the workload is significant and demands are ever increasing for the service. The current Neurology patient demand exceeds substantive capacity within the service and as a result additional waiting list initiatives are required to manage the activity levels within the service.
- Neurology's new to follow up ratio is 2.94 which is above the national rate.
- BIU has had 3067 total OBDs in 2017-2018 that is 93% Occupancy for 2017-18 (In- patient activity Reported to UKROC for submission to NHS England)
- And SNRU has had 5558 total OBDs in 2017-2018 that is 95% Occupancy (In- patient activity Reported to UKROC for submission to NHS England). Financial Value to be set with NHS England (see below)
- Both BIU and SNRU are already operating at High Occupancy which has been realised after Expansion of beds in 2016 and has been increasing Year on Year since 2016(see Attached Annual UKROC Summary.
- Currently able to meet Demand due to significantly shorter length of stay than comparable Specialist Rehabilitation Units Nationally. Should BIU and SNRU have the same Length of Stay as other similar level Units Nationally they will need significantly more number of beds to meet current Demand.

Cost

- Current contract for BIU/SNRU (previously called YDU) is inconsistent with the UKROC methodology as it is based on HRG V4 even though Rehabilitation HRGs are ***'Unbundled*** ' HRGs and HRGs V4 specifically excludes 'Complex Specialist Rehabilitation' which has been subject to Specialised Commissioning by NHS England Nationally for many years. BIU and SNRU are the only Specialist Rehabilitation Units which are using HRGs V4 and related patient coding for Reference Cost Reporting.

- After shadow monitoring of activity on BIU and SNRU in the financial Year 2017-18, we are working to move to UKROC mandated National Tariff / Currencies via Specialised Commissioning from this financial year with help of Trust Head of Finance- Commissioning.

- We will have an accurate data capture of all patients admitted to and discharged from BIU and SNRU from April 2018 to overcome the previous situation where some BIU and SNRU patients were not coded as receiving Rehab leading to lost income under the old system of accounting.

- This money will be the investment and CIP Oppurtunity for BIU and SNRU as this switch to UKROC methodology of Commissioning via National Currencies will result in us supposedly over-performing as per Contract Value compared to last Financial Year.

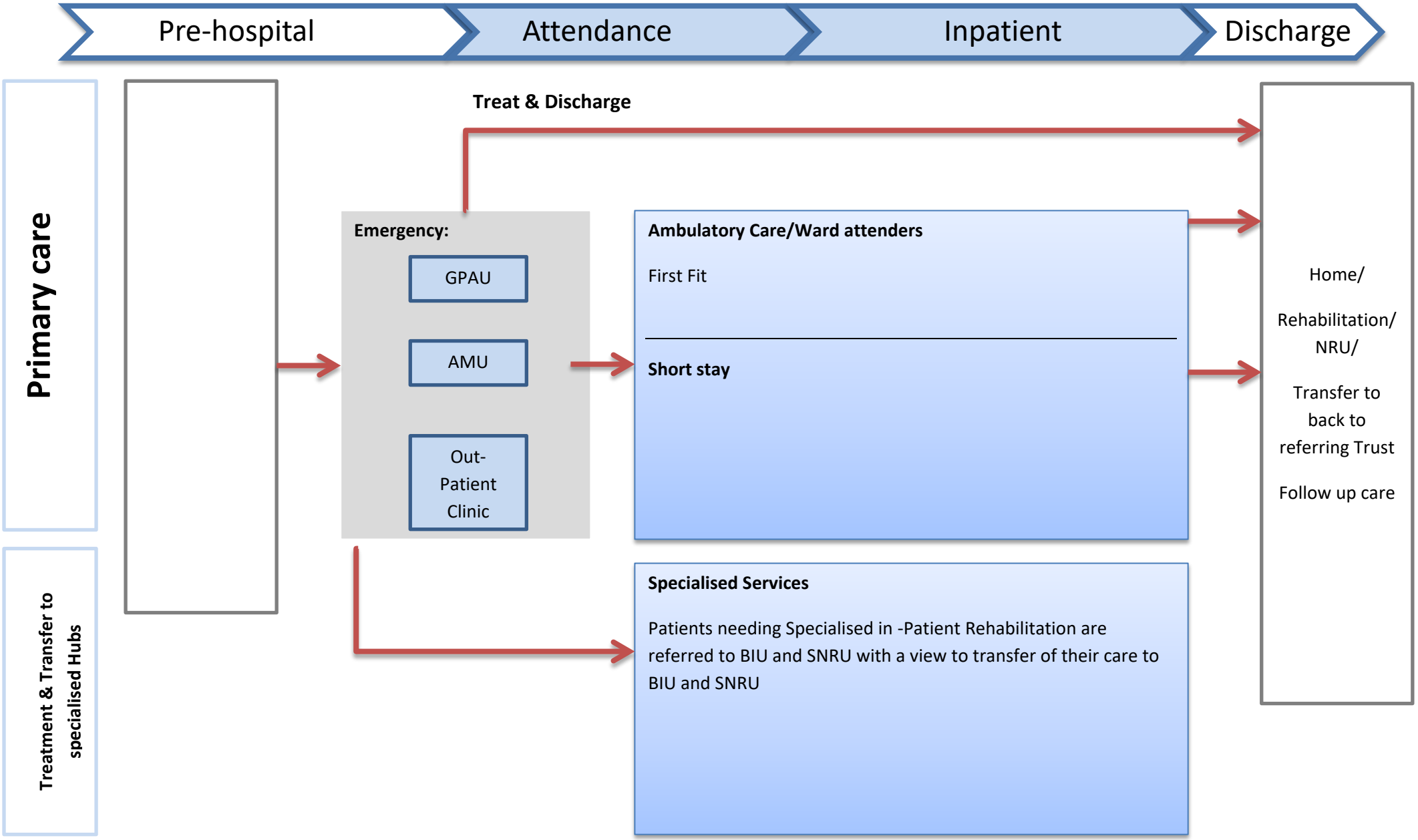
per week. Patients are referred to this service directly from both QMC and Coventry MTC when patients do not require long LOS and can be supported for their rehab in the community. The team has Rehabilitation consultant input, neuro-psychologist, specialist neuro-physiotherapists, occupational therapists, SLT, Dietician and therapy assistant input. Multi-agency input is supported involving social services as required including multi-agency case meetings. CINSS team was established as a part of 'Better Care Together' programme. Neuro-psychology is currently provided by LPT. It has long waiting list and patients have to wait minimum 18 months before making first contact with this service. This provision is currently being reviewed by UHL & LPT. **Staffing** The service of Neurology and neuro-rehabilitation comprising 8 Consultants, 4 Specialist registrars and 3 MS, 2 Epilepsy and 2 Parkinson Specialist Nurse clinics. These posts are all funded by UHL. **Teaching and Training** **Research and development**	

Neurology, Neurosurgery and Neuro-rehabilitation: Summary of proposed changes

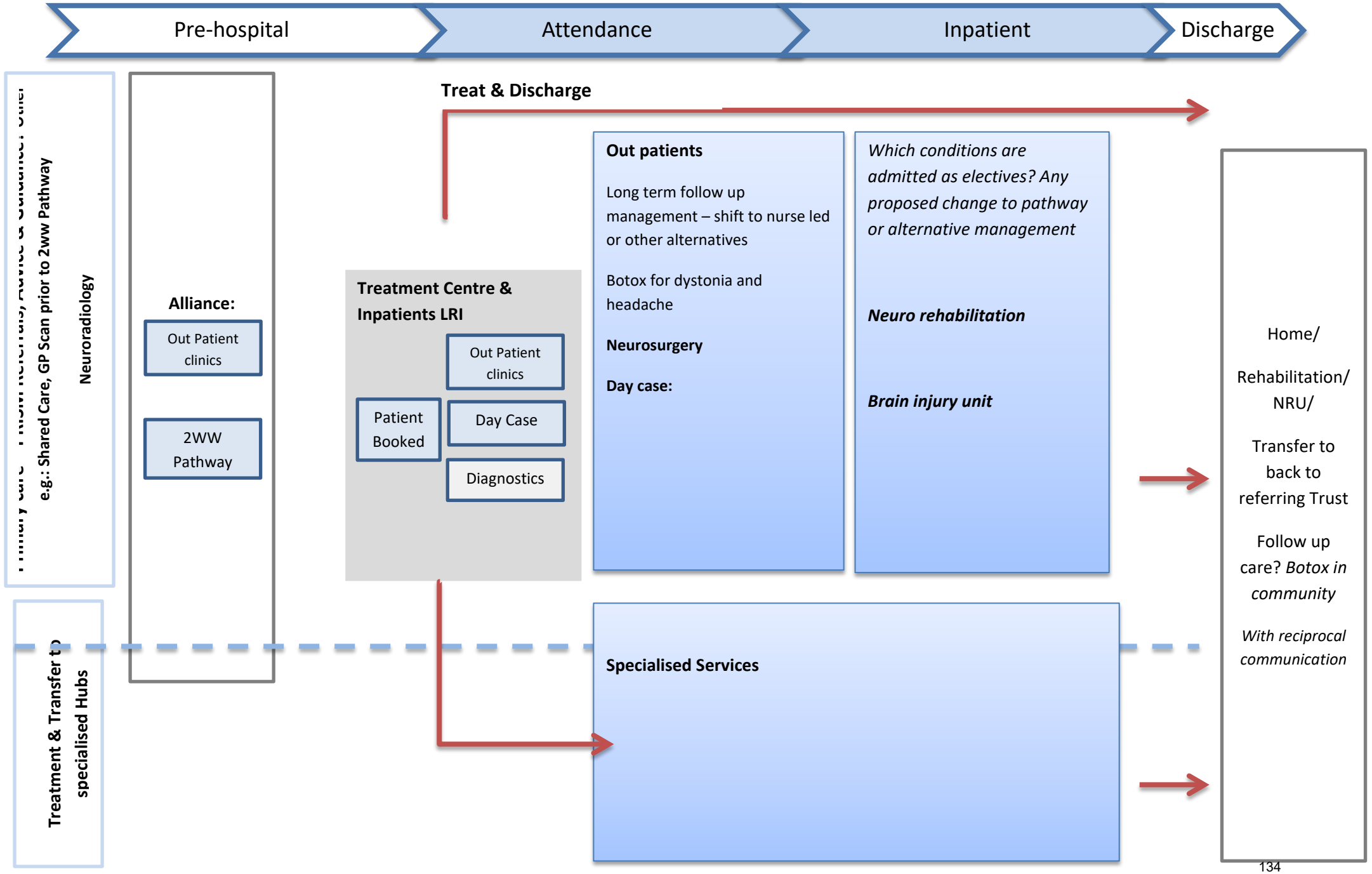
New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
What will the new model look like? The new configuration of services will continue to be delivered across 2 sites. In patient services currently provided at the LGH will relocate to the LRI and out-patient and day case activity will move to the GH. **When will the new service be in place?** In line with reconfiguration plans and STP proposals the BIU and NRU will relocate to the LRI **Who will provide what activity at which site?** The BIU and NRU would move over to the LRI site to be closer to Ward 24 and the Stroke unit to enable consolidating	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** Specialist Rehabilitation Services are Benchmarked by United Kingdom Rehabilitation Collaborative (UKROC) which is national benchmarking tool for specialist rehabilitation. BIU and SNRU consistently outperform on Benchmarking with Other Similar Level Specialist Rehabilitation Units by UKROC. Please see attached yearly UKROC report of 2017-18. **Quality & safety** Suboptimal Staffing of BIU and SNRU (as per as per NHS Standard Contract Service Specification for Specialised Rehabilitation for Patients with Highly Complex Needs) not only affects Safety of and Quality of Specialised Rehabilitation provided to patients who are vulnerable due to Cognitive, Communication, Behaviour disorder and Physical Impairment by putting them at risk of falls and or injuries due to lack of sufficient Staff needed to provide the close supervision needed. It also leads to delaying patients achieving their rehabilitation goals and delaying discharge. The two units currently do not have Mandated minimum Staffing Level. **Workforce sustainability** Consolidating services onto one site will allow us much more flexibility in our medical and nursing workforce; helping to fill vacancies and reducing premium spend • Overtime and all premium pay reduction due to consolidation of services • Decreased vacancy rates with consolidation onto one site • Improve sickness rates to Trust average rates • Co-location is not likely to allow reduction of staffing but it will enable the service to utilise the current workforce better in a better configured model and remove many of the inefficiencies noted.	BIU and SNRU beds being effectively used due to Significantly Shorter Length of Stay (LOS). If LOS goes up will need more beds to manage Current demand	BIU and SNRU beds being effectively used due to Significantly Shorter Length of Stay (LOS). If LOS goes up will need more beds to manage Current demand		

services onto one site will allow us much more flexibility in our medical and nursing workforce; helping to fill vacancies and reducing premium spend. The Neurology outpatient department will move over to the Treatment Centre at Glenfield Hospital.	• Achieving Minimum Recommended Staffing on BIU and SNRU will improve morale of staff and thereby workforce sustainability. It would also help achieving cost efficiency with potential reduce length of stay. **Efficiency and effectiveness** **Inpatients:** • Both BIU &NRU will be able to accept patients earlier to rehab setting freeing up acute beds in Neurology & other wards for example orthopaedic & surgical wards when patients are repatriated from MTC (QMC & Coventry). • Patients will be offered specialist rehab at earlier stage with potential to reduce LOS in hospital setting and achieving rehab outcomes early (faster recovery as there will not be 'wasted bed days' in other hospital wards) • Patients can access other specialties input sooner such as surgical & orthopaedic (this is mostly used for polytrauma patients both at BIU &NRU), benefit for multi-specialty work for benefit of patients **Outpatients:** • Neuro-Rehabilitation outpatient appointments are offered to complete rehabilitation of patients including return to work and referring to vocational rehabilitation and directing for further rehabilitation. This would allow patients to be productive members of the society instead of being dependent on the state to look after them. • Reduction in DNAs to improve outpatient efficiencies. • Expansion of Spasticity Day Case Service at LGH (after recruitment of Additional Staff as per Spasticity Business Case) will significantly reduce the Waiting Time experienced by patients to access this service currently • As part of 'Better Care Together', Neuro-Rehabilitation consultants provide input to 'CINSS team- Community Integrated Neurology & Stroke Services'. This allows identifying potential problems early while patients are in the community and treating them so reducing hospital admissions. CINSS team work is in the process of multi-disciplinary review in the community which will reduce follow-up at Neurology OPC				

Neurology, Neurosurgery and Neuro-rehabilitation – Emergency Patient Flow



Neurology, Neurosurgery and Neuro-rehabilitation - Elective Patient Flow



Managing the bed gap

Nothing noted on plan - check

Activity model
(Work in progress. To be inserted when in patient, day case and OP modelling is complete)

CMG: ITAPS

Models of Care Impacted by Reconfiguration:

Pain

Sleep

Adult Intensive Care

Design of system-wide clinical models of care
Pain Management: Critical Care, Theatres, Anaesthesia, Pain and Sleep (ITAPS) Clinical Management Group (CMG)

Pain Management: Current position

Current Configuration	Rationale For Change
Pain Management Our pain management service team of consultants, specialised nurses, psychologists and physiotherapists provide assessment and treatment for both acute and chronic pain sufferers. Chronic pain generally means pain that does not respond to the usual forms of medical management, that is, it does not go away. We treat patients suffering pain after surgery, following an injury, through cancer, those with chronic back pain and neuropathic pain. Other problems can include post herpetic neuralgia caused by shingles or chicken pox virus. Day case - patients attend for injections to control their pain. Treatments include trigger point injections, lignocaine infusions and radiofrequency denervation. We also run a procedure room within the Daycase setting for patients that do not require a Daycase bed following trigger point injections and other minor procedures. Outpatient treatments include Pain physiotherapy - concentrates on therapy assessments, using specific exercises which can help to improve posture and reduce chronic pain. Complementary therapies – such as	**Benchmarking or national standards** **Quality & safety** • Inadequate time for patients [compared to Faculty of Pain Medicine (RCOA) requirements] • Patient safety: following daycase treatments, medical staff are often required to commute between sites, leaving recovering patients on another site. On occasions, this required their return across site. **Workforce sustainability** • Need for more multidisciplinary working • Administrative deficiencies with changing staff • Service remains very dependent on a small team and is thus vulnerable to sickness/leavers/retirement etc. **Efficiency and effectiveness** • Inadequate time in clinic as the patients are more complex and demanding • Inefficient referral pathway clinical pathways • Administrative support such as clinic coordination is split with staff required to be in 2 places at once. • Use of a procedure room model with recovery room (supported by RN) would reduce Daycase demand. **Demand and capacity/flow** • Need to reduce waiting time for therapies • Increase in referrals and demand to the service (11% when comparing April – September of 2019 compared to 2018). • To provide adequate outpatient space for therapies to be completed. Activity is constrained by space availability. • Regularly lose allocated theatre sessions due to on the day prioritisation of more clinically urgent specialities • Use of a procedure room model with recovery room (supported by RN) would reduce Daycase

acupuncture, Qutenza and use of a transcutaneous electrical nerve stimulation (TENS) machine that blocks pain messages.

Pain Management Programme – We run structured programmes with a variety of sessions from an experienced team of physiotherapists, clinical psychologists, occupational therapists, nurse and medical consultants.

The Adult Inpatient Pain Management Team consists of Pain Consultants, Specialist Nurses and Pharmacy Support.

The service is currently delivered predominantly from the Leicester General Hospital site. There is a paediatric pain MDT clinic delivered from the Leicester Royal Infirmary and plans are in place to deliver therapeutic injections in the Alliance. These discussions however are in their infancy.

The pain management service is currently delivered exclusively within UHL. Work is underway to scope out what could be delivered in the community to improve patient experience.

We are a tertiary referral centre covering the majority of the midlands with specialist clinics such as:

- Addiction clinic
- Pelvic pain clinic
- Paediatric Pain management MDT

The WTE of the service is as follows:

- 1.46 Specialist nurses
- 2.2 HCA's

demand.

- Current waiting times are:

Clinic	**Waiting times**
Day case	18 week wait patients can be seen within their breach month, planned patients have a backlog of 4-5 months
Addiction clinic	12 months
Paediatric MDT	38 weeks
New OP	11 weeks
Consultant FUP	Varies per consultant, range – 3-8 months
Acupuncture	3 months
TENS	3 months

Cost:

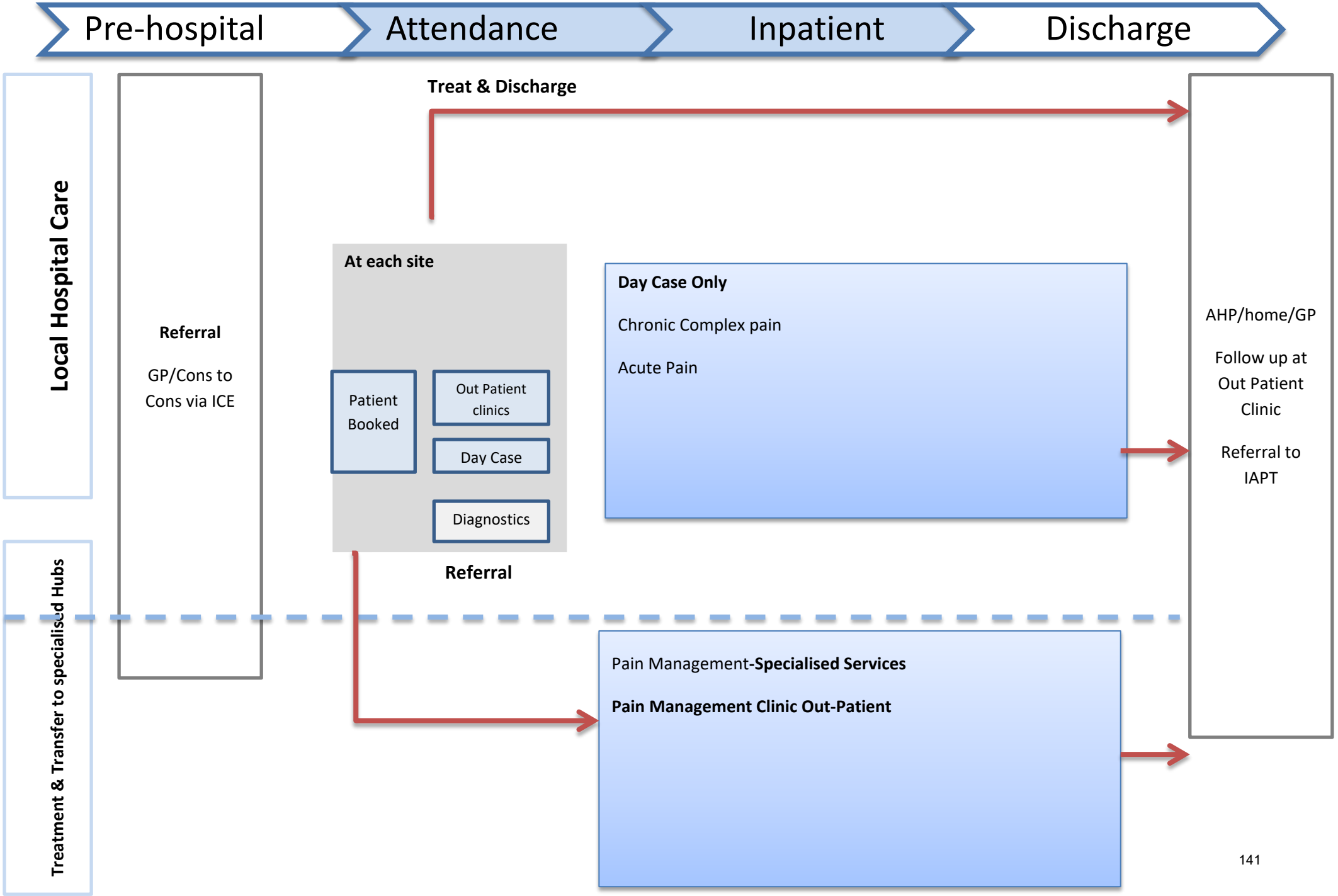
- Inherent costs with administration activities across multiple geographic sites.
- PLICS – we currently lose money on every point of delivery of Pain Management with a small surplus made on Paediatric Pain Management.

Pain Management: Summary of proposed changes

New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
In the interim period, whilst waiting for the Treatment Centre to be completed, we are looking to the Alliance to deliver suitable interventions within the community. 'Low risk' injections can be delivered in community based clean rooms, freeing up consultant sessions to deliver follow up clinics and addressing the long waiting times. Procedures requiring advanced imaging or high risk due to co-morbidities will still require their procedure to be done in a Theatre setting. However, the increased flexibility and capacity within the community will enable us to ensure that only the patients that absolutely require Theatre are performed there.	We want to move together as a single multidisciplinary unit with adequate resources to deliver the service. Centralised Pain Management Service on a single site will allow *greater efficiencies in terms of delivering correspondence, patient referrals and dealing with enquiries by directly reducing the cross sites transfer of patient medical records, all correspondence and other documentation*. Moving our services together which are currently based in different areas and buildings would increase support from the medical team for nursing and other clinical support staff. Enable the service to review patient pathways with the aim to improve patient flow and support better communication and teaching opportunities. **Quality & safety** **Workforce sustainability** • Centralisation will allow review of administration processes releasing potential savings **Efficiency and effectiveness** • Patients will receive clinical parity of services: previously there were variations in waiting times between sites	*Procedure rooms will be provided so what impact will this have –qualify*	N/a	No impact	

	• *Centralised services on a single site: this will allow greater efficiencies in terms of delivering correspondence, patient referrals and dealing with enquiries*. • Ability to streamline clinical pathways • Huge efficiency benefit associated with bringing all clinical activity into same clinic areas in terms of staffing clinics and running clinics, waiting areas and providing basic clinic checks such as weight, blood pressure etc. • Pain management service consolidation would free up day ward space as we are currently utilising rooms for acupuncture treatments within a day ward due to no capacity within outpatients **Demand and capacity/flow** • Increased capacity to meet future growth • Adequate capacity within outpatients would free up Day ward capacity. **Cost** • Expenditure on additional workforce • Reduced premium spend • Reduced overheads				

Pain Management – Elective Patient Flow



Activity Modelling – Do nothing model (modelled by service – to be updated following completion of in-patient, day-case and out-patient activity modelling)

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	Do Nothing Growth 19/20 (IP)	Do Nothing Growth 20/21 (IP)	Do Nothing Growth 21/22 (IP)	Do Nothing Growth 22/23 (IP)	Capacity gap 22/23 (IP)
Pain Management	0	0	0	0	0	0	

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	Do Nothing Growth 19/20 (DC)	Do Nothing Growth 20/21 (DC)	Do Nothing Growth 21/22 (DC)	Do Nothing Growth 22/23 (DC)	Capacity gap 22/23 (DC)
Pain Management	1,631	1,688	1,712	1,736	1,760	1,785	

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	Do Nothing Growth 19/20 (OP)	Do Nothing Growth 20/21 (OP)	Do Nothing Growth 21/22 (OP)	Do Nothing Growth 22/23 (OP)	Capacity gap 22/23 (OP)
Pain Management & Paediatric Pain Management	11,954	11,006	11,160	11,316	11,475	11,635	

Design of system-wide clinical models of care
Sleep: Critical Care, Theatres, Anaesthesia, Pain and Sleep (ITAPS) Clinical Management Group (CMG)

Sleep: Summary of proposed changes

Current Configuration	Rationale For Change
The UHL Adult Sleep Disorders Service (SDS) is the 4th largest in the country. It was among the first sleep services developed in the UK and began seeing patients in the early 1990s. The SDS offers a full range of adult sleep diagnostic & therapeutic services to the population of LLR & Northamptonshire. It is also a tertiary referral centre drawing patients with complex sleep disorders from across the East Midlands. The majority of the activity delivered takes place in the sleep laboratory area itself, though six weekly physician/consultant technologist outpatient clinics occur in the LGH main outpatients department (OPD4).The Leicester General Hospital. The Laboratory area consists of four overnight study bedrooms, a study monitoring/scoring/reporting room and patient lounge and staff and patient toilet facilities. In the last 10 years the Sleep Service has progressively expanded into 2 adjoining rooms from which outpatient diagnostic activity and CPAP clinic services are now conducted. The associated corridor space has been adopted as a reception and Three further rooms have been incorporated to provide vital equipment storage and office space to the rapidly expanding service. The department is not currently able to	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** The UHL Adult Sleep Disorders Service was one of the first established in the UK and has a national reputation. It has been based at the Leicester General Hospital (LGH) since its inception in the early 1990s. Over the last 16 years, the service has grown inexorably with consistent year-on-year activity increases in the region of 12%. The Sleep Disorders Service has always been very profitable for the trust. Income has exceeded expenditure consistently year on year and currently an excess of £2million per year is generated. This level of growth has caused problems for the service in keeping up with demand. Staff numbers and the size of the 'footprint' space allocated to the service have continually lagged behind that which is required. The outpatient service delivered is currently inefficiently split between the main sleep laboratory clinic area and Outpatients Department 4 at LGH. **Quality & safety** • A review of methods of working and models of care is necessary to allow increased opportunity for audit and the implementation of a robust quality management system. **Workforce sustainability** • Service remains very dependent on a small team and is thus vulnerable to sickness/leavers/retirement etc. • Loss due to resignation or illness of key staff members. The service is vulnerable due to its small numbers; one member of staff going on extended leave represents 33% of the technical capacity. Given the specialised nature of the Sleep service, recruitment is a challenge, particularly in more senior roles where the knowledge and expertise required is not readily available. **Efficiency and effectiveness** The SDS operates inefficiently due to the need to conduct all physician and Consultant Technologist out-patient activity in another area. The Sleep Laboratory area is not suitably configured to allow co-location of these clinics. This leads to the following difficulties and inefficiencies: • Medical staff are not readily available to support MTO staff in the management of patients attending the Sleep Laboratory. • Many patients attending the medical clinics would benefit from technical staff input and/or replacement of CPAP equipment 'consumables'. Their attendance at a distant clinic makes this both difficult for

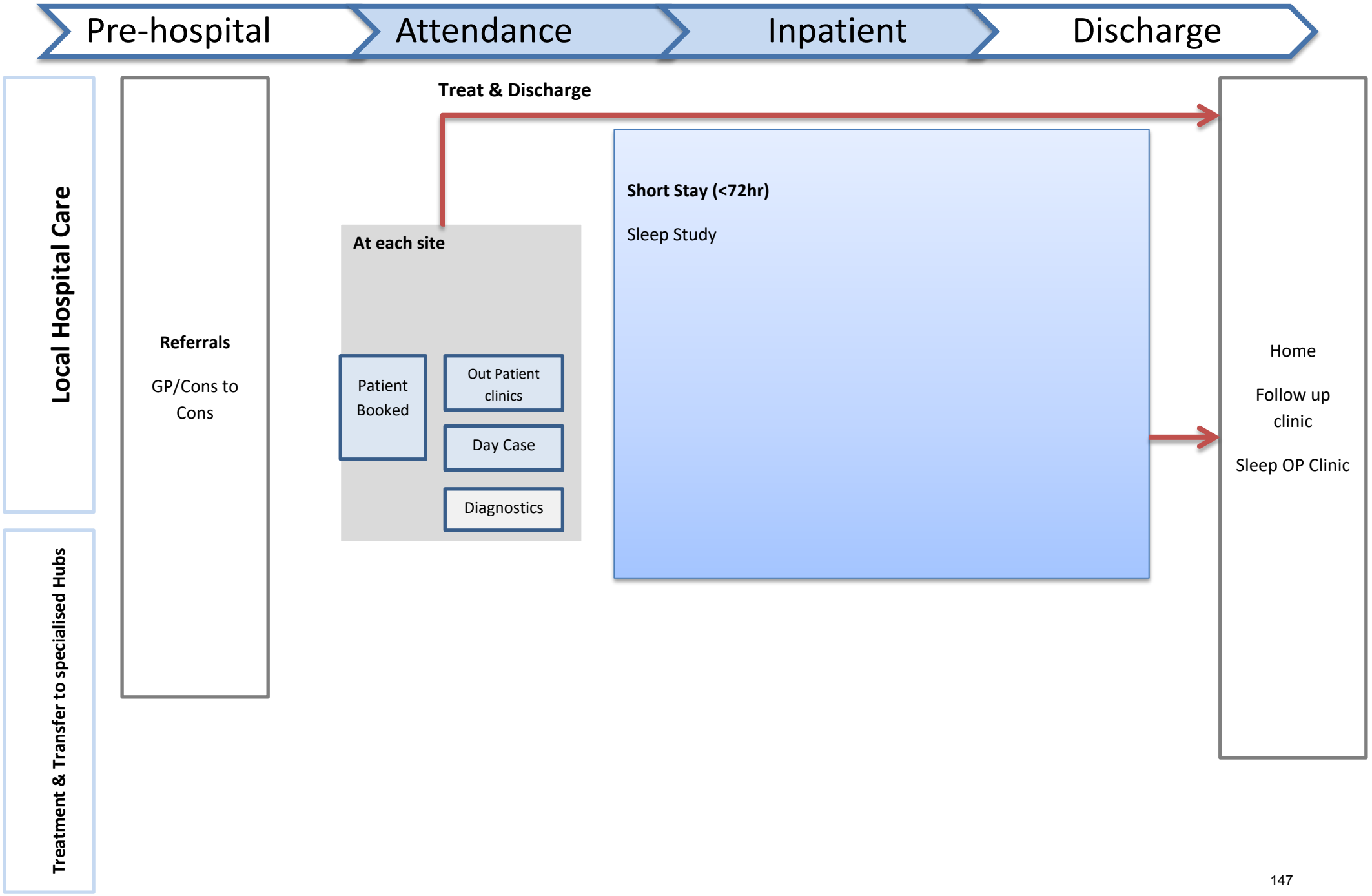
accommodate physician clinics that are conducted remotely in OPD4. The service is consultant lead with consultants from a variety of specialities being present within the team although predominantly anaesthesia and respiratory. The service is also delivered by a team of Sleep Technicians, led by a Consultant Technologist.	staff and inconvenient for patients. • Administrative support such as clinic coordination is split with staff required to be in 2 places at once. • Case notes, results, patient information resources etc. need to be transported to the distant clinic. **Demand and capacity/flow** • Currently at the limit of activity constrained by space availability and staffing numbers

Sleep: Summary of proposed changes

New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
As a service that operates predominantly in isolation, the Sleep service can be based virtually anywhere that is a) appropriate for the service and b) appropriate for patients. The service can be 'lifted and shifted' with minimal changes to methods of working necessary. Opportunities for efficiencies and improved utilisation of capacity exist if, when within the chosen location, outpatient clinics, consultant clinics, treatments and diagnostics are all performed from within the same department (as opposed to the current split between the Sleep lab and the Outpatient Department at LGH), the clinics themselves however will continue to run as they do now. A review of the Sleep workforce is currently underway to ensure capacity is aligned with demand and the workforce is set at a sufficient and appropriate level.	It is evident that co-location of all sleep services would lead to a more efficient and effective service and a better experience for our patients **Benchmark (Right care/GIRFT/Model hospital/other benchmark)** **Quality & safety** • Reduction in waiting times for IP/Diagnostic & DC procedures. • Better access to a range of professionals all in one clinical area. • Better teaching and training opportunities for staff **Workforce sustainability** • Centralisation will allow review of administration processes releasing potential savings • Rationalisation onto one footprint would bring efficiency savings and improved team working. It will facilitate better service coverage, staff training and reduce complaints, many of which relate to unanswered phones and clerical/administrative issues. • Better teaching and training opportunities for staff **Efficiency and effectiveness** • Centralised services on a single site: this will allow greater efficiencies in terms of delivering correspondence,	None	None	*Quantify impact of moving into the treatment centre*	

	patient referrals and dealing with enquiries. • Ability to streamline clinical pathways • Service reconfiguration/expansion would facilitate joint working with other disciplines such as Psychology. • Huge efficiency benefit associated with bringing all clinical activity into same clinic areas in terms of staffing clinics and running clinics, waiting areas and providing basic clinic checks such as weight, blood pressure etc. **Demand and capacity/flow** • Increased capacity • Would be able to run medical and technologist clinics alongside each other thus providing better care for patients and better support for more junior staff (regarding both clinical decision making and teaching) • Sleep Service consolidation into one site would free-up out-patient clinic capacity **Cost** • Increased income by generating capacity for additional IP/OP & DC activity				

Sleep – Elective Patient Flow



Activity Modelling – Do nothing model (modelled by service – to be updated following completion of in-patient, daycase and out-patient activity modelling)

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	Do Nothing Growth 19/20 (IP)	Do Nothing Growth 20/21 (IP)	Do Nothing Growth 21/22 (IP)	Do Nothing Growth 22/23 (IP)	Capacity gap 22/23 (IP)
Sleep	231	204	207	210	213	216	

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	Do Nothing Growth 19/20 (DC)	Do Nothing Growth 20/21 (DC)	Do Nothing Growth 21/22 (DC)	Do Nothing Growth 22/23 (DC)	Capacity gap 22/23 (DC)
Sleep	988	1,019	1,033	1,048	1,062	1,077	

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	Do Nothing Growth 19/20 (OP)	Do Nothing Growth 20/21 (OP)	Do Nothing Growth 21/22 (OP)	Do Nothing Growth 22/23 (OP)	Capacity gap 22/23 (OP)
Sleep	12,469	13,999	14,195	14,394	14,595	14,800	

Adult Intensive Care: Current position

Current Configuration

Overview
Adult Intensive Care Services are currently split across all three sites –Glenfield Hospital (GH), Leicester General Hospital (LGH) and Leicester Royal Infirmary (LRI).

Glenfield Hospital Adult Intensive Care Unit (AICU)
The current AICU at Glenfield Hospital comprises 22 physical beds of which 7 are single side rooms. The AICU is divided into three bays: Bay A is currently used primarily for post-cardiac surgical patients and emergency admissions; Bays B and C are often used for long-term patients, as these bays have reduced noise levels and improved natural light which reduces the incidence of delirium.
The single rooms are used to isolate patients either for infection prevention reasons (both transmission of and/or exposure to infections) and for emergency admissions or transfers of patients admitted for tertiary care, or for privacy and dignity reasons (particularly in the case of the dying patient).
The whole bed base is used flexibly depending on patient need and to ensure efficient use of the staffing capabilities with no ring fencing of beds for a particular level of care or type of service.
The vast majority of admissions to the Glenfield AICU involve planned cardiac surgery patients

Rationale For Change

Clinical Drivers for Change
There is a widely recognised and well-articulated need to consolidate acute services in Leicester, which are currently spread across three sites. The current configuration is suboptimal in clinical, performance and financial terms. This is exemplified by the fact that ICU (and services that depend on ICU) are located on all three sites. The scheme detailed in this FBC is the next key building block towards acute site consolidation and will bring significant clinical benefits for patients.

Demand outstrips ICU capacity across UHL, resulting in cancellations in elective procedures (see Table 32) reliant on Level 2 and 3 care (due to a shortage in beds). The future strategy for ICU units at LRI and GH will be to consolidate care for Level 2 and 3 patients into the 'super ICUs'. Aligned with this provision will be a robust cohort of beds for Level 1 care within specialties throughout the Trust, as well as critical care outreach services delivering a 24/7 service.

Table 32

	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
LRI	13	5	23	17	8	4	1	12	7	7	1	1	99
LGH	15	9	29	7	6	4	11	19	2	3	11	1	117
GH	7	1	3	1	0	1	0	6	1	8	3	2	33
Total	**35**	**15**	**55**	**25**	**14**	**9**	**12**	**37**	**10**	**18**	**15**	**4**	**249**

Benchmark (Right care/GIRFT/Model hospital/other benchmark)
The Strategy for delivering ICU care at UHL supports both the national and local imperatives. There is a recognised move towards using critical care beds at an earlier stage in a patient's treatment. On an international level the UK has a low number of ICU beds compared to its population, and within the UK, UHL has a lower than average per capita provision of ICU beds.

who are admitted from the cardiac surgery wards via theatres. There are also planned admissions of thoracic and vascular surgery patients from theatres that required level 2 or level 3 care on AICU. Once these patients can be stepped down to level 1 or ward level care, they are discharged to their referring speciality and followed up by the critical care outreach team.

Emergency admissions for level 2 and level 3 care are transferred to AICU from theatres, CDU, CCU, the wards, Cath lab or transfers from other institutions for tertiary cardio-respiratory as well as cardiac and thoracic surgery intervention at Glenfield Hospital for level 2 or level 3 care. Once these patients are stepped down to level 1 care, they are referred back to their referring speciality. All patients who are discharged to level 1 or ward beds are reviewed by the critical outreach team.

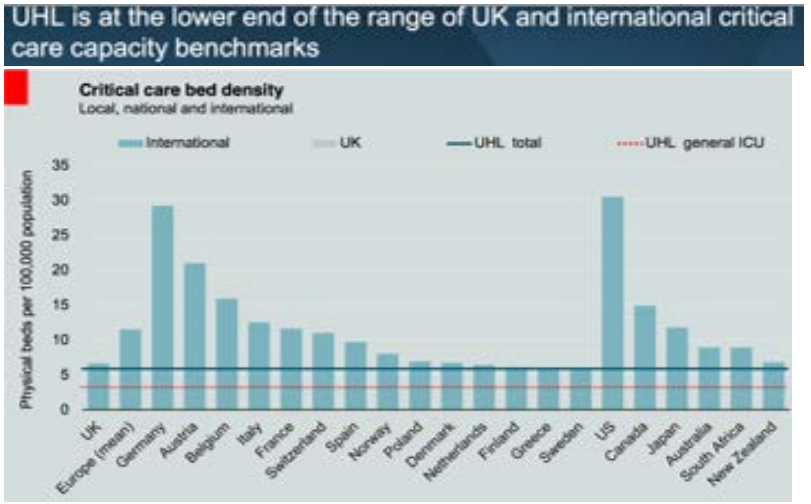
Another stream of patients are transferred from other medical facilities for tertiary care at Glenfield Hospital as level 3 care for Severe Acute Respiratory Failure (SARF) or level 4 care requiring Extra Corporeal Membrane Oxygenation (ECMO). The SARF and ECMO patients are retrieved from the referring medical facility by a transport team that runs in conjunction with the AICU workforce, which is available 24 hours a day.

The majority of these patients are transferred back to the referring hospital's intensive care unit for further AICU management once they are stepped down to level 2 care. In a minority of cases, these patients are transferred to the respiratory team at Glenfield Hospital for ward care.

Interim AICU Expansion

In order to accommodate movement of services

Critical Care UK and International Capacity Benchmarks



Quality & safety / Workforce sustainability

The need to move Level 3 ICU away from LGH was first identified in 2014 owing to the increasing risk of clinical sustainability of the service. These include:

- The reduced opportunities for critical care staff to gain adequate experience in providing care for the most ill patients has been affected by a reduction of Level 3 patients cared for at LGH;
- Recruitment to substantive posts at LGH has failed repeatedly as posts have become unattractive owing to the loss of training designation and the reduction in patient acuity;
- Changes in the way medical training for intensive care staff is structured has led to the removal of training designation status at the LGH unit and therefore the ability to place trainees at LGH;
- The retirement of experienced consultant grade staff from LGH;
- A national shortage of experienced critical care nursing and medical staff compounding recruitment problems.

Demand and capacity/flow

Independent analysis was commissioned from Bazian in 2014 to assess the current and future requirements for ICU and HDU beds in UHL, work that was subsequently been updated in 2016 by Capita Health using the Simul8 model, which has validated the recommendations.

(HPB and transplant) from LGH to Glenfield an expansion of the AICU is planned. During building works to develop the AICU, the main unit will close five physical bed spaces (three beds in bay B and two side rooms). UHL is currently developing its winter plan for 2018/19; in relation to the opening of extra capacity to support increased emergency pressures during this period. The proposed solution at GH puts in place plans for an additional 4 ICU beds. The extra winter capacity required for ICU beds has been considered together with the loss of beds during the construction period. There are a number of options for the creation of an additional 9 ICU beds at GH; the actual solution implemented will be based on the level of pressures and surge experienced and the staffing levels needed across all 3 sites: 1) Use of 4 PACU beds for ICU Level 2 2) Use of 8 beds on ward 34 (cardiac), previously upgraded to accommodate ICU patients. 3) Use of satellite Level 2 beds in service areas to accommodate ICU Level 2 patients 4) Use of 2 PICU beds, which can be isolated from the rest of the ward. The services at GH will work closely to manage this temporary reduction by the management of flows from ICU. The additional beds will be utilised flexibly in the same way as the main unit; however, we would avoid admitting level 3 or unstable level 2 patients in these areas if at all possible. The 2	The following recommendations were made by Bazian: • Based on existing case mix of patients treated in UHL there are substantial benefits from merging smaller into larger units, where economies of scale can be achieved; • There is a limit on what can be achieved practically – the movement of HDUs also requires the movement of specialities. The phasing of capital expenditure should also be considered; • The merging of HDUs is recommended for quality and governance reasons, this could be undertaken in the medium term (1 to 5 years); • If reconfiguration can be achieved in five years it is recommended that at least a 15% increase in capacity is planned for every 10 years. More precise predictions will depend on the effect of new interventions on length of stay. UHL currently provides Level 3 adult critical care services at each of its three acute sites. This provision enables a range of specialities, which require a co-location with Level 3 critical care, to be delivered across all three sites.

areas will be run clinically as if it were within the walls of the existing unit (ie it is part of Critical Care). It will therefore be subject to the same philosophy, principles of care and access as the main unit.

Transfer of services from LGH

Hepato-biliary and renal transplant services will be transferred to Glenfield Hospital following the completion of the AICU extension.

The expanded AICU following the building works will comprise of 33 physical bed spaces; of which 10 will be either side rooms or isolation rooms. As before the expansion, the whole bed base will be used flexibly depending on patient need and to ensure efficient use of the staffing capabilities with no ring fencing of beds for a particular level of care or type of service.

The final configuration of Glenfield will result in provision of critical care services to cardio-respiratory medicine, cardiac surgery, thoracic surgery, vascular surgery, hepato-biliary surgery, acute nephrology and renal transplantation, SARF, and ECMO. Because of the nature of these services, there will be an anticipated increase in elective and emergency admissions to the Glenfield AICU. A booking process to manage elective flow will be introduced to minimise cancellations on the day of surgery.

Once these patients are stepped down to level 1 care, they will be discharged back to their referring speciality and followed up by the critical care outreach team.

LRI

Current AICU

The main Critical Care Unit has 21 physical beds

of which; 5 are single (isolation) rooms, the remaining 16 beds comprise of two 6 bedded bays and one 4 bedded bay (the Annex). The single rooms are used to isolate patients either for infection prevention reasons (both transmission of and/or exposure to infections) or for privacy and dignity reasons (particularly in the case of the dying patient). Of the remaining beds the 'annex' is frequently used as an area for the long term patient as it has a greater abundance of natural light, the presence of which is associated with a lower incidence of delirium. Due to its partially isolated nature this area is not normally used for the admission or on-going care of the notably unstable patient. The whole bed base is used flexibly depending on patient need and to ensure efficient use of the staffing capabilities with no ring fencing of beds for a particular level of care or type of patient. Once patients are stepped down to level 1 care, they are referred back to their referring speciality. All patients who are discharged to level 1 or ward beds are reviewed by the critical care outreach team. There is in addition, a further bed base which has been in place since 2015. This comprises of a 6 bedded area located within the walls of the theatre complex. It is run clinically as if it were within the walls of the existing unit (i.e. it is part of Critical Care not part of the theatre complex). It is therefore be subject to the same philosophy, principles of care and access as the main unit. Owing to its remote location from the rest of the unit it requires its own dedicated resident medical and nursing team (including a nurse in charge). It is utilised flexibly in the same way as the main unit but with an expectation that we will aim to	

avoid admitting (or providing on-going care of) the notably unstable patient within it and due to the lack of natural light will avoid its use for long term patients.
In total, therefore, the unit will comprise of 27 physical beds, 6 of which are side rooms and 6 are in an isolated site.

LGH

Current Department of Critical Care Medicine (DCCM)
The main Critical Care Unit has 12 physical beds of which 3 are single (isolation) rooms. The remaining 9 beds comprise of a 5 bedded ICU area and a 4 bedded HDU area, although all beds may be used flexibly according to the current demand for level 2 and level 3 care.
The single rooms are used to isolate patients either for infection prevention reasons (both transmission of and/or exposure to infections) or for privacy and dignity reasons (particularly in the case of the dying patient).
Once patients are stepped down to level 1 care, they are referred back to their referring speciality. All patients who are discharged to level 1 or ward beds are reviewed by the critical care outreach team.

Post Service moves
This critical care unit is planned to comprise of a 4 bedded HDU to manage on-going demand for level 2 care for Urology, Obs & Gynae, Nephrology and Orthopaedics. This will be located within existing DCCM space. It will be subject to the same philosophy, principles of care and access as a level 3 intensive care unit. In addition to the 4 level 2 beds there will be 1 level 3 bed which will be utilised for the stabilisation of

unplanned Level 3 patients.
The LGH will be staffed with medical and nursing staff to ensure patients requiring escalation to level 3 care will receive appropriate treatment immediately. Patients at LGH who unexpectedly require level 3 care will be admitted here for stabilisation prior to transfer to either LRI or GGH when clinically safe.

In order to continue to provide high quality level 2 (and level 3) care the unit will be staffed by consultant intensivists during weekday daytime. It is anticipated that the majority of decision-making, investigations and interventions will take place under the care of the consultant intensivist. Out-of-hours medical cover will be provided by a rota of consultant Intensivists and consultant general duties anaesthetists (with support from consultant Intensivists and LRI and GH when required). The unit will continue to require its own dedicated resident medical and nursing team (including a nurse in charge).

Retrievals and transport
A robust system to transport patients will be introduced to provide on-going level 3 care at either LRI or GH. This transport team will be based at GH and run in conjunction with the staffing planned for the interim and long term AICU models of care.
Patients at LGH requiring level 3 support will be stabilised by the attending anaesthetic team (consultant or middle grade level) at LGH who will subsequently contact the Intensive Care Consultant on-call for GH or LRI depending on the patient's base speciality. The LGH team will remain with the patient, undertaking further stabilisation as dictated by the patient's condition until formal handover to the transport team

occurs. The consultants on-call at GH and LRI, in collaboration with the on-call ICU consultant at the LGH, will decide whether the patient will be best managed on Adult Intensive Care at GH or LRI. A transport team will then be dispatched from the Glenfield AICU to retrieve the patient and transfer either to LRI or GH. The lead transport clinician will be an ICU consultant. The transport personnel will be an ICU/anaesthetic registrar or ECMO/transport fellow accompanied by an ICU nurse, both will be experienced in the transport of the critically ill. The consultants on-call for AICU and / or ECMO, at GH, may be required to provide cover to AICU at GH enabling the registrar or fellow to undertake the transfer, whilst maintaining safe levels of cover in the ICU. It will be the responsibility of the on-call Consultant at GH (Consultant A) and senior sister/nurse in charge to decide upon the most appropriate clinician and nurse team to undertake the transfer. This will depend upon local resources, timeframes and patient condition at the time of referral. Transfers will be undertaken only when the patients' condition has been stabilised. If transfer is essential for emergency intervention at GH or LRI and the patient is deemed very unstable by the referring team the most senior experienced transfer clinician will be sent to retrieve.	

Adult Intensive Care: Summary of proposed changes

<table>
<tr><th>New Configuration</th><th>Benefits</th></tr>
<tr><td>

How will the new model of care look?

The Trust's five year strategy for delivering critical care services is the creation of two 'super ICUs' GH and LRI. These will care for Level 2, 3, and 4 (ECMO) patients, staffed and delivered to the national core standards to ensure the highest quality care in the most appropriate environment. This will be supported by a robust tier of Level 1 care beds within specialties throughout the organisation which will, in turn, be supported by critical care outreach services delivering 24/7 care.

Models of care are provided in detail at the end of this document.

</td><td>

Benchmark (Right care/GIRFT/Model hospital/other benchmark)

The Trust's ICU strategy also takes into consideration the revised core standards published by the National Society of Intensive Care Medicine (NSICM) in 2013. These were adapted by NHS England to develop their draft service specification for adult critical care facilities (D16). Adult critical care D16 has key 'dashboard' standards that provide commissioners with the opportunity to performance manage provider services to ensure that compliance with standards is achieved.

At present, the revised D16 is still in draft format and is not published on NHS England's website. NHS England has confirmed that until such time as the specification moves from draft status UHL is not expected to deliver against it. It is expected that in the future all critical care services within UHL, including satellite HDU areas, will be monitored against these standards as part of the annual contract.

Benefit criteria for the Interim ICU scheme:

<table>
<tr><th colspan="2">Objectives</th><th>Measurement</th></tr>
<tr><td>A</td><td>To provide a solution that maximises clinical quality and safety.</td><td>Reduced DATIX incidents, associated with this group of patients, relating to serious harm</td></tr>
<tr><td>B</td><td>To deliver, at the earliest possible opportunity, a sustainable Level 3 ICU service across the Trust</td><td>Reduced elective cancellations
Removal of risk for on-going provision of Level 3 service at LGH.
4 hour transfer time cross site for Level 3 patients.</td></tr>
<tr><td>C</td><td>To deliver an ICU solution that facilitates recruitment and enables the delivery of high levels of teaching and training</td><td>Reduced staff turnover
Reduced vacancy factors
Reduced agency expenditure</td></tr>
</table>

</td></tr>
</table>

When will it be in place?

Interim ICU scheme (Level 3 off LGH) - 2020
LRI expansion - 2022
GH expansion - 2023

Who will provide what activity at which site?

The AICU's will be managed by the adult Intensive Care teams at the LRI and GH sites.

D	To ensure that the quality of the patient environment and experience remains a priority	Increased single room provision Improved privacy and dignity Improved infection prevention.
E	To provide a solution which fits with future Trust reconfiguration plans and is consistency with the DCP	Timeline and sequencing of reconfiguration programme
F	To deliver a solution that ensures accessibility to services and maximises clinical adjacencies.	Delivers essential clinical adjacency and most of desirable.

Quality & safety
The new units will be optimised within the budget to deliver quality space for clinical services – we will ensure that we deliver as close to HBN standard as possible.

Workforce sustainability
The provision and consolidation of staffing across two sites is a considerable qualitative and quantitative benefit from a staffing perspective and ultimately supports workforce efficiencies across all disciplines. The interim ICU scheme creates the challenge of supporting interim arrangements, which means that some of the benefits will not be realised until the long term critical care model is fully implemented at the end of the whole Reconfiguration

Some of the on-going workforce challenges will be addressed by the interim ICU project. For example, the removal of training designation status at LGH is a key driver of this project and highlighted the need to address the training requirements and experience for junior doctors as well as a wide range of staff. Recruitment to the LGH after losing its training designation has become less attractive and a national shortage of experienced critical care nursing and medical staff compounds the difficulty in recruiting and retaining staff. Maintaining a sustainable workforce across three sites accentuates workforce supply issues and hinders the ability to develop safe and high quality workforce support, particularly at nights and at weekends and stretches an already acknowledged deficit in terms of registered staff for Medical, Nursing and Therapeutic staff. Any move to consolidating services has a positive impact in terms of sustainable future workforce supply and workable rosters.

Efficiency and effectiveness

The interim ICU scheme allows for:
- A transfer of commissioned Level 3 and associated activity from LGH to GH. The

	relocation of services to this site allows for efficiency of flow through a larger physical footprint; • The move of Level 3 and associated activity to LRI, creating a single site surgical emergency take, which delivers a more efficient patient pathway. The creation of the super ICUs will further enhance efficiency and effectiveness of the units; HDU remaining at the LGH will re-locate to the GH and LRI; and the HDUs sitting within specialties will be consolidate to create a single level 2/level 3 unit in each of the acute sites. **Demand and capacity/flow** The current capacity gap in ICU provision across UHL, resulting in cancellations in elective procedures reliant on Level 2 and 3 care, will be rectified by the long term plans. The Trust's five-year clinical strategy includes the need to deliver critical care services through the creation of two 'super ICUs' by 2022/23 located at LRI and GH, ensuring that UHL has the right number of Augmented and Critical Care Beds in the right locations. This will enable UHL to retain Intensive Care training accreditation, recruit and train staff, improve efficiency and sustainability of the services as well as respond to changing demands for the service. Detailed activity modelling has been carried out using demand and capacity over the last 5 years. This has identified the need for 49 Level 2/3 beds at LRI; and 66 level 2/3 beds at GH over the next 10 years; based on 85% occupancy. This includes the repatriation of HDU satellite beds, currently located within services base ward areas; 5 ACB beds at LRI, 6 thoracic, 4 respiratory and 4 renal/cardiac at GH) **Capital Cost** Interim ICU Scheme (Level 3 off LGH): £30.8m LRI : Long term expansion: £22.6m GH : Long term expansion: £16.58m **Cash releasing benefit** The Interim ICU scheme attracts an enhanced cost of £3.6m in the intervening years whilst the HDU needs to remain at the LGH. Cash releasing benefits have been found to off-set this additional cost as shown below; specifically through theatre efficiencies with the move of day case activity to the LGH in the interim; thereby protecting elective activity.

Benefit	£'000 per annum
HPB/Colo Rectal Reductions in ALOS (Non Cash releasing)	514
ECMO	302
Day Case Rates	100
Reduced cancellations due to lack of CCU bed	274
Additional Theatre efficiencies	2,312
Savings on Premium rates	250
TOTAL	3,752

Once the full scheme is delivered; £1.971m of savings will contribute to the benefits of the wider reconfiguration programme.

Managing the bed gap

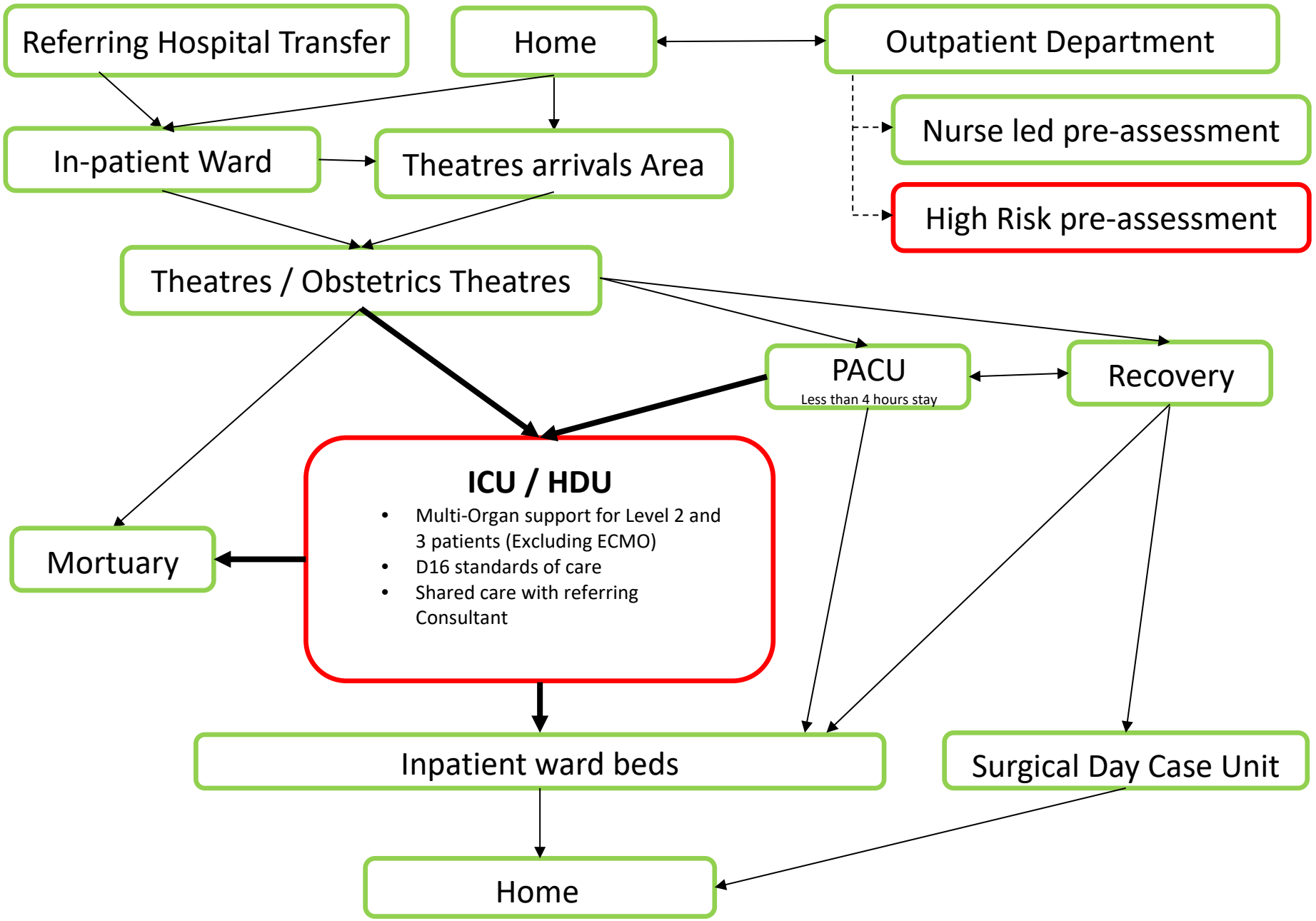
		Beds released minimum - max												
		2018/19		2019/20		2020/21		2021/22		2022/23		Resource required	Estimated £	Methodology for numbers
ITU														
PACU step down														
14th ITU consultant to enamelling recovery beds to be used at LRI		0	6	0	6	0	0	0	0	0	0			
Glenfield extension		0	-5	0	11	0	11	0	11	0	11			
Reduction in beds at the LGH		0	0	0	-6	0	-6	0	-6	0	-6			

Activity model

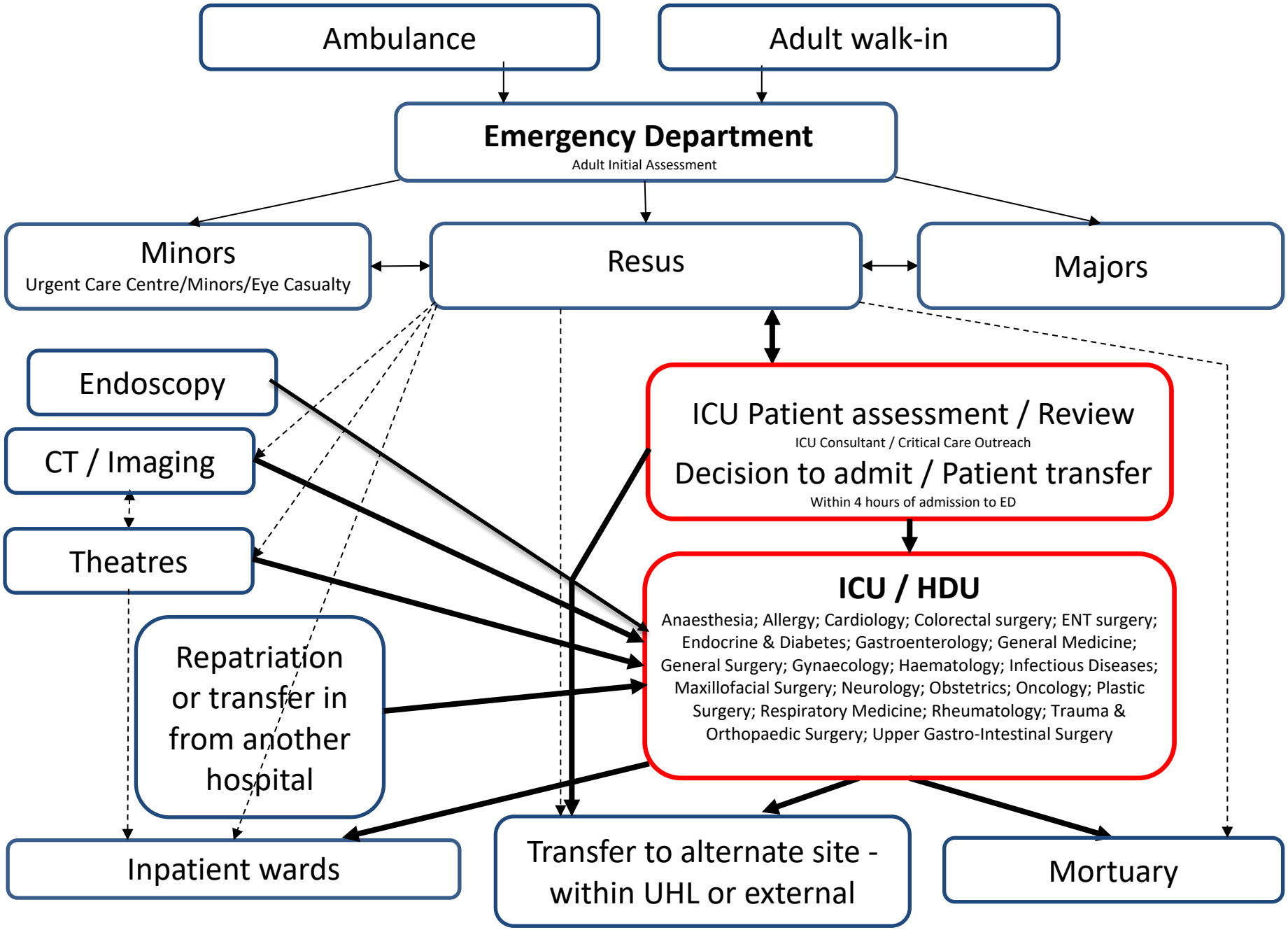
(Work in progress. To be inserted when in patient, day case and OP modelling is complete)

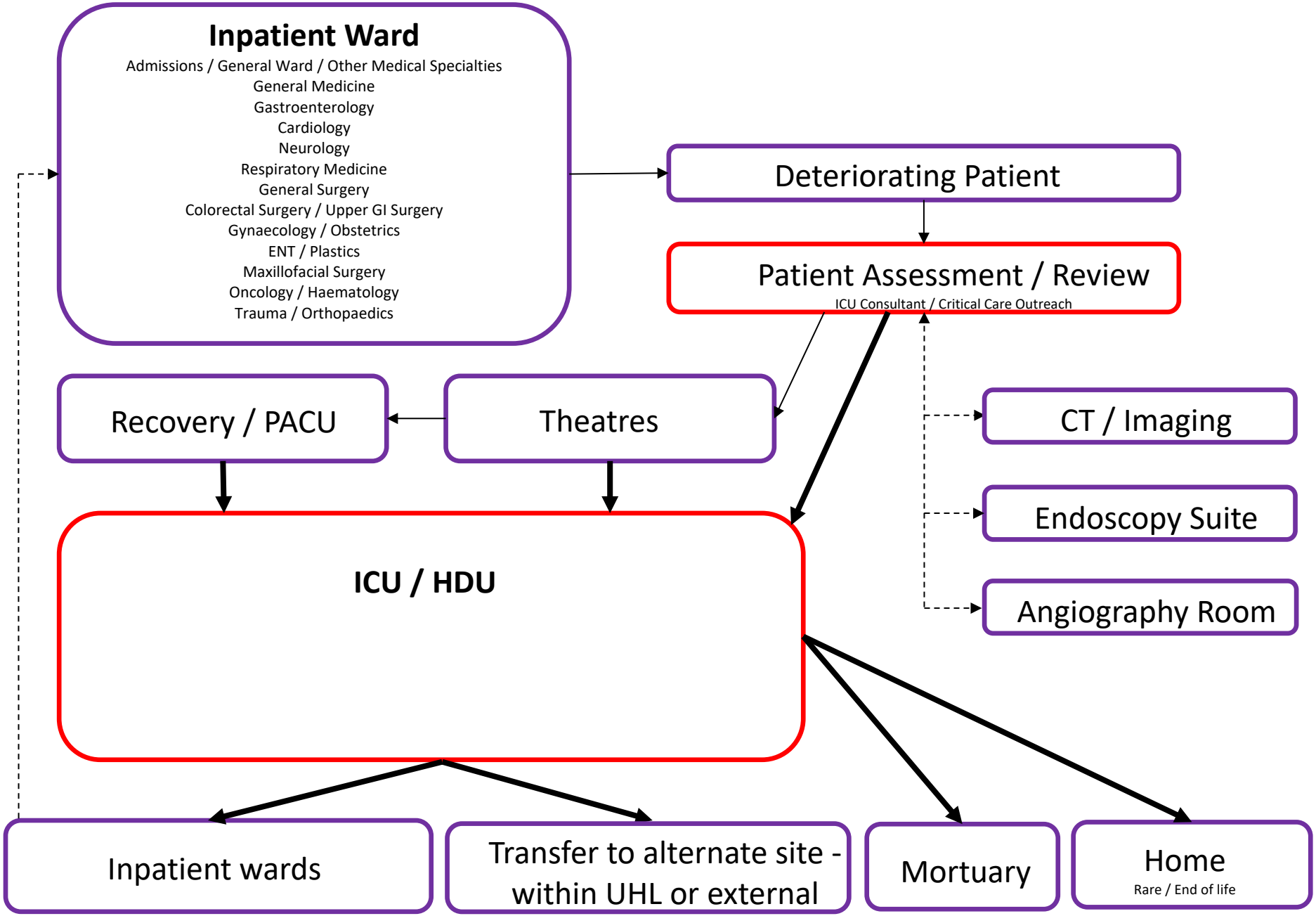
Clinical Models of Care

Model of Care – LRI Elective Anaesthetic Pathway



Model of Care – LRI Emergency pathway




Inpatient Ward
Admissions / General Ward / Other Medical Specialties
General Medicine
Gastroenterology
Cardiology
Neurology
Respiratory Medicine
General Surgery
Colorectal Surgery / Upper GI Surgery
Gynaecology / Obstetrics
ENT / Plastics
Maxillofacial Surgery
Oncology / Haematology
Trauma / Orthopaedics
Deteriorating Patient
Patient Assessment / Review
ICU Consultant / Critical Care Outreach
Recovery / PACU
Theatres
CT / Imaging
Endoscopy Suite
Angiography Room
ICU / HDU
Inpatient wards
Transfer to alternate site - within UHL or external
Mortuary
Home
Rare / End of life

ICU / HDU

Emergency Admissions & General / Main Bay & side rooms

Level 2 & 3 patients
Unscreened & Screened patients (MRSA)

Weaning / Step down Bay

Level 2 & 3 patients
Single organ support/awake patients
Screened (MRSA)

Isolation rooms

- Gowning lobby
- Negative & positive pressure

Infected patients
Unscreened patients
33 to 50% of total bed capacity

PACU

If reduced to ≤ 4 hour stay will not need to be compliant to D16

Support services accessed outside of ICU/HDU

MRI / CT
Endoscopy
Angiography

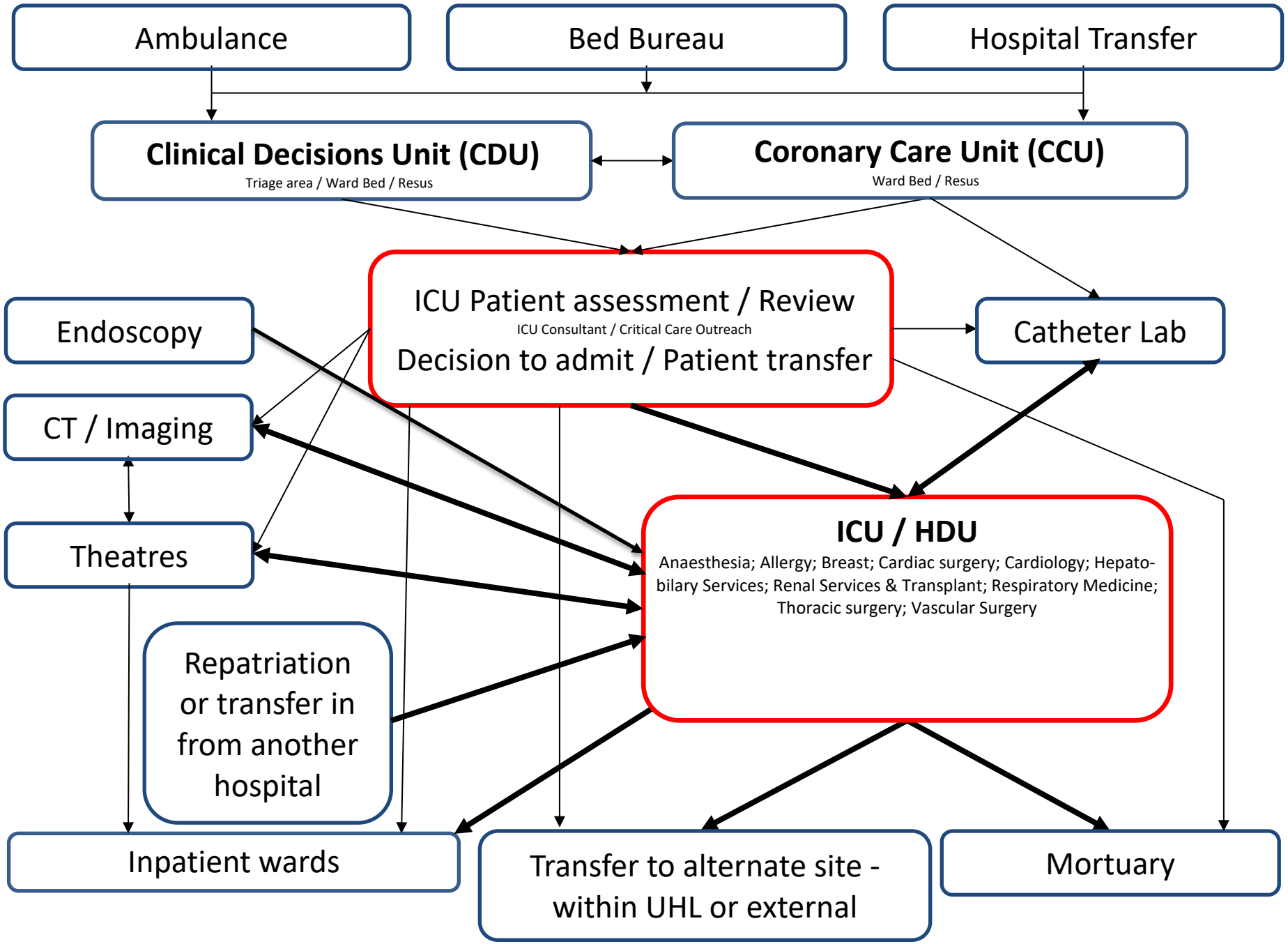
Support services delivered on the ICU/HDU

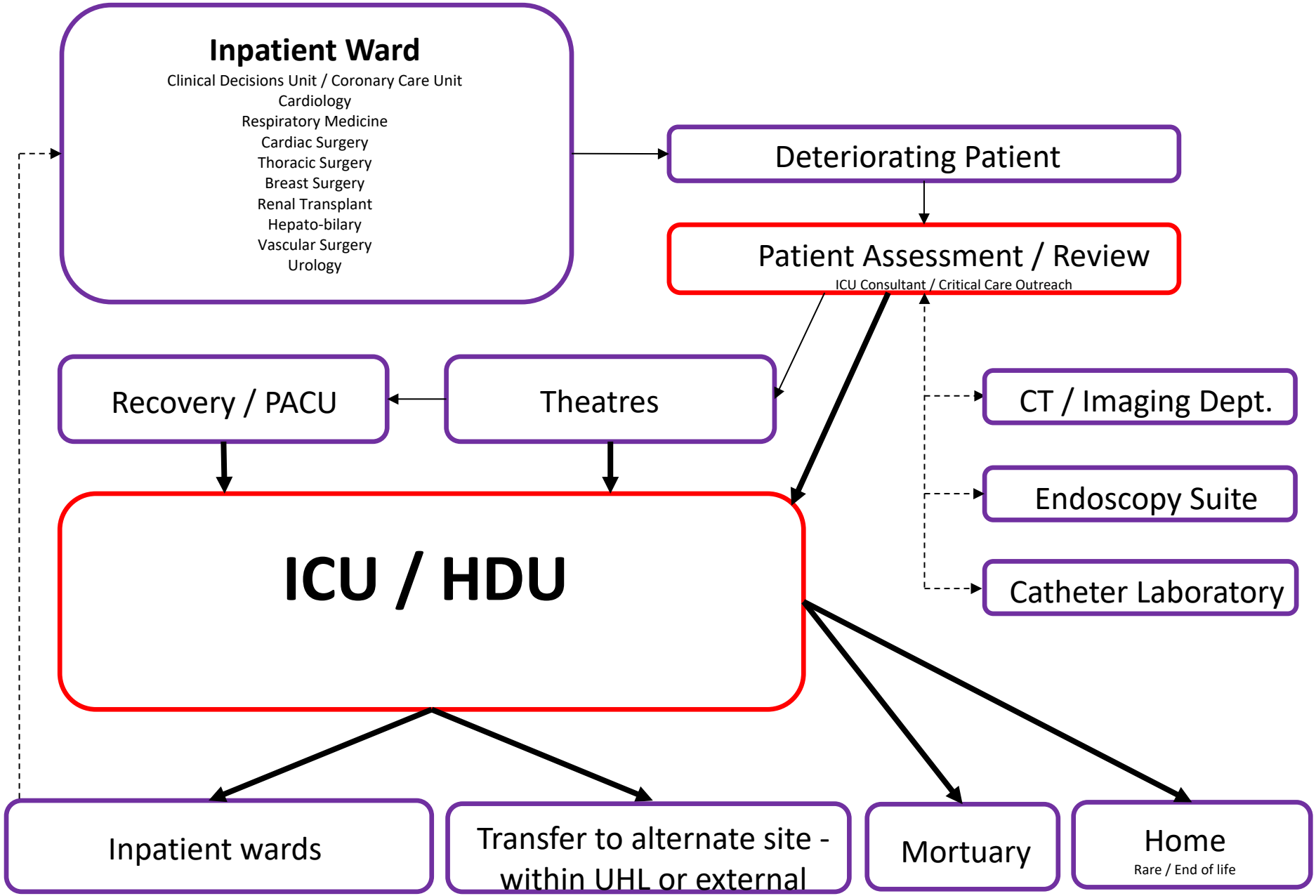
EMCHC
Cardio physiology
Critical Care Outreach
Dietetics
Discharge Planning
Imaging
LIFFT
Neurophysiology
Occupational Therapy
Pharmacy
Phlebotomy
Physiotherapy
Psychology
Research
Respiratory physiology
Safeguarding
SALT
Specialist Nurses

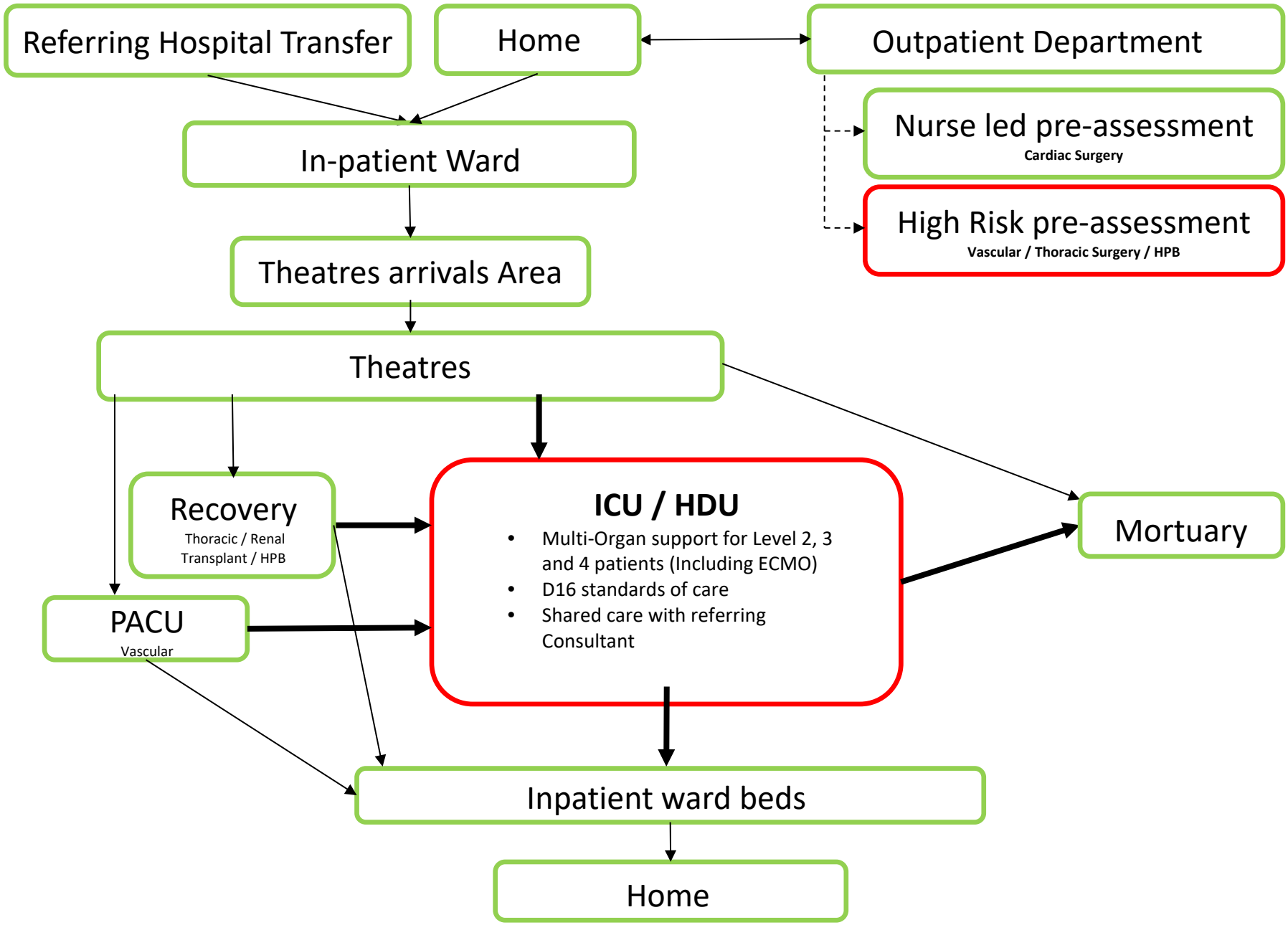
Considered:

Standard side room Unscreened patients / End of life
Surgical bay Protected elective beds / screened patients
Medical bay Unscreened patients
Emergency / Trauma bay
HDU bay Splitting level 2 and level 3 patients

The model of the ICU/HDU suggests that we have a dedicated Emergency/Admission bay, a main bay and a step down bay. This isn't the case, we have bay A and B which is our main ICU/HDU area, bay C is used for our lower acuity HDU area and could loosely be considered a step down area but it all depends upon patient mix and acuity.




Inpatient Ward
Clinical Decisions Unit / Coronary Care Unit
Cardiology
Respiratory Medicine
Cardiac Surgery
Thoracic Surgery
Breast Surgery
Renal Transplant
Hepato-bilary
Vascular Surgery
Urology
Deteriorating Patient
Patient Assessment / Review
ICU Consultant / Critical Care Outreach
Recovery / PACU
Theatres
CT / Imaging Dept.
Endoscopy Suite
Catheter Laboratory
ICU / HDU
Inpatient wards
Transfer to alternate site - within UHL or external
Mortuary
Home
Rare / End of life


Referring Hospital Transfer
Home
Outpatient Department
Nurse led pre-assessment
Cardiac Surgery
High Risk pre-assessment
Vascular / Thoracic Surgery / HPB
In-patient Ward
Theatres arrivals Area
Theatres
Recovery
Thoracic / Renal
Transplant / HPB
ICU / HDU
Multi-Organ support for Level 2, 3 and 4 patients (Including ECMO)
D16 standards of care
Shared care with referring Consultant
Mortuary
PACU
Vascular
Inpatient ward beds
Home

ICU / HDU

Bay A (8 beds + 3 side rooms)
Level 2 & 3 patients
Predominantly Cardiac Surgery

Bay B (12 beds + 4 side rooms)
Level 2 & 3 patients

Bay C (4 beds + 2 side rooms)
Level 2 & 3 patients

Bay D (17 beds including side rooms)
Level 2 & 3 patients

Isolation rooms
- Gowning lobby
- Negative & positive pressure

Infected patients
Unscreened patients
33 to 50% of total bed capacity

Renal - TBC
Consider HDU move & staff skills – run as 'Dialysis' bay?

Support services accessed outside of ICU/HDU
MRI / CT
Endoscopy
Angiography

Support services delivered on the ICU/HDU
EMCHC
Cardio physiology
Critical Care Outreach
Dietetics
Discharge Planning
Imaging
Neurophysiology
Occupational Therapy
Pharmacy
Physiotherapy
Psychology
Research
Respiratory physiology
Safeguarding
SALT
Specialist Nurses

Considered:
Standard side room Unscreened patients / End of life
Surgical bay Protected elective beds / screened patients
Medical bay Unscreened patients
Bays for ECMO +/- Dialysis
HDU bay Splitting level 2 and level 3 patients

CMG: MSS

Models of Care Impacted by Reconfiguration:

ENT

Plastic Surgery

Elective Spinal Surgery

Orthopaedic Surgery (including Sports and Exercise medicine)

Ophthalmology

Design of system-wide clinical models of care
ENT, Specialist Surgery: Musculoskeletal and Specialist Surgery (MSS) Clinical Management Group (CMG)

ENT: Current position

Current Configuration	Rationale For Change
The ENT service for Leicestershire is centralised at the Leicester Royal Infirmary and is part of the Musculoskeletal and Specialist Surgery CMG. There are currently 13 consultants, 11 of whom provide services to paediatrics. The team are supported by dedicated nursing resource alongside approximately 40 hearing practitioners. At the Leicester Royal Infirmary there is a children's intensive care unit, high dependency unit and two paediatric wards providing facilities for inpatient and day case surgery with additional day case beds on the day ward. Adult ENT patients are managed on Ward 9 which is a 18 bedded mixed adult ward shared with plastic surgery and maxillofacial surgery. The Kinmonth Unit provides high dependency care for patients undergoing head and neck surgery. Our outpatient department is a dedicated ENT department supported by audiology. The outpatients department provides accommodation for the medical staff in fully equipped individual consulting rooms. The Glenfield Hospital has a paediatric ward, paediatric intensive care unit and a paediatric ENT outpatient facility supported by	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** **Benchmarking again the National Median for ENT:** • Below for daycase v elective activity • Length of stay for elective admissions is higher than the average • Length of stay for emergency admissions is slightly lower than the average • Average late start in theatre is above the average • Average intercase downtime if above the average • Average early finish time is below the average • Overruns are above the average • Potential productivity opportunity if above the average **ENT Targets** 2ww 18 wk RTT 6 wk Audiology Diagnostics **Quality & safety** ENT risks:- ➢ Physical capacity in both outpatients and theatres ➢ Workforce capacity for delivery of elective and H&N work ➢ Use of External Providers for outpatients and operative capacity ➢ Staffing • Junior medical staffing gaps to support emergency flow within the hospital. • Consultant provision of emergency care to meet with 7 day working standards – Business Case in Progress to support Hotweek working **Workforce sustainability**

audiology. The ENT Department is working with the Paediatric Cardiac Service to provide paediatric ENT services on the Glenfield Hospital site. The team support ENT community clinics, which are currently run in Loughborough, Melton Mowbray, Oakham, Market Harborough, Hinckley and Coalville. The Department of ENT is an extremely busy one, providing a combination of 27 inpatient and day case operating lists. These are all run through the central operating department and day case unit. Outpatient clinics are delivered at the LRI site, the Glenfield Hospital and community hospitals throughout Leicestershire including Coalville, Loughborough, Hinckley, Market Harborough, Melton Mowbray and Oakham. Specialist clinics include the Paediatric Tracheostomy Multidisciplinary Clinic & Multidisciplinary hearing loss diagnostics clinic. Children's ENT surgery is primarily undertaken at the Leicester Royal Infirmary, however, surgery to support patients on the Intensive care unit or under the care of the Congenital Cardiac Service is undertaken at the Glenfield hospital. Approximately 15 cases per year are undertaken. Over recent months the department has introduced a number of Audiology led clinics including tinnitus pathways, vestibular rehabilitation and Grommet follow up clinics.	**Consultants** **Recruitment** – This is challenging due to a small pool of suitable quailed candidates with a large number of vacancies across the country, geographical location is not popular in East Midlands and volume and complexity of work along with insufficient infrastructure to support delivery of care is not attractive for candidates. **Retention** – High volumes of complex cases, busy on-call whilst undertaking routine activity often with junior doctor's gaps and Insufficient infrastructure results in high levels of stress. Regular patient cancellations due to bed availability resulting into increased complaints and conflicting demands on consultant's time. **Registrars** There is a National shortage of trainees and training numbers are not currently being filled, on a regional level there have been a number of vacancies resulting into a 50% fill rate of registrar posts in most trusts. This results in challenges providing a same middle grade on- call rota, pressures on trainee educational needs and less support for core trainees. These pressures on registrars can result in poor feedback to HEEM and GMC Survey. **CT's** There is a National shortage of trainees and training numbers are not currently being filled. For each rotation we experience minimum 1 rota gap due to non-filled post, this results in challenges providing a first tier on-call rota. Due to the working patterns and the number of trainees allocated to the department there is minimal dedicated educational time which results in poor feedback. There is a high level of sickness is this cohort of doctors, in response to feedback the SHO's have a new educational programme which includes 1:1 teaching with consultants in supervised emergency clinics. Despite these increased levels of support due to the high volume of emergency work for ENT we continue to see high levels of sickness absences. **Clinical Fellows** There is small cohort of appropriately qualified doctors suitable for these posts and we have had rolling vacancies over the past 2-3 years. **ANP's** We have invested into two additional ANP roles within ENT to support the elective and emergency service and staff are currently be trained within these roles. Ideally we need to expand this cohort of practitioners but currently is not available and the training course takes 3 years to complete so the service will not see the full benefit until staff are fully trained. **ENT are open to a two site model if this guarantees elective bed capacity however the currently workforce configuration does not support two site working. An additional doctors at all levels would**

A specialist Physiotherapist delivers a Physio led tinnitus pathway and Physio led balance clinics Audiology rehabilitation is undertaken within the Hearing Services centre at the LRI. As many clinics as possible are undertaken in a community settings at 14 community venues. Due to the reduced experience and changes in working patterns trainees are seeing less patients in an elective setting which has impacted on the capacity of the department. Dedicated training timetables are provided accordingly to trainees needs.	**be required to facilitate a safe two site service.** **Nursing Staff** Two site working shouldn't impact on inpatient nurse staffing however qualified nurse recruitment remains problematic this is trust wide. Two site working for outpatients may prove to be problematic due to outpatient nursing currently changing their rosters on a daily bases to meet the need of the service so if outpatient were to be across two site clinics would need to be more robust to reduce multiple manipulation in nursing rota's. **Audiology** The continual expansion of the service and utilisation of audiologists to work as advanced practitioners, providing additional patient pathways to the ENT service, requires additional staff and therefore additional funding. The Hearing Services department generally does not have an issue with recruitment and retention, but a lack of funding to implement the additional pathways**.** **Efficiency and effectiveness** There are a number of areas within the patients pathway that could be improved these include:- • Education of GP's regarding effective referral criteria • Speed of processing Referrals – increased Admin support • Consultant dedicated time of triaging referrals • Enhanced communication portal for patient enquiries • Reduced rescheduling of appointments – increase in clinics required • Notes availability in time for patient appointments • Access to investigations within a timely manner • Reporting times for investigations • Virtual outcomes – review outcome form and agree pathway • Follow Up Capacity and pathway management • Theatre capacity – insufficient number of lists • Access to beds – HDU/ICU • Access to appropriate anaesthetic support • Access to surgical equipment • Lack of theatre and anaesthetic staff and reduced specialty experience • Junior doctors crossing covering specialties on the night shift **Demand and capacity/flow** The Speciality has a performance score of 4 indicating that it has a consistent pressure to deliver RTT, Cancer and waiting times targets. In order to meet demand waiting list initiatives are routinely carried out at weekends using Medinet as their supplier of clinical resources. There is a high OP clinic cancellation rate

	15,500 over a 12 month rolling period and DNA rates are above the target average of 5% sitting at an overall 8.6% over a 12 month rolling period. As with all UHL services the service has implemented PRISM Pathways to enable electronic GP referrals. The service has implemented advice and guidance in order to manage demand and support appropriate referral from Primary Care. In year the speciality are progressing with the use of GPwSIs to help manage demand. It is hoped that this will reduce the requirement on Medinet weekend clinics. For ENT to deliver the strategic plan we will require additional theatre sessions and access to beds which will support recruitment of further substantive posts and discontinuation of the use of external Providers. Downtime for emergency winter pressures and lack of theatre staffing has contributed to the deteriorated of ENT's RTT & Cancer waiting time. ENT Consultants do not drop clinic commitments when on-call and this causes cancellations in both theatres and outpatients when emergencies do arise which is becoming more common over the past year due to the complexity of patients coming through the front door. ENT currently have 29 in week sessions and 2.5 weekend sessions within the baseline but there is currently 1098 adults waiting for surgery and 619 of those have been waiting over 18 weeks and 638 Paediatrics waiting for surgery and 466 of those have been waiting over 18 weeks. ENT Clinics run 7 days a week and the service relies on WLI activity to support the both the 2ww patient appointments, urgent and routine. ENT currently has 3255 patients waiting to be seen in an ENT outpatient's environment and 662 of these have been waiting over 18 weeks. On average ENT receive 50 2WW H&N referrals a week and have capacity for around 48 which leaves the department very short when leave is taken. **Cost** Workforce for covering rota gaps is a cost pressure and is essential to the running of the department. External providers remain a significant cost pressure to maintain our RTT Performance which is still currently under the Trust Target. WLI within ENT are undertaken on a weekly basis in light of high volumes of elective surgery cancellations and lack of capacity for RTT and the 2WW services.

ENT: Summary of proposed changes

New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
1.Some ENT Activity will be delivered in community settings by GPwSIs to assist with demand management and use of specialist ENT resource. The impact will be to reduce the dependency on Medinet weekend outpatient clinics. This was implemented in May 2019 and we have started to see a reduction in referrals into UHL but need to work with the GPWSI around them accepting Medinet follow-up patients for us to start to see a reduction in Medinet usage. 2. RSS has been implemented within ENT – this is in the early stages and we will continue to review the patient's pathway into the correct clinic. 3. Future clinical pathways will be developed as a consequence of system wide review of current ENT processes. It is felt that an early opportunity for proportion of de-waxing to be provided by UHL staff within community hubs or nurse led clinics within UHL. 4. Skin prick testing is currently offered within UHL as a test for allergic rhinitis. This could be offered within community locations rather than UHL. 5. Activity will be divided into five cohorts of patients; Elective (Daycase/23 Hr Stay), Emergency, Paediatric, H&N and Adult patients with complex needs. Elective (Daycase/23 hr stay) and outpatients including audiology– will be delivered at	What will this mean against rationale for change? **Benchmark (Right care/GIRFT/Model hospital/other benchmark) -** If daycase and outpatient activity are undertaken in a identified setting away from emergency demands we would hope to see the below improvements within out service and benchmarking results:- • Reduction in length of stay for elective admissions should decrease with our dedicated Daycase /23 hour HUB which will require an increased workforce and hotweek working for consultants • Improvements in late start times in theatre due to bed availability and improved processes for Daycase activity • Improvement in intercase downtime with improved processes theatre staffing recruitment to support this • If theatre sessions start on time we will see a reduction in overruns • If we can improve bed availability, processes, staffing, and recruitment there is scope for productivity to improve. **Quality & safety**			The GPwSI Service was implemented in May 2019 and although we have seen an decrease in referrals into UHL we have noticed an increase in Consultant to Consultant Referrals which we are auditing. We will require the GPWsI's to start taking some of the medinet Follow-up patients for us to be able to start to reduce our Medinet clinics down.	

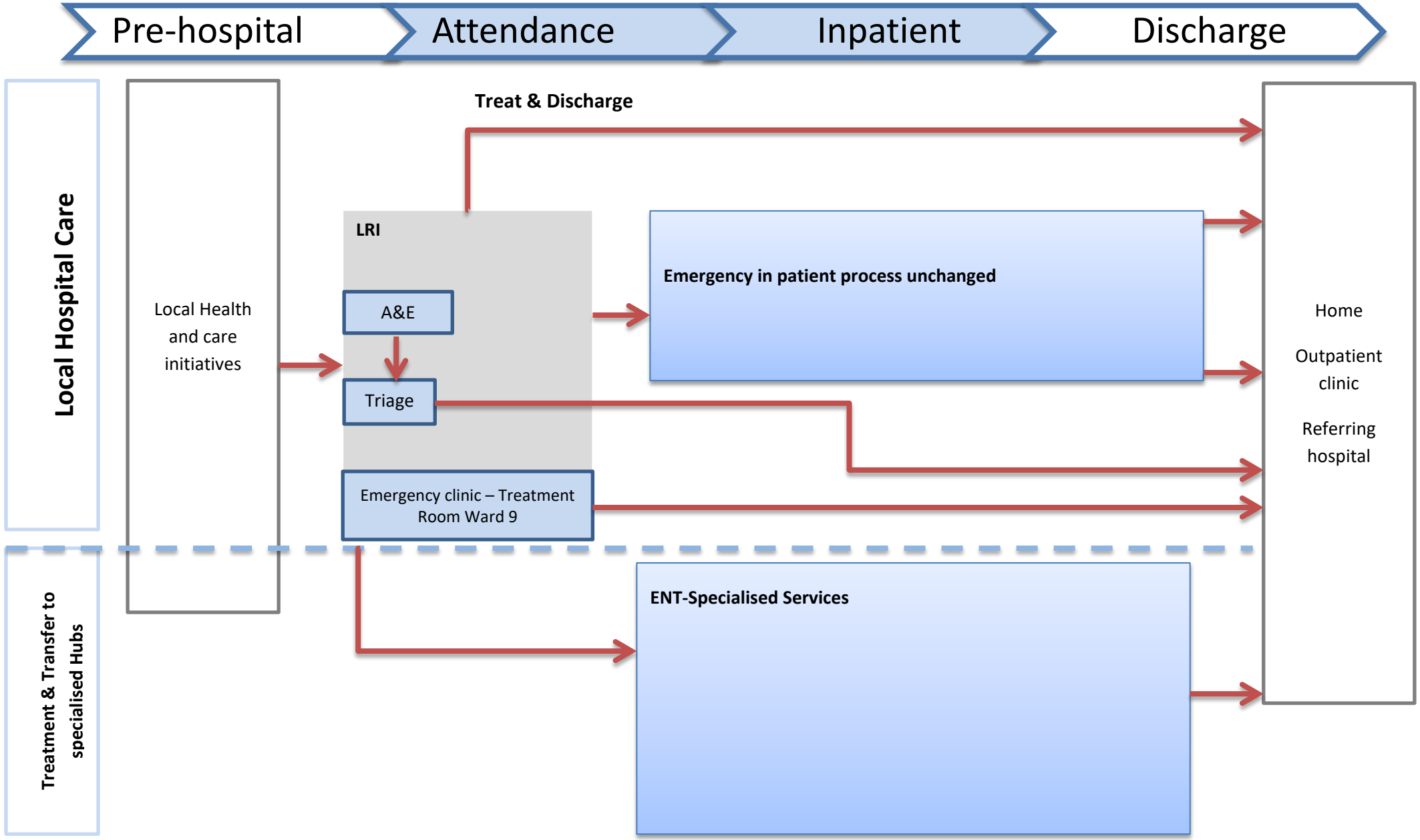
PATCH Emergency – Delivered at LRI Ward 9 & Kinmonth Paediatric – Delivered at Children's Hospital H&N - Complex Adults – Delivered – LRI Ward 9 & Kinmonth How will the new model of care look? When will it be in place? Who will provide what activity at which site? 6. To address demand, capacity and increase efficiency work is being progressed to improve productivity of theatre sessions. Increasingly the service would like to move to 3 session days in order to address the imbalance between demand and capacity but this would require additional theatre sessions and staffing to support . The emergency Service at LRI will be provided by Hotweek consultant, Hotweek registrar and support core trainees. Elective Service at PATCH will be delivered by an expanded cohort of consultants, registrars and core trainees. To support the two site model recruitment of additional doctors is mandatory and essential.	If additional capacity in a different setting is available we can move forward with increasing our workforce to enable us to cover cross site working for clinical activity, Ward rounds and on-calls and this will be supported by our hotweek consultant working pattern to provide an emergency care with 7 day working standards. Access to beds improvements will enable us to reduce our Independent Sector Costs. **Workforce sustainability** Recruitment and retention continues to be challenging within ENT a full recruitment would need to be undertaken prior to any two site model to enable safe working and emergency cover. **Efficiency and effectiveness** Dedicated centralised outpatients with adequate audiology availability, electronic notes availability, improved IT systems in place and improved patient pathways would benefit the efficiency of our clinics and patients journey. Improved access to dedicated ENT daycase theatres with adequate trained staffing and improved processes in place will support the improvements in theatre scheduling and general running's of lists. Improved access to beds will reduce patient cancellations, improve RTT, reduce WLI activity and Independent Sector Services. **Demand and capacity/flow** **Cost**				

	Moving to a two site model will give ENT an opportunity for additional Daycase lists to support their RTT position, reduction in 52 week breaches and reduce patient cancellations due to lack of beds and improve patients experience. Within the new model of care there is scope for more efficient day case theatre lists with less downtime which will support an increase in our average case per list and wait time for surgery. Within the emergency setting access to beds for cancer and clinically urgent patients should improve and this will support our cancer position within the trust. Reduction in patient cancellations will support a reduction in WLI sessions and IS associated costs to the Trust.				

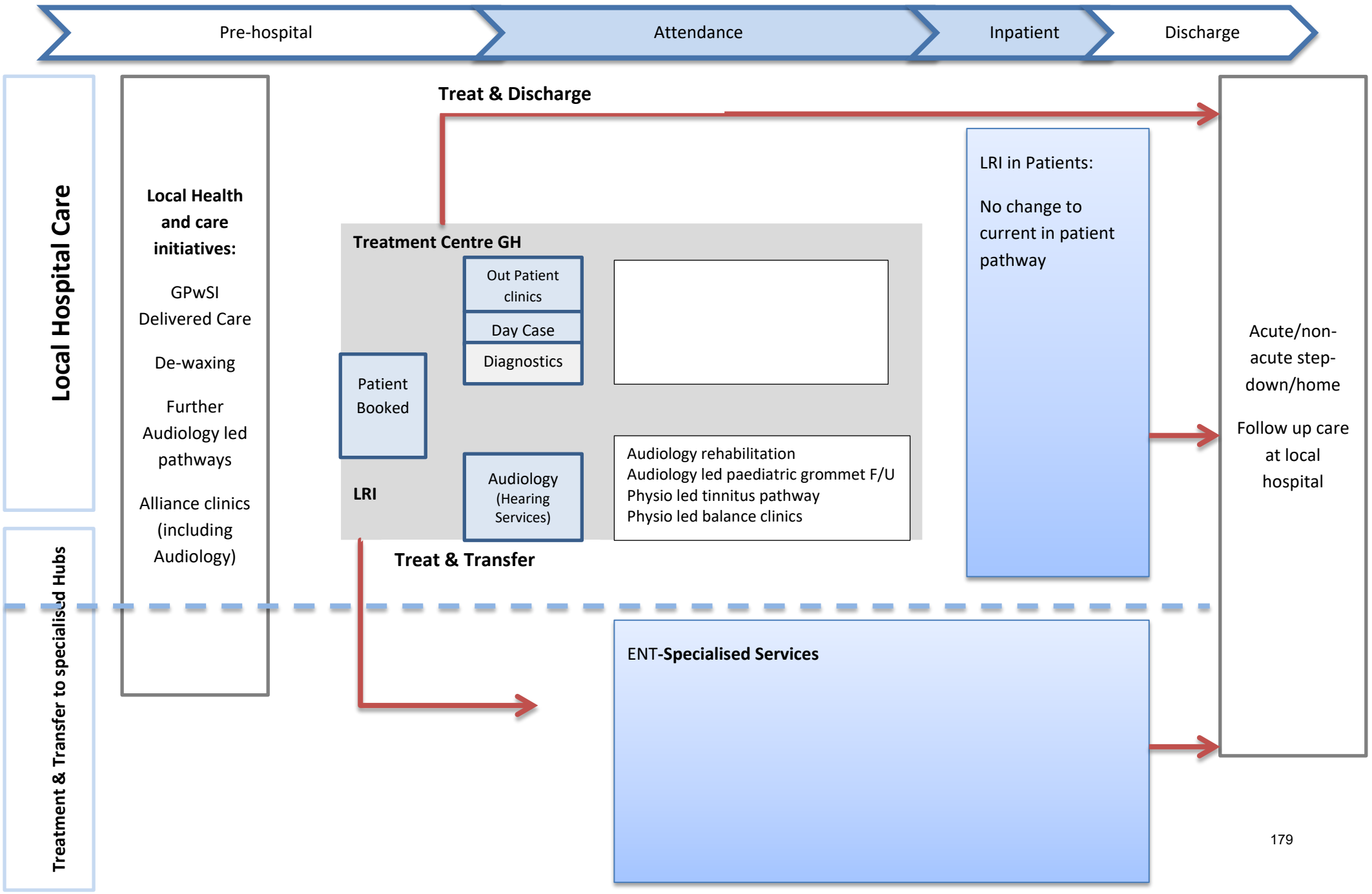
Activity modelling (Work in progress. To be inserted when IP, Daycase and OP modelling is complete).

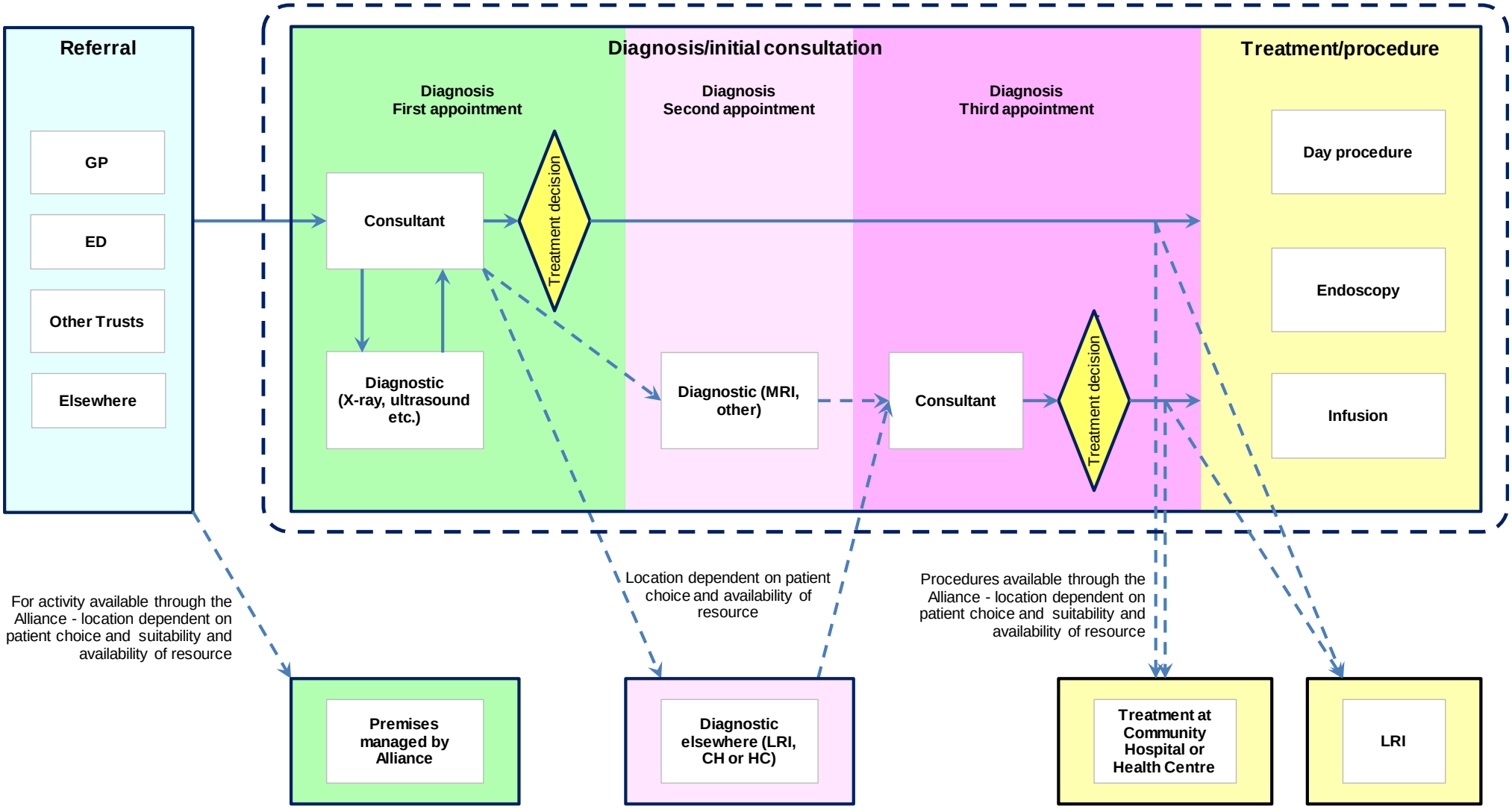
Clinical Model of Care

ENT– Emergency Patient Flow



ENT– Elective Patient Flow




Referral
GP
ED
Other Trusts
Elsewhere
Diagnosis/initial consultation
Diagnosis
First appointment
Diagnosis
Second appointment
Diagnosis
Third appointment
Treatment/procedure
Consultant
Treatment decision
Diagnostic
(X-ray, ultrasound
etc.)
Diagnostic (MRI,
other)
Consultant
Treatment decision
Day procedure
Endoscopy
Infusion
For activity available through the Alliance - location dependent on patient choice and suitability and availability of resource
Location dependent on patient choice and availability of resource
Procedures available through the Alliance - location dependent on patient choice and suitability and availability of resource
Premises
managed by
Alliance
Diagnostic
elsewhere (LRI,
CH or HC)
Treatment at
Community
Hospital or
Health Centre
LRI

Design of system-wide clinical models of care
Plastic Surgery: Musculoskeletal and Specialist Surgery (MSS) Clinical Management Group (CMG)

Plastic Surgery: Current position

Current Configuration	Rationale For Change
Overview The Plastic Surgery Service for Leicestershire is centralised at the Leicester Royal Infirmary and is part of the Musculoskeletal and Specialist surgery CMG. There are currently 6 Consultants, 5 Trainee Registrars, 2 Specialty Doctors, 4 SHO's and a dedicated team of ANP's and clinical nurse specialists. Our Plastic and Reconstructive Surgery service offer a wide range of procedures including abdominal wall reconstructions, post cancer surgery reconstructions & cosmetic surgery. These procedures include immediate and delayed Breast reconstructions, flap reconstructions following Trauma. Adult plastic surgery patients are managed on Ward 9 which is an 18 bedded mixed specialist surgery ward shared with ENT & Maxillofacial. Kinmonth Unit provides high dependency care for patients who have under major reconstructive work, and also the Ambulatory surgery unit We have a trauma service which deals with accidents and emergencies including the repair of hand injuries and injuries to the skin, flesh and muscle, including burns.	**Benchmarking –** • potential productivity opportunity with regards to theatres • below benchmark for touch time utilisation in theatre • 19% of current activity is carried out as additional, below average • Average late start in theatre is above the average • Average inter-case downtime if above the average • Average early finish time is below the average • Average Length of stay is higher than the national average for inpatients • Overruns are above the average • 96% of all elective work is day case –national average 96% **Quality & safety** • Physical capacity in both outpatients and theatres • Workforce capacity for delivery of • Staffing - Junior medical staffing gaps to support emergency flow within the hospital. **Workforce sustainability** **Retention** – High volumes of complex cases, busy on-call whilst undertaking routine activity often with junior doctor's gaps and insufficient infrastructure results in high levels of stress. Regular patient cancellations due to bed availability resulting into increased complaints and conflicting demands on consultant's / medical staff's time. **Recruitment** – This is challenging due to a small pool of suitable quailed candidates with a large number of vacancies across the country, geographical location is not popular in East Midlands and volume and complexity of work along with insufficient infrastructure to support delivery of care is not attractive for candidates.

We have a dedicated Burns & Plastic Dressing Clinic which is predominately Nurse-led providing micro-pigmentation, supporting complex wound care, supporting both inpatients and community patients. Twice weekly outreach service into patients home to support with complex wound management is provided. The Trust is also supported with an in-reach service.

A lower leg clinic has been set up to reduce the A&E admissions for patients with complex lower leg injuries.
The majority of the day case activity is carried out under Local Anaesthetic and in a clean room setting, rather than in theatres.
The outpatient clinics are delivered at the LRI site in general outpatients, and also community hospitals throughout Leicestershire.

Plastic Surgery supports the skin cancer 2WW pathway, with the Plastic Surgeons attending MDT meetings. The service removes skin lesions and cancers such as melanoma and reconstructs the defect created in order to produce the most cosmetically pleasing result. There is collaborate working with Nuclear Medicine supporting these pathways.

ANP's –

We have invested into ANP roles within Plastic Surgery to support the elective and emergency service and staff are currently trained within these roles. Ideally we would like to expand this cohort of practitioners but currently not available and the training course takes 3 years to complete so the service will not see the full benefit until staff are fully trained.

Plastics are open to a two site model if this guarantees elective bed capacity however the currently workforce configuration does not support two site working. Additional doctors at all levels would be required to facilitate a safe two site service.

Nursing Staff

Two site working shouldn't impact on inpatient nurse staffing however qualified nurse recruitment remains problematic this is trust wide. Two site working for outpatients may prove to be problematic due to outpatient nursing currently changing their rosters on a daily bases to meet the need of the service so if outpatient were to be across two site clinics would need to be more robust to reduce multiple manipulation in nursing rota's.

Efficiency and effectiveness
There are a number of areas within the patients pathway that could be improved these include:-

- Education of GP's regarding effective referral criteria
- Speed of processing Referrals – increased Admin support
- Consultant dedicated time of triaging referrals
- Enhanced communication portal for patient enquiries
- Reduced rescheduling of appointments – increase in clinics required
- Notes availability in time for patient appointments
- Access to investigations within a timely manner
- Reporting times for investigations
- Virtual outcomes – review outcome form and agree pathway
- Follow Up Capacity and pathway management
- Theatre capacity – insufficient number of lists
- Access to beds – HDU/ICU
- Access to appropriate anaesthetic support
- Access to surgical equipment
- Lack of theatre and anaesthetic staff and reduced specialty experience
- Junior doctors crossing covering specialties on the night shift

	Demand and capacity/flow Plastic Surgery Consultants do not drop clinic commitments when on-call and this causes cancellations in both theatres and outpatients when emergencies do arise, which is becoming more common over the past year due to the complexity of patients coming through the front door. Plastic Surgery has 20 in week elective sessions, with an additional 6 Trauma sessions within the baseline. No weekend activity is in the baseline. There are currently 544 adults waiting for surgery and 129 of those have been waiting over 18 weeks, giving a current performance of 76.3%. Plastic Surgery Outpatient Clinics run 5 days a week. No additional / WLI clinics are needed to support the demand. **Cost** Workforce for covering rota gaps is a cost pressure and is essential to the running of the department. WLI within Plastic Surgery are undertaken on a weekly basis in light of high volumes of elective surgery cancellations and lack of capacity for RTT (Admitted)

Plastic Surgery: Summary of proposed changes

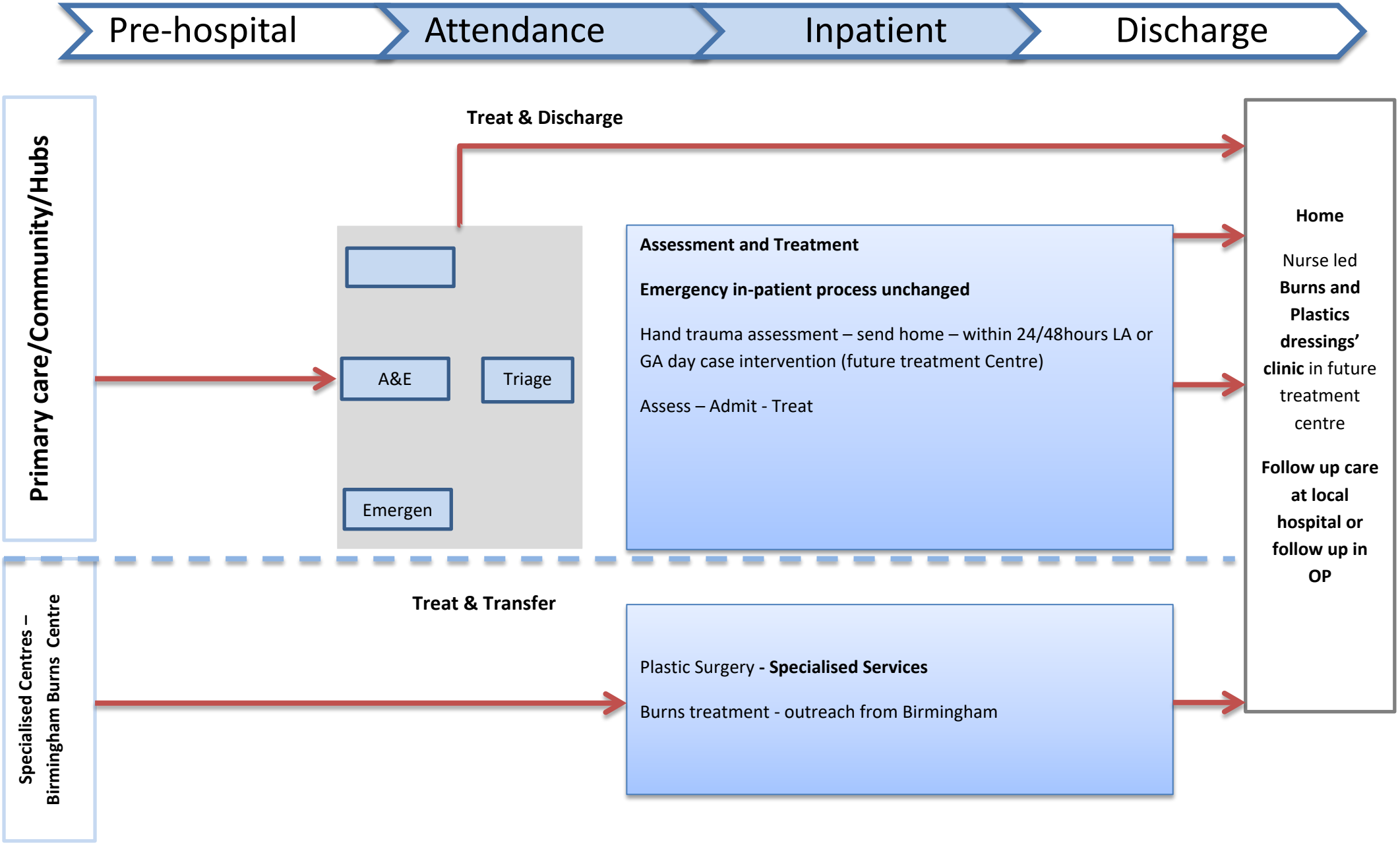
New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
Activity will be divided into five cohorts of patients; - Elective (Day-case / 23 Hr Stay) - Emergency - Paediatric - Adult patients with complex needs. Elective (Day-case / 23 hr stay) and outpatients will be delivered at the treatment centre Emergency – delivered at LRI Ward 9 & Kinmonth Paediatric – Delivered at Children's Hospital Complex Adults – delivered at LRI Ward 9 & Kinmonth To address demand, capacity and increase efficiency work is being progressed to improve productivity of theatre sessions. Elective Service at The treatment centre will be delivered by an expanded cohort of Consultants, Registrars and Core Trainees. To support the two site model recruitment of additional doctors is mandatory and essential.	What will this mean against rationale for change? **Benchmark (Right care/GIRFT/Model hospital/other benchmark)** If day-case and outpatient activity are undertaken in a identified setting away from emergency demands we would hope to see the below improvements within our service and benchmarking results:- • Reduction in length of stay for elective admissions should decrease with our dedicated Daycase /23 hour HUB • Improvements in late start times in theatre due to bed availability and improved processes for Day-case activity • Improvement in inter-case downtime with improved processes theatre staffing recruitment to support this • If theatre sessions start on time we will see a reduction in overruns • If we can improve bed availability, processes, staffing, and recruitment there is scope for productivity to improve.				

	Quality & safety If additional capacity in a different setting is available we can move forward with increasing our workforce to enable us to cover cross site working for clinical activity, ward rounds and on-calls to provide an emergency care with 7 day working standards. Access to beds improvements will enable us to reduce our RTT recovery costs. **Workforce sustainability** Recruitment and retention continues to be challenging within Plastic surgery and a full recruitment review would need to be undertaken prior to any two site model to enable safe working and emergency cover. **Efficiency and effectiveness** Dedicated centralised outpatients with adequate electronic notes availability, improved IT systems in place and improved patient pathways would benefit the efficiency of our clinics and patients journey. Improved access to dedicated Plastic surgery day-case theatres with adequate trained staffing and improved processes in place will support the improvements in theatre scheduling and general running's of lists. Improved access to beds will reduce patient cancellations, improve RTT, and reduce WLI activity. **Demand and capacity/flow**				

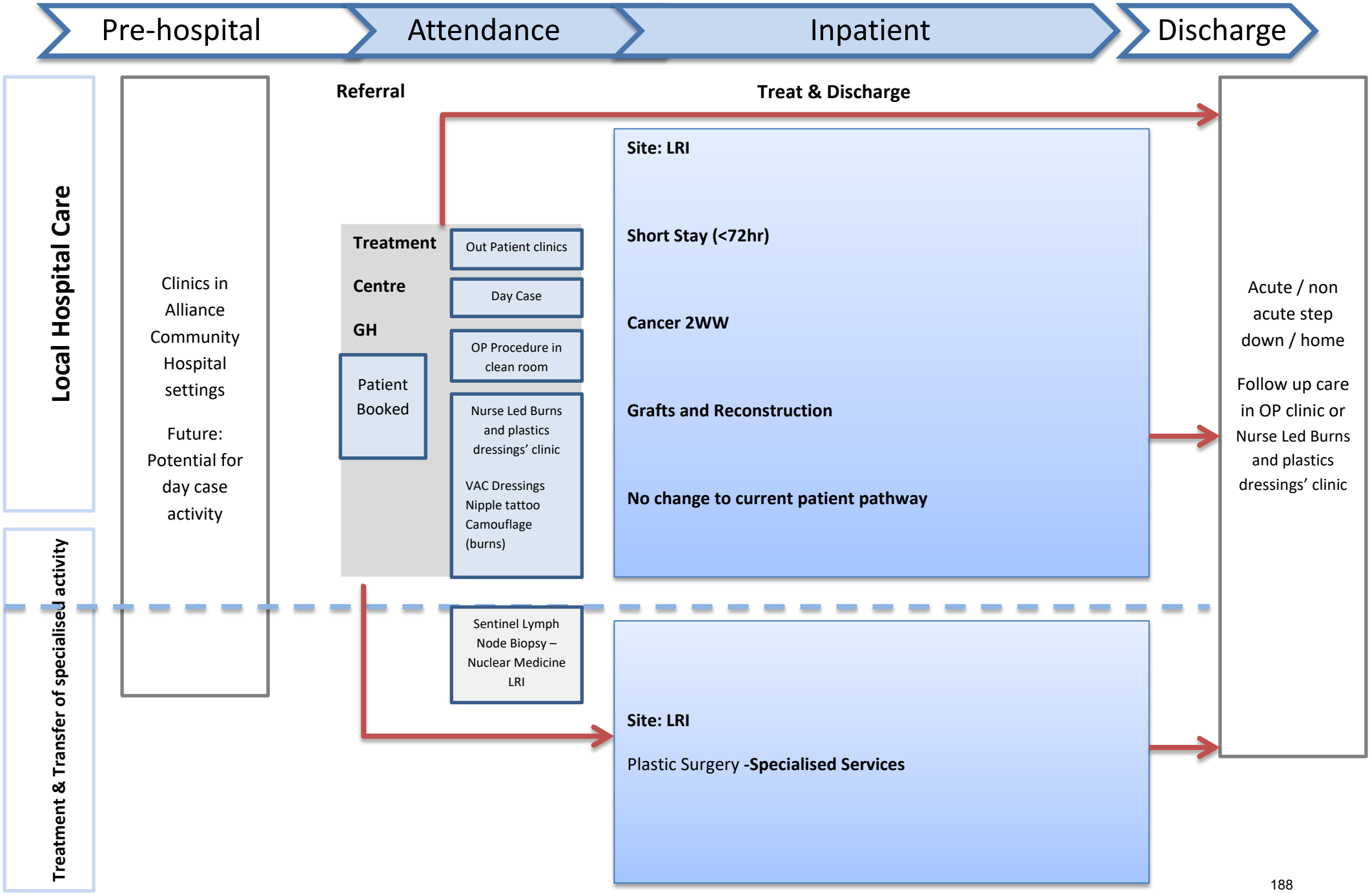
	Cost Moving to a two site model will give Plastic Surgery an opportunity for efficiencies in day-case lists to support their RTT position, reduction in breaches and reduce patient cancellations due to lack of beds and improve patients experience. Within the new model of care there is scope for more efficient day case theatre lists with less downtime which will support an increase in our average case per list and wait time for surgery. Within the emergency setting access to beds for cancer and clinically urgent patients should improve and this will support our cancer position within the trust. Reduction in patient cancellations will support a reduction in WLI sessions and associated costs to the Trust.				

Clinical Model of Care

Plastic Surgery – Emergency Patient Flow



Plastic Surgery – Elective Patient Flow



Design of system-wide clinical models of care
Elective Spinal Surgery: Musculoskeletal and Specialist Surgery (MSS) Clinical Management Group (CMG)

Elective Spinal Surgery: Current position

Current Configuration	Rationale for Change
Overview The elective spinal service is currently based at the Leicester General Hospital. The service runs in line with elective orthopaedics sharing theatres, wards and pre-assessment. There is an outreach clinic which is run by a consultant and ESP at Northampton due to no spinal service within the Northampton and Nene area. The service is part of the Spinal Network and run a weekly MDT meeting to discuss complex spinal patients. **Location** The elective spinal service is currently based at the Leicester General Hospital. Spinal clinics are delivered from the LGH general outpatient department. Nerve root block lists are delivered through a clean room in the Sports and Exercise Medicine Department. Emergency spinal services are run through Trauma at the LRI with links with the Major Trauma Centre in Nottingham and Neurosurgery in Nottingham QMC. The emergency /trauma spine service also covers Kettering and Northampton.	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** NICE guidance for back pain and radicular back pain pathway are areas in which the spinal service are currently compliant and will continue to be. Through our GIRFT recommendations the service is looking at: • Coding – checking high rate of intradural patients and adolescent idiopathic scoliosis • Trust to contact Amplitude to discuss the possibility of performing a “data dump” from Blue Spier into the British Spine Registry • Cancellation on the day rate to look at a reduction • Review practical guidelines on facet joint injections again NICE Guidelines • Consider and review open claims of litigation and identify trends and learning Using the Model hospital tool we are working towards moving to the quartile 1 (lowest 25%), we currently sit in Quartile 2 for our cost per WA. Our biggest focus will be around our Staff cost per WAU as we are currently in Quartile 4. Through utilising CHKS we have identified our LOS within Spinal (Trauma & Orthopaedics) is 0.3 days less than our 17 peer trusts. But using this information we are trying to identify opportunities to move towards best in class. This has included things such as the roll out Red2Green on our base wards. **Quality and safety** There are no outstanding CQC issues or actions. Risks associated currently within the spinal service also sit within elective orthopaedics with regard to the low staffing numbers on the wards and the problems around recruiting qualified nurses, despite effort being made into recruitment. Reconfiguration could potentially help with this issue. The spinal service is classed as a specialist centre for elective and trauma and hold regular MDT’s which discuss the clinical pathways of emergency and elective patients. To hold this title we ensure that the MDT

Staffing It has seven spinal consultants, two of which work half time at QMC Nottingham primarily on scoliosis patients, and one is part time undertaking nerve root blocks and clinics. Two surgeons also undertook clinics with the Paediatric Department at the Leicester General Hospital. Consultant numbers are currently 6 which allows 1:6 on call working cross site in conjunction with the elective spinal service, this delivers 24/7 safe emergency care Outpatient clinics are supported by a Spinal Fellow and ESP's along with SpR's. The junior doctor workforce (SHO/SpR level) are run in conjunction with the elective orthopaedic service. **Teaching and training** **Research and development**	is fit for purpose and that information is populated onto the British Spinal Registry. The service is are part of the spinal network which covers Nottingham, Derby, Northants, Kettering and Lincoln. **Workforce sustainability** Theatre staffing for the whole of theatres is challenged, it being a fallow year for ODP's and nursing gaps in general over the organisation is challenged. Orthopaedics and spinal specifically have issues recruiting and the winter bed plans from 2018 and now 2019 will see further problems retaining staff due to their specialising in orthopaedics needing to change to medicine. HEEM funding and registrar and SHO allocation will also have to be reduced due to the reduction in theatres for the whole of orthopaedics and spinal for 2018/19. **Efficiency and effectiveness** On the 1st of July 2018 a spinal triage service was set up in the Alliance. The predicted outcome of this service is that patients are signposted to the correct service at the point of referral and do not attend into secondary care unless they need to. The future of the service will see patients being seen by physio prior to coming to secondary care and only coming into a hospital setting if surgery is required. **Demand and capacity/flow** Elective spinal lists are not currently fully utilised due to timings of procedures not linking in with timings of lists. There is an average of 2 spinal cases per list which don't usually fill the list. Extending the lists to 3 sessions lists would increase this and be more efficient. There are limited fillers for these lists also as the nerve root blocks go through a clean room environment so there are only coccyx manipulations which can be undertaken as fillers but the demand for these is a lot less than the capacity. Within the current theatres structure out of the seven orthopaedic and spinal theatres only 4 are suitable to undertake spinal surgery which limits the flexibility and available theatres for the spinal surgeons. Their elective work has to be taken down when they undertake their on call at the LRI.

Elective Spinal Surgery: Summary of proposed changes

New Configuration	Benefits What will this mean against rationale for change above?	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
How will the new model of care look? Elective spinal surgery will be delivered through reconfiguration at one site whereby the use of day case theatres for discectomies and coccyx manipulations will improve utilisation and the potential of 3 sessions lists in the inpatients theatres will again assist with utilising spinal lists. The nerve root blocks can be undertaken in the clean room and OPD clinics are envisaged to be the same but using the new Treatment Centre with less patients on the waiting list and less time waiting for an appointment due to their treatment prior to being sent to secondary care. The LRI will continue to deliver the urgent spinal service due to ED being on site and access to a spinal ward.	**Improved Benchmark (Right care/GIRFT/Model hospital/other benchmark)** **Increased Quality & safety** **Increased Workforce sustainability** • A workforce planned around generic theatres and day ward which will manage the expectations of the staff when recruiting. **Increased efficiency and effectiveness** • 3 sessions lists will increase efficiencies on spinal lists **Balanced demand and capacity/improved flow** • MSK triage will ensure that patients will attend secondary care when they need to and receive treatment quickly on their first appointment Changes to the patients pathway and MSK triage will help to mitigate growth within the elective spinal service. **Cost** • Decrease/sustained cost				

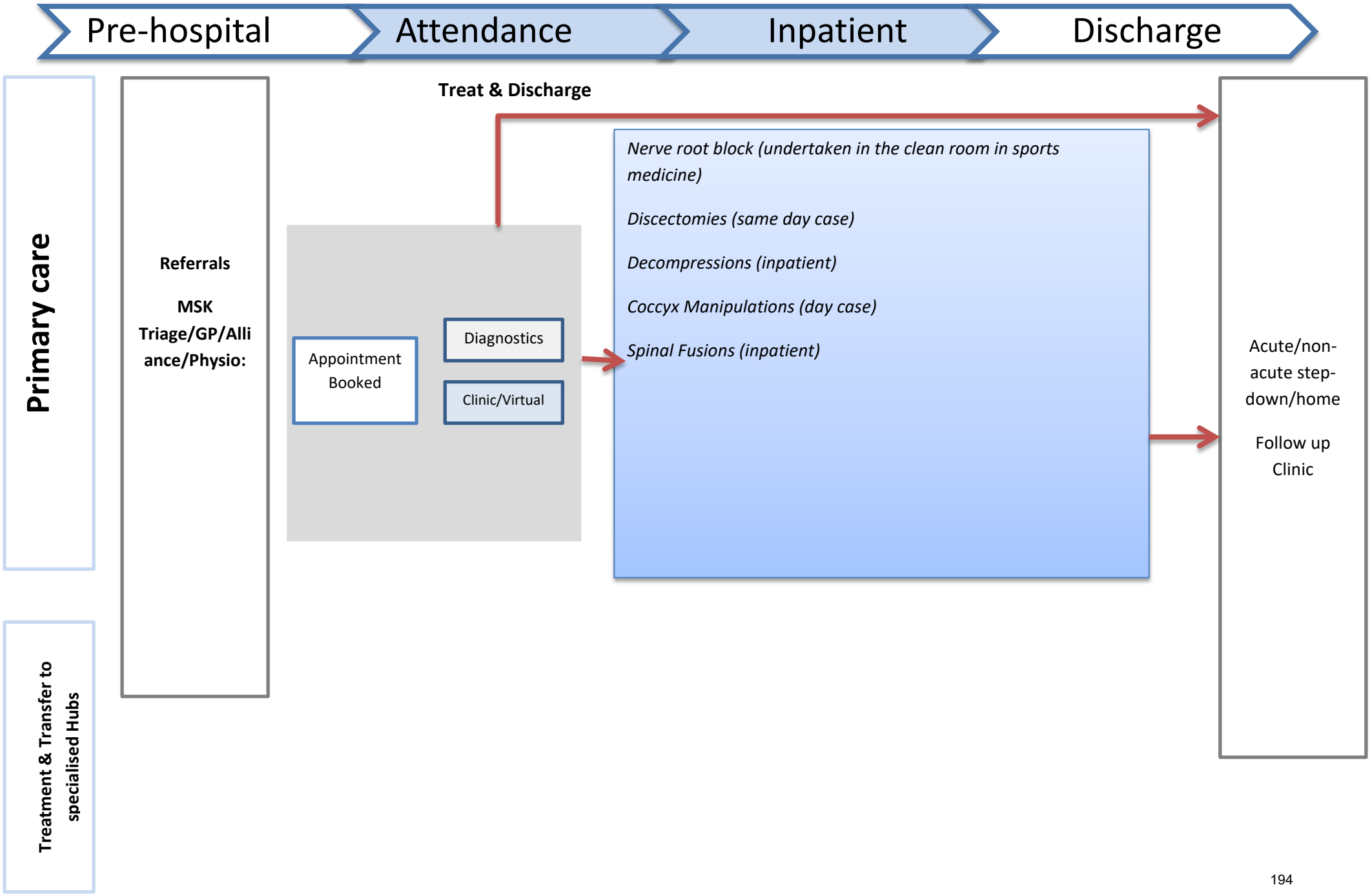
When will the new service be in place? The new service will be in place aligned to the timescale for the delivery of the Treatment Centre and Glenfield new build. **Who will deliver the service and at which site?** The same workforce will deliver the newly configured service.					

Managing the bed gap
(NOTE: These assumptions form part of the overall elective orthopaedic initiatives and are not just related to elective spinal surgery)

		Beds released minimum - max												
		2018/19		2019/20		2020/21		2021/22		2022/23		**Resource required**	**Estimated £**	**Methodology for numbers**
MSS														
Red to green ward methodology **(Note:** Split between elective orthopaedics and breast)		0	1	1	2	2	3	3	3	3	4			
Elective pre operative LOS reduction		0	0	0.2	0.3	0.2	0.3	0.5	0.7	0.5	0.7	None	0	
Joint replacement opportunity		0	0	0	0	0	0	0	0	0	6	None	0	
Elective post operative LOS reduction		0	0	2.0	2.0	2.0	2.0	4	4	5	6	None	0	

Activity modelling (Work in progress. To be inserted when IP, Daycase and OP modelling is complete).

Elective Spinal Surgery - Elective Patient Flow



Orthopaedic Surgery (Including Sports and Exercise medicine): Current position

Current Configuration

Overview
Leicester Orthopaedics incorporates Elective Orthopaedics, Trauma, Paediatric Orthopaedics and Sports & Exercise Medicine. As one of the largest Orthopaedic Units in the country, with forty consultants, we treat many thousands of patients per annum.

Elective Orthopaedics
The Elective Orthopaedic department at the University Hospitals of Leicester NHS Trust run their outpatient activity at the Leicester General Hospital and the Glenfield Hospital. All surgical operations for our patients from these clinics are undertaken at the Leicester General Hospital in one of seven laminar flow operating theatres which cater for orthopaedics specifically.

The department runs over four wards at the Leicester General Hospital, ward 14, 16, 18 and 19. Ward 18 is the admissions ward and admissions also go through the Theatre Arrivals Area (TAA) next to the Orthopaedic theatres.

Some clinics and procedures for Elective Orthopaedics also get taken through the Sports and Exercise Medicine department.

Rationale For Change

Benchmarking
Performance and models of care have been reviewed using the Model Hospital, Patient Level Information and Costing Systems (PLICS) & Healthcare Analytic Systems (CHKS) to compare and benchmark against peers.

BADS: There is an opportunity to achieve compliance with BADS Guidance

Orthopaedic Surgery	3720	3275	88.04%	282	7.58%	82	2.20%	81	2.18%	623
Arthroscopy of knee including meniscectomy, meniscal or other repair	396	347	88.0%	38	9.6%	7	1.8%	4	1.0%	68
Autograft anterior cruciate ligament reconstruction	96	24	25.0%	65	68.0%	6	6.2%	1	1.0%	70
Bunion operations with or without internal fixation and soft tissue correction	164	121	74.0%	28	17.1%	8	4.9%	7	4.3%	62
Carpal tunnel release	420	419	100.0%	1	0.2%	0	0.0%	0	0.0%	1
Diagnostic arthroscopic examination of shoulder joint	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0
Dupuytren's fasciectomy	12	12	100.0%	0	0.0%	0	0.0%	0	0.0%	0
Examination/manipulation of joint under anaesthetic +/-injection	1805	1771	98.0%	26	1.4%	5	0.3%	3	0.2%	30
Excision of ganglion	39	39	100.0%	0	0.0%	0	0.0%	0	0.0%	0
Excision of lesion of peripheral nerve	35	30	86.0%	2	5.7%	1	2.9%	2	5.7%	12
Excision of nail / nailbed	27	24	89.0%	2	7.4%	0	0.0%	1	3.7%	5
Exploration of sheath of tendon (eg trigger finger)	98	93	95.0%	1	1.0%	2	2.0%	2	2.0%	26
Interpositional silastic arthroplasty of MCP/PIP joint	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Lengthening/shortening of tendon(s)	68	46	68.0%	13	19.1%	7	10.3%	2	2.9%	32
Neurolysis and transposition of peripheral nerve eg ulnar nerve at elbow	38	35	92.0%	2	5.3%	1	2.6%	0	0.0%	4
Posterior excision of lumbar disc prolapse including microdiscectomy	15	2	13.3%	9	60.0%	3	20.0%	1	6.7%	9
Removal of internal fixation from bone/joint, excluding K-wires	227	183	81.0%	28	12.3%	6	2.6%	10	4.4%	72
Therapeutic arthroscopy of shoulder -subacromial decompression, cuff repair	209	127	61.0%	65	31.1%	10	4.8%	7	3.3%	79
Unicompartmental (minimally invasive) knee replacement	69	0	0.0%	2	2.9%	26	38.0%	41	59.0%	155

Quality & safety
Patient experience and feedback is very positive on wards at the LGH. The main concern in out-patient concerns waiting times and communication.
There are clinical risk issues associated with EMRADS.

This is a bespoke unit which has its own clean room area where small interventional procedures can be undertaken **Trauma** Leicester Royal Infirmary is home to the Trauma orthopaedic service for Leicester, Leicestershire and Rutland. 20 Trauma and 5 spinal Consultants offer a 24 /7, 365 days of the year service. Referrals are also taken from Northampton, Kettering and Lincoln for spinal emergencies. The service has 78 trauma beds and a dedicated Fracture clinic seeing over 15.000 new patients annually making the unit one of the busiest in the country. The Trauma service treats all subspeciality conditions and has a dedicated spinal and Neck of Femur ward. The orthopaedic service is supported by dedicated orthogeriatricians who manage the complex medical needs of our patients. The Trauma service has a dedicated suite of theatres staffed with specialist staff which enables the high volumes of surgery to take place in a timely manner. **Paediatric Orthopaedics** Once devoted to the care of children with spine and limb deformities, children's orthopaedic surgeons now care for patients of all ages, from new-borns with clubfeet to young athletes requiring arthroscopic surgery to older people with arthritis. **Teaching and Training**	ITU is required for some revision cases and moving services to another site where there is level 3 facilities will enable patients access to these on site rather than moving sites when and ITU bed is required. Pre-assessment will be required for all major Orthopaedic surgery, depending on the surgery depends on the level of input from PAC. The department is currently looking at and progressing with nurse led/anaesthetic pre assessment which will exclude the need for junior doctors. The advantages of this are that there is less waiting around for the patient on the day and they will have a smoother flow throughout the department. As pre assessment is currently on two sites and this will go to one the overheads of a single site pre assessment. **Workforce sustainability** Workforce issues associated with the lack of capacity over winter months which will impact on nurse retention on elective orthopaedic wards due to capacity being given over to meet emergency demand. Theatre ODP staffing levels have been impacted by changes to training which has resulted in current shortfalls in theatre staffing levels The impact of the interim ICU on elective consultant job plans is not fully known; however cover for known level 3 cases will need to be accommodated as these cases will be operated on at the LRI in the interim. There have been some issues with regard to training our junior doctors, primarily down to the lack of operating during the winter months and the fact that the junior doctors have been manning a medical ward. This is something that will carry on being a challenge in the future with the plans currently for the next winter period whereby limited elective orthopaedic work due to the wards being taken over by trauma and staffing going to the LRI for Medicine. A thorough training programme has now been introduced for the junior doctors led by the admin Registrar which has proven so far to be successful but is at risk again when winter approaches. Elective Orthopaedics recognises the need to continue to support research and innovation which encourages talent from outside the UK to apply for posts within UHL and elective orthopaedics. For more day case work physio and OT would be required later on the wards to ensure patients are assessed for a safe discharge. A newly appointed Advanced orthopaedic practitioner specialising in knees has been developed who helps to assist in theatre and runs independent follow up clinics. This model is expected to be rolled out in the future for other sub specialties within elective orthopaedics. **Efficiency and effectiveness** Safe, high quality, patient centred efficient care within the outpatient and ward setting. Red to green is undertaken on each inpatient ward for elective orthopaedics. Pathways are already in place for the management of post-operative hip and knee replacement follow up appointments. To optimise clinic space and reduce follow up attendances in year the service are looking to increase virtual follow up appointments supported with the use of MRI scan and review with a view to discharge as

Research and development	appropriate. Theatre productivity is an area for improvement. Due to the complexity and case mix the speciality averages 1.8 ACPL. The aim is to achieve and ACPL of 2 with 2.06 as a stretch target. **Demand and capacity/flow** A new MSK triage service was implemented early in 2018 to managed demand for elective orthopaedic services. This has not addressed current backlogs and therefore there remains a significant gap between demand in capacity. There is currently a huge gap in demand and capacity for elective orthopaedics despite extra resource being given to the service over the past few years specifically with the implementation of 2 foot and ankle fellows, a shoulder fellow and two knee fellows and a hip fellow. Separating day case to a specific day case unit will be effective but the risk on the inpatient theatres is that there will be no fillers so opportunity to ensure the lists are full is lost. Length of stay is good for elective orthopaedics at the LGH in the Model Hospital. Non admitted backlogs are not reducing despite the introduction of MSK triage, therefore remote follow up requires development in line with LARC for other sub specialties. The service is aiming to reduce the back log in year. The use out sourcing to the private sector continues to be used to manage the imbalance between demand and capacity. As a consequence more complex patient s with comorbidities are operated on in UHL impacting the complexity of case mix, ALOS and the throughput on theatre lists as noted above. **Cost** The most significant cost pressures for elective orthopaedics result from loss of theatre sessions over winter months. Theatre sessions have been reduced from 70 – 62 per week and will be further reduced over the winter months to 26 Further cost improvement opportunities are available through looking at use of different types of prosthetics (hip and knee) and size of consignments to deliver long term savings There is a shift to use of one supplier for anchors one supplier. This is a move towards further standardisation and reduced variation. Further cost improvements can be made through looking at: • Opportunities of being on one site • BADS • Best practice tariff • Virtual follow ups • ACPL

Orthopaedic Surgery (Including Sports and Exercise medicine): Summary of proposed changes

New Configuration	Benefits	Impact on DC beds	Impact on IP Beds	Impact on 1st OP/FU Clinic numbers	Other Impact
How will the new model of care look? All elective orthopaedics for those patients needing to access secondary care – in patients (including level 3), day case/23 hour stay and out-patient services will be provided from a single site at the Glenfield Hospital in the future, housed within the Treatment Centre/Glenfield new build. Opportunities will be taken to optimise the use of extended recovery and out-patient procedure rooms. **Workforce sustainability** Patients will continue where appropriate to be managed in community settings through the Alliance, through the triage hub or in primary care as appropriate and in keeping with agreed pathways **When will it be in place?** The new model of care will be fully implemented once the treatment centre, wards and theatres (Glenfield new build)	**Benchmarking** Benefits from reconfiguration will be: • Delivery of more ACL surgery as a day case procedure as a consequence of 23 hour stay facilities and enhanced recovery • Consideration for discectomies and other shoulder procedures to be undertaken as day case procedures **Quality & safety** The new ward templates will optimise infection prevention which will be further enhanced through the segregation of elective and emergency activity The future for pre-assessment might not be orthopaedic specific which again would have cost efficiencies, though consent for these patients will still be required where and when this is undertaken is still a challenge due to various external factors. Consolidation of staff in new premises will enhance recruitment and retention. Consolidation of out-patient staffing seeks to improve this	365 Occupied bed days			

is completed. **Who will provide what activity at which site?** The team of elective orthopaedic surgeons, supported by their nursing and theatre teams will provide this services from the Glenfield site co-located with diagnostic and support services Paediatric elective orthopaedic services will be provided for children up to their 19th birthday within the Childrens Hospital.	further **Efficiency and effectiveness** Changes to pre- assessment pathways and the creation of a dedicated pre assessment hub complimented by pre-operative assessment facilities within the day case area will serve to minimise elective cancellations **Demand and capacity/flow** The use of out sourcing to the private sector and the management of demand and capacity will be improved as a consequence of reconfiguration and the separation if elective from emergency flows. This should also serve to reduce cancellations and therefore improve patient experience.. As a consequence more complex patient s with comorbidities are operated on in UHL impacting the complexity of case mix, ALOS and the throughput on theatre lists as noted above. **Cost** Opportunities will be sought to improve efficiency as a consequence of reconfiguration including the opportunity to repatriate orthopaedic activity and improve compliance against BADS Benchmarking				

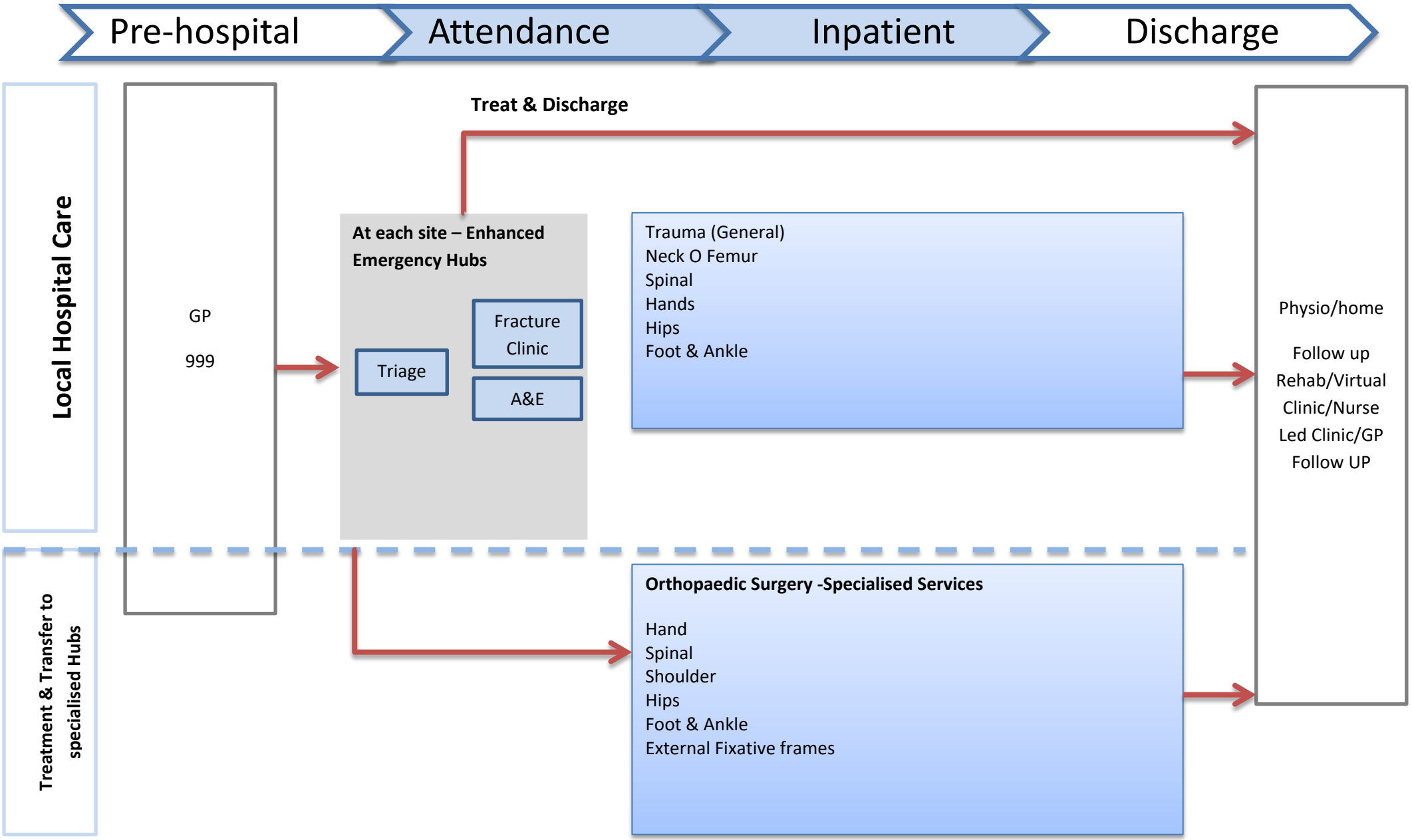
Managing the bed gap

(NOTE: These assumptions have also been included in the model of care for elective spinal surgery as the bed based is the same as elective orthopaedics)

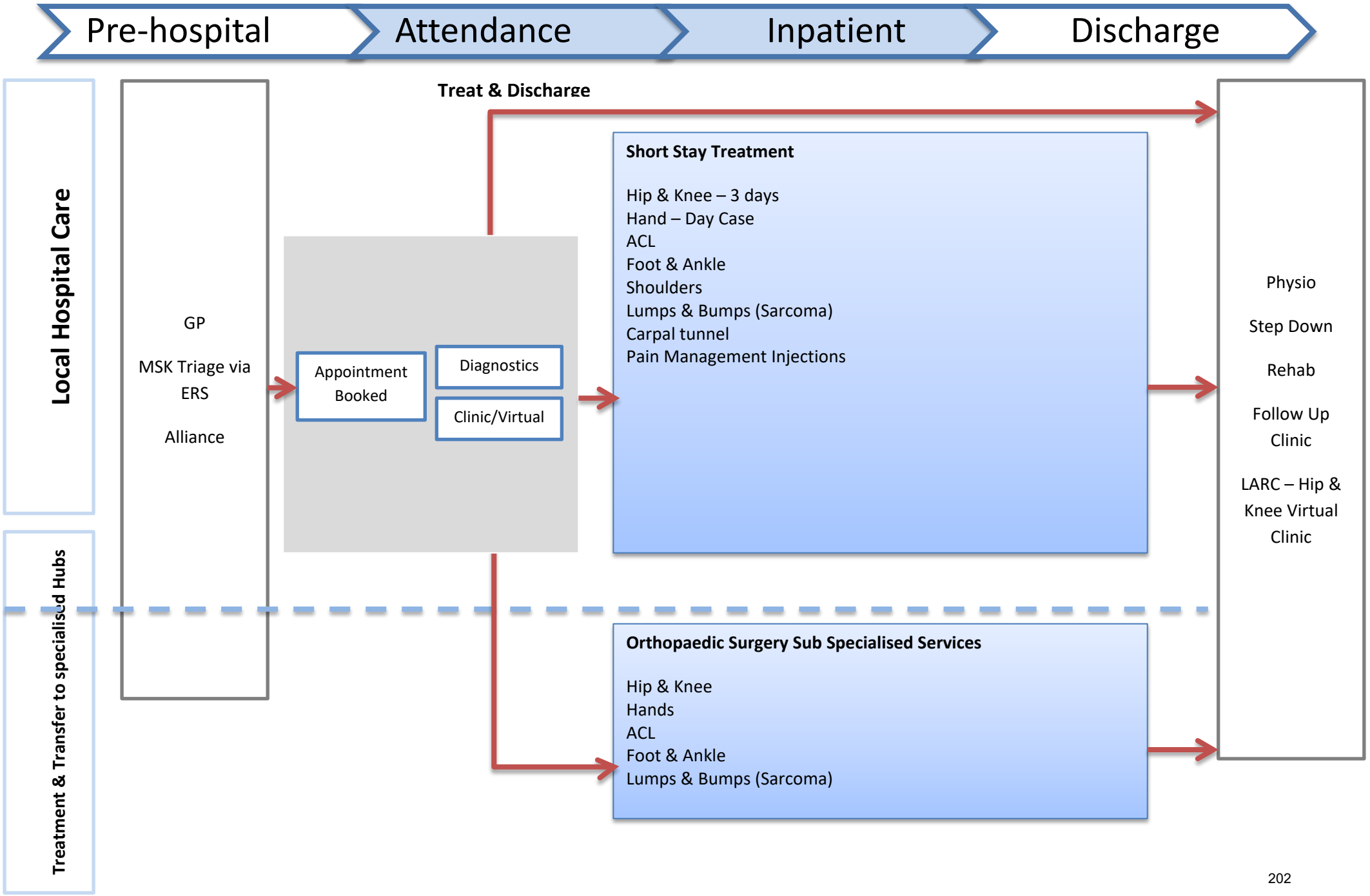
		Beds released minimum - max												
		2018/19		**2019/20**		**2020/21**		**2021/22**		**2022/23**		**Resource required**	**Estimated £**	**Methodology for numbers**
MSS														
Red to green ward methodology **(Note:** Split between elective orthopaedics and breast)		0	1	1	2	2	3	3	3	3	4			
Elective pre-operative LOS reduction		0	0	0.2	0.3	0.2	0.3	0.5	0.7	0.5	0.7	None	0	
Joint replacement opportunity		0	0	0	0	0	0	0	0	0	6	None	0	
Elective post-operative LOS reduction		0	0	2.0	2.0	2.0	2.0	4	4	5	6	None	0	

Activity modelling (Work in progress. To be inserted when IP, Day-case and OP modelling is complete).

Orthopaedic Surgery – Emergency Patient Flow

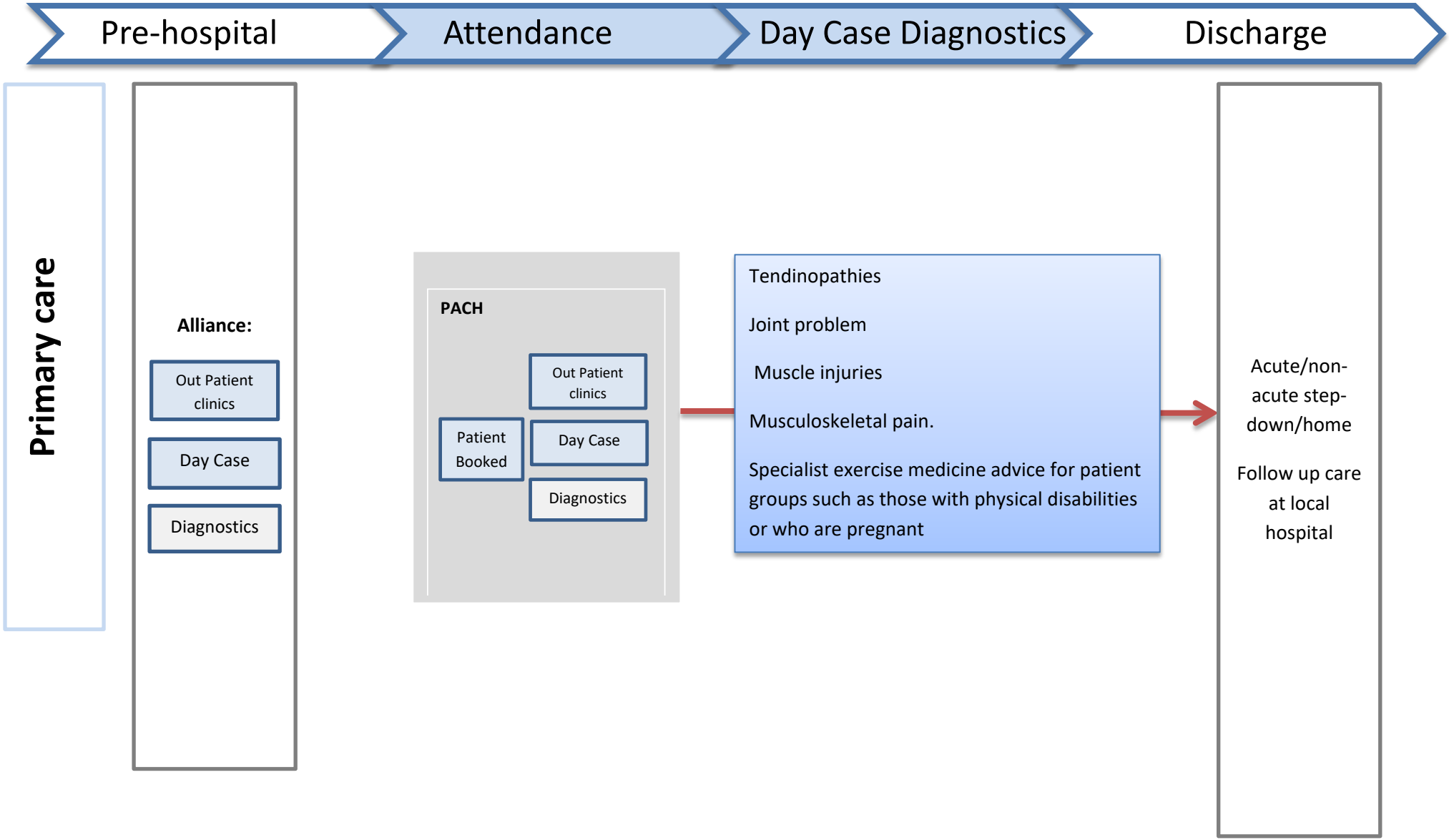


Orthopaedic Surgery – Elective Patient Flow



Sports and Exercise Medicine: Current position

Current Configuration	Rationale For Change
The Sport & Exercise Medicine (SEM) department has been based at the Leicester General Hospital since 1993 and offers a multi-disciplinary team comprising Sports Medicine physicians, an Orthopaedic surgeon, extended-scope physiotherapists, a podiatrist and nurse practitioners. We see new patients with a broad-range of musculoskeletal disorders including tendinopathies, joint problems, muscle injuries, and many other causes of musculoskeletal pain. We are able to offer a wide range of conservative and surgical management options within the department. In addition, we can assist with the management of medical conditions that impact upon, or can be improved by physical activity. We can provide specialist exercise medicine advice for patient groups such as those with physical disabilities or who are pregnant	For this service there will be no change, it will be 'lifted and shifted' into the Treatment Centre. All patients that get treated via this service will all attend at the Treatment Centre. The patients who require surgery from their appointments within Sports Medicine will benefit from the rationale for change as per the elective orthopaedics patients.


Pre-hospital
Attendance
Day Case Diagnostics
Discharge
Primary care
Alliance:
Out Patient clinics
Day Case
Diagnostics
PACH
Out Patient clinics
Patient Booked
Day Case
Diagnostics
Tendinopathies
Joint problem
Muscle injuries
Musculoskeletal pain.
Specialist exercise medicine advice for patient groups such as those with physical disabilities or who are pregnant
Acute/non-acute step-down/home
Follow up care at local hospital

Design of system-wide clinical models of care
Ophthalmology: Musculoskeletal and Specialist Surgery (MSS) Clinical Management Group (CMG)

Ophthalmology: Current position

Current Configuration	Rationale For Change
Overview The Ophthalmology Service at UHL is the largest department in UHL based at the Leicester Royal Infirmary. Ophthalmology provides Emergency walk in, general and sub-specialist eye care in Corneal, Glaucoma, Uveitis, Medical Retina, Vitreo Retina, Oculoplastic and Neuro-ophthalmology for adults and children in Leicestershire. **Cataract pathway team.** Look after patients who are referred for possible cataract surgery, from the initial referral to post-operative care. **Cornea and anterior segment.** We care for patients with diseases and disorders of the cornea (the front of the eye), and with refractive and immunological problems. **Glaucoma.** We look after patients with glaucoma, or glaucoma suspects. **Neuro-ophthalmology and adult strabismus, including nystagmus.** We care for patients with neurological conditions affecting the eyes. We also look after adult patients with strabismus (or squints), and nystagmus (wobbly eyes).	***Benchmark (Right care/GIRFT/Model hospital)*** • GIRFT we have completed implementing the GIRFT recommendations post visit and follow up discussion which was very successful. • **Eye Casualty (EED)** performance has significantly improved over the past 12 months with the introduction of our 2nd Advance nurse practitioner. We are to introduce a floor manager to manage delays and issues in the department along with the newly accessible EED clinics and Rapid access clinics. We have introduced a pre triage service within the Ophthalmology emergency department; this was post the number in eye casualty becoming less manageable over time. The pre triage service was trailed for 4 weeks and the finding was exciting. We managed to complete an Audit of all patients who were pre triaged had been conducted by an ANP or Optometrist and found that 30% of those patients did not need to attend eye casualty and were re directed to Rapid access clinics, Optometrists on the high street or a General Ophthalmology appointment, the remaining were booked into the main eye cas unit. Full paper written and attached. New process for imaging and pathology implemented and we are at an all-time low for 4 hr target breaches with a consistent performance of above 95%. We are now developing the nursing team within the ophthalmology department including a cohort of nurse prescribers and delivering Nurse and Optom Led emergency clinics. • **Development of Non-medical staffing** has been extremely successful in Ophthalmology in the last 12 months we have really managed to change things. We completed a business case for 3 Non medical ophthalmic practitioners and presented to trust board which was successful. We have employed all 3 and they have commenced in post. A training competency based package was built by the medical retina Consultant team and a policy written by the medical retina team and then published by the management team for non-medical staff to practice safely under the consultant's supervision. Staff that commenced in post June 19 are now independently injecting and have started their own Follow up patient clinics and the 3rd has completed over 40 injections and is weel on the way to becoming an independent practitioner. • **Development of ANP staff** has begun, we are in the process of training an ANP to complete Laser treatment on patients, and they have commenced training with our lead laser consultant and plan to be competent within the next 3-6 months. Both of our ANP staff have completed their prescribing and

Oculoplastics and orbit. We specialise in looking after patients with diseases and disorders of the eyelids, the tear drainage system, and the orbit surrounding the eye.

Paediatric eye services. We care for all children with visual disorders, including inpatients in the Children's hospital.

Medical retina. We look after patients suffering from diabetic retinopathy, uveitis, age-related macular degeneration, inherited retinal dystrophies and acquired retinal disorders.

Surgical retina. We perform laser and surgical procedures to treat conditions such as retinal tears/detachment, macular hole, epi-retinal membrane, vitreous haemorrhage (bleed in the eye), complicated cataract surgeries and ocular trauma.

Uveitis and ocular inflammatory disease. Our service offers specialist care to patients suffering from Uveitis, or swelling within the eye.

Location

The department has three outpatient clinic areas (Balmoral, Windsor and Paediatric department), three operating theatres (Balmoral theatres) a clean room , minor operations room, two laser rooms and an eye casualty (EED). Additionally the service works across the county to provide community based treatment as part of the Better Care Together programme at all six of the peripheral hospitals. We also work in the community hospitals and a singular GP

run their own emergency Review clinic for eye casualty follow up patients and actively manage a full emergency flow in the eye casualty department.

- **Development of the Optometrists** – We currently have one AOP Advanced Optom practitioner who currently supports the eye casualty department and is starting an Optom led Glaucoma service in the alliance. This individual currently prescribes and manages emergency patients in the eye casualty department and can run her own General, Rapid access and Emergency Uveitis clinics. We have just begun a project to support our Optometrist team to build on their clinical skills and we have aided the team to start their prescribing course as part of the wider development.
- **Development of the Optometrists** - The Glaucoma consultants have been working with 9 Local Optometrists to help then to complete their Glaucoma certificate. This is part of a bigger plan for us at UHL to be able to work with these optometrists out in their own practices discharging Long term stable Glaucoma patients for yearly monitoring so they no longer need to come to an acute setting and be seen, reducing the pressure on the Glaucoma service and providing a saving to commissioners pound. These Optoms have completed their training and are ready to go. UHL have refined their clinic process, completed a discharge pack and made amendments to the outcome forms to prepare for clinic risk stratification to allow us to start identifying patients who could be safely discharged into the community care of one of these Optoms. This is part of us moving a percentage of work into community settings at a lower cost in order to create space for patients who are in need of a more pressing appointment.
- **Development of the Optometrists –** Over the last year one of our uveitis consultants has been working with 2 Optometrists to develop the cataract service here at UHL. Currently patients are seen by a Dr and listed for Cat surgery in a one stop. Post discussion and agreement in our internal OBM meeting it was agreed that the consultant would start a programme to enable teaching of Optoms to allow them to list and consent for cataract surgery. Training has commenced with a package available to allow the Optoms to safely and clearly build of their skills. We also plan on working with the UHL alliance to help them develop this In the community by providing them Optoms through the SLA agreement and supporting with their recruitment and training.
- **High Impact Intervention** - We have completed on the High impact intervention project for LTFU patients with NHS England. We have implemented 6 failsafe officers to monitor the LTFU backlog. We have completed an Audit of patients who were 25% overdue their LTFU appointment and managed to risk stratify these patients working with the specialist nursing team and Orthoptics. We have been working on reducing the LTFU backlog which we have struggled with for some time due to lack of capacity. We were the only trust to be able to present our data and provide a clear picture of our position and progress. Post the High impact intervention work we did some manual work, the management team decided to do a triage of all LTFU patients in Paediatrics and Medical Retina. The consultants and Orthoptics teams worked with us to triage 3000 last letters for Paediatrics and 1500 letters for medical retina all overdue their long-term follow up outpatients. During this process they were assed to see if they needed to be seen, put on a virtual for review, discharged or seen in outpatients. While implementing this we managed to add Victuals to the specialist nursing job plans

practice.

Staffing
302 WTE staff consisting of 26 Consultant Ophthalmologists and their teams of 14 fellows 9 registers and 2 junior doctors. We have 2 ANP's, 1 AOP, a full nursing team in eye casualty and on the suite. Optometrists, orthoptists, ophthalmic imagers, technicians and administration support.

in medical retina and to some of the consultants. The result of the 1500 patient review was a zero 12 months + overdue waiting time for medical retina. The results of the Paediatric review was a 2500 patients drop in backlog patients waiting 0-3 3-6 6-9 and 12 month +. We are now commencing the same process in the other sub specialties. Please note our PAS system does not do what we need it to do, we have great difficulty tracking patients and we are still very much a manual PAS system service and this is trust wide.

- **Electronic Development** – Implementation of Medisight – It was a GIRFT recommendation to possibly implement an electronic notes system. We are now happy to say we are 30% complete into the implementation of medisight note less records. We have currently managed to go note free in Cataract outpatients, Cataract Operating, Medical retina Injections, Emergency EED clinics. We are also trilling the letter module on medisight where the patient is presented their letter at out patients in ophthalmology when they leave instead of having to wait for a posted version. We plan to roll out the system across the entirety of ophthalmology and progress is advancing.
- **Relocation of Non acute work** – We completed a business case back in March 2019 to put forward us providing Medical Retina eye injections in the community in a GP based environment but delivered by a non-medical injector or clinician that works within UHL. Post presenting we were successful for two steeples Wigston GP practice where we first commenced a trial and Audit of patient's feedback. This was extremely successful with a full patient feedback report. We have managed to have no issues and refined the process and are able to see people more efficiently. This has helped us to create space for urgent follow ups in UHL for the Glaucoma team. We plan on moving further work into the community that doesn't require an acute setting.
- **Departmental changes** – We have implemented 3 sessions working for theatres and outpatients where we now deliver evening operating, outpatients and injections. We have commenced 7 day working and deliver outpatients on a Saturday and Adhoc on Sundays. We also have regular baseline operating on Saturdays and Adhoc operating on Sundays for cataract surgery.

Quality & safety/Clinical adjacencies

- Service complaints have remained stable, we currently are upto date with complaints and generally there are concerns around appointment times which we are working to resolve with the backlog clearance and movement on activity.

Workforce sustainability

- **Consultants**
- **Recruitment –** We have an issue with Consultant recruitment for Glaucoma, there are a number of vacancies online advertised and very few candidates available. We have employed a Glaucoma fellow on a year's fellowship and we have employed a substantive medical glaucoma/general consultant to support the surgical team. We have recently appointed a Uveitis Consultant who is also supporting on cataract work specifically around training optometrist to lead on cataract clinics.

- **Specialist Trainees**
  We have a full complement of specialist trainees this includes:
  3 x Ocular Plastics Fellows
  1 x Neuro Ophthalmology Fellow
  1 x Paed Neuro Ophthalmology Fellow
  1 x Eye Casualty Fellow
  1 x Medical Retina Fellow
  1 x Uveitis Fellow
  1 x Glaucoma Fellow
  2 x Corneal Fellows
  3 x VR fellows
- **ANP's**
  We have 2x ANP (Advanced Nurse Practitioners) in eye casualty that is part of the emergency workforce; They Both prescribe and have dedicated time in their job plan to train the other eye casualty staff nurses and main ED staff to treat eyes out of hours.
- **Specialist Nursing**
  We have 8 specialist nurses:
  2x Ocular Plastics – Providing Minor Ops independently with a 3rd being recruited
  2x Corneal who provide clinics and cross linking services
  1x Uveitis
  1x Glaucoma
  1x AMD - provides ARMD clinics, Research clinics, Victuals and is training to become an Ophthalmic practitioner.
  1x Eye Casualty – Provides category 4 treat and discharge for eye casualty – starting prescribing course.
- **Optometry**
  We have just recruited 32 Optoms in Ophthalmology all working full and or part time. We have offered a means tested opportunity for prescribing course funding based on the hours working in the Leicester Ophthalmology dept. We currently have 2 full time vacancies in optometry which we are currently out to advert for. The optometry team will be taking on new challengers such as pre triage in eye casualty and optometry led cataract clinics on completion of training. These new Optoms will be providing the first UHL community working in the alliance where we have offered to help develop an optometry service in order to help ourselves and distribute some of the patient work load.
- **Ophthalmic Practitioners**
  We have recruited 3 Ophthalmic practitioners to support the ARMD team with injections and clinics that were a recent addition due to successful business case and model.
- **Other**
  Appraisal rate and mandatory training are also below the desired target at around 94% and is again mainly due to service pressures and time constraints, though the team continue to work hard on

improving this and staff are booked in, the volume of staff is difficult to keep on top of but we are in an improving position.
Sickness is at an all-time Low in Ophthalmology and we are very proud of this, we do have 2 members of staff on long term sickness but we have a full house at present.

Efficiency and effectiveness

Demand and capacity/flow

The ophthalmology department is a high volume department receiving in excess of 29,000 referrals per annum equating to approximately 120,000 outpatients attendances (29,000 new and 90,000 follow ups) held in 244 clinics a week. A number of these attendances create a further 2-3 on the day attendances in relation to ophthalmic imaging, visual fields and pressure testing which in term equates to around 250,000 patient contacts. We have reduced this moving forward with smart working with staffing hours and starting One stop clinics with plans to implement more once space issues are resolved with relocation of activity plans in process.

It delivers a further 350 Inpatients, 6000 day case procedures and 10,000 eye injections per annum, along with 20,000 EED attendances, which we are trying to reduce with education and alternative options being made available including the introduction of pre triage.

- Despite this high volume of activity the National demand for ophthalmology services continues to increase year on year due to an aging and multi morbid population.
- The demand for services significantly exceeds capacity and the service requires more clinics a week to meet current demand and reduce reported risk to patients awaiting follow up with approximately 12500 patients at least overdue their planned follow up date.
- With the implementation of RSS, we will be able to implement a much more effective triaging system which will reduce the number of visits to eye casualty and filter the patients into the OPD to make EED more efficient and reduce attendance. We have already switched on the RSS cataract service September 2019 and waiting to see what the differences in referrals are. We spent months preparing so hopefully we will see an effective result.
- Ophthalmology does need more theatre lists with consultants now sharing a majority of lists that are available in the baseline. We have implemented a 3rd session in theatres on a Monday, Tuesday, Wednesday and Thursday to try and push activity and create some movement moving forward. We have managed to maintain the 18 week plus RTT wait for theatres but cannot reduce to to capacity. We have moved over 300 patients into the PCL pillar of UHL and sent 100 patients to the alliance and community services where they are suffering for available space. We have made efficiencies in theatres adding 2 cataract patients to each list increasing overall activity with a 7 minute turn around between each case on a theatre list. We also deliver Cataract weeks where the consultants give up their regular operating and operate on cataract patients for us to aid keeping the numbers as low as we can.
- We have been running super weekends in theatres delivering 150 patient injections in one day or 45

	cataracts in just one Saturday. We now have increased pressure due to lack of Anaesthetic support, theatre teams at the weekends and an issue with the planning of Anaesthetic cover. We have an increasing number od General anaesthetic patients waiting for theatre. This is due to general lack of Anaesthetic staffing in UHL and the new pension rules that the government introduced to help destroy any opportunity of us continuing to treat patients in a timely manner. • We have now implemented a 3rd session in the evening for outpatients, currently we do not have enough admin staff to roll out anymore evening sessions. We have managed to secure taking on some apprentice staff to support the apprentice scheme to become future pathway support coordinators. • RTT has been maintained above national target of 92% until 3 months ago when the pension issue hit anaesthetic staff in theatres and currently reports at 90% overall for combined for admitted and non-admitted. RTT for outpatients remains at 95% with only 40 patients over 18 weeks for Adult and 3 over 18 weeks for Paeds. Missing outcomes are clear. This option will allow the service to continue to develop whilst maintaining the excellent performance delivery in RTT, emergency flow, patient experience, financial surplus, research and the clinical expertise and reputation currently experienced. **Cost** External providers remain a significant cost pressure to maintain our backlog and RTT performance, Your world see New General Patients on a Friday and FU patients on a Saturday and Sunday. We do manage this within budget, we have negotiated a new tariff where we break even or make surplice on the activity. No independent sector insourcing loses money in Ophthalmology. WLI within Ophthalmology are undertaken on a weekly basis in light of high volumes of elective surgery, and large numbers of LTFU patients. Currently we have No locum spend.

Ophthalmology: Summary of proposed changes

New Configuration	Benefits	Impact on DC beds (2019-2025)	Impact on IP Beds (2019-2025)	Impact on 1st OP/FU Clinic numbers (2019-2025)	Other Impact (2019-2025)
What will the service look like? Following the presentation of the Ophthalmology Clinical Model Strategy paper at the Jan 2018 Reconfiguration Programme Board (RPB) the options discussed have been considered by the Trust and Service and the preferred option is for the Service in its entirety, including the Eye Emergency Department (EED), with the exclusion of the Ophthalmology Paediatric Speciality and theatres to move to the Glenfield Treatment Centre in 2019. **When will it be in place?** Adult Services will be moved in accordance with the timescales for the delivery of the Treatment Centre. Childrens model of care will be implemented in line with the development timescales for the new Children's Hospital. Optometry and Orthoptics for Children up to 19 years of age will remain in the current	**Improved Benchmark (Right care/GIRFT/Model hospital/other benchmark)** The Trust is working with Commissioners on an alternative contracting method which would move away from an income based model. This presents an opportunity for further pathway development across the wider system and would perhaps negate capacity constraints in PACH. A full pathway demand and capacity model is required (for both elective and non-elective pathways), taking into account the impact of schemes such as RSS and MECS and the resultant acute demand required. **Increased Quality & safety** ➢ Improved environment purpose built to speciality requirements ie room size, lighting, waiting room requirements for both outpatients, day case, clean room space, laser rooms and available clinic space in EED. ➢ Improved patient in clinic flow with possible space allocated for 'Testing Centre' ➢ Education of GP's regarding effective referral criteria ➢ Education of GP'S regarding the attendance of eye Casualty ➢ Availability of medical records – With the ever increasing demand of medical records and the issues around, missing, lost and misplaced notes we have managed to secure Medisoft which is a provider of software called medisight, this is an electronic notes system which we have had financially approved and have commenced in the notes scanning progress	No Change N/A – We have our own dedicated recovery suit and theatres.	We can't get INP beds due to Medicine and other specialties taking priority due to the complexity of the patients, the ones that do need INP beds are normally cancelled on the day. We are having some work done to try and accommodate our own GA patients in volume but currently rely on ASU and Ward 9.	The split in Paed and adult will affect specialty work due to location of clinician. Logistically we will need to work through issues with workforce splitting.	Pending start of RSS

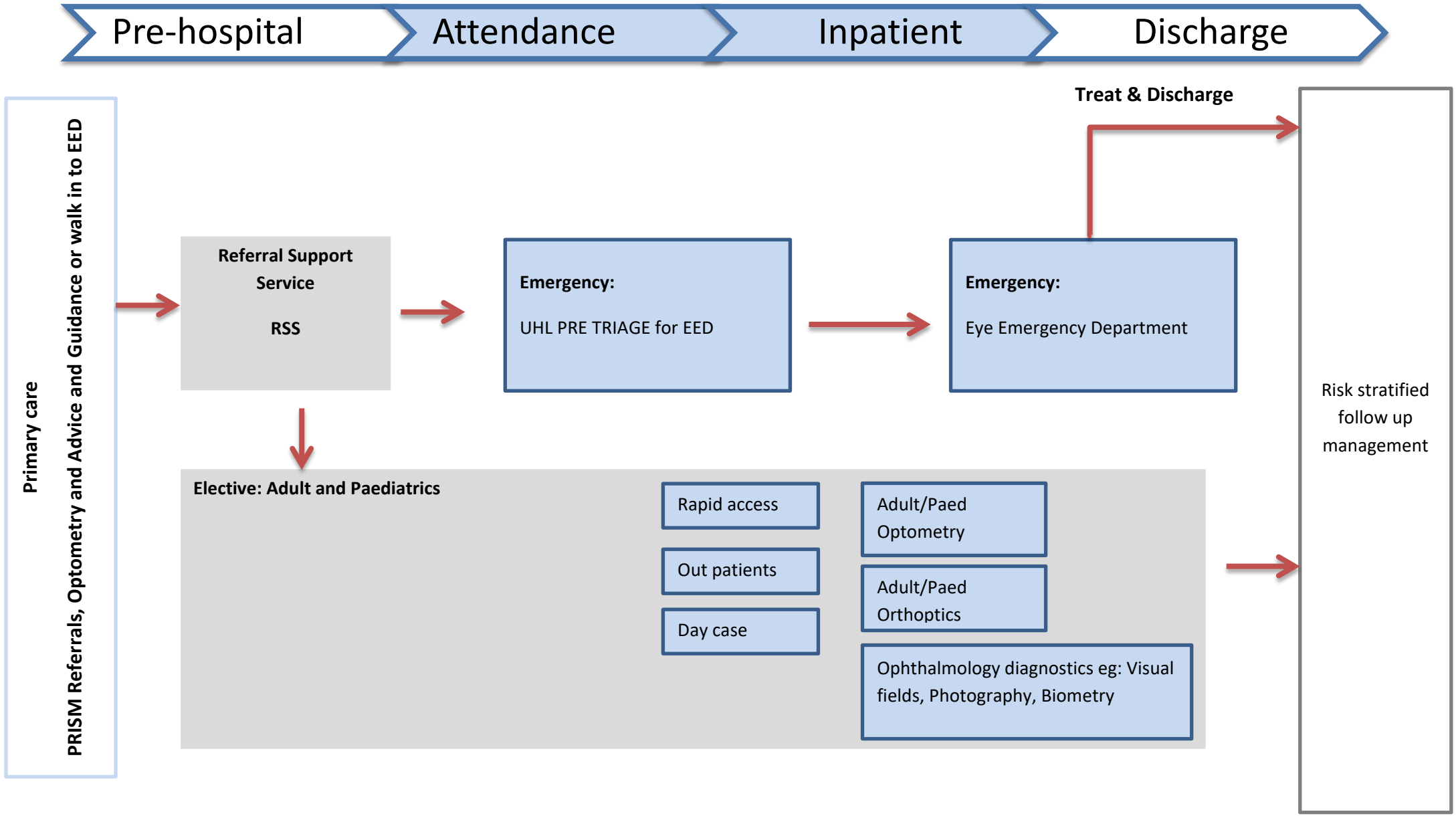
location at the LRI. Who will provide what activity at which site? The UHL team will provide all the activity delivered at LRI and GGH. The alliance will continue to provide the activity in the alliance.	starting with ARMD within the Ophthalmology department. This system will enable us to link notes with diagnostic testing results and the production of patient's letters. Moving forward with the Patch project when cross site working will be implemented for Ophthalmology Medisoft will be able to link the LRI and GH electronically for notes, scans and letters. We have introduced this system and 30% completion of implementation so far. ➢ Theatre Capacity insufficient number of lists – We have recently managed to get a further 4 evening sessions a week, Mon Tue Wednesday and Thursday. We do have a lack of Anaesthetic support for our GA work and a struggle to staff weekend activity in theatres not Ophthalmology. ➢ Access to Beds for overnight General Anaesthetic cases throughout the winter months is next to impossible for us as a department obviously the priority is given to Cancer and Urgent patients. Medicine occupy our beds for most of the year resulting in cancellations on the suite due to lack of bed space. ➢ Demand and capacity/flow **Increased efficiency and effectiveness** ➢ Subspecialty support for patient flow continued in-reach into EED reducing delay in treatment; supporting 4hr target delivery. Imaging delays. ➢ Releases some space at LRI in outpatients, EED and Theatres ➢ Paediatric Ophthalmology delivered in Children's hospital at LRI in line with current Trust Strategy/NHSI Plan but will result in us splitting the entire Ophthalmology team in two, resulting in recruitment needs due to splitting of services such as photography and visual fields as this would need to be provided on both sites Paeds vs adults. ➢ Adult consultants see Paeds patients in ophthalmology. Due to sub specialty the consultants				

	would need to leave their clinics or theatres to go and see children on another site. ➢ Enable us to make sure the patient is not in an inappropriate clinic and reduce the amount of multiple visits to the department. ➢ Allow us to complete some of the more complex work rather than general work which is having a strong impact on current capacity.				
	New Models of Care ➢ The Paediatric element of Ophthalmology will need to move into the new Children's hospital. ➢ Paediatric Ophthalmology consultants will move into the Children's hospital for complex work and younger children. Any other Paediatric care will be seen by the appropriate specialty for Ophthalmology within the Children's hospital footprint. ➢ Paediatric emergencies will be seen in main Eye Casualty or a RAC/EED review clinic if more appropriate. This enables the patient to be seen by the appropriate clinician for the sub specialty. ➢ If a Paediatric patient requires emergency surgery we will need an Ophthalmology Paediatric Theatre including a Paediatric Anaesthetist as children in ophthalmology are all listed as General Anaesthetic procedures only. This will need to be located in the Children's hospital. If not the patient will need to be transferred to Level 6 Balmoral LRI to be operated on. Geographically this is unacceptable. ➢ We plan to move as much activity that is clinically appropriate out into the alliance and community which we have currently started and delivered on, including FU outpatients. This activity will still be seen by UHL clinicians. ➢ Emergency adults were going to be seen in main ED as part of the new Main ED floor however there was not enough space to accommodate us and we remain at LRI in our own small area. ➢ Adult operating will remain in LRI Balmoral level 6, as				

	much activity as possible will be moved into clean rooms and we have started 3rd session operating and 7 day working within the department. ➢ We will require outpatient's clean rooms in order for us to do injection work, Minor plastics Ops and laser diagnostic.				

Activity modelling (Work in progress. To be inserted when IP, Daycase and OP modelling is complete).

Clinical Model of Care – Adult and Paed Ophthalmology Patient Flow



Renal, Respiratory & Cardiovascular (RRCV) Clinical Management Group (CMG)

CMG: RRCV

Models of Care Impacted by Reconfiguration:

Cardiac Rehab

Pulmonary Rehab

Clinical Immunology & Allergy

Renal, ESRF & Transplant

Design of system-wide clinical models of care
Cardiac Rehab: Renal, Respiratory & Cardiovascular (RRCV) Clinical Management Group (CMG)

Cardiac Rehab: Current position

Current Configuration	Rationale For Change
Cardiac Rehab is a nurse-led multi-disciplinary service which supports inpatient and provides outpatient activity across all three acute sites, however predominately at the Glenfield Hospital, in the form of cardiac referrals. The team also see patients at the National Centre for Sports and Exercise Medicine (NCSEM) in Loughborough. National recommendations indicates that patients in scope include all cardio-vascular patients (to include angina, post MI, ACS, post CABG, post PCI, CHF, ICD implant, arrhythmias, peripheral vascular disease) and potentially post stroke/TIA. The service structure follows national guidance. The team support patients whilst they are in hospital with an acute event, and follows them up post discharge. Patients are invited to a detailed assessment by the team to assess their physical and emotional well-being and risk factor profile. The programme is varied depending upon the needs of the patient. National guidance recommends 12 weeks of supervised exercise training (currently UHL offer 6, falling below national guidance) and education. Cardiac Rehab at UHL is already pioneering in its delivery of web-based care where this is	At the time of the initial assessment a risk profile is completed for the patient. This is based upon their risk factor profile, their baseline exercise capacity, cardiac status, co-morbidities and psychological wellbeing. Many low to moderate risk Cardiac Rehab participants do not need to attend a programme based at an acute site. Provided the adequate risk assessments are in place, many clinics are more suitably delivered in community leisure locations – benefiting from improved facilities, adjacency with facilities in which active lifestyle in promoted following discharge by the service, same site adjacency with Heart Smart (a community-based cardiac rehab service to which UHL patients are referred following discharge). In order to ensure appropriate planning, the Cardiac Rehab team hold monthly demand and capacity meetings, where they review data for drop outs, outcome reviews and link to new ways of working. Opportunities to deliver care in a community setting are discussed at these meetings, and the decision regarding appropriate We know that attendance to a cardiac rehabilitation programme reduces readmission rate and presentation to A&E therefore if we can 1) increase capacity and 2) offer cardiac rehabilitation closer to home etc. we may be able to increase the demand upon the programme and thus reduce the demand on emergency services.

appropriate for the patient. The development of online modules mean that some patients need not attend the acute site for appointments, allowing them to complete much of their treatment at home, at a time of their choosing, backed up by telephone appointments as required. The feedback from this programme has been excellent, with 70% of patients demonstrating improvement in the Incremental Shuttle Walk Test (similar improvement to those patients who received care in the hospital). This strategy for delivery of web-based care at home will continue to be developed in the future. Cardiac rehabilitation reduce readmissions through the reduction of risk factors, improved self-management strategies and a reduction of including anxiety and improvement of overall wellbeing (See Making the Case for Cardiac Rehabilitation. DoH publication).	

Cardiac Rehab: Summary of proposed changes

New Configuration	Benefits
The cardiac rehab team will continue to support inpatients predominately on the Glenfield Hospital site. In future plans, low to moderate risk outpatient appointments (approx. 50% of all outpatient activity) will be delivered in community leisure locations. (see above re low and medium risk) A four-month pilot to move cardiac rehab from the LRI to Aylestone Leisure Centre was undertaken and this is now permanently in place, the team will look to roll this model out across the service over the coming years, until all low to moderate risk activity is delivered offsite, either at local community facilities or through alternative technologies. We are currently exploring web based /digital based rehabilitation programmes for low/moderate risk patients and patients with chronic heart failure. The remaining high-risk appointments will continue to take place at the Glenfield Hospital, due to the necessary acute adjacencies. For example, The team are working with the pulmonary rehabilitation team to develop a 'breathlessness programme' to offer a collaborative programme to both patients with chronic respiratory disease and chronic heart failure. International data suggests that these	The benefits of delivering care for low to moderate risk patients are as follows: • Supports strategies to deliver care closer to the home, including those articulated in the Five Year Forward View and LLR Better Care Together programme; • Removes care from the setting in which the patient may have had their event, which can have an emotional and psychological impact on patients; • Delivery of care in a setting which promotes future uptake of exercise after discharge could be of long-term benefit to the patient, reducing risk of future episodes and readmissions, referrals back into the service and improving health and wellbeing; • Improves quality of outcomes – physical and psychological, therefore reduces costs to the wider health economy; • Ease of referral into community-based Heart Smart programmes, which also take place in the community leisure centres; • Improves demand and capacity plans for Cardiac Rehab in the acute setting.

diseases co-exist in approximately 30% of the population. Post rehabilitation the team refers patients into the community-based Heart Smart programmes.	

Design of system-wide clinical models of care
Pulmonary Rehab: Renal, Respiratory & Cardiovascular (RRCV) Clinical Management Group (CMG)

Pulmonary Rehab: Current position

Current Configuration	Rationale For Change
The Chronic Obstructive Pulmonary Disease (COPD) and pulmonary rehab team is primarily situated at the Glenfield Hospital. It provides outpatient activity for stable COPD patients taking referrals from consultant clinics and GP's. The evidence for rehabilitation reducing readmissions is for both stable and post hospitalisation for an exacerbation of COPD. Pulmonary rehabilitation is a highly evidence based intervention that is cost effective. It is recommended in all NHS guidance documents and by NICE for individuals with chronic lung disease (e.g. COPD, and IPF) during periods of clinical stability and within 4 weeks post discharge (shown to reduce readmissions). The process requires a detailed and complex assessment of the individual which is conducted by a highly specialised nurse or therapist. After he initial assessment patients are invited to attend a programme of supervised exercise and education (over 7 weeks, 2x week). At the end of the programme the patients undergo a discharge assessment and given a discharge plan and recommended to engage with community exercise schemes. The assessment requires dedicated assessment rooms and a private area to conduct a field	**Acute Pathway** Currently approx. 20% of COPD patients hit the LRI, however the team are trying to streamline the pathway through ICE referrals and promotion of the service to clinical teams across the Trust. We would aim to have all patients admitted with a primary diagnosis of COPD to be transferred to GH for specialist care. A proportion of patients at LRI are not treated by the nurse specialist team as there is currently no specialist presence on site. The COPD Specialist team picks up patients admitted with a diagnosis by electronic referral (ICE). A significant proportion (>60%) are reviewed by the COPD specialist team at UHL. The care bundle is delivered (referral to smoking cessation, check inhaler technique, check oxygen requirements, and refer to pulmonary rehabilitation). A critical component for the patients and the health care system is attendance at a pulmonary rehabilitation programme within 4 weeks of discharge (clinically and cost effective NICE, Cochrane Review) but uptake is poor. We would propose to work with patients to develop an acceptable format of rehabilitation that would suit the needs of the patient and drive up attendance to secure reductions in readmissions. In order to ensure appropriate planning, the COPD and Pulmonary Rehab team hold monthly demand and capacity meetings, where they review data for drop outs, outcome reviews and link to new ways of working. Uptake to Pulmonary Rehab programmes can help to reduce readmissions and ALOS, improving quality of lift outcomes (physical and psychological), therefore reducing costs to the health economy. (NICE, National Pulmonary Rehabilitation Audit reports) **Stable pathway** The challenge with the stable patients is referral and completion of rehabilitation. We have completed work with colleagues in primary and secondary care to improve ease of referral (on PRISM) and promote rehabilitation across LLR. We also propose to extend the delivery of alternative forms of rehabilitation (SPACE for COPD manual and

walking test (eg the shuttle room in respiratory physiology). The programme is conducted in the physiotherapy gym using various complexities of exercise equipment, both endurance and resistance, oxygen therapy, walking aids etc. The team comprises specialist therapists, nurses and assistant practitioners. The wider tem engages with pharmacists, dieticians, respiratory consultants and they all contribute to the programme. The COPD specialist nurses to provide inpatient support for post exacerbation and responding to referrals primarily from respiratory wards. The staff delivering the care provide systematic evidence based care that is reported in the COPD Discharge bundle and reduces unwarranted variations in care with the exception of patients in the LRI where there is no representation from the COPD specialist team. The National Asthma and COPD Audit Programme, collects data from the acute admission and pulmonary rehabilitation on a continuous basis (no audit support). With respect to the care delivered by the COPD nurse specialist team we are in the top 10 in the top 10 in country for delivery of the discharge bundle.. What are the positive points about Leicester The pulmonary rehabilitation service has a national and international reputation for its service delivery and innovative approach to adapting models of care to suit the needs of	website) to increase capacity with only marginal impact on staffing requirements. Breathlessness programme- will potentially avoid duplication for patients with co-morbid cardiac and respiratory disease.

the patients and increase the scope of delivery. We have pioneered alternative forms of remotely supervised rehabilitation for patients who are unable or unwilling to attend traditional centre based rehabilitation programmes. Consequently not all Pulmonary Rehab outpatient appointments needs to take place in a face to face format, and as such, some could be delivered through a web-based programme, similar to Activate Your Heart (Cardiac Rehab) – this has been in developed by the pulmonary rehab team as a part of the pulmonary rehabilitation programme to encourage self-management support for later stages of the disease. The SPACE for COPD website and manual are both currently offered. Both the SPACE for COPD (self-management programme of activity coping and education) workbook and website are evidence based alternatives and have undergone rigorous testing. Both interventions comprise all the aspects of a traditional rehabilitation format, covering for example disease management, symptom control and a individually prescribed and progressed exercise programme. All candidates undergo an initial complex assessment of their disease severity, symptom burden, psychological wellbeing and exercise capacity (conducting a field based exercise test). The patients are complex patients usually with complex co-morbidities. The programme uses gym equipment and other hospital based equipment (sophisticated exercise therapies for complex patients), walking aids	

and oxygen therapy. A proportion of patients also rely on hospital transport. A well-equipped gym would be a reasonable alternative for moderate to low risk patients (based upon accessibility and patient transport). There is a challenge-recruiting patients to the post exacerbation pulmonary rehabilitation programme. If we can recruit patients we know there is a significant reduction in hospital bed days for any subsequent readmission (local data has been peer reviewed and published Revitt O et al CRD 2013) Secondly referral to rehabilitation is poor. Approximately 10% of eligible patients are referred (NHS Digital data). There is a drive through the respiratory leadership at NHS England to increase the referral rate for this high effective and cost effective intervention. We are currently developing and evaluating a new symptom based rehabilitation service for the multi-morbid patient rather than offering two disease based programmes, that for any individual patient may occur sequentially (Breathlessness Rehabilitation)	

Pulmonary Rehab: Summary of proposed changes

New Configuration	Benefits (to here)
Acute pathways OPD discharge bundle is being progressed by COPD nurses. (see above for details of the discharge bundle) to reduce unwarranted variation in LoS. (local data in peer reviewed journal Sewell L et al RCP Journal 2017) TO increase referral to pulmonary rehabilitation to drive down readmission rates and LoS for those who do readmit. Work needs to be progressed and supported to do this, and secure the potential gains. If we could increase the number of post hospitalised patients to attend rehabilitation we would expect a reduction in readmissions and LoS. Early data (Warrington V Int J COPD) has shown that deploying the SPACEforCOPD manual at the time of discharge reduced readmissions significantly (twice as many readmissions in the control group compared to the intervention group (P>0.05). This would require funding of the manuals.	**Acute pathways** Improving the quality of provision will ensure there is reduced unwarranted variation in the care of patients with COPD. Ensuring equity of care will have the potential to impact upon the ALoS There is strong and compelling evidence to show that pulmonary rehabilitation is a highly effective intervention reducing readmissions and LoS. and improving the well-being of patients with chronic respiratory disease. (NICE/NHS England outcomes framework/Impress/Cochrane Reviews) 1. If we could increase the number of post hospitalised patients to attend rehabilitation we would expect a reduction in readmissions and LoS. This may require some service reconfiguration and evaluation. 2. Early data (Johnson Warrington V et al Int J COPD) has shown that deploying the SPACEforCOPD manual at the time of discharge reduced readmissions significantly (twice as many readmissions in the control group compared to the intervention group (P>0.05).
Stable pathway Pulmonary Rehab at UHL has developed a web and manual-based care package called SPACE for COPD where this is appropriate for the patient, following the success of a similar strategy in cardiac rehab. The development of online modules will mean that some patients need not attend the acute	**Stable pathway** Benefits of the Pulmonary Rehabilitation web-based care package: • Supports strategies to deliver care closer to the home, including those articulated in the Five Year Forward View and LLR Better Care Together programme • 24/7 care • Standardised reliable information • Open communication

site for appointments, allowing them to complete much of their treatment at home, at a time of their choosing, backed up by telephone appointments and email access as required. This strategy for delivery of web-based care at home will continue to be developed in the future. Closer working with the LPT pulmonary rehab team, to create integrated pathways which will benefit patients, provide efficiencies and help to create a flexible workforce. These are outlined within STP plans.	• Individualised programme • Goal settings • Structured • Easily integrated into clinical service • Track patient progress • Reduction in the number of patients who need to visit the acute site. Feedback regarding the success of the manual and web-based care programme is being continually monitored by the health psychology and pulmonary rehab team. There are two important aspects that were included in the original STP scheme for cardio-respiratory Integration with LPT pulmonary rehab teams will allows a better patient pathway, with delivery of care closer to the home, and subsequent service efficiencies, as outlined within STP plans.. 1. Work on this is already underway, through shared space at the National Centre for Sport and Exercise Medicine (NCSEM) in Loughborough. This may help to mitigate growth. 2. Explore the development of multi-morbid rehabilitation programmes to meet national imperatives including GIRTF, NICE and provide a comprehensive programme to all cardio-respiratory patients.

Design of system-wide clinical models of care
Clinical Immunology and Allergy: Renal, Respiratory & Cardiovascular (RRCV) Clinical Management Group (CMG)

Clinical Immunology & Allergy: Current position

Current Configuration	Rationale For Change
Service overview Core Allergy services manage conditions such as pets, hay fever etc. plus drug and food allergies. Core Immunology Services manage patients where immune system disorders lead to hypersensitivity and allergies as above. **Specialised services** Immunology specialised service provides Immunotherapy both in the Trust setting and supports home therapy for Immunoglobulins – this service is supported by the specialist immunology nurse team. Specialised services include challenge testing for food and drug diagnosis and advice to reduce risk of anaphylaxis. Immunology high cost therapies are needed as part of the treatment protocols for Immunology patients. These services also provide Integrated working with Kettering for Immunology and Allergy activity. **Location** Allergy services are based at the Glenfield Site in out-patient areas only, no bed base or ward facilities for the Allergy service. Immunology services are facilitated between LRI and LGH and do have inpatient activity,	**Benchmarking** • Reviewing system such as 'Model Hospital & PLICS to compare against peers • Immunology and Allergy Services both have accreditation standards to attain, registration and full compliance is currently not mandatory. **Quality & safety** • Risk assessments have been completed on occasion over the last 2 years to highlight risks mainly due to staffing gaps and vacancies • Small specialised team for both Clinical Immunology and Allergy with limited flexibility to provide cover for A/L and long term sickness absence and no prospective cover within current job plans • Limited clinic facilities to provide day case challenges for Immunology and Allergy **Workforce sustainability** • Small specialised consultant team for both Clinical Immunology and Allergy with limited flexibility to provide cover for A/L and long term sickness absence and no prospective cover within current job plans • Limited number of medical trainees choosing Immunology or Allergy as a specialist area • Allergy Consultants from Respiratory Services have commitments for CDU and other Respiratory clinics in their job plan • Immunology Consultants from Pathology Services have laboratory commitments in their job plan • Small specialised nursing team for each service with limited flexibility to provide cover for A/L and long term sickness absence and no prospective cover within contracts • Immunology Service currently having to fund additional nursing support from Outpatients due to increased activity and Immunoglobulin waiting list • Clinical Immunology and Allergy services have both had significant vacancy gaps over the last two years due to varying reasons this is mainly due the speciality service requirements, these have now been filled with staff members undertaking training which is anticipated to be completed 2021. **Efficiency and effectiveness**

however weekly Immunotherapy clinics are held on Ward 1 at the LGH. (1 bay used for patients receiving immunological therapies, chairs and trollies only. 4 days per week). Demand and Capacity is principally through day case and outpatient activity

Staffing
Activity is provided by Allergy/Respiratory consultants who are assigned to Respiratory, RRCV CMG budget and Immunology/allergy consultants who are assigned to Pathology, CSI CMG budget.

Clinical Immunology and Allergy Services are supported by independent, small teams of Specialised nurses to provide nurse led clinics as well as specialised techniques such as skin prick tests.

Teaching and Training
Clinical Immunology and Allergy Services are committed to maintaining the positive experience of medical students on rotation.

Research and Development

- Safe, high quality, patient centred efficient care: Clinical Immunology and Allergy Services are committed to improving the out-patient experience. There has been a significant increase in out-patient referrals for which we have needed to close to out of area referrals for Allergy.
- Increased efficiencies could be identified if the Services had dedicated clinic/day case space on one site
- Stabilisation and/or increase in staffing resource would support improved efficiency and effectiveness however different models should also be compared.

Demand and capacity/flow

- Focus to assist in the identification of wasted time in a patient's journey and to facilitate early discharges and improve patient activity.
- Allergy has seen a steady increase in out-patient attendances and new outpatient referrals. Much of this increase has been driven by increase in environmental allergies. Both the Clinical Immunology and Allergy teams are implementing the required actions for the NHS e-referral Service: Paper Switch off Programme and ensuring Pathway and Referral Implementation System (PRISM) templates are being incorporated to support Specialist referrals. This includes Advice and Guidance. PRISM provides information to GPs to ensure correct pathways are followed for each condition.

Cost
Trust Strategic Planning requesting Capital Costs to support the patient treatment centre at Glenfield which will support the Clinical Immunology and Allergy Services to work on the same site but may have Pathology Laboratory impact.

Clinical Immunology & Allergy: Summary of proposed changes

New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
How will the new model of care look? 1. Immunology and Allergy Services are currently reviewing whether separate services will be beneficial to gain accreditation status. Immunology would be part of the CSI CMG and Allergy remain in RRCV CMG 2. Long term plan to transfer to patient Treatment Centre at Glenfield and improve facilities to perform day case and outpatients activity 3. Improve staffing resource for Clinical immunology and allergy Services with implementation of robust plans for flexible innovative working. 4. Integrated Care Model with Kettering Hospital – including joint consultant appointment across the two Trusts **When will it be in place?** 1. Separation of Clinical Immunology and Allergy Services in 2018/19 financial year 2. Recruitment of an Allergy Trust grade Dr to commence November 2018 3. Recruitment of an additional Immunology specialist nurse by July 2018 (Business Case approved in	**What will this mean against rationale for change?** **Benchmarking** • As a key tool to identify future efficiencies and CIP will include review of Clinical Immunology & Allergy Services against 'model hospital' and PLICS. (Model Hospital is a digital information service to help compare hospitals with their peers and improve their productivity and efficiency. PLICs is the patient level costing information) Awareness other hospitals work differently in regards to UHL model • Refer to accreditation standards for both services **Quality & safety** • Consultant presence will be the key to delivering sustained improved patient care • Improved levels of patient safety • Patient Treatment Centre improved patient experience if dedicated clinics for Immunology and Allergy Service • Increased staffing resources to reduce waiting list delays	Day case in Clinical Immunology & allergy to increase Improved efficiency's by reviewing of processes and workforce Limited capacity due to current clinic facilities Unless new facilities for the patient treatment centre is completed Appropriate CMGs to take responsibility of service if separated	Limited impact	Increase of outpatients' clinics – particularly specialist clinics Improved efficiency's by reviewing of processes and workforce Limited capacity due to current clinic facilities Unless new facilities for the patient treatment centre is completed Appropriate CMGs to take responsibility of service if separated	Specialist staffing vacancies Appropriate CMGs to take responsibility of service if separated

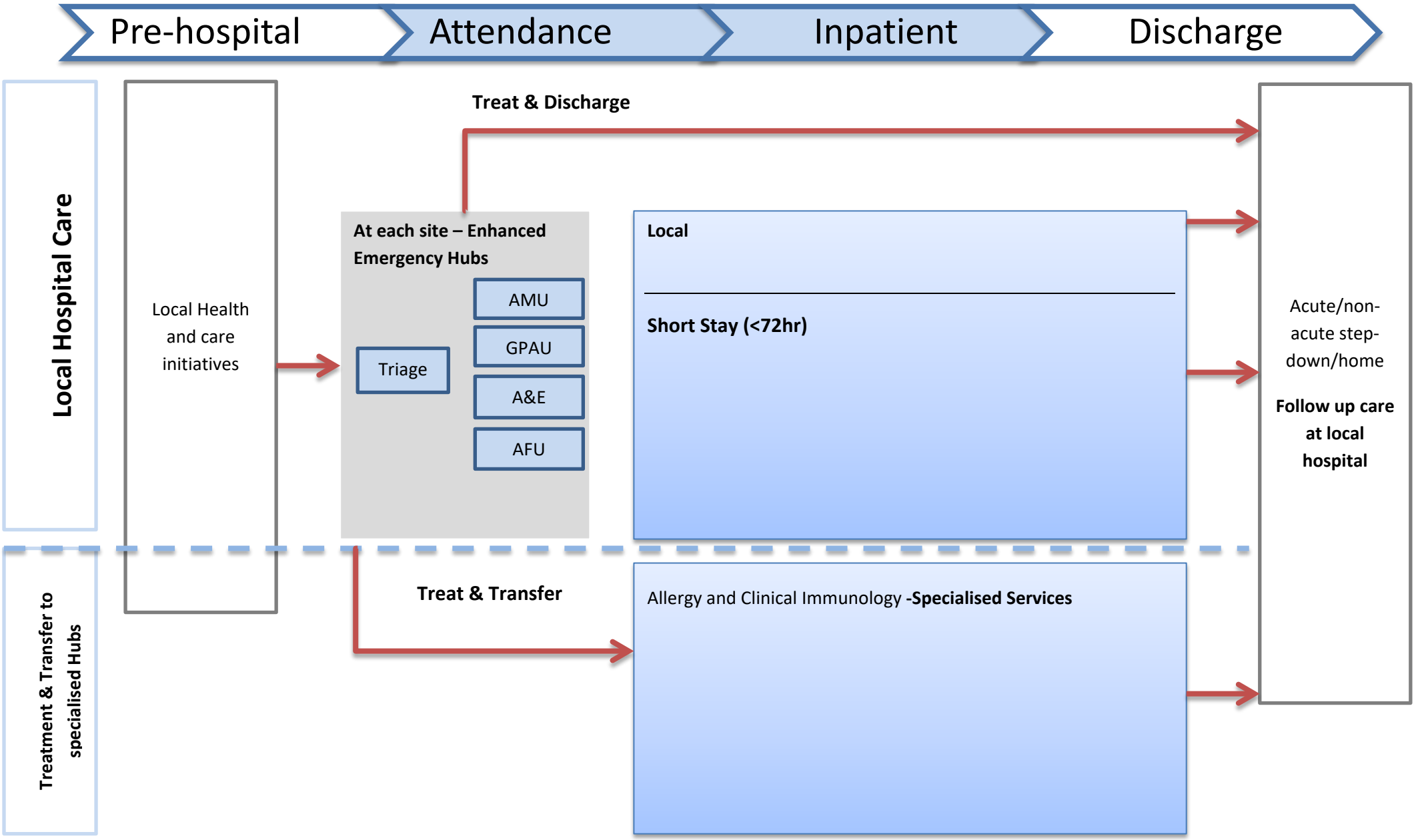
principle May 2018 for a Band 6 nurse – awaiting financial confirm and challenge authorisation) 4. Recruitment to shared Kettering and UHL post - Oct 2018 5. The future reconfiguration of services into the Treatment Centre in accordance with Reconfiguration timelines. **Who will provide what activity at which site?** **Medium Term** 1. Activity will be provided at Glenfield site , UHL for Allergy 2. Activity will be provided at LRI, LGH, UHL for Immunology 3. Integrated Services for Kettering & UHL with clinics on both sites **Long Term** 4. Activity will be provided at Glenfield site , UHL in the proposed patient treatment centre	**Workforce sustainability** • Regular consultant presence with increased number of clinics • Alternative models for medical staffing cover implemented to aid efficiencies with current resources. E.g. review training and role/responsibilities Nurse and junior medical staffing to provide stability **Efficiency and effectiveness** • Consultants have increased time allocated to patient care Monday through Friday which will improve patient flow and patient experience. Implementing strategies to change would identify the need for improved structure and policies and procedures to provide efficiencies which cannot be done under the current structure • Review possibility of 7 day services to increase efficiency and effectiveness • Robust procedures and policies to meet future demands for Clinical Immunology and Allergy patients • Integrated Kettering/UHL Consultant to reduce waiting lists and patient journey • Early supported discharge services by providing advice or treatment promptly **Demand and capacity/flow** • Reduced length of stay • Improvement in performance targets				

	Capital Cost Trust Strategic Planning requesting Capital Costs to support the patient treatment centre at Glenfield which will support the Clinical Immunology and Allergy Services to work on the same site but may have Pathology Laboratory impact. **Cash releasing benefit** Long term plans potentially could provide additional revenue. The increase and the development of the specialist clinics				

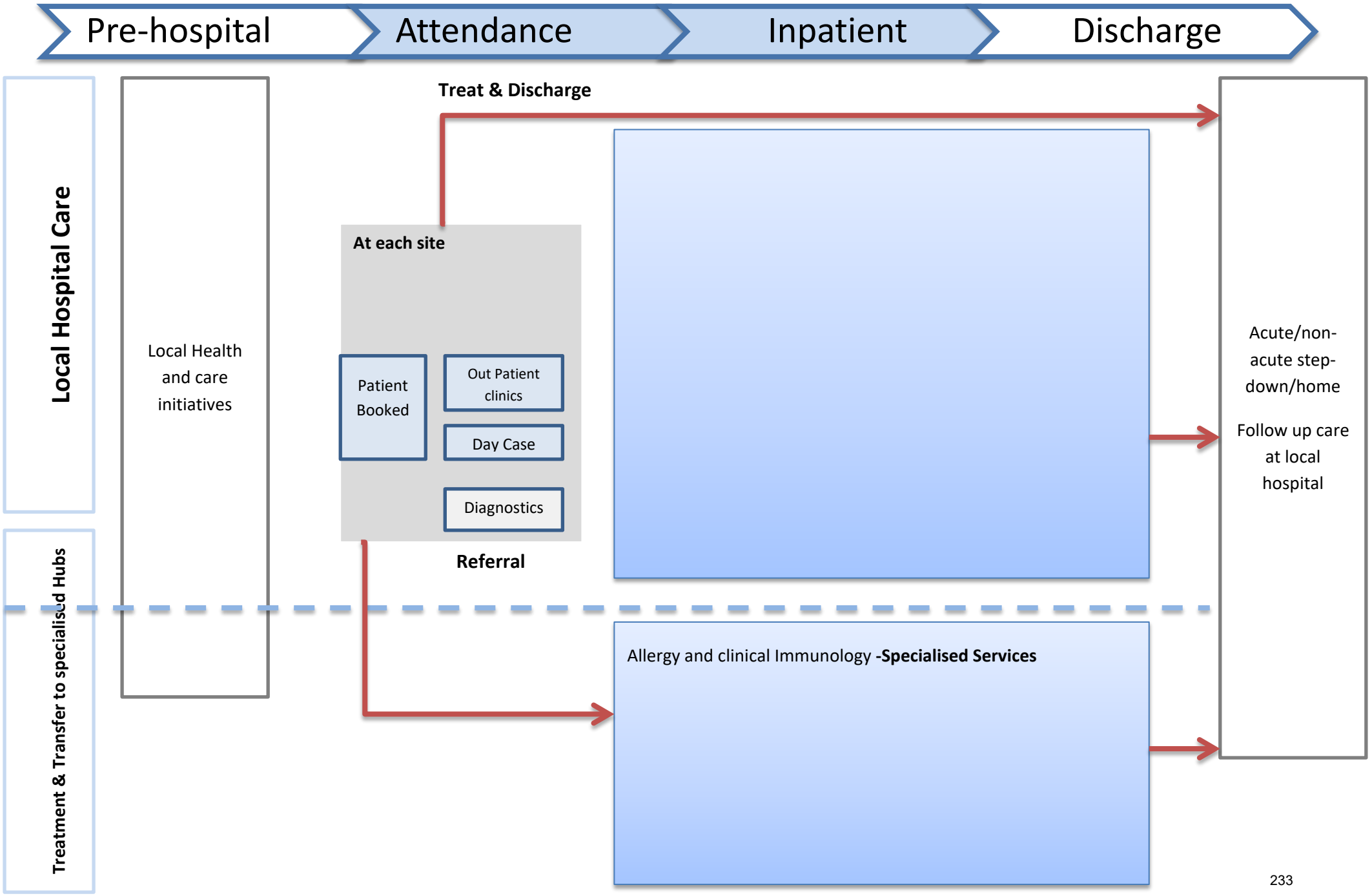
Clinical Model of Care

- *Whilst current staffing levels are creating a backlog for patients being seen, there are opportunities to develop a regional specialist allergy centre. This would raise the profile and provide not just growth in clinical including fee-paying elements of the service but also research and education in this field.*

Allergy and Immunology – Emergency Patient Flow



Allergy and Immunology – Elective Patient Flow



Managing the Bed Gap
No impact

Activity modelling
OVERALL SUMMARY – DO NOTHING MODEL:

ALLERGY

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	Do Nothing Growth 19/20 (IP)	Do Nothing Growth 20/21 (IP)	Do Nothing Growth 21/22 (IP)	Do Nothing Growth 22/23 (IP)	Capacity gap 22/23 (IP)
	61	66	67	68	69	70	9

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	Do Nothing Growth 19/20 (DC)	Do Nothing Growth 20/21 (DC)	Do Nothing Growth 21/22 (DC)	Do Nothing Growth 22/23 (DC)	Capacity gap 22/23 (DC)
	59	64	65	66	67	68	9

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	Do Nothing Growth 19/20 (OP)	Do Nothing Growth 20/21 (OP)	Do Nothing Growth 21/22 (OP)	Do Nothing Growth 22/23 (OP)	Capacity gap 22/23 (OP)
	2534	3550	3585	3620	3656	3692	1158

IMMUNOLOGY

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	Do Nothing Growth 19/20 (IP)	Do Nothing Growth 20/21 (IP)	Do Nothing Growth 21/22 (IP)	Do Nothing Growth 22/23 (IP)	Capacity gap 22/23 (IP)
	780	802	810	818	826	834	54

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	Do Nothing Growth 19/20 (DC)	Do Nothing Growth 20/21 (DC)	Do Nothing Growth 21/22 (DC)	Do Nothing Growth 22/23 (DC)	Capacity gap 22/23 (DC)
	59	64	65	66	67	68	9

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	Do Nothing Growth 19/20 (OP)	Do Nothing Growth 20/21 (OP)	Do Nothing Growth 21/22 (OP)	Do Nothing Growth 22/23 (OP)	Capacity gap 22/23 (OP)
	1055	1370	1383	1396	1409	1423	368

OVERALL SUMMARY – DO SOMETHING MODEL:

ALLERGY

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	19/20 expected activity (IP)	20/21 expected activity (IP)	21/22 expected activity (IP)	22/23 expected activity (IP)	Capacity gap 22/23 (IP)
	61	66	67	68	69	70	9

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	19/20 expected activity (DC)	20/21 expected activity (DC)	21/22 expected activity (DC)	22/23 expected activity (DC)	Capacity gap 22/23 (DC)
	59	64	67	70	73	76	17

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	19/20 expected activity (OP)	20/21 expected activity (OP)	21/22 expected activity (OP)	22/23 expected activity (OP)	Capacity gap 22/23 (OP)
	2534	3550	3621	3693	3766	3841	1307

Assumptions

- No increase in inpatients work
- Increase in Day Case due to increase in medical staffing limited by space
- Increase of outpatient numbers due to increased number of medical staffing and speciality clinics

OVERALL SUMMARY – DO SOMETHING MODEL:

IMMUNOLOGY

Service Inpatients	17/18 actual activity (IP)	18/19 expected activity (IP)	19/20 expected activity (IP)	20/21 expected activity (IP)	21/22 expected activity (IP)	22/23 expected activity (IP)	Capacity gap 22/23 (IP)
	61	66	67	68	69	70	9

Service Day case	17/18 actual activity (DC)	18/19 expected activity (DC)	19/20 expected activity (DC)	20/21 expected activity (DC)	21/22 expected activity (DC)	22/23 expected activity (DC)	Capacity gap 22/23 (DC)
	59	64	67	70	73	76	17

Service Outpatients	17/18 actual activity (OP)	18/19 expected activity (OP)	19/20 expected activity (OP)	20/21 expected activity (OP)	21/22 expected activity (OP)	22/23 expected activity (OP)	Capacity gap 22/23 (OP)
	1055	1370	1411	1453	1496	1540	485

Assumptions

- No increase in inpatients work
- Increase in Day Case due to increase in medical staffing limited by space
- Increase of outpatient numbers due to increased number of medical staffing and speciality clinics

Design of system-wide clinical models of care
Nephrology & Renal Transplant Service: Renal, Respiratory & Cardiovascular (RRCV) Clinical Management Group (CMG)

Nephrology & Renal Transplant Service: Current position

Current Configuration	Rationale For Change
Overview of the service The current Transplant and Nephrology service is delivered on the Leicester General Hospital site. The services provide inpatient, outpatient and renal dialysis services for patients with kidney disease within the East Midland Network covering Leicestershire and Rutland and the surrounding counties, Northamptonshire, Lincolnshire, Peterborough city and parts of Cambridgeshire. The service is based on a MDT approach often with joint management between transplant and nephrology. **Location** The **LGH has the following services and facilities** Inpatient facilities 56 beds (including 13 side rooms) comprising - Ward 17 transplant ward 14 beds (3 x 4bedded bay) and 2 en-suite side rooms Ward 15A high dependency 7 beds (including 3 side rooms one of which en-suite); also 2 haemodialysis(HD) beds used flexibly Ward 15N female nephrology ward 17 beds (2 side rooms)	The transplant inpatient bed base will move to the GH site as part of the relocation of Level 3 ICU and associated services Business Case, in 2020. The criticality of moving transplant first relates to its requirement, in accordance with the National Service Specification, to be co-located with both Level 3 ICU and also with access to a 24/7 emergency theatre. It is recognised that moving transplant without the renal service would result in problems from a staffing and patient safety point of view. Therefore a compromise was agreed in 2015 that only the in-patient transplant service would move to GH with an undertaking that the other inpatient nephrology services would be brought together as soon as possible with a target timeline of 2 to 6 months separation. Plans will be developed to move nephrology services into space vacated by EMCHC at GH during 2020/21 and funded by Trust CRL. This will be achieved in stages one and two described below. Stages three and four are important reference points as these describe the longer term plan. **Stage one** –Relocate Transplant and complex general surgery and vascular access services to the Glenfield Hospital to optimise clinical interdependencies with ICU (12 beds). **Stage two** - Interim two site working – Nephrology inpatient, day-case and outpatient services (including renal dialysis) will remain at the LGH site. There is a need to provide medical and nursing cover at inpatient haemodialysis facilities at GH. 42 beds will remain on the LGH site with access to level 2 HDU and short-term level 3 support if a patient deteriorates unexpectedly. Such patients would be stabilised on the LGH site and transferred to GH if on-going level 3 care is required by the dedicated urgent patient transfer service. **Stage three** – To deliver and optimise the Nephrology and Transplant clinical interdependencies. Nephrology inpatient services will move to the Glenfield site with a reduced bed base. The service is currently working with United Lincolnshire Hospitals NHS Trust (Lincoln County) to develop a patient pathway where Lincolnshire patients can be treated in their local hospital rather than having to travel to Leicester for treatment. It is estimated that this activity will equate to a reduction of four beds.

Ward 10 male nephrology ward 18 beds (6 side rooms)

There are 7 weekly elective theatre sessions for vascular access, live donor transplantation and other allied surgeries.

- Elective theatre capacity, not co-located with the ward.

Transplant Laboratory (Histocompatibility and Immunogenetics). Provides an accredited tissue typing service for the renal network.

LGH Outpatient Facilities: -

- **Renal Ambulatory Care Facility co-located on Ward 10, comprising 7 beds (1 Chair)**

The following groups of patients are managed through the renal ambulatory care facility:-

- Planned nursing interventions (e.g. intravenous iron, other drug administration, blood transfusions)
- Planned invasive interventions (e.g. native and transplant kidney biopsies, vascular line insertions, peritoneal dialysis catheter insertions, vascular radiology interventions)
- Planned medical reviews of nephrology and transplant patients
- Unplanned medical reviews following referrals from primary care, haemodialysis centres or self–referrals including triage for admission

Stage 4 – Nephrology and Transplant /General surgery day-case and outpatients activity will transfer to the treatment centre/kidney centre.

Benchmark (Right care/GIRFT/Model hospital/other benchmark)
The service is reviewed against the requirements and activities in line with our patient views and the Department of Health building notes/guidance (HBN 07/02) in terms of service improvement, renal registry, national service specifications and is currently working with GIRFT team who plan to visit the service in the autumn of 2018. At the time of writing the Model Hospital does not provide guidance in terms of renal services however within the principles of Model Hospital the teams are working to deliver a reduced LOS comparable with peer benchmarking.

Quality & safety
The service has robust open processes in place and are assured of service delivery in terms of national peer review transplant, transplant lab accreditations and renal registry and quality indicators
(Regional, local, national). Quality and safety will have to be maintained throughout the transition phase.

Once transplant and renal services are reconfigured and repatriated on the GH site the service patients and the workforce will benefit from :

- the co-location of interventional radiology and pharmacy services
- The renal service being able to provide a 'renal in reach service to cardiology, vascular and respiratory.
- A reduction in patients having to transfer across site.

Workforce sustainability
This work is supported by our workforce group which includes HR/HOS/Support Services/Nursing and Management team. **Note** need to work closely with Theatres and ICU. It is likely that the medical workforce may need to increase during the transition phase and the work to identify the impact is underway.
There is already considerable pressure on middle grades rotas and the proposals in 'Broadening Foundation Training' are likely to mean a reduction in FY doctors. The service are already looking at innovative solutions to workforce problems including additional specialist nurses in transplant surgery and vascular access to support inpatient and outpatient work and kidney donor offers and physician associates in nephrology. The move to 24/7 services (proposed by NHS England) provide an additional challenge although the details of this are yet to be finalised.

Discussions are due to take place with other surgical specialities (vascular, hepato-biliary and general surgery) at GH regarding a joint junior rota.

Efficiency and effectiveness:

- The service is working with Lincoln County Hospital to repatriate patients back to Lincoln so that they

The day care facility is open from Monday to Friday 08:00-18:00 and the vast majority of patients are not admitted.

- **LGH Haemodialysis Unit**

Providing haemodialysis treatment for approximately 192 patients open 6 days a week (including nocturnally).
Most patients receive HD three times a week.

Home Therapies Service (approx. 175 patients across the network. Includes home training and a Peritoneal Dialysis (PD) training area of ward 15).

Staffing
The service has an MDT approach and the service elements are supported by a wide range of support services including, Interventional radiology, renal transplant laboratory, administrative and managerial support, renal research facility, renal technical and supplies department, renal dietetics, specialist pharmacists, pathology and full range of other therapies.

Teaching and Training

Research and Development
Renal Research Unit
(30 trials ongoing circa 500 patients)

can be treated closer to home –resulting in a possible reduction of up to 4 - 6 beds.

- Acute Kidney Injury development working with primary care to reduce hospital admission.
- Reduced pressure on ED. Patients have told us that they' would like direct access to renal services rather than having to go via ED.'
- The service are exploring how we can deliver dialysis capacity at the right place at the right time options include increasing home dialysis, shared and minimal care facilities.

Outpatient Services (average 50 rooms per week)
The Service is committed to providing safe, high quality, patient centred efficient care through centralised services with access to all relevant diagnostic services. As the Nephrology and Transplant service evolves the case mix for outpatients may change e.g.: a higher number of transplants equates to an increase in outpatients for Nephrology. Transplant patients are also repatriated to the network within agreed timeframes. The service has seen an increase in general surgery (renal) activity however this is under review. There is also an increased focus on specialist clinics and the development of virtual clinics.

Discharge Process:
The length of stay for Nephrology and Transplant is in line with peers however delays can be experienced due to haemodialysis capacity across the network. The service is working with Lincoln County Hospital NHS Trust to look at the repatriation of patients from Lincolnshire. Over the past three years the service has also delivered new dialysis units in Northampton, Kettering and Peterborough and we are currently entering into a procurement and service review to provide additional capacity for Lincolnshire, Leicestershire and Rutland. Early discussions have taken place with NHS England in terms of support to develop appropriate social service support for dialysis patients.

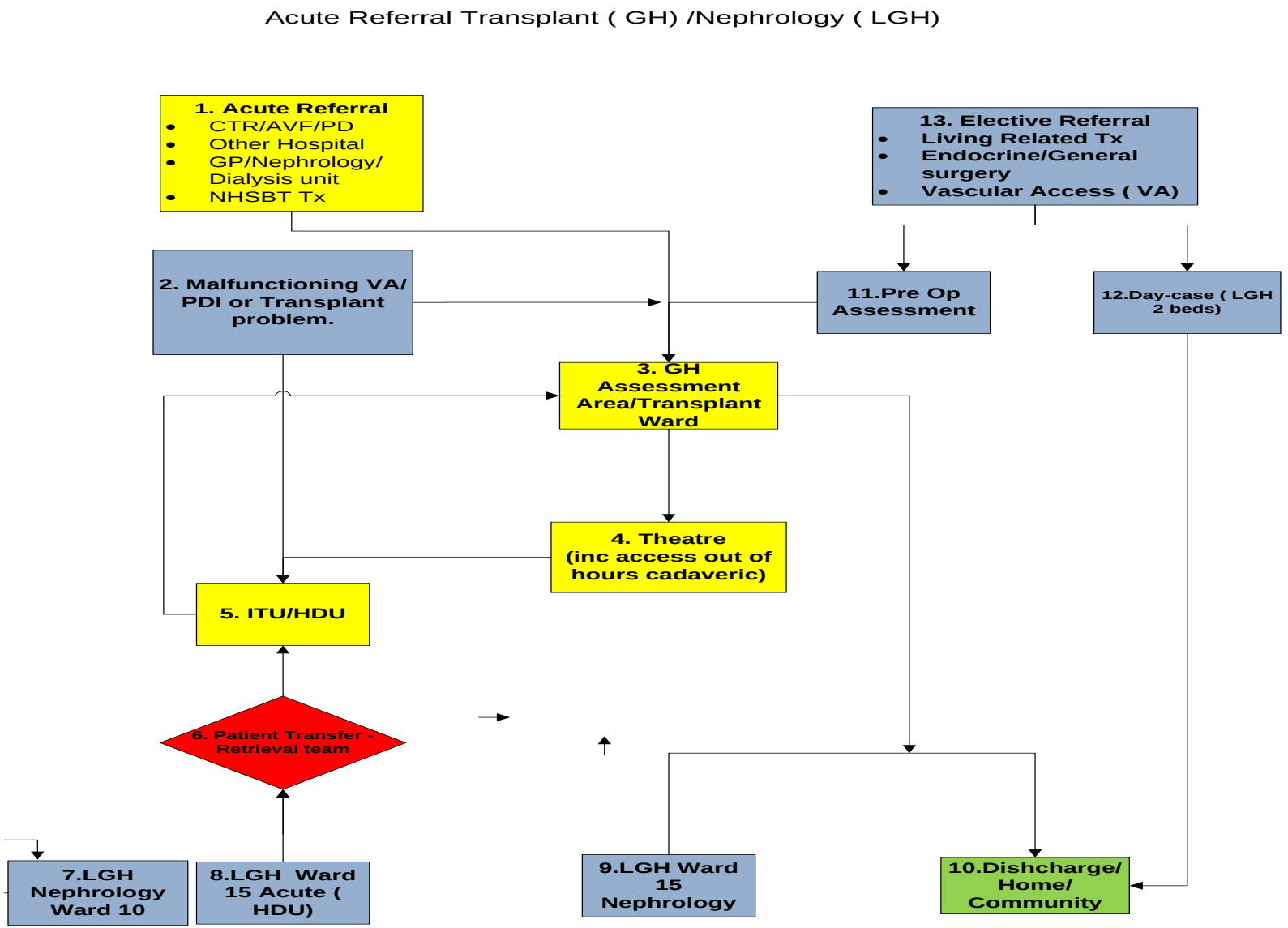
Demand and capacity/flow
The models of care for Nephrology and Transplant have been reviewed to improve capacity and flow and improve utilisation including options to ensure that dialysis capacity is in line with demand (current and future). The haemodialysis population is growing at about 3.6% per year (renal registry 19th annual report). Appropriate theatre list scheduling is in place to improve efficiencies and theatre utilisation.

Nephrology & Renal Transplant Service: Summary of proposed changes

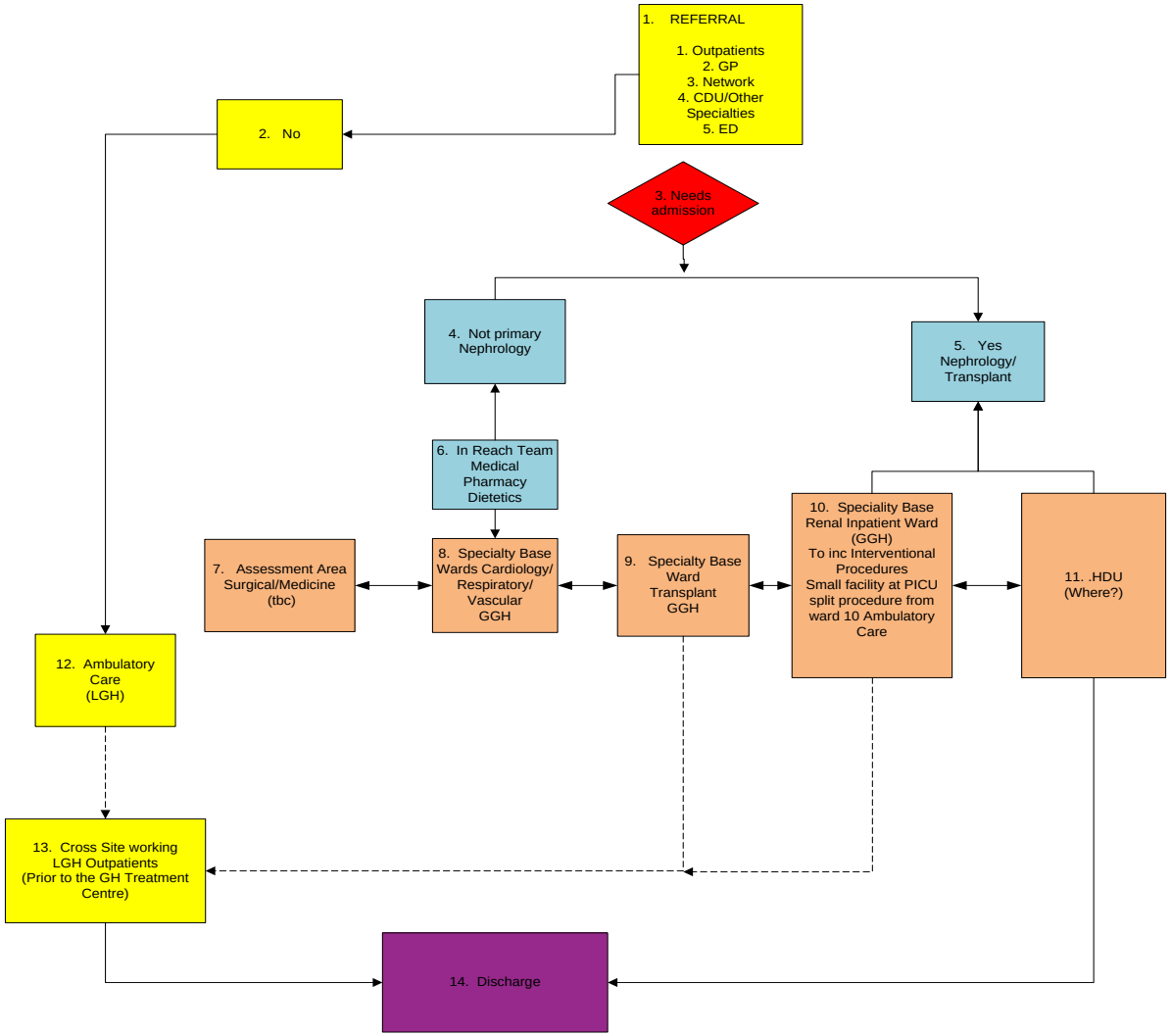
New Configuration	Benefits
How will the new model of care look? Following a period of separation, the new model of care will re-join the Nephrology and Renal Transplant inpatient wards on the Glenfield Hospital site. Nephrology and Transplant /General surgery day-case and outpatients activity will transfer to either the planned treatment centre at the GH site or the proposed Kidney Centre, providing inpatient and outpatient haemodialysis slots, outpatient procedures. **When will it be in place?** Stage 1: Transplant inpatient ward move from LGH to GH site (new build ward). This will be complete by Summer 2020. Stage 3: Nephrology inpatient wards move from LGH to GH site. This is planned to happen within 6 months of stage 1 Stage 4: Nephrology and Transplant/General surgery day-case and outpatients activity delivered from the GH site. Date TBC **Who will provide what activity at which site?** Services will be provided by UHL at the GH site and haemodialysis services will continue to be provided across the East Midland	The co-location of Renal Transplant/Vascular access Services with Cardiology / Cardiothoracic Services, Vascular Surgical Services and interventional radiology at Glenfield Hospital brings synergies that will further enhance the outcome of renal patients with multiple co-morbidities. This service move would further establish the UHL Transplant Unit as the premier unit in the East Midlands and would see an increase in tertiary level activity. This will help establish one stop c vascular access clinics and urgent endovascular intervention for vascular access within 24hrs and reduce burden on haemodialysis vascular catheters/beds and focus on putting the patients first. This will expedite early discharges and impact beds and potential elective cancellations. With the opportunity afforded by the redevelopment of transplant and vascular services into a streamlined multidisciplinary approach will not only benefit the patients but will help develop training and research opportunities. **Quality & safety** • The quality of the patient experience and environment remains a priority and is maintained. • The co-location of transplant and renal services with vascular, cardiology and respiratory is likely to improve the improve the clinical outcomes • Once transplant and renal services are reconfigured and repatriated on the GH site the service patients and the workforce will benefit from : • the co-location of interventional radiology and pharmacy services • The renal service being able to provide a 'renal in reach service to cardiology, vascular and respiratory. • Consolidating services onto one site will allow us more flexibility in our medical and nursing workforce, helping to fill vacancies and reducing premium spend. **Workforce sustainability** • Medical staffing and on-call rota efficiencies • Overtime and all premium pay reduction due to consolidation of services on one site • High quality of care delivered by a competent and specialist educated workforce resourced to meet the needs of the case-mix and workload **Efficiency and effectiveness** • This move will facilitate improvements in patient care and realisation of efficiencies and increased productivity that can be gained by consolidating vascular access services on one site, e.g. one stop

Network covering Leicestershire and Rutland and the surrounding counties, Northamptonshire, Lincolnshire, Peterborough city and parts of Cambridgeshire Haemodialysis will be provided on the Transplant and in patient ward and at the Kidney Centre with flow and outreach to the satellite units.	clinic, endovascular intervention. • Cancellations on the day of surgery are currently experienced by the service as a direct consequence of chronic and emergencies competing for beds on the LGH Site. Locating transplant surgery at GH will also allow the development of a seamless service for patients with one stop access clinics, complex access interventions and radiological/ surgical rescue. **Cost** • Reduction in costs incurred during transition period by re-consolidating services onto one site • Cost benefits associated with medical efficiencies through consolidation of rotas and on call. • Reduction in premium spend

Nephrology & Renal Transplant - Emergency and elective patient flow



Cross Site Working after Nephrology Inpatient move – Patient Flow



A

CMG: Women's & Children's

Models of Care Impacted by Reconfiguration:

Gynaecology

Neonatology & Neonatal Intensive Care

Obstetrics, Maternity & Antenatal Screening

Children's Services

Design of system-wide clinical models of care
Gynaecology Services: Women's & Children's Clinical Management Group (CMG)

Gynaecology & Gynaecology Oncology: Current Situation

Current Configuration

What is the Current Configuration?
Gynaecology services are delivered across 2 sites: the Leicester General Hospital (LGH) and the Leicester Royal Infirmary (LRI).

The **LGH** has the following services and facilities:

- Elective Inpatient ward – this operates with 23 beds Monday – Friday, 15 beds on Saturday and 10 beds on Sunday.
- Elective theatre capacity, not co-located with the ward.
- Use of the robot in theatre 3 (shared with Urology).
- Daycase ward with ambulatory outpatient procedure facility.
- Gynae Outpatient Department, which provides the location for some outpatient clinics, as well as some outpatient procedures.

The **LRI** has the following services and facilities:

- Gynaecology Assessment Unit (GAU) is located on Level 1 Kensington Building – this is an emergency inpatient ward with 12 beds. The Termination of Pregnancy (TOP) service also operates from this ward in a dedicated 4 bedded area (reduced capacity at present – previously was 8 patients).
- Day case theatres are utilised, with recovery on ASU – where space available. Current lack of capacity has resulted in frequent (mis)use of GAU following elective daycase surgery.
- The Early Pregnancy Assessment Unit (EPAU) is located

Rationale For Change

Benchmark (Right care/GIRFT/Model hospital/other benchmark)
Performance and models of care have been reviewed using the Model Hospital, Patient Level Information and Costing Systems (PLICS) & Healthcare Analytic Systems (CHKS) to compare and benchmark against peers.

BADS: For Gynaecology services there are potentially 1292 bed days savings opportunity when benchmarked against the BADS guidelines (see information below):

Gynaecology	2500	1645	65.80%	443	17.72%	270	10.80%	142	5.68%	1291.82
Anterior and posterior colporrhaphy	69	0	0.0%	13	18.8%	38	55.0%	18	26.1%	126.95
Anterior colporrhaphy	117	0	0.0%	36	30.8%	62	53.0%	19	16.2%	236.75
Colposcopy (+/- biopsy)	5	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0
Cone biopsy of cervix uteri (including laser)	21	20	95.0%	0	0.0%	0	0.0%	1	4.8%	16.79
Destruction of lesion of cervix uteri (including loop	90	78	87.0%	12	13.3%	0	0.0%	0	0.0%	12
Endometrial biopsy/ aspiration + hysteroscopy	494	426	86.0%	54	10.9%	8	1.6%	6	1.2%	98.06
Female sterilisation	89	74	83.2%	13	14.6%	2	2.3%	0	0.0%	16.11
Laparoscopic oophorectomy and salpingectomy (in	83	22	26.5%	47	57.0%	9	10.8%	5	6.0%	69.55
Laparoscopic total/subtotal abdominal hysterecto	153	0	0.0%	69	45.0%	52	34.0%	32	20.9%	194.6
Marsupialisation of Bartholin cyst	19	19	100.0%	0	0.0%	0	0.0%	0	0.0%	-0.19
Myomectomy (including laparoscopically)	23	1	4.3%	0	0.0%	7	30.4%	15	65.0%	62.6
Operations to manage female incontinence	41	19	46.0%	19	46.0%	1	2.4%	2	4.9%	20.85
Posterior colporrhaphy	99	1	1.0%	40	40.0%	38	38.0%	20	20.2%	151.35
Repair of enterocele (+/- posterior colporrhaphy)	2	0	0.0%	1	50.0%	1	50.0%	0	0.0%	1.8
Termination of Pregnancy	619	601	97.1%	14	2.3%	3	0.5%	1	0.2%	19.81
Therapeutic endoscopic operations on uterus (inclu	357	300	84.0%	43	12.0%	10	2.8%	4	1.1%	69.15
Therapeutic laparoscopic procedures including las	188	79	42.0%	73	39.0%	26	13.8%	10	5.3%	143.4
Vaginal hysterectomy (including laparoscopically a	31	0	0.0%	9	29.0%	13	41.9%	9	29.0%	52.05

As models of care evolve, ambulatory procedures will increasingly be delivered in alternative settings e.g. a transfer of location e.g. some activity, in alignment with best practice will move from a daycase to OPD location. Examples include:

- Endometrial polypectomy – already done as an outpatient treatment (special tariff)

in the Jarvis Building. This unit is open Monday – Friday, and the weekend service runs from the GAU.

- Gynae Outpatient Department is situated on Level 0 Kensington Building. Colposcopy and Hysteroscopy is also carried out in this area.
- Assisted conception unit – all aspects of infertility investigation and treatment (including male infertility)

Outpatient and Daycase services provided at:
Loughborough
Coalville (clinic only)
Melton Mowbray
Oakham (clinic only)Market Harborough(clinic only)
Hinckley

Urogynae; Endometriosis; and recurrent miscarriage are all services provided for a population greater than Leicestershire. In addition Gynae Oncology and PAGS is a tertiary service.

Staffing

Gynaecology - Current Staffing as at 1st April 2018

Staff Group	Establishment (WTE)
Additional Clinical Services	46.71
Administrative and Clerical	42.52
Allied Health Professionals	1.20
Estates and Ancillary	3.34
Healthcare Scientists	7.07
Medical and Dental (not including Medical Staff practising in Obs & Gynae)	14.81
Nursing and Midwifery Registered	65.63
Other	(1.05)
Grand Total	**180.24**

Teaching and training
As a University teaching hospital there are both under and post graduate teaching commitment.

- Diagnostic Hysteroscopy - already done as an outpatient
- Endometrial ablation - already done as an outpatient treatment (special tariff)
- Colposcopy - already done as an outpatient

Quality & safety
Gynaecology services are currently split into 5 distinct locations across 2 hospital sites. This means that our specialist and highly skilled nurses and medics are spread very thinly, making it sometimes extremely difficult to provide the staffing levels to provide the quality of care which we would wish.
The current configuration of inpatient services at the LRI mean that patients coming in for a TOP are treated in an area immediately adjacent to obstetrics, which can be difficult to manage.

- Should the reconfiguration of Level 3 ITU away from the LGH site be an issue requiring management for any period of time there will be significant safety factors of concern for Elective Gynaecology and in particular Gynae oncology services.
- Lack of senior presence during the day for ward assessment and for inpatient review of inter-specialty referral has been a risk for some time and will need to be addressed. This is a result of split-site working and the limited availability of senior decision making medical staff, has only been partially addressed and has been reflected in SUI RCA reports as a significant risk to patient safety. This risk is on the Trust risk register as a “lack of continuity of patient care due to consultant cross site working”.

Workforce sustainability challenges

- The current split site configuration necessitates Consultant cover on two sites, resulting in challenging rotas and the need for increased on-call cover. National shortage of medics and nurses, and the need to ensure efficiency in workforce, means that this is not a sustainable situation for an indefinite period of time.
- A reduction in training numbers for junior staff and a reduction in the hours they are able to work; coupled with difficulty in appointing to training posts and trust grade/fellow posts has led to gaps in rotas and expensive premium pay commitments.
- Reduced capability of specialist trainees to work independently and an expectation of increased teaching and training commitment of senior clinicians impacting on their ability to provide service.
- The on-call “medical” cover arrangements will be evaluated as changes to the Maternity medical rotas may make cover from the Delivery Suite at LRI unsustainable because of a lack of middle grade staff and inappropriate skillset of Consultant Obstetricians not practicing Gynaecology. Enhanced Nursing roles are already in place and may need augmentation but the out of hours service may also require

Research and development The Gynaecology and gynaecology service participate in recruitment to research studies and active research programmes are in place.	increase Consultant presence for extended periods of time. • The implications of running services across two sites on the training of specialist trainees will need to be reviewed. Particular reference will need to be made to both day time and out of hours rotas as well as the need to support service activity e.g. clinics and theatre assistance **Efficiency and effectiveness:** • Currently there is an inefficient configuration of services e.g. day case activity in main theatres, Gynae theatres geographically separated, conflict between Gynae emergency theatre use and the elective Obstetric pathway. • There is pressure on the GAU when adult female medical patients are an outlier on the ward. • The configuration of elective theatre provision, the lack of co-location of elective Gynae theatres with a dedicated day case facility is inefficient. • The current configuration of the service at the LGH with the two Gynae wards at the extreme opposite ends of the LGH site compromises efficiency and staff availability for clinical care. • Intermixing of obstetrics and Gynae patients means women having miscarriage are collocated with maternity patients – an issue which leads to complaints and CQC previously identified that we have failed to address this issue **Outpatient Services:** The Women's & Children's Clinical Management Group are committed to providing safe, high quality, patient centred efficient care which will be enabled through centralised services with access to all relevant diagnostic services. Gynaecology services continue to see an increase in referrals particularly for cancer. Ensuring that the right clinician is in the right place will ensure efficient and expedited care. Further work is being undertaken to ensure repeat clinic visits are reduced by increasing the implementation of "one-stop-shop" and multi-disciplinary appointments. The philosophy will be to adopt a rapid diagnostic assessment and treatment approach, with a reduction in routine follow up appointments where there is no evidence that this adds clinical benefit. A number of procedures are running or in the process of being implemented in the community, including: • Pipelle biopsies • IUS fitting • Diagnostic hysteroscopy service • Support Pessaries for prolapse

	• Removal of Cervical Polyps Further work will continue to be undertaken on the Recurrent Miscarriage and **Fertility Patients Pre-Referral Pathways** to ensure that there is continued effort to reduce visits and time to treatment. The models of care will be further adapted to improve RTT for PMB. Working includes: • GPs could reduce referrals by following guideline in future by undertaking USS first and referring only those with ET≥4mmmm or recurrent bleeding – to involve GPSI as RSS is developed in Gynaecology • PRISM 2WW needs to block referrals not meeting referral criteria • Urgent referrals to be facilitated for those not meeting referral criteria with risk of malignancy **Demand and capacity/flow** The models of care for Gynaecology have been reviewed with a view to improve capacity and flow. The existing split site service does not allow this to be as efficient as it would be on one site. Demand and capacity/flow will be aligned to ensure patients are treated in a timely manner and in line with national targets. There are capacity challenges associated with delivering 2WW diagnostic and 62 day targets as well as the ability to reduce and sustain lower levels of RTT backlogs despite use of the Alliance to reduce RTT backlog of day cases Theatre capacity and efficiency is inadequate to deal with the current and rising demand and this is being addressed. A new theatre timetable provides additional capacity once theatre workforce is addressed and the timetable implemented. Appropriate planning and flow would allow for an increase in average cases per list (ACPL) in theatres, thus improving efficiency. A dedicated project is in place to improve efficiency. Therefore additional theatres lists along with improved in-list efficiency will address the demand capacity gap along with a continued shift to other settings. For example a lot of progress has been made in moving ambulatory procedures to alternative settings e.g. Daycase to Ambulatory setting with expansion to the ambulatory service underway. • Endometrial polypectomy • Hysteroscopy • Endometrial ablation • Sonata Fibroid treatment – under trial in theatre at present • Urogynaecology procedures (Botox, Cystoscopy and in the future Bulkamid **Discharge Process:**

	The length of stay for gynaecological surgery is in line with peers however the current configuration of services across sites does not allow for the discharge processes to be as efficient as they otherwise could be due to cross site medical staffing rotas already referred to. **Cost** There are opportunities to reduce the cost of the service by consolidating onto one site, which would potentially allow a reduced medical on call rota, reduced vacancy rates and reduced premium spend on staff. Improvement in efficiency could also provide more income to the service, by ensuring activities are kept in hours and therefore avoiding premium spend on waiting list initiatives and out of hours working. The current two site model leads to there being an inability to sustain service safety and adequacy within the budget provided by Gynaecology PBR, leading to higher spend and a substantial service loss and severely limited opportunities for CIP. Use of Alliance to reduce RTT backlog of day cases has negative impact on income.

Gynaecology & Gynaecology Oncology – Summary of proposed changes

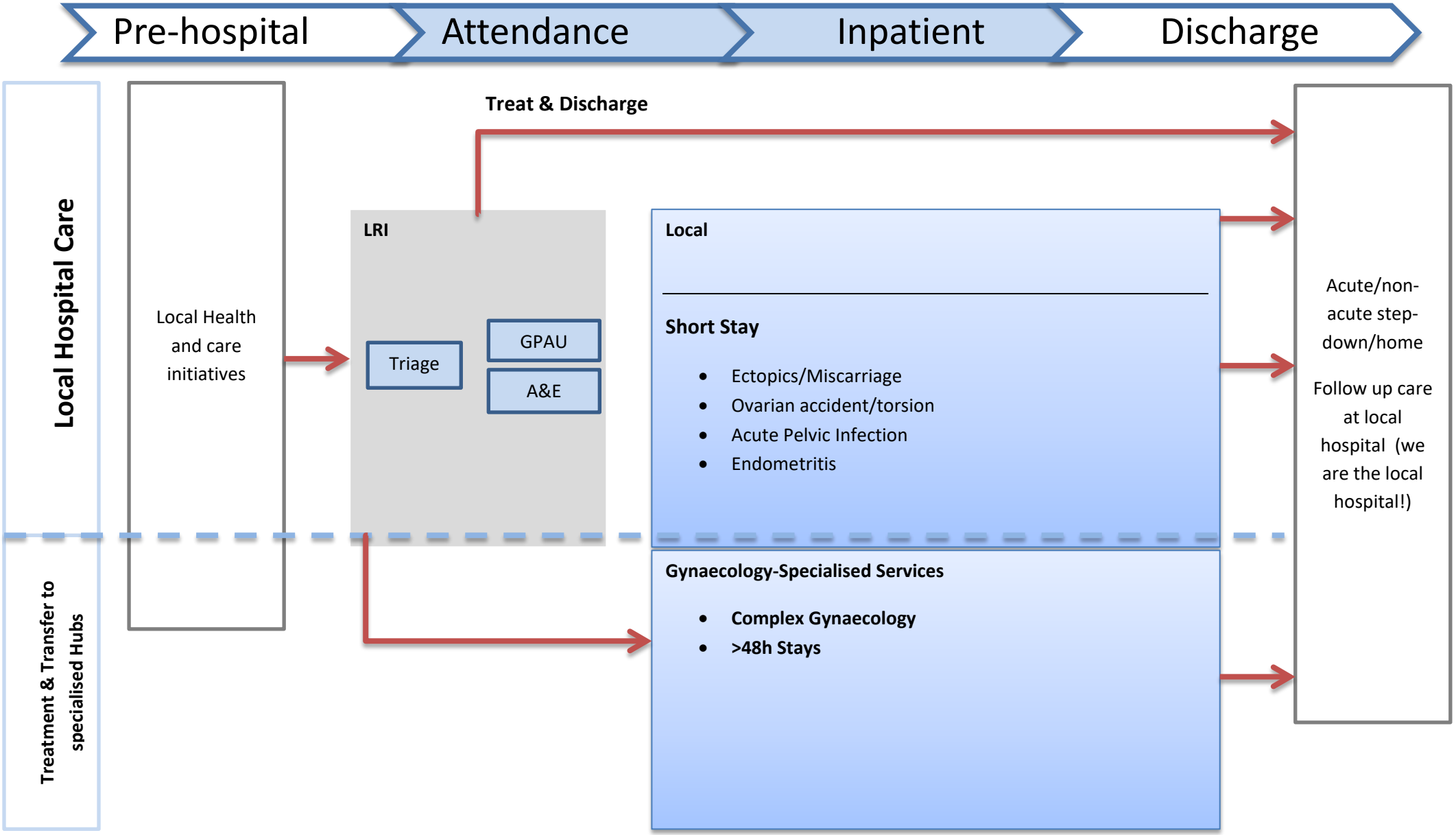
New Configuration	Benefits	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
How will the new model of care look? The new model of care will combine the services currently provided at the LRI and the LGH. A Gynaecology inpatient floor on Level 3 Balmoral will co-locate the wards from the LGH and the Kensington building, providing efficiencies and flexibility in staffing. Services will feature co-located EPAU/GAU/TOP, Elective Gynae including cancer services, ambulatory - Hysteroscopy (diagnostic and procedural), Urogynae, Colposcopy. A consolidated outpatient department on Level 1 Balmoral	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** **Quality & safety** Consolidating services onto one site will allow us much more flexibility in our medical and nursing workforce; helping to fill vacancies and reducing premium spend. The TOP service will be moved to an entirely Gynaecology setting as a part of Phase I, away from Obstetrics, which will provide a much more appropriate location for the service. **Workforce sustainability** • Gynae medical staffing and on-call rota efficiencies • Overtime and all premium pay reduction due to consolidation of services • Decreased vacancy rates with consolidation onto one site • Improve sickness rates to Trust average rates – • Co-location is not likely to allow reduction of staffing but it will enable the service to utilise the current workforce better in a better configured model and remove many of the inefficiencies noted. **Efficiency and effectiveness** **Theatres:** • Efficiencies delivered through increased ACPL will enable weekend lists to be delivered in week – target ACPL 2.89 by quarter 4 • Reduce Waiting List Initiatives (WLIs) at the weekend reducing reliance on premium pay **Outpatients:** • Reduce follow ups to release outpatient capacity to see more new patient appointments. • Reduction in DNAs to improve outpatient efficiencies • Ensure maximal usage of clinic capacity		Review of Gynae 0-2 day's length of stay procedures to day case procedures. £100K opportunity across Gynae and Paediatrics	Reduce follow ups to release outpatient capacity to see more new patient appointments. Reduction in DNAs to improve OP efficiency £400K identified for W&C CMG. Improve cancer 2 week wait capacity and waiting times to improve overall cancer pathway 62 day target compliance.	Review of Gynae medical staffing and on-call rota when move to one site working £100K benefit across all workforce initiatives Theatre efficiencies including application of operational principles. Efficiencies delivered through increased ACPL will enable weekend lists to be delivered in week –

Building will bring together Colposcopy and outpatient services, provided a more consistent outpatient offering. Gynae Oncology services which require the robot will be delivered from Glenfield Hospital, and patients will be cared for within the Urology bed base, as the activity for Gynaecology alone does not necessitate a robot on the LRI site. **When will it be in place?** Phase I will bring together GAU, EPAU and Colposcopy on Level 3 Balmoral, with good adjacency with the Central Operating Department. This will be complete by Summer 2019. Phase II will move services from the LGH to the LRI and this will be complete in 2023. **Who will provide**	**IT Opportunities:** • Consolidate back office staff from 3 sites to one utilising the electronic patient notes programme from 2020 • Reduction in typists with introduction of DICT3 in November 19 **Wards:** • Reduction in number of Gynae beds in line with demand • 5 day Gynae ward aligned with moving theatre lists in week **BADS:** • Review of Gynae 0-2 day's length of stay procedures to day case procedures. **Demand and capacity/flow** • Repatriation of Gynae Alliance theatre and outpatient work into UHL **Cost** • Cost benefits associated with medical efficiencies through consolidation of rotas and on call • Cash releasing benefits arising from the theatres efficiencies and reduction in WLI's • Back office efficiencies through the consolidation of units				target ACPL 2.89 by quarter 4 £300K CMG total opportunity Repatriation of work from IS

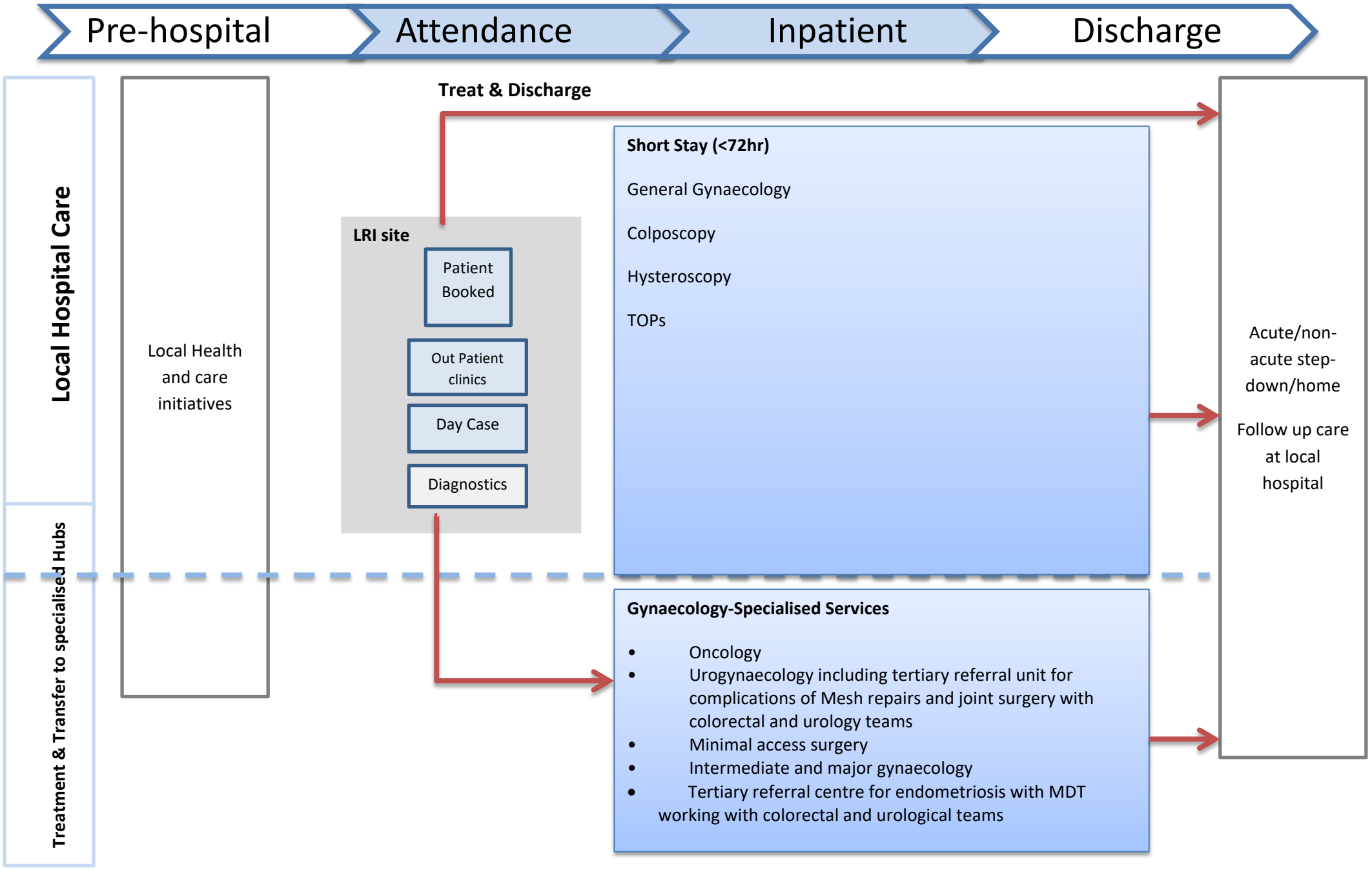
what activity at which site? Services will be provided by UHL at the LRI, with the exception of Gynae Oncology services which require the robot located at Glenfield Hospital.					

Clinical Model of Care

Gynaecology& Gynaecology Oncology – Emergency Patient Flow



Gynaecology& Gynaecology Oncology – Elective Patient Flow



Design of system-wide clinical models of care
Neonatology & Neonatal Intensive Care, Women's & Children's CMG

Neonatology & Neonatal Intensive Care: Current position

Current Configuration	Rationale For Change	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
Overview The Inpatient Neonatal Services include: • Neonatal Intensive Care (LRI) • High Dependency Care (LRI) • Special Care Baby Care (LRI & LGH) **Location** The existing configuration splits Neonatal services across two hospital sites. At the LRI there is a level 3 Neonatal Intensive Care Unit (NICU) with 18 cots which can provide flexible Intensive Care (IC) and High Dependency (HD). In addition to this is the Special Care Baby Unit (SCBU) which has 12 cots. At the LGH is a designated Special Care Baby Unit (SCBU) with 12 cots. The service is part of the East Midlands Neonatal Operational Delivery Network (ODN) (south) and University Hospitals Leicester NHS Trust (UHL) hosts both the tertiary centre and the CenTre transport team, both located at the LRI site. Transitional care is provided within the maternity setting, however requires expansion through the provision of a transitional unit, which would improve compliance with the service specification, improve family integrated care, infant feeding rates, facilitate early discharge and improve the flow of patients through and out of the department.	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** A national review of neonatal services across the UK was carried out by the NHS England Quality Surveillance Program; the UHL neonatal service was visited in October 2017. Findings from the review, areas of concern and recommendations for improvement are included in the sections below. UHL takes part in the National Neonatal Audit Programme (NNAP) which monitors aspects of the care that has been provided to babies on neonatal units in England, Scotland and Wales. The service is in line with national data in most areas. It was noted that the Trust sees less babies in the neurodevelopmental follow up program than other areas. Follow up guidelines have recently changed and the service is now required to see all babies of less than 30 weeks gestation at a corrected age of 2 years (previously <28 weeks). A workforce plan and appropriate resources have been allocated to resolve this issue and follow up rates continue to improve Recommendations arising from the GIRFT regarding Paediatric surgery, suggest that guidelines are breeched for neonatal staffing on two sites. A new GIRFT program for neonatal				

The plan is to have 52 cots, provisionally made up of:- 13 ITU (an increase of 3) 13HDU (an increase of 5 These cots will continue to be used flexibly. There will be 12 special care (the other 12 becoming transitional care) 14 transitional care (2 additional cots to manage babies currently admitted via ED) **Staffing** Currently there are 9 Whole Time Equivalent (WTE) non-resident on-call consultant Neonatologists and 3 WTE resident on-call consultant Neonatologists covering the rota, providing 24 hour consultant cover. The current split-site configuration means that consultant out-of-hours cover is required on two sites, and the team also provides cover to the CenTre Transport service 40% of the time. Tier 1 and Tier 2 medical staffing is adequate, as gaps in the junior medical rota are filled by Advanced Neonatal Nurse Practitioner (ANNP) roles. There are predicated tier 2 gaps in the next few months Over the last three years the ANNP workforce has increased, and currently includes 9.03 WTE positions. The following lead positions exist within the team: • Clinical lead • Risk Lead • Lead for data and audit • Lead for guidelines • Lead for staffing and rotas	intensive care is now underway and data is currently being compiled **Quality & safety** o As a consequence of split site working there remains a significant risk that a baby will come to harm should consultant presence be required simultaneously on both units. This risk is on the Trust risk register and is currently compounded by significant rota gaps in the junior doctor rotas. o Quality and Safety will be an ongoing problem if the current configuration on two sites is sustained and Level 3 intensive care withdrawn from LGH for any significant period of time. The following represent issues that significantly compromise service. All Nursing and Medical staff establishments and rotas will need review and augmentation, to ensure safety of maintaining the SCBU and resuscitation capability at LGH and the NICU at the LRI. Appropriate support services for the SCBU at LGH will need to be maintained. o Facilities at the LGH site are much older with cot spaces having limited space, some rooms without en-suite facilities, with access to sharing one toilet and one shower provision. Mothers and families are therefore offered a differential service between the LGH and LRI. There are concerns about the ability of the LGH site to conform with Infection Prevention standards o The CQC support both a single site service due to the risks posed by the current model and an increase in capacity.				

• Lead for postnatal wards and NIPE • Lead for chronic lung disease • Lead for Neurodevelopmental follow up • Lead for Transport A named consultant has responsibility for developmental assessments of babies born at less than 30 weeks gestation, which is carried out at age 2 years corrected. Nursing staff regularly rotate from site to site, on a three monthly basis. The Neonatal Outreach service has 3.81 WTE nurses at band 6, 1.0 WTE at band 8 and 0.39 WTE band 5 and 1.0 WTE band 4 alongside a 0.5 WTE band 4 admin support, providing support to families prior to discharge and offer training, such as resus training to parents and carers. The community provision for naso-gastric tube feeding within a home setting has recently been expanded. The service has a designated Pharmacist (Monday-Friday), a paediatric Dietician, Speech and Language Therapist (SLT) and 0.10WTE psychological support is provided by Leicestershire Partnership Trust (LPT). The service is also supported by 1.8 WTE play specialists. **Teaching and Training** The unit actively supports training programmes. The QiS course is run in conjunction with De Montfort University) is facilitated by the recruitment of two band 7 clinical educators. The service assists with running the foundation in neonatal care, HDU and ITU modules. The team are also involved in ANNP training in conjunction with Sheffield University.	**Workforce sustainability** Serious concern about split site working and our compliance with national standards for consultant staffing were raised by a National Review of Neonatal services UK - NHS England Quality Surveillance Program October 2017. In addition workforce issues are recorded on the Trust risk register. **Workforce sustainability** o The British Association of Perinatal Medicine (BAPM) staffing standards, now being implemented by Specialised Commissioners, identify the NICU at the LRI should have plans to deliver a dedicated 24/7 consultant presence - At evenings and weekends, the consultant covers the LRI, LGH and the CenTre transport service. The LGH site has 12 Special Care babies and it would not be practical or affordable to have separate consultant staffing 24/7 for this site. Other hospitals running a special care baby unit have co- located paediatric services meaning that dedicated medical staff are not required. o Significant mitigation has been put in place to minimise the risk of a consultant being required on both sites: this includes the appointment of a new tier of resident consultants (2 out of 6 currently in post) and enhanced cover to the LGH site during 9-5 hours. o The UHL Neonatal service is a popular unit, therefore does not suffer from recruitment issues to the same extent that other units do. Recruitment of Junior Doctors is particularly low in paediatrics and the national plan from Colleges to decrease training numbers				

UHL have a national training reputation particularly in simulation based training and resuscitation training. At the LRI is an all-inclusive area, delivering simulation training; Point of Care Neonatal Simulation Training Programme which has a national reputation for excellence. **Specialist/Specialised Services** Network-agreed pathways are in place for in-utero and postnatal transfers for neonatal special care, high dependency and intensive care, neonatal surgical care, neonatal specialist cardiac care, ophthalmology, discharge and follow up, including palliative care. The Department of Specialist Paediatric and Neonatal Surgery is led by a team of 7 Consultant Paediatric Surgeons, supported by other key members of the team. The consultants have their own areas of sub-speciality (two Urologists; two upper Gastrointestinal and Thoracic; two lower Gastrointestinal and one Oncological surgeon). Two of the surgeons provide expertise to fetal diagnostic clinics and there is a Multi-Disciplinary Team (MDT) meeting twice a month providing antenatal counselling and care to parents whose unborn babies have been diagnosed to have a potential surgical problem. As a designated level 3 unit for the CNN, the service complies with the agreed service specification and care pathways across the network and the East and West Midlands specialised commissioning hubs. **Research** The Neonatal service takes an active role in recruiting for multicentre research trials. The Unit also takes part in the National Neonatal	may impact on recruitment going forward. This has been significantly mitigated by UHL's ANNP program. The predicted shortfall of staff is a key driver for a single site model. o Ongoing nurse recruitment is a significant challenge and previously there has been a reliance on overseas recruitment. There is currently a vacancy gap of 8.25WTE, which is lower than it has been due to recent international recruitment success. o A further challenge to recruitment is the delay in obtaining visas and in acquiring documentation, meaning that medical and nursing staff cannot start work immediately. o Staffing capacity remains an issue: a business case for further expansion of nursing, medical staff and allied professionals will be submitted 2018 with the assumption that the cost of this will be offset against new income. o There is a shortfall in allied health professional support for the service across both sites, particularly dieticians, OT, Physio and Psychologists to be in line with national recommendations. **Efficiency and effectiveness** o Having a 2 site model leads to staffing inefficiency: nursing numbers have to account for unexpected admissions on both sites o A 2 site service leads to significant duplication in equipment and resources with the associated financial impact. **Demand and capacity/flow** o Analysis carried out by the East Midlands ODN showed overall cot				

Audit Programme (NNAP) which monitors aspects of care that has been provided to babies on Neonatal units in England, Scotland and Wales.	occupancy (NICU and SCBU combined) in Leicester at 102-111% between the months of January and May 2018. This is compared to occupancy across the network of 73-83% over the same period. This demonstrates that flow across the network is not working as effectively as it could. o In 2016 to 2017 the overall cot occupancy continued to rise due to increased neonatal admissions and increasing survival at the extremes of prematurity; including improvements in the survival and care for babies with complex congenital abnormalities from inborn and those referred from elsewhere in the region. Admissions by British Association Perinatal Medicine (BAPM) 2011 on first day; for IC was 292, HD was 119 and SC 1,380. The neonatal service reached maximum capacity and the units were running at >90% capacity from January to September 2016; 100% capacity from October to December 2016. This review shows that the neonatal service has insufficient capacity and regularly works at over 100% capacity. There are plans for expansion, but these are dependent on nursing recruitment. o There are challenges around non-compliance of QiS trained nurses; only 55% of the NMC registered staff holding a QiS Course. As a consequence the unit has to flex the acuity of cots dependent on trained nurses, frequently resulting in cot closures (UHL turn away ~10 acute referrals per week). The requirement to staff units across two sites compounds this pressure, particularly as the SCBU				

	at the LGH has to be staffed at a level higher than BAPM standards due to the isolation of the unit. This impacts nursing ratios at the LRI where the most acutely unwell babies are cared for. o A lack of a formalised transitional care pathway which may have increased the rate of term babies admitted to the unit. Through the Children's Hospital Project, appropriate PICU and HDU capacity will ease transition of older babies to paediatric services. **Cost** Around £1.9 million of income is lost each year due to capacity issues. In addition to this, having the service split across two sites leads to duplication of equipment (2 blood gas machines, 2 ultrasound scanners, duplication of lab services, X-ray, Imaging, etc.) and reduced economies of scale for consumables.				

Neonatology & Neonatal Intensive Care: Summary of proposed changes

New Configuration	Benefits	Impact on Cots (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
What will the new model look like? The new configuration will be a single neonatal Unit based at the Leicester Royal Infirmary which will support the needs of all neonates in Leicestershire (and beyond), co-located with the delivery suite. The new unit will be planned to allow for cot expansion, through thorough demand and capacity planning. A transitional care unit will be developed which will support flow through and out of the department. Plans will improve quality of care, particularly by allowing us to increase staffing on the unit by negating the need to cover two sites. Plans will be as per service specification guidance. Facilities will also include an out-patient assessment area to run a rapid access clinic for newborn issues, for instance feeding problems, jaundice, or abnormalities found on the newborn infant physical examination delivered by the advanced neonatal nurse practitioner workforce. Cot numbers are described above. **When will it be in place?** Based on the current programme submitted as a part of the STP, the project is due for completion in 2023.	**Benchmark (Right care/GIRFT/Model hospital/other benchmark)** We have plans to develop a 14 cot transitional care facility to replace our current 12 Special care cots at the LGH. Transitional care, where a carer is present has the potential to decrease avoidable term admissions which is a national priority. We would expect transitional care facilities to improve rates of breast feeding on discharge, which are currently poor. There are national standards for the delivery of transitional care and this model would fit well with the national agenda. **Quality & safety** • A single site neonatal service will allow us to deliver high quality neonatal care in line with service specifications and national staffing standards. The current configuration of two sites means that Senior Decision Makers are not always present on the LGH site, and this will be mitigated through the consolidation of services onto one site. The single site model will also ease provision of 24/7 on site consultant presence, in line with national standards which will improve quality and patient experience. This will likely improve our NNAP benchmark data across the service. • The significant risks associated with the current model of care and split site working, including the absence of Level	Evaluation of capacity and flow through the Neonatal unit to identify lost opportunity through external patient refusals. According to data compiled by the regional network, UHL lose ~£1.9m of income in 2017/18 due to cot closures and lack of capacity.		Opportunity to review neonatal step down pathway to special care process to ensure ITU capacity availability is consistent The new model of care for patients on a transitional care pathway will improve flow through neonatal services, and help to reduce ALOS (£300K included in benefits plan). Equipment costs associated with CenTre transport reduced as no requirement for inter site patient transfers when located on one site (£30K included in benefits plan).

	3 ITU on the LGH site, will be fully mitigated as a consequence of reconfiguration. • All mothers and their neonates will be offered a consistent standard of service within the same high specification facilities that afford maximum privacy, dignity and family space. • Work in other hospitals suggests that transitional care services are highly rated by parents and improve patient satisfaction metrics. The development of provision of a 14 cot transitional care facility will deliver this for the mothers and their babies cared for at UHL. • The National Service Framework states the importance of dedicated paediatric facilities. Having all neonatal services on the same site as all paediatric services will ensure full compliance with this guidance. **Workforce sustainability** • Reconfiguration of neonatal service and consolidation onto one site will ensure that the serious concern about split site working and compliance with national standards for consultant staffing (National review of neonatal services UK - NHS England Quality Surveillance Program October 2017) are fully addressed. • The Trust will become compliant with the British Association of Perinatal Medicine (BAPM) staffing standards, implemented by Specialised Commissioners, through the delivery of a dedicated 24/7 consultant presence. • Focusing resources on one site will help to improve patient and family			

	experience, ease our staffing of Senior Decision Makers where they are needed, allow us to provide 24/7 on site consultant presence, and likely improve our NNAP benchmark data across the service. • The costs of the required additional nursing and medical staff would be easily offset by the additional patient care income. • A centralised dedicated neonatal service will be attractive to staff and will enable improved recruitment and retention, decreased vacancy rates, and improved sickness rates to Trust average rates • Benefits will deliver opportunities to review medical staffing and on-call rotas . Similarly there will be opportunities to review nurse staffing and skill mix as a result of co-location of services. • A further workforce benefit will be through potential for a staffing review associated with reduced need for inter-site patient transfers using CenTre transport. • Allied Health Professional (Dieticians, SLT, and Psychology) resources will be focused on one site, avoiding the current inefficient model which requires staff to travel across sites, meaning that one site suffers if the other site is covered. **Efficiency and effectiveness** • Efficiencies in staffing will allow for more flexible use of staff and allow us to open additional neonatal capacity. • Reconfiguration will help to eliminate the duplication of equipment and resources. It will remove the need to ambulance			

	transfer of neonates between the LGH and the LRI, thus a reduction of ~230 ambulance transfers. This will create indirect savings, improving efficiency of the team to transfer patients to/from DGH's and other Trusts. **Demand and capacity/flow** • Lack of intensive care capacity has been highlighted by both the East Midlands Operational Delivery Neonatal network and the CQC. Opportunity to review neonatal step down to special care process to ensure ITU capacity availability is consistent • Improvements to flow through the Neonatal Unit, enabled by robust capacity planning, Senior Decision Making on site at all times and the use of a transitional care unit will improve patient experience and help to reduce the average length of stay for some patients. • Long term modelling would suggest that we would need an increase in neonatal cots for the region, based on network pathways and referral patterns. This would mean that babies from the wider region would receive specialist care closer to home. Having an appropriate capacity would enhance the ability of our allied services to work effectively, particularly EMCHC and Paediatric surgery. This would mitigate the need for new born referrals with surgical or cardiac problems to be sent to other centres as there will be neonatal capacity available locally. • Reconfiguration will enable the provision of a 14 cot transitional care facility to replace the 12 Special Care cots			

	currently at the LGH. Transitional care, where a carer is present has the potential to decrease avoidable term admissions which is a national priority. • The development of an outpatient assessment area to run a rapid access clinic for newborns, will help reduce admissions to the Children's Hospital and will reduce ED attendance for babies in the first week of life. • Increased roles for the ANNP will include rapid access clinics which will help to avoid admissions to the Paediatric Emergency Department (PED), and the ability to admit to TC/PN ward for certain conditions (breast feeding failure, jaundice, etc.). This will improve flow, patient experience, breast feeding rates and decrease inappropriate use of the PED when arising from these circumstances. **Cost** • Equipment costs associated with CenTre transport reduced as no requirement for inter site patient transfers when located on one site. • Overtime and all premium pay reduction due to consolidation of services • Recovery of income which is currently lost each year due to capacity issues.			

Managing the bed gap
No impact

Activity model
There is ongoing work with regard to capacity- the cot configurations above balance the predicted cot capacity requirements with the practicalities of staffing additional cots

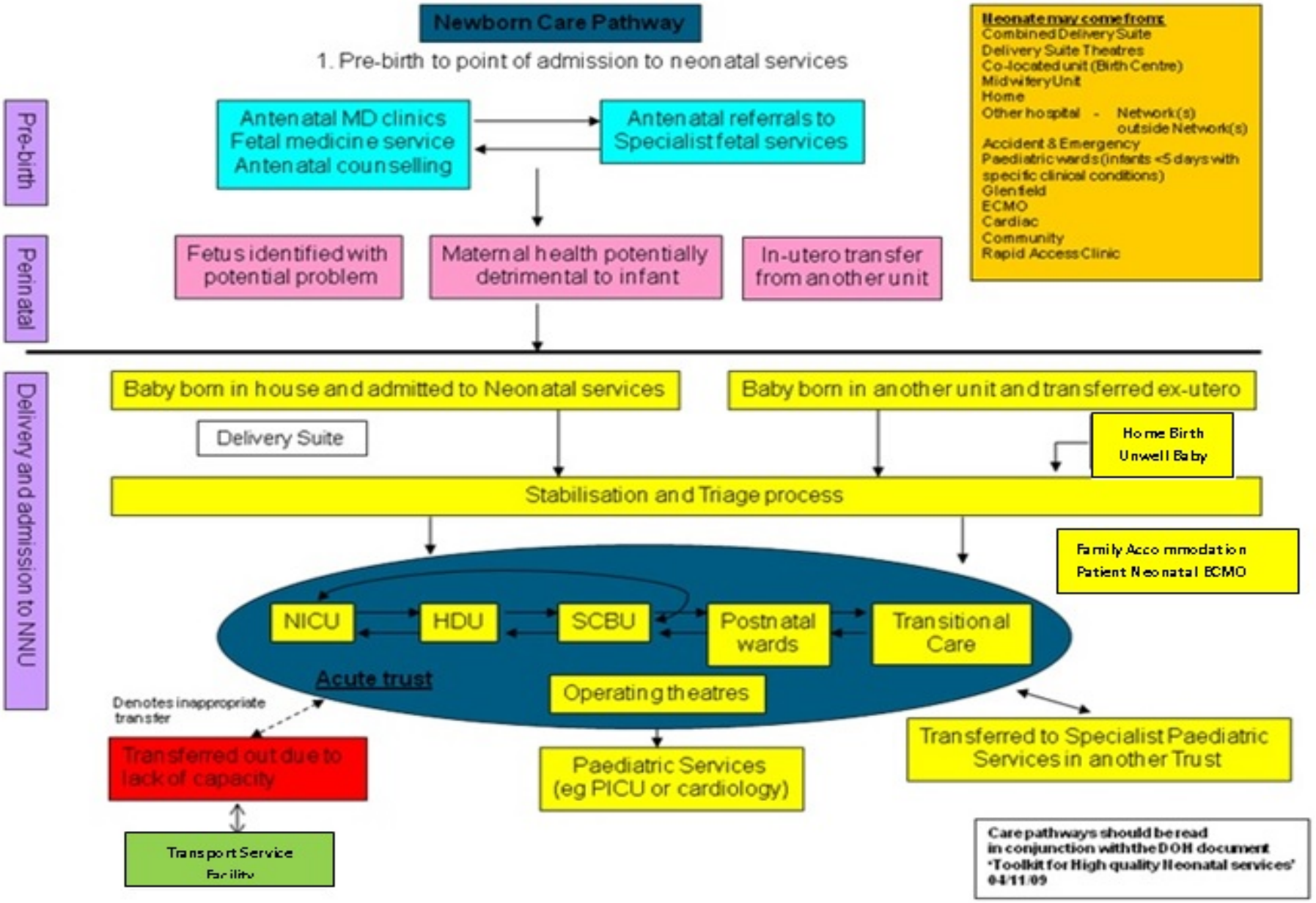
The plan is to have 52 cots, provisionally made up of:-

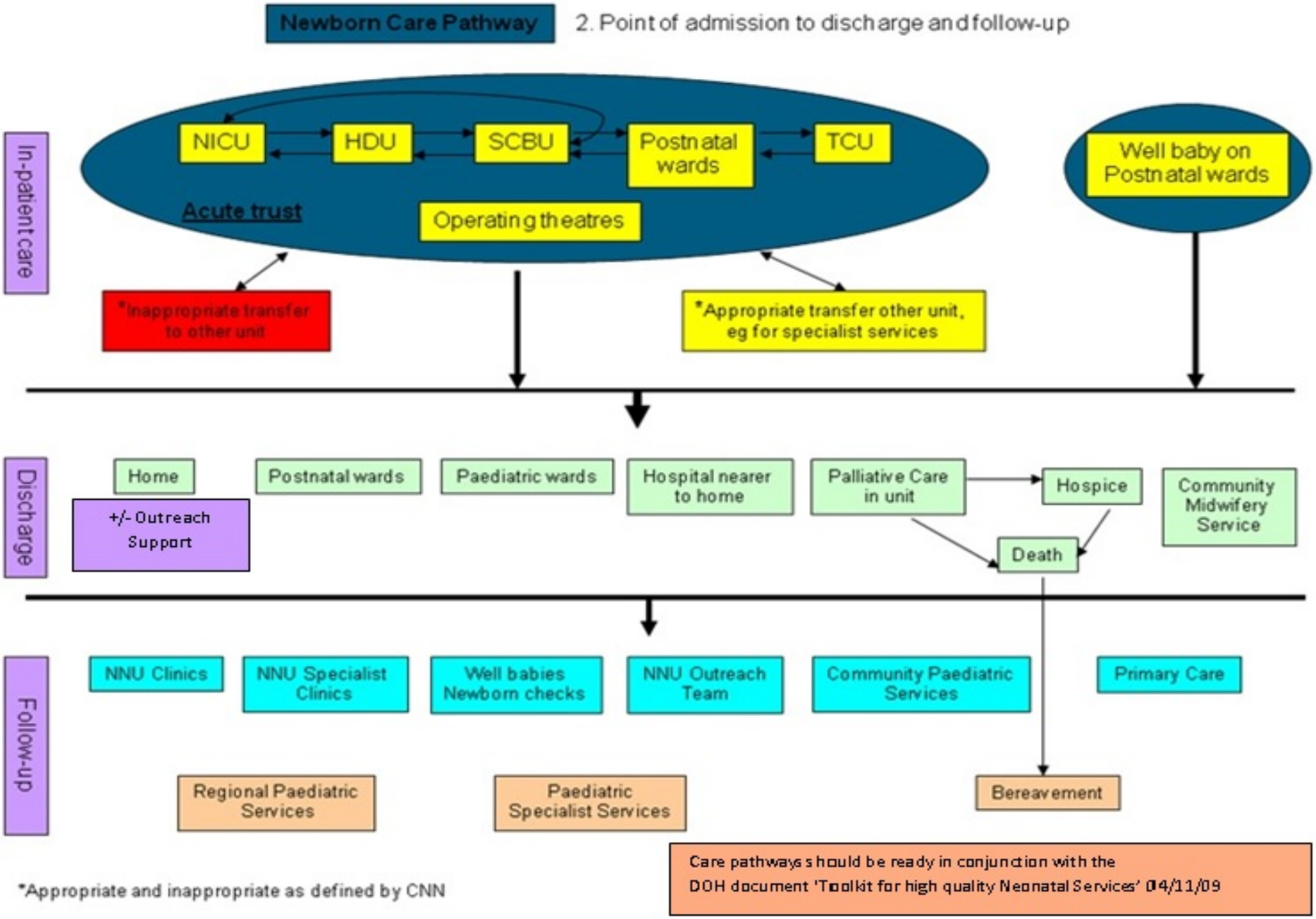
13 ITU (an increase of 3)
13HDU (an increase of 5

These cots will continue to be used flexibly.

There will be 12 special care (the other 12 becoming transitional care)
14 transitional care (2 additional cots to manage babies currently admitted via ED)

Clinical Model of Care: Neonatology & Neonatal Intensive Care




Newborn Care Pathway
2. Point of admission to discharge and follow-up
In-patient care
NICU
HDU
SCBU
Postnatal wards
TCU
Acute trust
Operating theatres
Well baby on Postnatal wards
*Inappropriate transfer to other unit
*Appropriate transfer other unit, eg for specialist services
Discharge
Home
+/- Outreach Support
Postnatal wards
Paediatric wards
Hospital nearer to home
Palliative Care in unit
Hospice
Community Midwifery Service
Death
Follow-up
NNU Clinics
NNU Specialist Clinics
Well babies Newborn checks
NNU Outreach Team
Community Paediatric Services
Primary Care
Regional Paediatric Services
Paediatric Specialist Services
Bereavement
*Appropriate and inappropriate as defined by CNN
Care pathways should be ready in conjunction with the DOH document 'Toolkit for high quality Neonatal Services' 04/11/09

Design of system-wide clinical models of care
Obstetrics, Maternity & Antenatal screening: Women's and Children's Clinical Management Group (CMG)

Obstetrics, Maternity & Antenatal screening: Current position

Current Configuration	Rationale For Change
Overview Midwifery led services are provided by UHL as follows: • Midwifery Led Unit (MLU) adjacent to obstetrics at Leicester Royal Infirmary (LRI); • MLU adjacent to obstetrics at Leicester General Hospital (LGH); • Standalone Midwifery Led Unit (MLU) at St Mary's Hospital, Melton Mowbray*; • Community midwifery services; • Home births. *St Mary's Birthing Centre is LLR's only standalone midwifery-led unit and is situated just west of Melton Mowbray town centre. The centre is staffed 24 hours a day and offers two birthing rooms as well as eight post-natal beds on a ward, differing from the majority of MLUs which offer birthing rooms only (i.e. following birth, the mother and baby go home with no overnight stay).	***Benchmark (Right care/GIRFT/Model hospital/other benchmark)*** Service reviews The Better Births guidance has shaped our plans for maternity services, ensuring we are focusing on nationally identified targets. The main areas we must focus on in LLR are: • Reducing the number of stillbirths (currently 6.79/1000 must be halved by 2025) • Increasing the number of women receiving midwifery-led care (currently only 25% of women choose midwife-led delivery options) • Increasing the number of women who receive whole-pathway continuity (currently only 2% of women receive this but the national target is to provide continuity to 20% of women entering the pathway in March 2019) • Increasing the number of women who receive Personal Care Planning (PCP) that puts women in control of choosing the way they access their antenatal, birth and postnatal care. • Increasing access to perinatal mental health services Between 1997 and 2010, four large clinical reviews were carried out to evaluate the sustainability of Women's services and propose a model that would be sustainable for the foreseeable future (30-40 years). The last of these was in response to Lord Darzi's Next Steps review of the NHS. All reviews came to the conclusion that Women's services, particularly maternity services, were not sustainable in their current form and that the acute Women's services should be collocated on one site, as well as recommending the closure of St. Mary's Birth Centre even before a significant decline in births over recent years. Since 2010, further service developments have placed additional strain on services. ***Maternity:*** • A rising birth rate which fortunately appears to have plateaued. • Increased acuity of the Maternity population; Increase in vulnerable groups and complex health needs. • Standards for staffing in Obstetrics and Midwifery that expect increased numbers of staff and increased presence of senior decision makers with higher levels of clinical skills. • A reduction in training numbers for junior staff and a reduction in the hours they are able to work; coupled with difficulty in appointing to training posts and trust grade/fellow posts leading to gaps in rotas and

	expensive premium pay commitments. • Reduced capability of specialist trainees to work independently and an expectation of increased teaching and training commitment of senior clinicians impacting on their ability to provide service. • Lack of obstetric sonographers and nursing vacancies means that it is challenging to maintain adequate staffing over the two sites. Already, there are times when the safety of care at either the LRI or LGH is compromised by the availability of resources. Service reviews do not consider this sustainable for the long term. • Developments in practice including screening, acute and elective care, to facilitate better and often more intensive Obstetric and Gynaecological care. • Loss of Maternity Day Care at LGH as part of the Interim Solution leading to admission for inpatient observation and pressure on the limited number of inpatient beds. • Increased prescriptive clinical guidance and medico-legal challenge leading to defensive Obstetric practice, increased complaints and litigation. • Substantial increase in litigation costs in the NHS with Maternity litigation costs a major factor. This explicitly links safety to cost as any compromise to safety is liable to contribute to increased litigation cost, hence making very poor business sense in both Quality and Finance. • Developments in practice including screening, acute and elective care, to facilitate better and often more intensive Obstetric and Gynaecological care. • The implementation of a number of Maternity programmes including Each Baby Counts, Saving Babies Lives and most recently maternity transformation required by Better Births. • Loss of Maternity Day Care at LGH as part of the Interim Solution leading to admission for inpatient observation and pressure on the limited number of inpatient beds. • Some buildings are old; not fit for purpose with increasing estates costs to ensure sustainability – this is especially true of St Mary's Birthing Centre. • Facilities designed for approximately 8,500 deliveries per year are now being used for approximately 10,500 deliveries per year • A continually reducing birth rate at the Midwifery – led unit at St Mary's resulting in it becoming increasingly more unviable. These factors have led to a severely compromised service, resulting in: • Duplication of rotas and services across the two sites, and consequently a substantial staffing deficit across the two sites which is worse at the LGH. • An inability to sustain service safety and adequacy within the budget provided by Maternity tariff, leading to a substantial service loss and severely limited opportunities for CIP. • A need for all clinicians to work across site with the compromises and inefficiencies that result. • Rotas for all services being severely and increasingly challenged, reaching the point where radical solutions may be required to sustain safe services. • Pressure on inpatient bed capacity on both sites, particularly in Maternity partly because of defensive

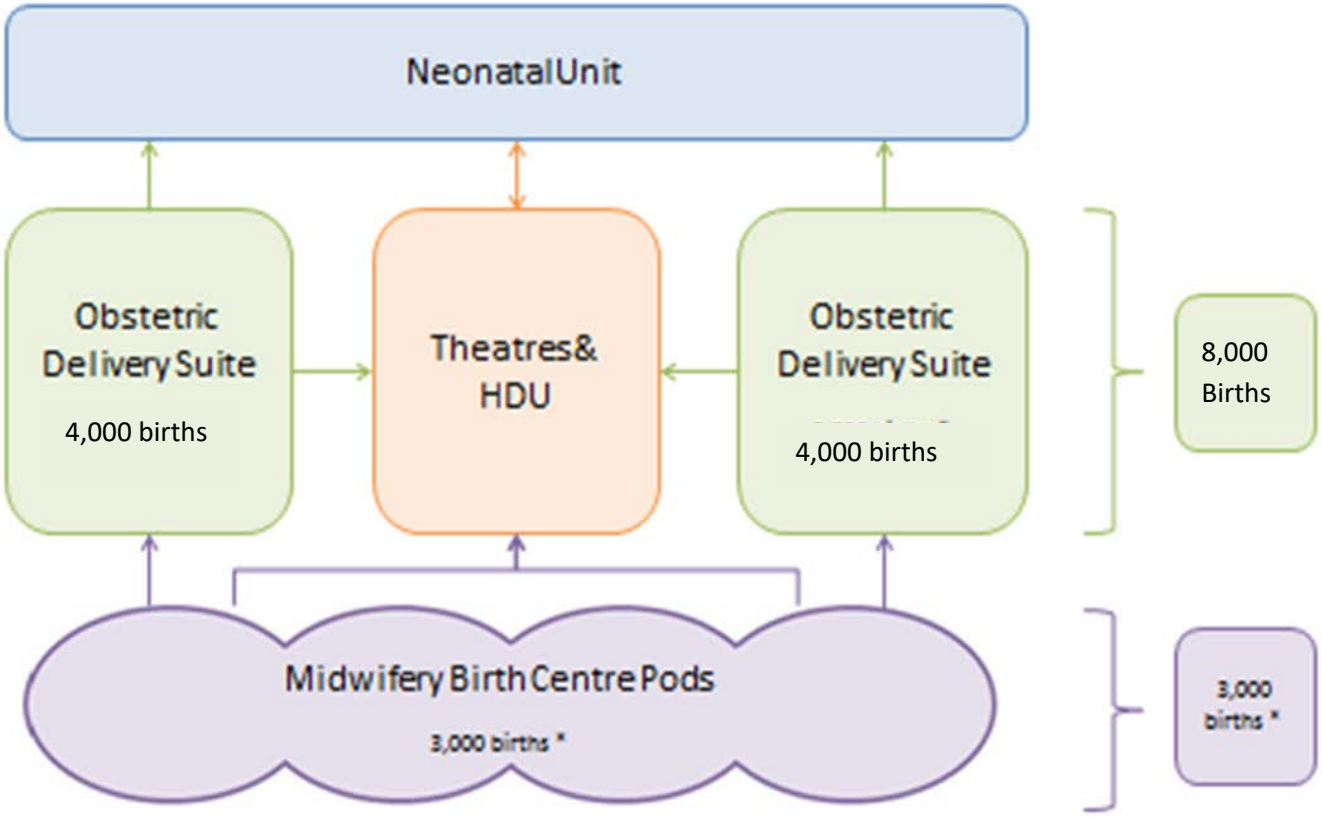
	practice and partly because of a lack of Maternity Day Care, a central component of the models of care developed for the Women's Hospital Project in preparation for co-location of maternity services. • Inefficient configuration of services e.g. day case activity in main theatres, Gynae theatres geographically separated, conflict between Gynae emergency theatre use and the elective Obstetric pathway etc. Further issues arise associated with the move of Level 3 ITU provision away from the LGH site. Whilst there are interim plans in place to maintain services should the co-location away from level 3 ITU remain for some considerable period of time the service could be significantly compromised. The following documents have been taken into account in developing the staffing model for a co-located service:- Birth Rate Plus -: Regularly reviewed and ongoing Better Births - March 2016 Safer Maternity Care - 2017 Providing Quality Care for Women: RCOG (2016) Saving babies Lives: 2016

Obstetrics, Maternity & Antenatal screening: Summary of proposed model of care

New Configuration	Benefits What will this mean against rationale for change?	Impact on DC beds (Year)	Impact on IP Beds (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
How will the new model of care look? The proposal is to remodel services to create a new maternity hospital at the Leicester Royal Infirmary (LRI) and, subject to the outcomes of a consultation, a midwife-led unit at the Leicester General Hospital (LGH). The new maternity hospital will allow for the sustainability of improved safety within maternity services and enable us to remodel the workforce as we will not have consultants and midwives split over two sites. It will also reduce the number of transfers that take place to and from neonatal services. Our vision for maternity, neonatal and children's services in LLR is to provide safe, high quality care for women, their babies and their families through integrated models of care, which reflect individual preferences, choice and needs based on best practice to improve outcomes and experience. All women in LLR will be provided with the following maternity birth options: • A new maternity hospital located at the LRI with obstetric (doctor) led inpatient maternity services in a shared care (care from both midwives and doctors) unit. • An alongside midwifery birth centre provided adjacent to the obstetric unit as a part of the new maternity hospital at the LRI.	Benchmark (Right care/GIRFT/Model hospital/other benchmark) **Quality & safety** To improve outcomes for mothers and their babies reconfiguration of our services will: • Providing an environment for safe and sustainable maternity and neonatal services. • A flexible, skilled and competent workforce that's able to meet the needs of services. • Providing personalised care with a named midwife. • Providing a range of choice options and improved continuity. • Establishing a Maternity Voices Partnership to ensure women have a voice. • Delivering care through a network of integrated pathways across the LMS, supporting outcomes in relation to key local issues like Infant Mortality and Perinatal Mental Health pathways. • Develop integrated pathways across neonatal serves and community paediatrics. Patient experience will be improved through: • For the majority of women, the new	*n/a*	*n/a*	*n/a*	*n/a*

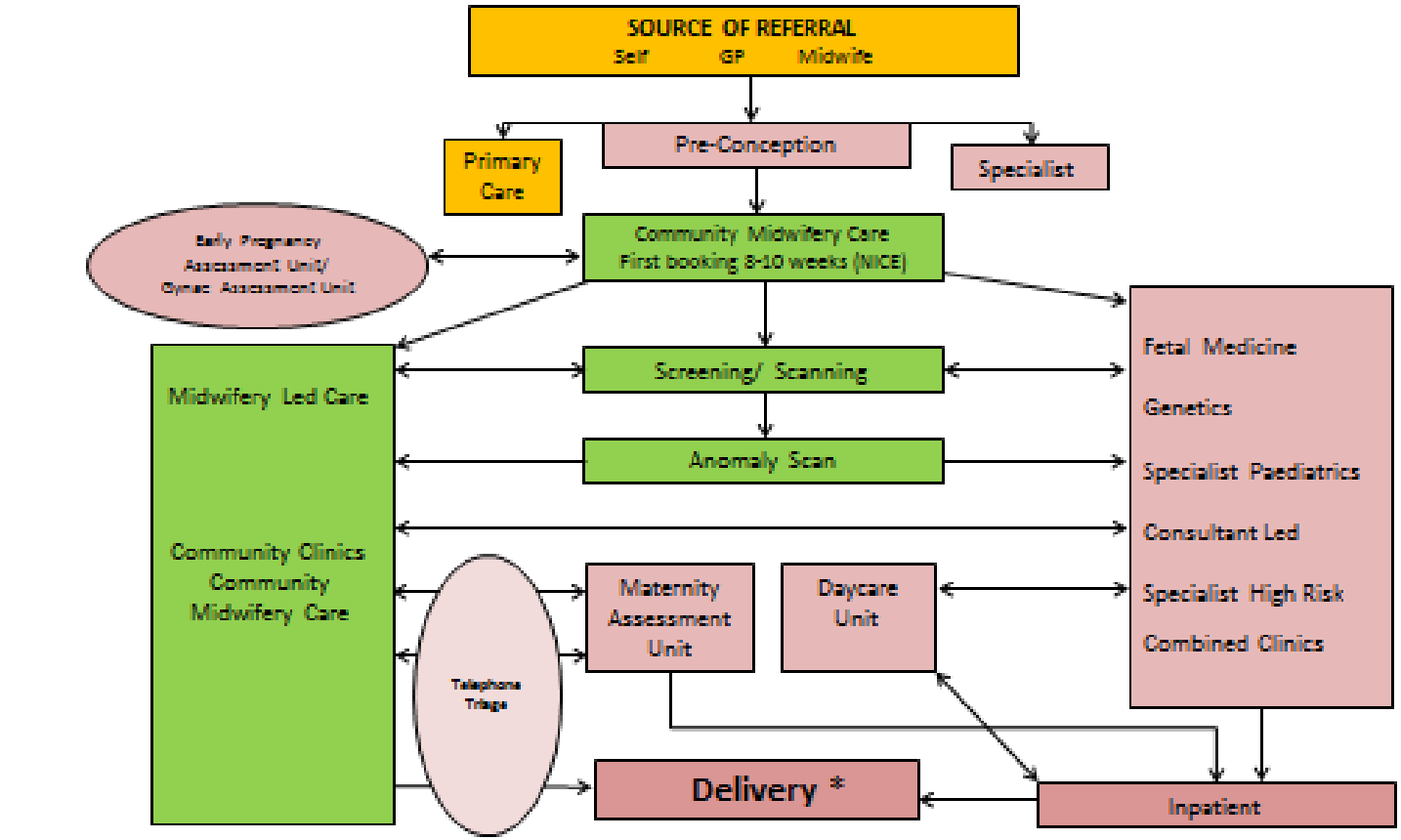
• An additional standalone midwifery birth centre could be piloted at the LGH (subject to public consultation); remaining for the long term if there are enough births to ensure clinical sustainability (c.500 births per annum). • Home births, supported by a Home Birth midwifery team, will be available and promoted where appropriate for low-risk births (recognising the evidence that this is as safe as birth in a midwifery birth centre). The new model of care will feature: • Antenatal services provided in the community. • Antenatal care of women with complicated pregnancies will be provided in outpatient community, remote and virtual clinics. • Specialist clinics and a Day Care Unit both located at the LRI. • Women who decide not to go to the LRI will have alternative options including community-based care or to give birth at other trusts. • There were approximately 5,165 births which were commissioned for mothers from LLR from a range of cross-boundary providers including Peterborough, Kettering, Nottingham, Nuneaton and Burton in 2016/17. The Local Maternity Services (LMS) plan is a key part of the wider Sustainable Transformation Partnership (STP) strategy. Services will be provided via a hub-and-spoke model with teams of midwives working as part of a bigger multi-professional team. Access to services will be via three key	locations will be more accessible and more equitable. • A new modern maternity unit will be available. • Workforce will be more robust and sustainable to provide models of care that will allow a personalised approach. **Workforce sustainability** • Along with the implementation of the Better Births guidance, maternity services feature heavily in the STP plan through the proposed consolidation of activity currently taking place at both the LRI. Although we have aimed to implement the principles of Better Births by 2021 through our existing resources, an additional 5 consultants to provide 168 hours cover at the LRI if the LGH service is transferred. Additional consultants are required to meet national guidance in terms of 24 hour a day cover; • Additional investment in mid wives to meet birth rate plus ratios • Additional nursing staff to deliver the requirements for a maternity assessment unit. **Efficiency and effectiveness** • Reduction in beds • Pathway redesign and review **Demand and capacity/flow** **Cost** • MDT Working/co location • Reduction in premium expenditure				

routes; GP, midwife and self-referral via maternity website. **Who will provide what activity at which site?** The community midwife will have a key role in the pathway being the woman's named midwife and acting as her care coordinator, but working closely with her GP, obstetrician (if required) and health visitor. The majority of antenatal and postnatal care will be delivered by small teams of midwives (7-10 per team) and offered from a range of community venue including GP practices, children's centres and community hospitals. Postnatally, women will receive individual care based on NICE guidance by the same team of midwives. Women will be offered choice in how to access support including drop-in breast feeding support groups. We are approaching continuity of care in several ways: Working in smaller teams to provide more robust continuity antenally and postnatally. Ensuring consistency in delivery via guidelines, policies and procedures. Ensuring consistency of communications from staff to women via training and engagement events. As noted in feedback from early adopters of Better Births, women thought it was more important to have consistency of information and approach rather than seeing the same professional. **When will it be in place?**	• Skill mix change • Consolidation of on call rotas and consolidation of 98 hour cover from the LGH • Reduction in management overheads • Reduction in expenditure associated with duplication of equipment				



Total predicted births: up to 11,000 (recognising lifespan of facility)

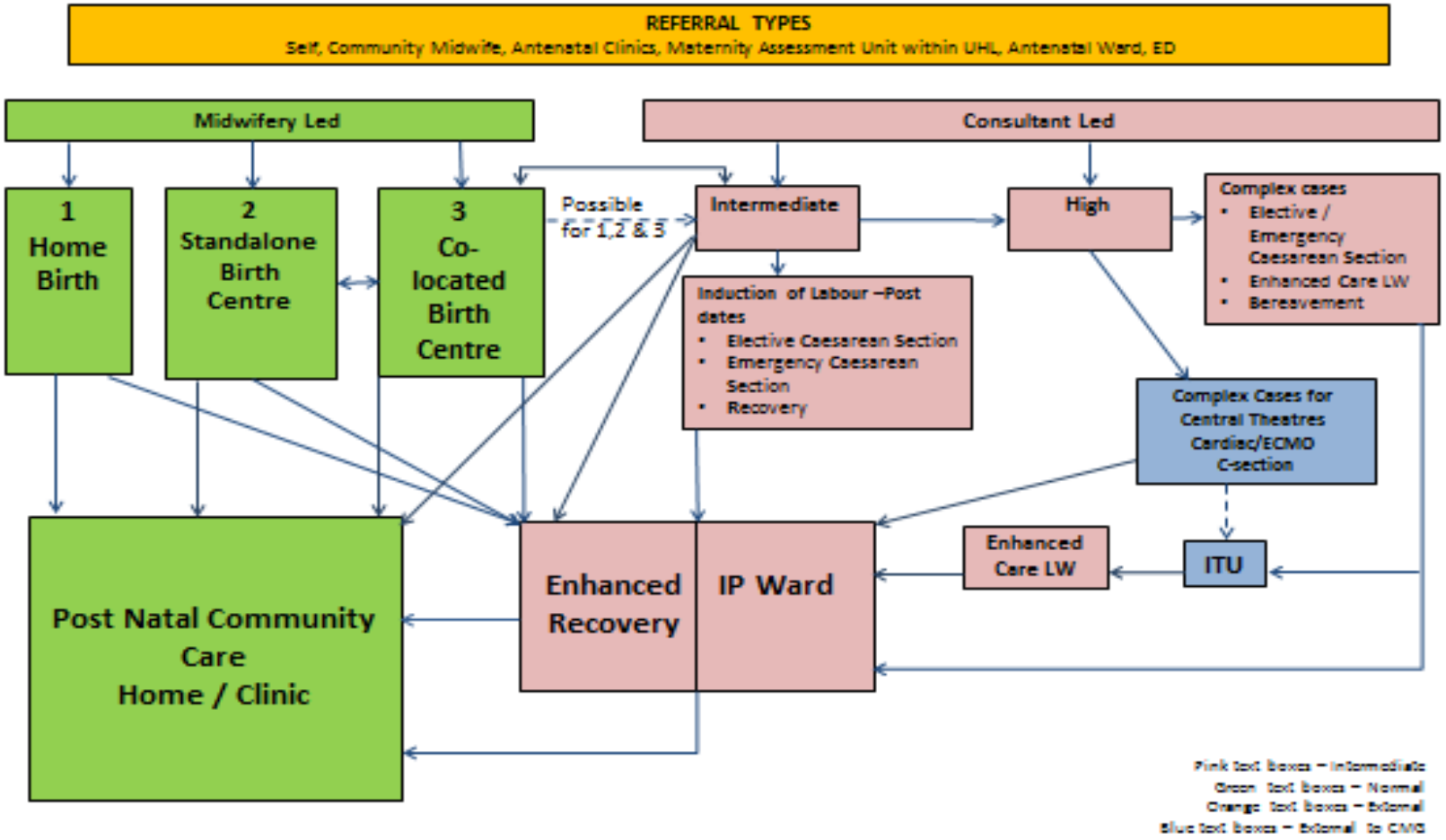
Maternity Antenatal Model of Care



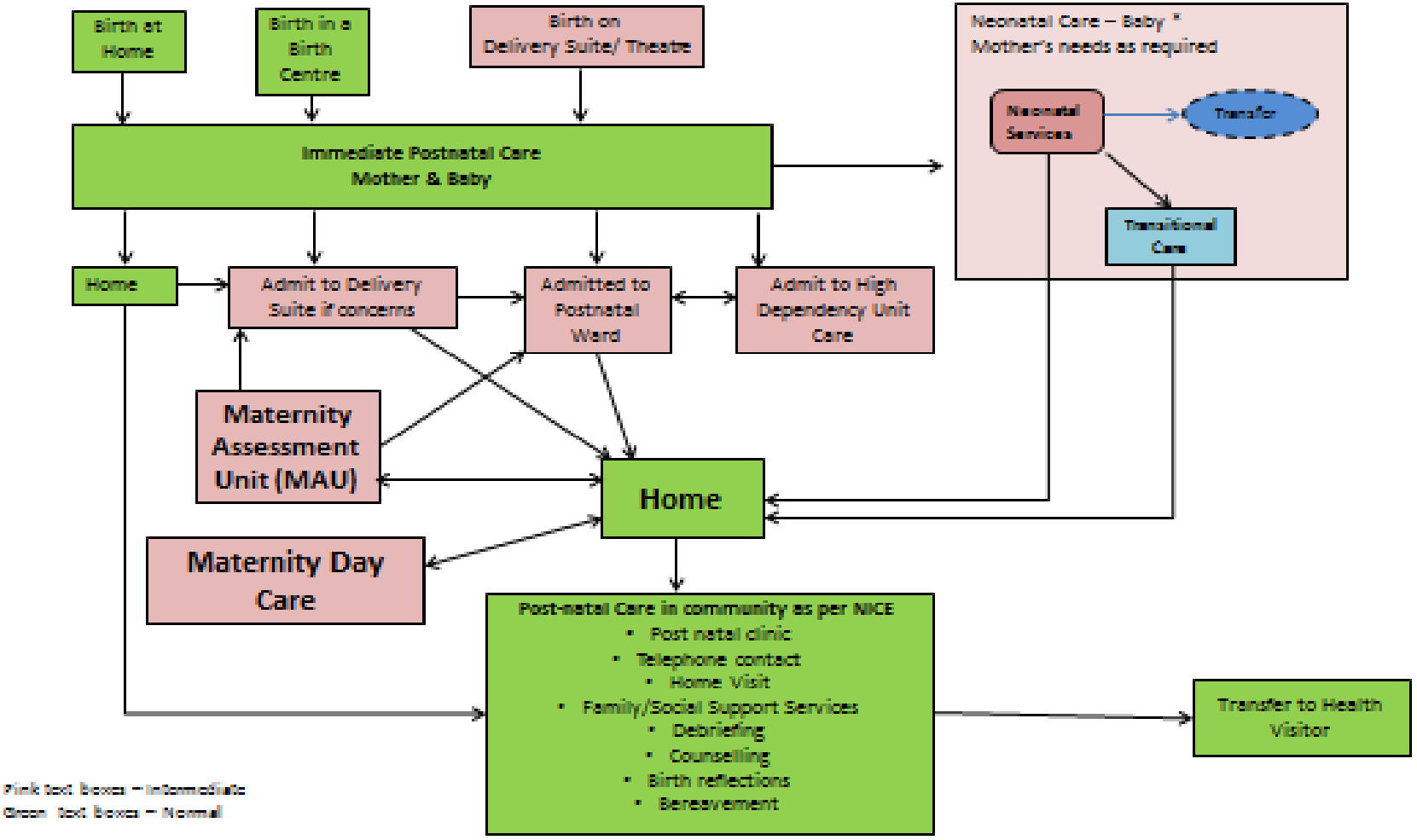
Pink text Boxes – Intermediate
Green text Boxes – Normal
Orange text Boxes – External

* See Post Natal Model of Care

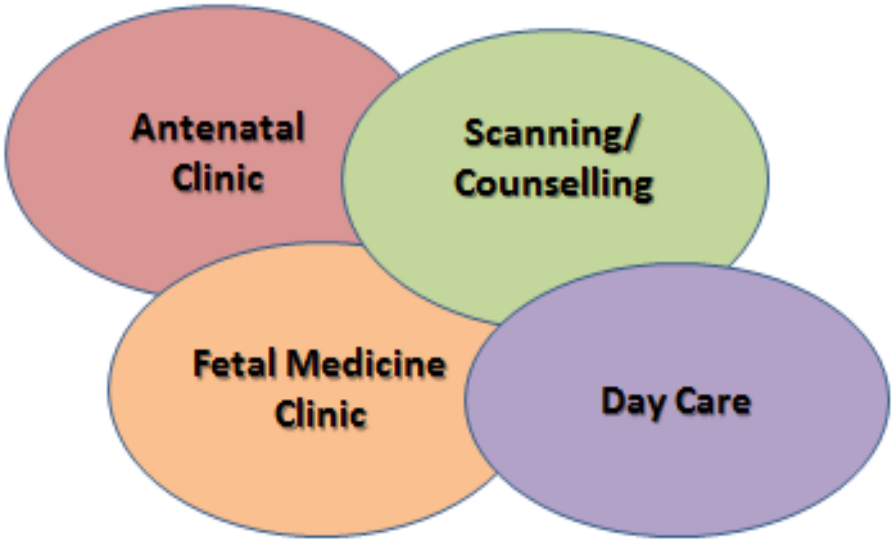
Intrapartum Model of Care



Postnatal Model of Care



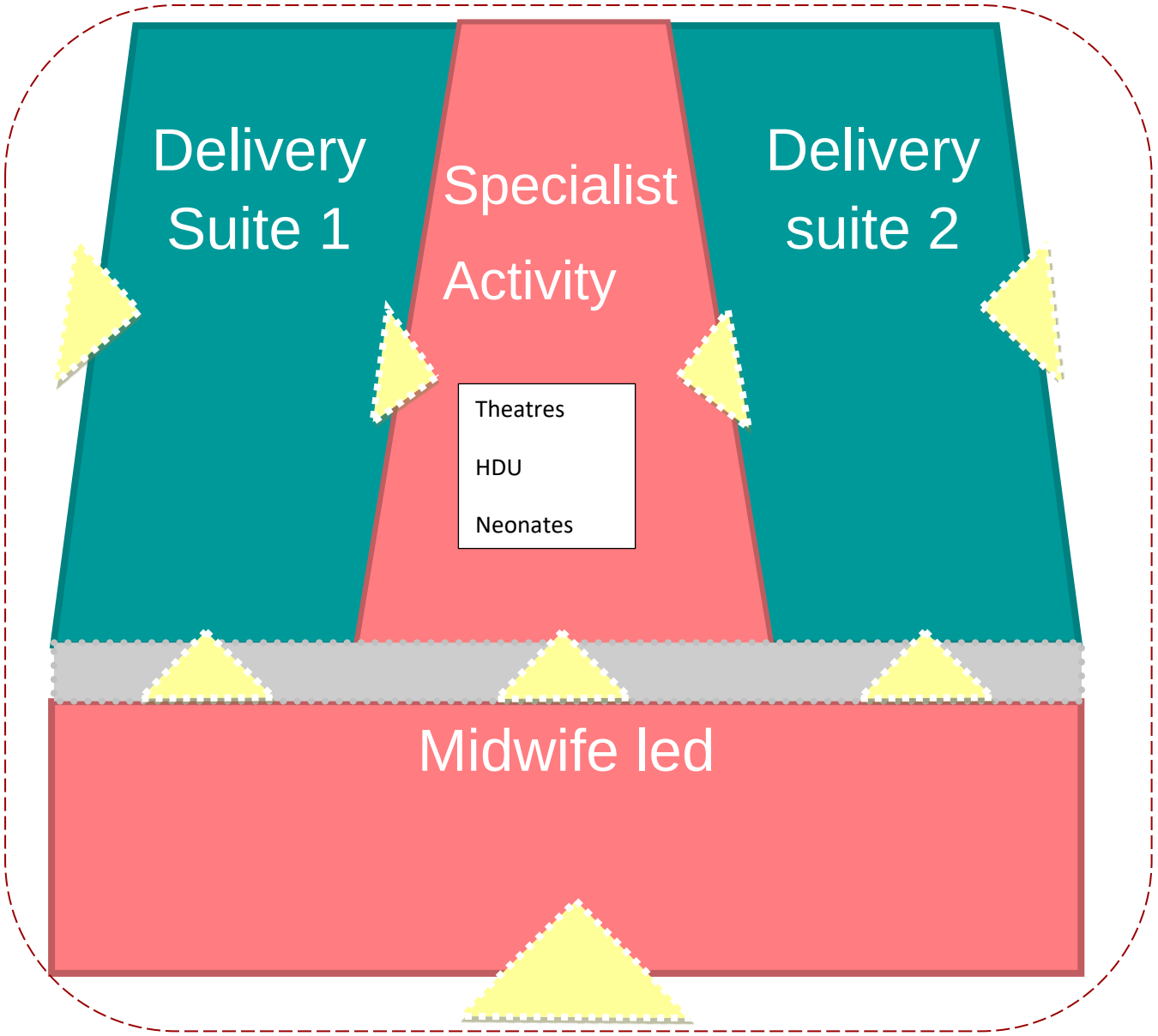
Antenatal Services – Model of Care

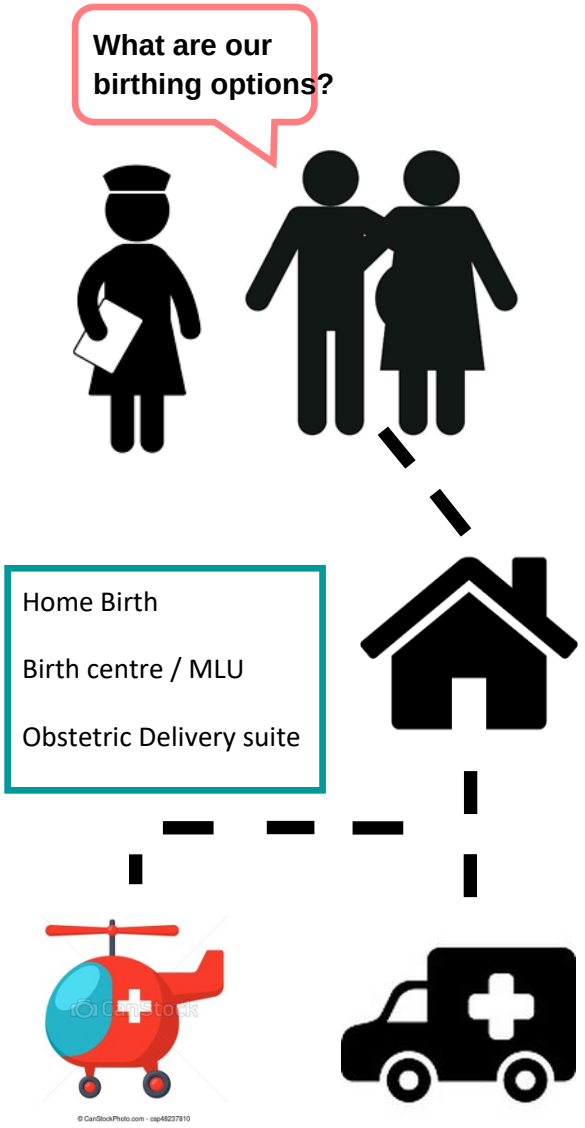


Women's Birth Options - The Hub

Leicester City Clinical Commissioning Group

West Leicestershire Clinical Commissioning Group





Design of system-wide clinical models of care
Children's Services: Women's & Children's Clinical Management Group (CMG)

Current Configuration	Rationale For Change
Overview Leicester Children's Hospital at University Hospitals of Leicester (UHL) NHS Trust provides: ▶ Secondary Paediatric Services to just over one million residents of Leicester, Leicestershire and Rutland (LLR); ▶ Tertiary Paediatric Services to the population of LLR and patients from surrounding counties; ▶ Quaternary Paediatric Services (e.g. Primary Ciliary Dyskinesia and ECMO) to the population of LLR and patients from across the country. **Location** The majority of children's services are currently situated at the LRI, predominantly within the Windsor and Balmoral buildings, comprising six seven wards (inc day case and inpatient), a PICU and HDU, paediatric outpatient department and Children's Development Centre. In addition to this, there are some clinics carried out in paediatric clinics in adult specialty departments. The East Midlands Congenital Heart Centre (EMCHC) comprises a ward, PICU and outpatient department, and this is located at the Glenfield Hospital. **Staffing**	In order to meet NHSE Congenital Heart Disease (CHD) standards, we must move the paediatric EMCHC from the Glenfield to the LRI, in order to be co-located with the rest of paediatric services. The deadline for this is December 2020, and the capital is allocated within the Trust's CRL and charitable income. This is also a GIRFT recommendation. **Workforce sustainability** The current split across two sites means that workforce is spread more thinly than it would need to be if services were consolidated onto one site. Bringing together services, particularly the intensive care units, will create more flexibility in the workforce. **Quality and Safety** CQC recommendations and National Service Framework guidance support separating paediatric and adult flows. **Efficiency and effectiveness** Co-location of all children's services will help to improve efficiency through the Children's Hospital, improving workforce sustainability, and creating a safer environment for care. **Demand and capacity** Co-location of all paediatric areas with theatres, and improvement of the theatres admission process will help to improve patient flow. The Leicester Children's Hospital currently treats all patients up to their 16th birthday, with some patients with chronic illness or learning disabilities until they are older, to ease transition into adult services. National Service Framework guidance now recommends that a Children's Hospital provides the care for appropriate patients up to their 19th birthday, in an age appropriate setting. Co-location of all outpatient and diagnostic services will help to deliver a 'one-stop shop' approach to patient care. The current configuration of services, particularly day case, does not allow flow through the patient pathway, with 'blockages' which can delay theatre procedures and MRI scans.

Childrens Services (incl. EMCHC) Establishment as at 1st October 2019	
Staff Group	**Establishment (WTE)**
Admin & Clerical	78.14
Allied Health Professionals	15.24
Career Grades	2.58
Consultant	62.14
Healthcare Assistants	20.59
Healthcare Scientists	10.00
Maintenance & Works	2.00
Medical Locum	14.70
Nursing Qualified	333.98
Nursing Unqualified	86.50
Other Medical & Dental Staff	77.10
Other Scien, Therap & Tech	4.00
Other Staff	2.16
Grand Total	**709.13**
* includes EMCHC Business Case approval of 2019/20 investment	

Children's Services: Summary of proposed changes

New Configuration	Benefits	Impact on Beds (Year)	Impact on Day Case (Year)	Impact on 1st OP/FU Clinic numbers (Year)	Other Impact (Year)
What will the new model look like? All children's services, including the paediatric EMCHC, will be co-located into one area of the Leicester Royal Infirmary site. The Childrens hospital will follow the NSF guidance providing care for patients up to the 19th Birthday in an age appropriate setting. The ambulatory care centre will house paediatric outpatient, diagnostic, clinical support and day case services, to promote a 'one-stop shop' approach to patient care. Co-location of all inpatient wards will make caring for children with co-morbidities much easier, as the opinion of specialty consultants will be close by. The consolidation of the two	Bringing all Children's services together into one consolidated Children's Hospital will have huge benefits in terms of patient experience and environment, co-locations and associated efficiencies, workforce flexibility and demand and capacity. **Workforce Sustainability** Bringing together all paediatric services will create a more flexible workforce, who do not have the pressures of being spread thinly across two sites. A particular example is the consolidation of the two Paediatric Intensive Care Units, which will enable us to bring together staff on one unit, with associated benefits to nursing and medical cover and the opportunity to review the workforce skill mix. In addition to this: • Review of staffing and skill mix in across the children's ward and PICU to mitigate vacancies • Increased recruitment and retention • Improve sickness rates to Trust average rates **Quality and Safety** The decision to increase the upper age limit of the Leicester Children's Hospital to a patient's 19th birthday, will mean that we have the chance to provide an age appropriate environment for young people in our care. This will help to ease transition into adult services. This is aligned to National Service Framework guidance. Appropriate theatre planning to ensure capacity for paediatric emergency sessions would reduce the mean time from admission to surgery, for which the GIRFT review showed us as an outlier. This may also reduce the average length of stay post procedure due to patients being operated on more quickly. National peers reviews continued to be used by the CH to guide or improve our services.			Reduce follow ups to release outpatient capacity to see more new patient appointments. Reduction in DNAs to improve OP efficiency. Impact on income from extended days £41K Review use of virtual / telephone clinics for suitable follow ups	Review potential for staffing and theatres efficiency savings: in line with changing standards and configuration plans

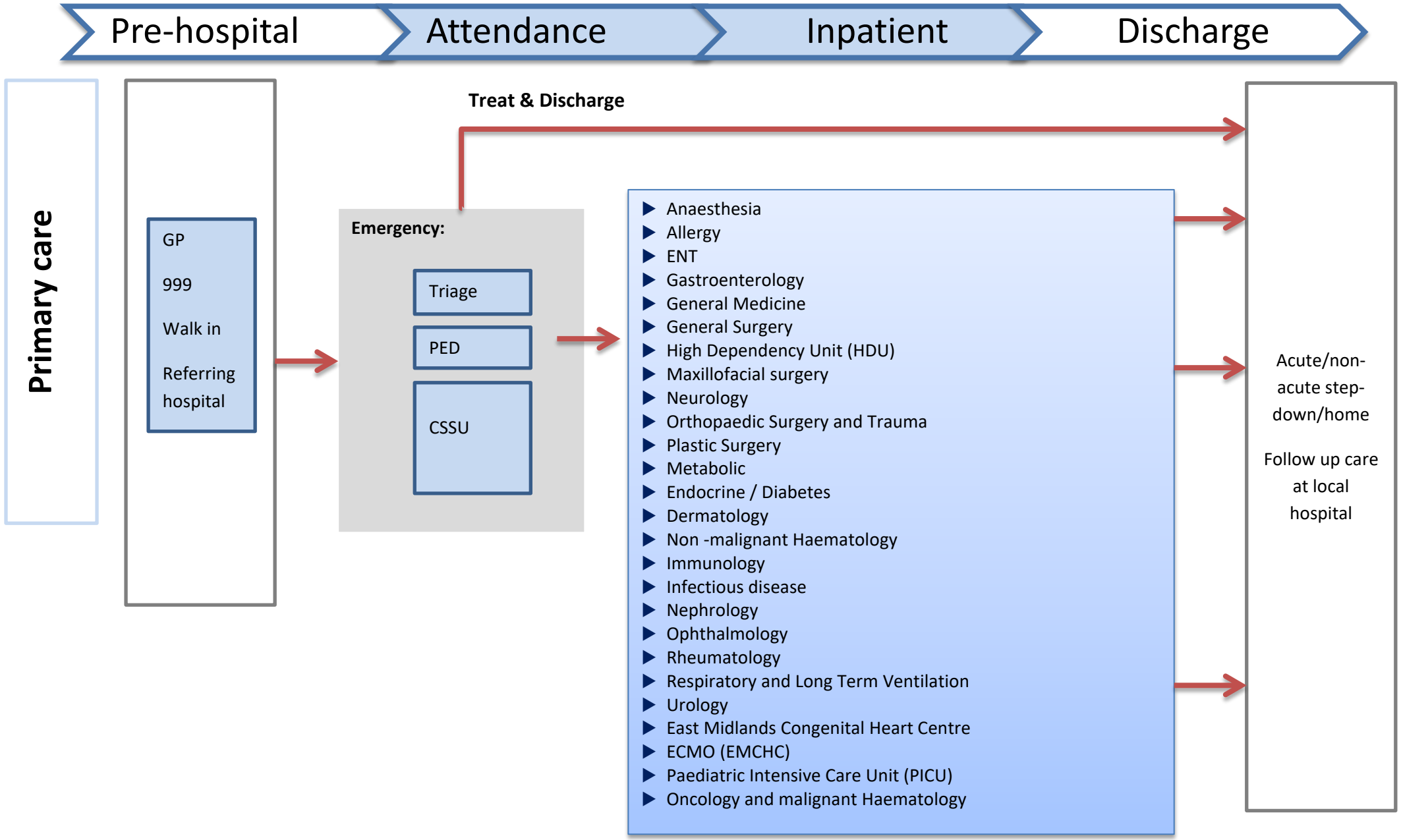
PICU's will ensure the specialist care that we provide to our most sick patients will be focused in one area, improving quality of care. Paediatric ECMO will also take place within this unit. The paediatric theatre department will focus specialist paediatric care within one area. **When will it be in place?** The paediatric EMCHC will be co-located with other paediatric services on the LRI site by December 2020. The co-location of the rest of the Children's Hospital is interdependent with the Maternity Hospital. Relying on refurbishment of Kensington Building. Ophthalmology services for Patients up to the age of 19, Orthoptics and Optometry will be delivered from a location within LRI. **Who will provide the activity and on which site?** Children's services will be delivered from the new children's hospital based at the LRI. The service will be delivered by the existing	**Compliance and Benchmarking** Compliance with the NHSE Congenital Heart Disease (CHD) co-location standard, which must be met by December 2020. Alignment with CQC recommendations and National Service Framework guidance support separating paediatric and adult flows, to ensure that patients are treated within age appropriate facilities. **Efficiency and Effectiveness** Co-location of all children's services will help to improve efficiency, with the following examples: • Consolidation of the two PICU's into one larger unit will make staffing this area more efficient, improving workforce sustainability, and creating a safer environment. • Co-location of all paediatric areas with theatres, and improvement of the theatres admission process will help to improve patient flow, thus ensuring a more efficient paediatric theatre department, reducing cancellations and waiting lists. • Co-location of all outpatient and diagnostic services will help to deliver a 'one-stop shop' approach to patient care, allowing a child to be seen by multiple specialties and support services in one visit, improving quality of care, reducing waiting times and avoiding unnecessary visits to the hospital. **Demand and Capacity / Flow** • Provision of bespoke MRI will promote efficiency. • Availability of a paediatric emergency theatre will reduce the ALOS. This will have impact on the quality of care for the patient and bed availability. • Consolidation of Elective paediatric pathways will enable greater improved efficiency and integration by reducing competing priorities with other services • A new Children's hospital with a clear identity and improved working environment will enhance staff satisfaction, recruitment and retention. **Outpatients**				

workforce, including staff who will move to the LRI as a consequence of the EMCHC moves to the LRI.	• A new Children's hospital with an improved foot print will enable greater efficiency of working ad new models of care. **IT Opportunities** • Consolidate back office staff from 3 sites to one utilising the electronic patient notes programme from 2020.				

Activity model

(Work in progress. To be inserted when in patient, day case and OP modelling is complete)

Children's Services – Emergency Patient Flow



Elective Patient Flow