

The Future of Acute Hospital Services in Worcestershire (FoAHSW)

**Proposed Clinical Model of Care
FINAL
(January 2016)**

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1. Introduction and Background

This document sets out the clinical model for future acute hospital services in Worcestershire. The model has been developed by clinicians within Worcestershire with support from external experts. It is a clinically sustainable model which enables all residents to have access to high quality, safe, acute hospital services in the future. The model has been in development over the last four years.

The work on the model has been overseen by the Future of Acute Hospital Services in Worcestershire (FoAHSW) programme's Clinical Sub-Committee and involved clinicians from all three Clinical Commissioning Groups (CCGs) and Worcestershire Acute Hospitals NHS Trust (WAHT) as well as Worcestershire Health and Care NHS Trust, Birmingham Women's NHS Foundation Trust and West Midlands Ambulance Service NHS Foundation Trust. This approach has ensured that the proposed model is owned and supported by clinicians across the county.

In 2012 clinicians from across Worcestershire expressed concern that acute hospitals services in the county were not clinically sustainable and needed to be reconfigured. They were worried that patients were receiving inequitable levels of care and that the situation could only get worse due to on-going workforce challenges. The services which were of most concern were maternity, paediatrics and emergency care.

NHS Worcestershire instigated a Joint Services Review involving primary and secondary clinicians from across the county (see **appendix 1** for JSR report). Responsibility for the review was taken over by the three Clinical Commissioning Groups when they were established in April 2013 and the Future of Acute Hospital Services in Worcestershire Programme Board was formed to lead the reconfiguration. The Board consists of the leaders of the three CCGs, Worcestershire Acute Hospitals, Worcestershire Health and Care Trust, West Midlands Ambulance Service and Worcestershire County Council as well as representatives from NHS England and the NHS Trust Development Authority. The Programme Board has overseen the development of this Clinical Model for acute hospital services in Worcestershire.

The first iteration of the clinical model was tested by an Independent Clinical Review Panel (ICRP) led by Nigel Beasley, Deputy Chair of the East Midlands Clinical Senate. The ICRP's recommendations in January 2014 were used to further refine the clinical model, a full version of the recommendations is available in **appendix 2**. In June 2014 the revised clinical model was approved by the Programme Board and the three CCGs and put forward to the West Midlands Clinical Senate for review.

In June 2015 the West Midlands Clinical Senate gave its support to the majority of the proposed model but asked for additional work to be undertaken on the model for emergency care. The West Midlands Clinical Senate recommendations are available in **appendix 3**. Since then further detail has been added to the clinical pathways, areas for further development have been responded to and the Programme Board has undertaken further work on understanding the risks and developing mitigations.

This work has now been completed and is incorporated in this document.

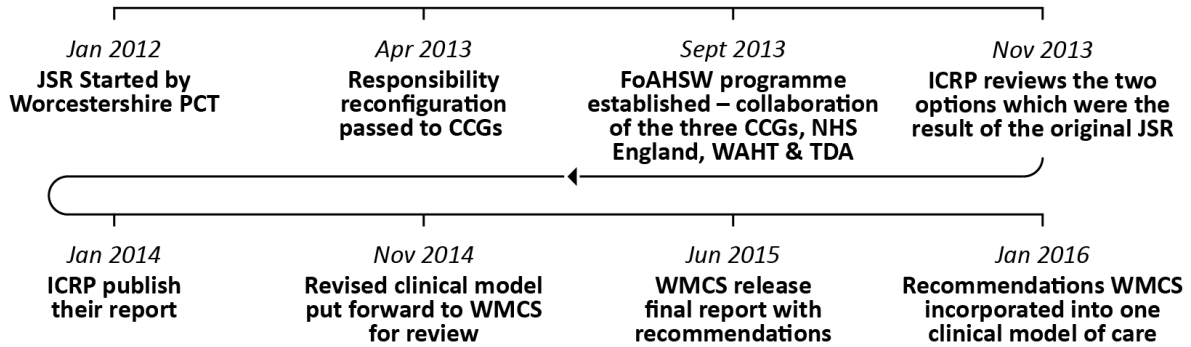


Figure 1: Brief summary of programme progress up to January 2016

1.1 Monitoring the safety of existing services

The Programme Board has established a Quality and Service Sustainability Sub-committee (QSS) to monitor the safety of existing services while the model of care has been developed. The Quality and Service Sustainability Sub-committee has identified ‘trigger points’ to determine when existing services can no longer be maintained safely. If these trigger points are reached the QSS recommends how the safety of services can be maintained. The Quality and Service Sustainability Sub-committee has also identified de-escalation trigger points for when any emergency changes can be safely reversed. The three CCGs are responsible for commissioning safe services and Worcestershire Acute Hospitals NHS Trust is responsible for running safe services and it is these statutory bodies, not the Future of Acute Hospital Services in Worcestershire Programme Board, who make decisions about any temporary emergency change to services.

The QSS has made recommendations about:

- Serious abdominal surgery
- Emergency surgery on children
- Emergency gynaecology
- Obstetric and Neonatal services

1.1.1 Serious abdominal surgery

Due to quality concerns it was decided that potential obstructed bowels should all be operated on at Worcestershire Royal Hospital (WRH) to improve the outcomes for patients. This emergency temporary change took place in February 2014.

1.1.2 Children’s Emergency surgery

Due to quality concerns it was decided that emergency surgery on children should be concentrated at Worcestershire Royal Hospital from December 2014. Routine surgery is not affected by this move.

1.1.3 Emergency Gynaecology

Due to severe shortages of medical staff it was no longer possible to run two separate rotas for obstetrics and gynaecology at the Alexandra Hospital (AH). Therefore all emergency gynaecology work was transferred to one medical rota based at the Worcestershire Royal Hospital in August 2015.

1.1.4 Obstetric and Neonatal services

In late October 2015, the Quality and Service Sustainability Sub-committee was advised that the ongoing risks to the Obstetric and Neonatal services had met the triggers developed to take temporary emergency changes. The service at the Alexandra Hospital was deemed no longer sustainable in the absence of the availability of qualified neonatal staff to maintain the service. On 5 November 2015 the Obstetric and Neonatal service at AH closed under temporary emergency measures for a period of three months; any booked deliveries at AH would be transferred to WRH, likewise neonatal care would be provided on the WRH site. Any pre-planned elective caesareans at AH would also be performed at WRH. All women were offered the opportunity to transfer their care out of the county if that was required. This is a temporary, emergency measure and there is a commitment from the Acute Trust and the Redditch and Bromsgrove Clinical Commissioning Group to resume the service at the Alexandra Hospital if staffing issues are resolved.

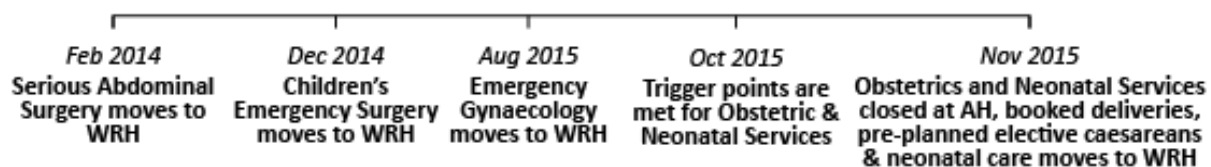


Figure 2: Timeline summarising the implementation of emergency changes

All these temporary emergency changes are being kept under review and will be reversed if it becomes clinically safe to do so.

2. The current clinical model

There are three acute hospitals in Worcestershire serving a population of 570,000 people. The Worcestershire Royal Hospital (WRH) in Worcester and the Alexandra Hospital (AH) in Redditch are district general hospitals which have Type 1 Accident and Emergency Departments, consultant-led obstetrics, paediatric inpatients and general medical and surgical beds. In addition the Worcestershire Royal Hospital is the specialist centre in the county for vascular surgery, interventional radiology, radiotherapy, strokes, more complex cancers and heart stents, it also has a midwife-led birth centre on site. Kidderminster Hospital and Treatment Centre has a minor injuries unit and a dedicated treatment centre for diagnostics, day case and short-stay surgery for children and adults.

Key statistics

2014/15	Worcestershire Royal	Alexandra	Kidderminster
Births	3,799	1,941	0
Neonatal	Level 2	Level 1	0
A&E attendances	70,000	55,000	26,000 minor injuries
Beds	415	336	49

A fuller description of the current model of care is included in **appendix 4**.

3. Clinical Case for Change

In March 2013 NHS Worcestershire together with the shadow CCGs reviewed and approved the clinical case for change. The case for change reflects the service configuration at that time and does not reflect subsequent emergency changes, the output and actions relating to external quality reviews such as Care Quality Commission (CQC), and recent improvements achieved by the Trust.

Acute hospital services in Worcestershire are not sustainable in their current form due to a critical shortage of clinical staff and challenges with recruitment and retention of staff at all levels. Services need to be reconfigured to improve quality and to build a sustainable health economy.

The case for change focuses on the key areas which are most in need of change:

- Inpatient Children's services
- Neonatal Care
- Consultant-Led Births
- Emergency Care
- Surgery

In addition the case for change recognises that in order to increase some services on the Worcestershire Royal Hospital site there will be a need to move some services from Worcestershire Royal Hospital to the Alexandra Hospital.

A move towards centralisation of specialised services across the NHS means a greater concentration of expertise and specialist skills of clinicians. The 2011 briefing on Reconfiguring Hospital Services by the King's Fund highlighted how the move to specialised, larger hospital sites, allows skills to be maximised and results in improved outcomes for patients (see **appendix 5** – Lessons for the NHS).

Larger hospitals are also more likely to attract and retain the best staff. A study by Imperial College in London shows that more patients die because of inadequate staffing in NHS hospitals than in road accidents. There is a pressing need to move towards 24/7 working though rota pressures and costs will continue to make 24/7 working a challenge across the NHS.

Across England, there have been significant improvements in outcomes for conditions such as cancer, stroke, heart disease and trauma care which can be attributed to the way services have evolved particularly with the concentration of specialised services. In many of these cases, care has moved away from smaller local hospitals to bigger hospitals with specialist teams.

Royal College of Surgeons-led research has demonstrated a link between volume and expertise with increased quality. For example, smaller hospitals often find it hard to recruit experienced paediatric consultants as some hospitals do not treat enough sick children to maintain a sufficient level of consultant expertise. A Royal College of Paediatrics and Child Health report in 2012 stated that children receive better care if they have 24-hour access to a consultant. This is also true for seriously ill new-born babies and maternity care.

3.1 The situation in Worcestershire (March 2013)

Despite improvements in acute services in recent years the population of Worcestershire is not receiving the best outcomes. Demand for services is increasing as a consequence of an ageing population and medical advances, a situation which is mirrored elsewhere in the country. For a number of years Worcestershire Acute Hospitals NHS Trust has found it difficult to recruit doctors to

cover medical and surgical rosters. Recruitment difficulties are compounded by the need to deliver services across three sites and there are particular difficulties in obstetrics, paediatrics, general surgery and A&E.

Additional issues which hamper the Trust's ability to cover medical and surgical on-call rotas include:

- Restrictions in working hours for junior doctors and a lack of experience;
- Reduced opportunities for international recruitment;
- Medical training results in earlier specialisation and narrower range of expertise to improve outcomes, but at the expense of more general work. Historically the NHS had general surgeons and general physicians but these have all retired or are nearing retirement age. In their place are specialists in specific areas such as breast surgery, Upper Gastrointestinal or Vascular surgery, who have less experience of general surgery or medicine and cannot be used as flexibly as the workforce of the past;
- The national shortage of suitably trained staff;
- The Alexandra Hospital is not an attractive place to work due to the uncertainty about the future of the hospital and its services.

These issues have collectively impacted onto the challenge of sustaining some specialist services 24/7. Worcestershire Acute Hospitals NHS Trust has responded to this through continuous recruitment processes, use of locum doctors and temporary staff provided by agencies or, in some cases, through establishing consultant-only services.

Evidence suggests that the use of locums and temporary staffing can limit the quality of patient care and is by definition not sustainable. The use of interim staff in key clinical posts is not sustainable in the medium to long term and in addition to the impact on quality, locum costs exceed those of employed staff and are not sustainable. Worcestershire Acute Hospitals NHS Trust has stated that a third of its annual deficit (2015/16 predicted £60 million) is due to the cost of employing locum rather than substantive staff.

Local services need to, as a minimum, meet and sustain national standards. Failure to achieve this presents a very real risk that some services will become unsustainable and may become unsafe. We know that from independent reviews of the services by Royal Colleges and the Care Quality Commission that the paediatric, maternity and emergency surgery services provided in Worcestershire are on the verge of being unsafe. The CQC summary report, highlighting these areas for improvement at WAHT, is available in **appendix 6**.

3.1.1 Workforce issues

The rapid expansion in NHS services in the decade from 1998 to 2008 has led to a shortfall in doctors and nurses. Despite approximately 30% of doctors working in the UK being from overseas, there is still a serious shortage of medical workforce in most NHS hospitals. Many posts are staffed by temporary or locum doctors. In the current climate it is often impossible to recruit well-trained permanent doctors into consultant posts. Compared with ten years ago when there were typically three good applicants for every consultant job, now that ratio is reversed. Doctors who are able to pick and choose their jobs as never before almost inevitably choose to work in larger hospitals that are more prestigious and have better workforce arrangements. This is a better option professionally, and the better arrangements means that duties such as night-time on-call are shared out between greater numbers of colleagues.

The focus on high-quality medical outcomes has made clear that the best results from medical and surgical treatment come from larger departments that can attract groups of specialists who are experts in the most advanced treatments. These departments are usually found in larger hospitals that are well-supported with junior staff, specialist nurses, teaching and research. Inevitably, this level of expertise is increasingly concentrated in a smaller number of larger hospitals. However, an unavoidable consequence of this consolidation of expertise means that more patients will be faced with longer travel times in order to receive modern treatment. The alternative is to continue to support smaller local units with a growing risk of unsafe or sub-standard care – this is clearly unacceptable. In some of the specialist services in Worcestershire staff are stretched across the three hospital sites. They are working in small, isolated teams without the back-up and support of being in a larger unit.

Changes to the training of the medical workforce, together with alterations to eligibility criteria for non-European Union residents, have resulted in the reduced numbers of specialty trainees in many medical specialties. In specialities such as paediatrics with ‘run-through’ training the number of training posts is being cut in order to maximise the chances of obtaining a consultant post on completion of training.

Having fewer numbers of staff means each member of staff has to provide cover at night and the weekends more frequently than those in larger units. This is not attractive to people applying for jobs. It is therefore more difficult to recruit a permanent workforce to work on these rotas which means the hospital increasingly relies on temporary or locum doctors and nurses to fill shifts. At the Alexandra Hospital despite frequent advertising not a single permanent medical consultant has been appointed in the last two years.

Locums can be highly skilled but they are temporary and therefore do not have as great a knowledge of the hospital and its procedures as permanent members of staff. In many cases due to safety reasons they are not allowed to carry out some of the more specialist clinical procedures. This means it is less efficient to employ temporary doctors.

The reliance on temporary doctors and nurses has been growing steadily. It is a particular problem in the areas we most want to change, obstetrics, paediatrics, neonates and emergency surgery. In the countywide obstetric service nearly half the middle grade doctors are temporary.

3.1.2 Seven day working

Public expectation of the NHS services is high, and rightly so. Increasingly this expectation means availability of services outside normal hours and at weekends. For hospital (and community) services, the expected standard of care requires the presence of consultants and their teams treating patients seven days a week. This level of consultant and junior doctor staffing can usually be achieved in larger well-staffed hospitals, but has become extremely difficult to maintain in smaller general hospitals. These smaller units increasingly rely on a majority of temporary staff whose clinical skills are retained and no progression or advancement undertaken. Clinical safety cannot be maintained in these conditions, as recent experience in this region has shown. It is not right that we continue to offer patients in Worcestershire different levels of care which is dependent on whether their care is consultant-led or not.

3.1.3 Financial impact

Pressure on public sector spending has intensified at a time when increased demands are made of CCGs and NHS Trusts to reduce spending while simultaneously making major service improvements. Financial pressure has also increased due to the high cost of hiring temporary medical and nursing staff through recruitment agencies when permanent posts cannot be filled.

All hospitals are funded through a national tariff for the work they do. By duplicating services at both the Alexandra and Worcestershire Royal Hospitals, Worcestershire Acute Hospitals NHS Trust is incurring double the expense of running its services and paying for 24/7 rotas. By concentrating inpatient paediatrics, births and emergency surgery at the Worcestershire Royal Hospital the Acute Trust believes it will be able to achieve efficiency savings.

In addition the Acute Trust loses money if it is unable to carry out planned operations and patients are moved to other hospitals or the private sector. Planned operations are often cancelled at the last minute due to the need to treat emergency patients. If more planned operations could be carried out at the Alexandra Hospital whilst emergency patients were treated at the Worcestershire Royal Hospital the Acute Trust would be able to undertake more planned operations and increase its income.

3.2 Paediatrics Case for Change

There is a slightly higher than expected admission and length of stay rate for acute illness for children at the Alexandra Hospital compared to the Worcestershire Royal Hospital, despite a higher complexity of caseload at the Worcestershire Royal Hospital.

Worcestershire Acute Hospitals Trust has found it difficult to recruit middle grade doctors to cover the Alexandra Hospital despite multiple adverts both in the UK and abroad. The service relies on locums and there is concern about the safe, integrated practice of locum doctors providing cover and on-going concern regarding the continued dependency on locums and the potential impact this has on quality. The current middle grade rota at the Alexandra Hospital has a 4:2 split between substantive and locum doctors. Locum doctors are usually employed through an agency and recent capping of the maximum hourly rate payable makes it likely that these locums will seek employment elsewhere in organisations where the pay is not limited by a Department of Health price cap.

The shortage of middle grade doctors has been recognised for many years including by the NHS West Midlands Workforce Deanery which in 2010 highlighted a concern with staffing shortages at middle grade. There is a real danger that the Workforce Deanery could withdraw training recognition for junior paediatric doctors at the Alexandra Hospital. This would make it a less attractive working environment for paediatric consultants and add to the current recruitment problems.

To mitigate this paediatric consultants have been 'acting down' and staying at the Alexandra Hospital overnight to provide cover. This impacts on their ability to work during the day when the paediatric department is busier. The consultants have provided this cover as part of their agreed job plans but it is not a long-term solution to the staffing problems and it is financially challenging as a solution to middle grade staffing challenges.

The current service at WAHT meets only seven of the 10 standards in the Royal College of Paediatrics and Child Health (RCPCH) 'Facing the Future' document (see **appendix 7**).

There are fewer than ten consultants on the on call rota, and consultants are not timetabled to be in the hospital at all times of peak activity. Both of these would be rectified in a reconfigured service with a single inpatient unit.

The county does not have a large enough population to support two inpatient paediatric departments. On average only five or six children with medical problems are admitted to the Alexandra Hospital every 24 hours. The majority of these go home within 24 hours, and the average length of stay is just one day. With so few very sick children being admitted it is difficult for the doctors and nurses to keep their specialist skills up to date. It is also recognised that children have better outcomes if they are treated in larger units with a higher concentration of specialist staff.

There is a financial case for change because it costs more to run two separate inpatient paediatric departments. These additional costs have been recognised in the past and paid at above tariff rates by the CCGs but this is not sustainable and means other health services in the county are subsidising paediatric services.

3.3 Obstetrics Case for Change

If inpatient paediatrics cease at the Alexandra Hospital it would be unsafe to continue providing consultant-led births as there would not be 24-hour paediatric cover at the Alexandra Hospital for babies who need additional help when they are born.

At the start of the reconfiguration process there was a trend towards a higher number of preventable Serious Incidents (Grade 3), e.g. anal sphincter injuries; Caesarean sections; maternal readmissions; and referrals of new-born babies for therapeutic hypothermia at the Alexandra Hospital compared to the Worcestershire Royal, despite a higher complexity of cases at the Worcestershire Royal Hospital. There is no provision at the Alexandra Hospital for a neonatal intensive care unit so the Trust is providing a two-tier system for mothers and their babies with those at Worcester having access to a greater range of facilities. Worcestershire Royal has a level 2 neonatal intensive care unit which provides care for all Worcestershire babies born between 28 and 34 weeks of gestation.

Worcestershire Acute Hospitals NHS Trust has been unable to recruit middle grade doctors to cover the Alexandra and Worcestershire Royal sites, despite multiple adverts both nationally and internationally and there is concern about the safe, integrated practice of locum doctors providing cover.

Worcestershire Acute Hospitals is unable to meet the recommended level of dedicated consultant cover for the labour wards at the Alexandra Hospital (40 hours) and at the Worcestershire Royal (98 hours).

The NHS West Midlands Workforce Deanery expressed concern about the lack of training experience at the Alexandra site and this may lead to the withdrawal of middle grade trainees in future, but in the meantime has been partially resolved by cross-site programmes.

A recent Royal College of Paediatrics and Child Health report (**appendix 8**) on obstetric and paediatric/neonatal services found the current configuration to be unsustainable and highlighted concerns that services are coping through the appointment of locums to cover middle grade rotas and the goodwill and energy of consultants covering where this is not possible. The report noted

that services do not meet current medical staffing standards and, unless changes are made, are unlikely to be able to recruit sufficient trained staff to do so in future.

There is a clear co-dependency between obstetrics and paediatric services that suggests co-location of both services would be desirable in any case for reconfiguration.

Most women do not need a consultant to supervise their labour and the birth of their baby. Approximately 2,000 babies are born every year at the Alexandra Hospital, making it one of the smaller consultant delivered units in the country. Leading national advisors say this relatively small number of births means the Alexandra Hospital will not be able to provide the recommended level of consultant cover to provide safe maternity services in the long term.

The situation cannot be improved by Worcestershire Royal Hospital or any other maternity provider rotating their staff through the Alexandra Hospital, as there are simply too few babies born in the hospital for a consultant-led unit to be viable or sustainable.

3.4 Emergency Department Case for Change

The A&E departments at the Alexandra and Worcestershire Royal Hospitals fall short of the consultant workforce recommended by the Royal College of Emergency Medicine (RCEM). The college recommends a minimum of ten consultants in each A&E department – in Worcestershire, there are only nine consultants in total.

The provision of a Type 1 A&E department is dependent on 24-hour availability of: general surgery, laboratory (and diagnostic) services, inpatient paediatrics, acute medicine, radiology, trauma services and critical care.

The proposed move of inpatient paediatrics, obstetrics, and emergency surgery will have a significant impact on the sustainability of a Type 1 A&E for children at the Alexandra Hospital. Review of A&E attendances by the Independent Clinical Review Panel (**appendix 2**) led to the recommendation that emergency pathways be reconfigured to divert 5% of the most acute emergencies directly to the Worcestershire Royal A&E, while ensuring that 95% of patients continue to be seen and assessed at the Alexandra. Over a 2-3 year period the A&E Department at the Alexandra Hospital will convert to a networked Emergency Centre as recommended in the Keogh Report (**appendix 9**). It will be for adults only but will be capable of safe initial management and transfer if a very sick child arrives unexpectedly. Emergency flow pathways to support the changes have been agreed with West Midlands Ambulance Service NHS Foundation Trust (WMAS). A primary care led Urgent Care Centre for children and adults will be integrated within the emergency department at the Alexandra Hospital. Care for children in the Urgent Care Centre will be supported by:

- Staff on duty trained in paediatric life support to manage any unexpectedly ill child
- Staff from the Emergency Department
- Access to immediate telephone/telemedicine support from paediatric consultants at the Worcestershire Royal Hospital
- Secondary transfer arrangements to inpatient facilities
- Community hub arrangements including links to an enhanced hospital at home service.

Guidance for commissioners regarding Urgent Care Centres is due to be published by NHS England imminently and the plans contained in this model follow the draft NHS England guidance.

The A&E Department at WRH will evolve into a Major Emergency Centre, as described by Bruce Keogh's report (November 2013) in **appendix 9**, with 14-16 A&E consultants, some of whom will provide cover to the Alexandra Emergency Centre on a rotating basis, supported by middle-grade staff.

3.5 Surgical Case for Change

3.5.1 Quality

National Hospital Standardised Mortality Review (HSMR) (2013) and Worcestershire Acute Hospitals NHS Trust's own internal data indicated higher than acceptable mortality rates at the Alexandra site and also compared with services delivered at Worcestershire Royal Hospital which were slightly lower than would be expected.

Worcestershire Acute Hospitals wishes to further develop the Level 2 Trauma Unit at the Worcestershire Royal site, with management of semi-elective trauma (e.g. wrist fractures, hand injuries and fracture clinics) at the Alexandra Hospital and Kidderminster Treatment Centre. Inpatient trauma is proposed to be centralised at WRH where all of the other essential acute surgical services are based.

Worcestershire Acute Hospital Trust wishes to invest in the creation of 'Centres of Excellence' for all elective Orthopaedics, Urology (including Urological Cancer) and a laparoscopic benign upper GI surgery service at the Alexandra Hospital, with the creation of further 'Centres of Excellence' for all elective Colorectal Surgery, Reconstructive Breast Surgery, Vascular Surgery and Head and Neck Surgery at the Worcestershire Royal site. The proposed reconfiguration will not only concentrate expertise and facilities in single centres for the county but also reduce the conflict for resource that exists currently where acute and more routine surgical services are not separated. This will also improve the structure of training in surgery at all levels across the county which is supported by the Workforce Deanery.

3.5.2 Workforce

The demographics of the consultant body at the Alexandra Hospital show that a number of consultants are due to retire in the next few years. Many of these are general surgeons who take part in the emergency on-call rota. Due to the increasing subspecialisation during training most of the replacement consultants are specialists (breast, vascular surgery etc.) and unable to take on emergency on-call work. There is also a national reduction in the number of junior doctors in surgery in training nationally. This reduction makes it increasingly difficult, if not impossible, for Worcestershire Acute Hospitals Trust to continue to support two separate services and provide appropriate training. This is compounded by the loss of surgical specialist trainees at the Alexandra Hospital several years ago due to limited training opportunities. The uncertainty of the future of emergency surgery at the Alexandra Hospital has recently led to a loss of middle grade surgeons which now threatens the sustainability of a 24/7 resident rota.

3.6 Summary of the Case for Change

Medical and nursing workforce pressures experienced by Worcestershire Acute Hospital NHS Trust have led to difficulty in maintaining services, and highlighted clinical safety concerns, predominantly

at the Alexandra Hospital site. The services most critically affected include paediatrics, obstetrics and emergency surgery.

In response to these concerns, and following the outcome of a clinically-led service review process (ICRP) in January 2014, the three Clinical Commissioning Groups, Worcestershire Acute Hospital Trust and other Local Health Economy (LHE) partners have unanimously agreed to reconfigure clinical services across the Trust to maintain clinical safety and sustain robust services in the long term.

It is recognised by the Acute Trust and its partners that a major clinical reconfiguration is likely to carry a degree of risk, and similar concerns have been noted by clinical colleagues. The Trust, supported by senior clinicians, has resolved to manage and mitigate all risks as far as is possible. The successful temporary emergency centralisation of maternity services with no adverse impact on patient care is an indication of the ability within the organisation to successfully manage these risks. Extensive communication with clinicians across primary and secondary care, across the county, has been conducted.

Although a number of provider models have been evaluated, the Trust and its commissioners are confident that reconfiguration of its clinical services is the best available model, within current NHS and local constraints, to secure long term services for the population of Worcestershire.

Conversely, failure to restructure services risks serious damage to local NHS services and the safety of the Worcestershire population.

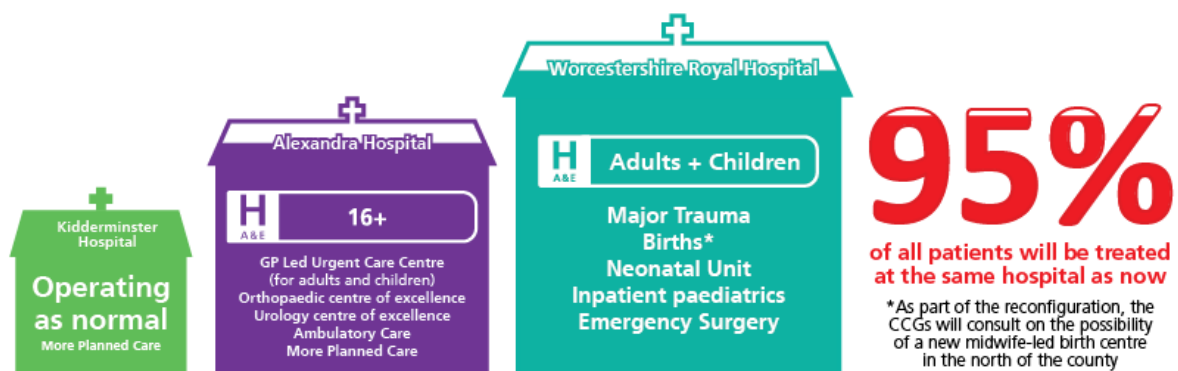
4. Proposed Model of Care

The future model of care has been developed by clinicians from across Worcestershire through the programme's Clinical Sub-Committee and its workstreams.

4.1 Proposed Model of Care – Summary

Under the proposed model of care around 95% of patients would continue to receive their care in the hospital where they receive it now. There will be no changes to outpatient appointments, diagnostics or acute medicine.

The model of care is summarised as follows, a more detailed description is given below and a full description is in **appendix 10**.



Future of Acute Hospital Services in Worcestershire vision: To have clinically safe and sustainable services in the county

The proposed model of care includes:

- Deliver care locally for the majority of patients, with no change to the majority of existing services
- Separation of emergency and planned care to improve outcomes and patient experience
- Centralisation of inpatient care for children
- Centralisation of consultant-led births
- Centralisation of emergency surgery
- Creation of centres of excellence for planned surgery
- Adult-only emergency department at the Alexandra Hospital with robust arrangements for managing a seriously sick child if they arrive unexpectedly or their condition deteriorates whilst they are in the department (see below for more details)
- Urgent Care Centre for adults and children at the Alexandra and Worcestershire Royal Hospitals
- The Alexandra Hospital will continue to care for undifferentiated adult medical patients, except heart attacks and strokes which are already centralised at the Worcestershire Royal Hospital

The model of care being proposed for Worcestershire separates much of the emergency and planned care undertaken in the county. This separation enables the Trust to utilise its workforce and equipment in the most cost-effective way and ensures emergency patients have access to all the experts and equipment. It will improve outcomes and enhance the patient experience. It will also lead to a reduction in the number of cancelled operations.

The model of care we are proposing moves:

- All hospital births from the Alexandra to the Worcestershire Royal Hospital
- Inpatient children's services from the Alexandra to the Worcestershire Royal Hospital
- Emergency surgery from the Alexandra to the Worcestershire Royal Hospital
- Most planned orthopaedic surgery from Worcestershire Royal to the Alexandra Hospital
- Some planned gynaecology surgery from Worcestershire Royal to the Alexandra Hospital
- More planned surgery – eg breast surgery from Worcestershire Royal to the Alexandra Hospital
- More ambulatory care from Worcestershire Royal to the Alexandra Hospital
- More daycase and short stay surgery to Kidderminster Hospital

It retains an adult-only emergency department and introduces a new Urgent Care Centre for adults and children at the Alexandra Hospital.

By doing this it concentrates the higher risk, emergency care at the Worcestershire Royal Hospital and planned elective care at the Alexandra Hospital.

All other services are unchanged and patients will continue to receive most of their treatment locally as now.

4.2 Paediatrics

	Kidderminster		Alexandra		Worcestershire Royal	
	Now	Future	Now	Future	Now	Future
Outpatients	√	√	√	√	√	√
Diagnostic Tests	√	√	√	√	√	√
Overnight stay for children			√		√	√
Planned surgery	√	√	√	√	√	√
Emergency Surgery			√*		√	√
Critically ill taken by ambulance			√		√	√
Urgent Care				√		√
Minor injuries	√	√	√	√	√	√
Surgery under two-years-old	Automatically transferred to Birmingham Children's Hospital as now					

*Does not take account of the temporary emergency move of emergency surgery on children

Proposed paediatric model of care for Worcestershire

- Children will continue to be seen as outpatients and have their diagnostic tests in their local hospital, as now.
- Planned surgery on children will continue to take place at Kidderminster Hospital and Treatment Centre, as now.
- Children under two years of age who require surgery will be transferred to Birmingham Children's Hospital, as now.
- The county's overnight services for children needing to stay in hospital will be centralised at the Worcestershire Royal.
- All ambulances will take critically ill children straight to the Worcestershire Royal Hospital.
- An Urgent Care Centre at the Alexandra Hospital will treat children with minor injuries and illnesses. GPs will be able to refer children to the Urgent Care Centre for further investigations. Staff in the Urgent Care Centre will have immediate access to telephone and telemedicine support from Consultant Paediatricians based at the Worcestershire Royal Hospital.
- Enhanced community nurses and health visitors will provide additional support to enable children to be monitored and treated in their own homes. **Appendix 11** provides details on the proposed enhanced provision of community children's nursing within Worcestershire.

Any child who presents at the Alexandra Hospital in an unresponsive state will be given immediate treatment by staff trained in advanced paediatric life support before they can be transferred by ambulance to the Worcestershire Royal Hospital or Birmingham Children's Hospital. Staff trained in advanced paediatric life support will include emergency medicine consultants, emergency department nurses, anaesthetists, intensivists and primary care clinicians. A clinician with advanced paediatric life support training will be on duty 24/7 on the Alexandra Hospital site (see **appendix 12** for further details).

Worcestershire Acute Hospitals NHS Trust has existing paediatric resuscitation, stabilisation, retrieval and transfer guidance for the county (see **appendix 13**). A framework for the treatment of critically ill children, to that which will be in place at the Alexandra Hospital, is already in practice at Kidderminster Hospital and Treatment Centre’s Minor Injury Unit (see **appendix 14**).

The Programme Board and the county’s clinicians have rejected an earlier call for a Paediatric Assessment Unit (PAU) to be provided at the Alexandra site on the grounds that it is inappropriate in terms of quality, safety and sustainability – see **appendix 15**. A recent Royal College of Paediatrics and Child Health review found no published examples of operational Paediatric Assessment Units which are not co-located with either in-patient paediatric beds or an A&E.

The planned changes would be supported by a comprehensive publicity campaign to ensure that parents and the public are aware of what facilities are available at the Alexandra Hospital for children and where sick children could be safely treated. The strategy would include descriptions of common paediatric illnesses and how to treat them within primary and community care settings.

Inpatient paediatric services were previously removed from Kidderminster Hospital. Since the move there have been no incidences of harm coming from seriously unwell children being taken by their parents or carers to Kidderminster Hospital and the public in the Wyre Forest is clear about what facilities are available in the county for children.

4.3 Maternity and Neonatal

	Kidderminster		Alexandra		Worcestershire Royal	
	Now	Future	Now	Future	Now	Future
Ante-natal care	√	√	√	√	√	√
Inpatient ante-natal observation and investigations			√		√	√
Diagnostic Tests	√	√	√	√	√	√
Births			√*		√	√

*Does not take account of the emergency temporary move of births from the Alexandra Hospital

Proposed model of care for maternity and neonatal care in Worcestershire
<ul style="list-style-type: none"> • All ante-natal care and diagnostics will be provided to pregnant women in their local hospital or community setting, as now. • All hospital-based births in the county will be centralised at Worcestershire Royal Hospital. • A full obstetric service and midwife-led birth centre will be offered at Worcestershire Royal Hospital, as now. • Inpatient post-natal care will be centralised at Worcestershire Royal Hospital. • Outpatient and community based post-natal care will continue as now.

The proposal is for all ante-natal care and diagnostics to be provided to pregnant women in their local hospital or community setting, as now.

All hospital-based births in the county will be centralised at Worcestershire Royal Hospital and women will also be given the option of choosing to give birth in a hospital setting outside the county. The Worcestershire Royal Hospital will continue to offer a full obstetric service, including emergency and planned caesarean sections and a midwife-led birth centre. Women, who are suitable, will also be able to have a home birth. A full description of maternity pathways is provided in **appendix 16**.

The three Worcestershire CCGs will consult on whether they should offer women a standalone birth centre in the north of the county and whether a standalone birth centre would be used by enough women to be clinically and financially sustainable.

4.4 Emergency Surgery

	Kidderminster		Alexandra		Worcestershire Royal	
	Now	Future	Now	Future	Now	Future
Outpatients	√	√	√	√	√	√
Diagnostic Tests	√	√	√	√	√	√
Overnight stay			√*		√	√

*Does not take account of the emergency temporary changes for high risk emergency surgery including abdominal obstructions

Proposed model of care for emergency surgery in Worcestershire

- All emergency surgery (except emergency urology surgery) will take place at Worcestershire Royal Hospital.
- Semi-elective ambulatory emergency surgery will take place at Alexandra Hospital, as now.
- Ambulances will convey all suspected emergency surgery patients to Worcestershire Royal Hospital.

All emergency surgery will be centralised at Worcestershire Royal Hospital. Patients needing semi-elective ambulatory emergency surgery, for instance the draining of an abscess, will continue to be treated at the Alexandra Hospital.

Ambulances will take suspected emergency surgery patients direct to Worcestershire Royal Hospital. Patients needing emergency surgery who present at the Alexandra Hospital will be stabilised before being transferred to the Worcestershire Royal Hospital.

In recognition that medical patients can develop surgical complications it has been agreed that there will continue to be a 24/7 surgical presence at the Alexandra Hospital to provide surgical support to acute physicians.

4.5 Planned care

	Kidderminster		Alexandra		Worcestershire Royal	
	Now	Future	Now	Future	Now	Future
Outpatients	√	√	√	√	√	√
Diagnostic Tests	√	√	√	√	√	√
Overnight stay	√	√	√	√	√	√

Planned surgery	✓	✓	✓	✓	✓	✓
Centres of excellence						
• Urology			✓	✓		
• Breast				✓		
• Laparoscopic benign upper gastrointestinal tract surgery				✓		
• Colorectal surgery						✓
• Orthopaedics				✓		

Planned care will be separated from emergency care and Centres of Excellence.

Centre for Excellence - Vision
The vision is to create a Centre of Excellence that delivers comprehensive, holistic and personalised care for patients, using advanced surgical techniques and technologies, which will provide high quality, safe services with an excellent experience of care for patients whilst providing the best clinical outcomes.

Surgical Centres of Excellence will provide better outcomes for patients. They allow the concentration of clinical and physical resources in a specific location, enabling specialised practice and the benefits that this brings – centres of excellence will allow the co-location of consultant surgeon and anaesthetic teams accredited to the highest standard and specialising in their field of expertise. Patients will be treated in centres with the right facilities, processes and expertise in order to maximise good recovery, there will be access to dedicated theatres and wards, access to multi-disciplinary teams: specialist nurses, advanced nurse practitioners (ANPs), anaesthetists, physiotherapists, radiologists, occupational therapists, and other clinical professionals.

The past president of the Royal College of Surgeons (Professor Norman Williams) said in 2013, “We know from the comprehensive evidence currently available that for many procedures and conditions concentrating specialist surgical services into fewer, larger centres of excellence can improve outcomes, and often save lives”.

Consultant surgeon job plans will contain both elective and emergency county-wide commitments. The centre of excellence will provide a countywide integrated pathway across the health economy, enabling specialised rehabilitation services for patients in an appropriate setting outside the acute hospital.

The enhanced recovery pathway will be used to ensure patients receive the best possible care during their surgery and whilst recovering, including help and advice from within primary care and the community accessed closer to home throughout treatment. Pre-operative assessment and surgical hours will occur during specified hours. All post-operative services will be operational 24 hours.

4.6 Emergency care

	Kidderminster		Alexandra		Worcestershire Royal	
	Now	Future	Now	Future	Now	Future
Minor Injuries	√	√	√	√	√	√
Urgent Care	√	√	√	√	√	√
A&E children (under 16)			√		√	√
A&E adults (over 16)			√	√	√	√

In addition there are significant opportunities to develop new and innovative ways of working within the Emergency care environment which may lead to significant enhancements to the level and quality of care provided.

Proposed Emergency Care Department at the Alexandra Hospital

The key components of the Emergency Care Department at the Alexandra Hospital are:

- Full resuscitation facilities for adults and children
- Fully trained staff capable of resuscitating adults and children
- Majors area for the stable but significantly ill patient
- Minors area which is fully integrated with the primary care urgent care centre
- A bedded clinical decisions unit (CDU) and observation unit which will maximise the use of ambulatory care pathways
- Full diagnostic support including radiology and laboratory support
- Integrated Emergency and Acute Medicine with common standards of care and integrated care pathways which maximise the use of safe ambulatory care pathways leading to greater levels of admission prevention
- A co-located primary care provision (currently CNU)

The Emergency department will be staffed by a full range of clinical, nursing and para-nursing staff and will provide high levels of care for adults in a learning environment. The department will be part of a fully integrated countywide service which will link closely with community based services to provide the highest quality of care for its at risk population. It is anticipated that the department will maintain, and enhance its educational status by producing innovative education solutions to the training of all staffing groups. Emergency Department consultants will be employed on a countywide basis and rotate between the Alexandra and Worcestershire Royal Hospitals.

4.7 Access to Primary Care and Community based healthcare services

Primary care and out of hours services are currently co-located within the emergency department at the Alexandra Hospital. It is proposed that in future there will be a high degree of integration between the acute hospital and primary care and community services; an Urgent Care Centre is proposed to access pathways into primary care and services offered within the community and accessed by patients closer to home, development of common or integrated care pathways including ambulatory management of the unwell patient.

In view of the national agenda with regard to greater levels of care within the community this more integrated approach to unplanned care can lead to significant service improvements and learning opportunities.

Overall, the primary care offering should be as extensive as possible and provision of a 24/7 Urgent Care Centre should be considered to accept both adult and children presentations. This facility would provide mitigation against the need for a significant flow of patients to neighbouring acute providers and retain services locally.

The aim of the model for paediatric care is to centralise inpatient paediatrics and also provide a better local primary and community care access in order to safely reduce the number of Children's Emergency Department (ED) attendances and admissions, see **appendix 12**.

For children attending ED, or admitted to an inpatient ward for assessment, most are discharged home within a short time with simple advice and reassurance provided. The majority of children currently attending ED can safely be managed locally in primary care or within an Urgent Care Centre (UCC) facility; there are examples from other parts of the country where this model is working well (Southampton, and Southport and Ormskirk), in particular when supported by outreach assessment and support from the community.

There may be some children who could be appropriately conveyed to a UCC at the Alexandra Hospital on the basis of agreed protocols, and it may also be that as the community based service is established and developed the overall needs for ambulance conveyance will reduce. An example of the current numbers of conveyances to the Alexandra Hospital can be found at **appendix 18**. Whilst it would be helpful to enquire what the experience has been in other parts of the country where this model is already in place, we would not know precise numbers until the new model was established.

We recognise that commissioning of the new model would have to cover the expected requirement for additional conveyance and backfill time in order to provide an appropriate service and mitigate risk.

Important aspects of community care for children are already in place across Worcestershire, provided by Worcestershire Health and Care NHS Trust (HACW). These services include Health Visiting; School Nursing; Hospital at Home (Orchard) Service providing support for children at home enabling many to stay out of hospital; Consultant Community Paediatricians; and Children's and Adolescent Mental Health Services (CAMHS). These services provide support for children and young people with acute illness, long-term conditions, and complex needs in order to prevent the need for hospital admission.

HACW have provided an outline Business Case (**Appendix 11**) and propose an enhanced provision to the children's community nursing team to complement the reconfiguration proposals for Worcestershire Acute Hospitals NHS Trust. Key elements include:

- An increase in hours of provision
- Implementation of direct referrals from GP to Primary Care
- Enhanced Community Children's Nursing skills (Advanced Nurse Practitioners and, Paediatric Nurse Practitioners)
- Prompt nursing triage for all GP and primary care referrals
- Rotational workforce, enabling professional development and opportunities for staff
- Access to a play specialist for acute community care assisting in age appropriate support for invasive procedures

Continuing professional development for those health care professionals delivering the care to paediatrics will be provided as part of a rolling programme to maintain and develop key skills for the UCC and community based workforce.

Whilst it is clear that further work is required to consider the commissioning of the 'enhanced' Hospital at Home (Orchard) service the proposal describes a complementary support service to management of patients within primary care and the community, ensuring patients are treated and cared for out of hospital and ensuring inpatient beds are protected for the most serious of cases.

4.8 Capacity, transport and implementation

The Programme Board recognises that changes to services will impact on capacity particularly at the Worcestershire Royal Hospital. Issues of capacity will be addressed as part of the implementation plan. A detailed implementation plan is being prepared as required by NHS England to show how the proposed service changes could be implemented and managed. As part of the implementation there are proposals for additional beds at Worcestershire Royal Hospital, upgraded operating theatres at the Alexandra Hospital, investment at Kidderminster Hospital to support additional elective surgery and additional car parking at the Worcestershire Royal Hospital. In addition there would need to be a second obstetric theatre at Worcestershire Royal and more ante-natal and post natal beds, more paediatric beds and a dedicated paediatric assessment unit. The developments would require a £25 million capital investment.

Transport for patients, staff and visitors has been considered by a transport working group which included representatives from Worcestershire County Council, patients and carers. The group has made a number of recommendations which have been forwarded to Worcestershire County Council which has a statutory duty to provide public transport in the county. The recommendations include extending the 350 bus service between Redditch and Worcester, improved use of community transport with the potential for a community bus and better promotion of car sharing and alternative forms of transport. The draft report of the Transport Group is available in **appendix 19**.

5. Conclusion

The Future of Acute Hospital Services in Worcestershire (FoAHSW) Programme now has a proposed model of care for the county of Worcestershire; approved by FoAHSW Programme Board members. In order to progress the business of the programme further towards public consultation and, implementation, CCG Governing Bodies must now receive, review and approve this document.

CCG Governing Body meetings are scheduled to take place in late January/early February 2016.

The next phase of the process is to proceed to a second West Midlands Clinical Senate Review before seeking NHS England Assurance. The Clinical Model will then be subject to a formal period of public consultation.

6. Glossary

A&E – Accident and Emergency Department
AH – Alexandra Hospital
AMU – Acute Medical Unit
APLS – Advanced Paediatric Life Support
BCH – Birmingham Children’s Hospital
CAMHS – Child and Adolescent Mental Health Services
CCG – Clinical Commissioning Group
CDU – Clinical Decisions Unit
CNU – Clinical Navigation Unit
CQC – Care Quality Commission
ED – Emergency Department
FoAHSW – Future of Acute Hospital Services in Worcestershire
FY Doctor – Foundation Doctor
GAU – Gynaecology Assessment Unit
HACW – Worcestershire Health and Care NHS Trust
HDU – High Dependency Unit
HSMR – Hospital Standardised Mortality Ratio
ICRP – Independent Clinical Review Panel
IP – Inpatient
ITU – Intensive Therapy Unit
JSR – Joint Services Review
KIDS – Kids Intensive Care and Decision Support
KHTC – Kidderminster Hospital and Treatment Centre
LHE – Local Health Economy
MIU – Minor Injuries Unit
OC – On Call
OOH – Out of Hours
OPA – Outpatient Appointments
OP Clinics – Outpatient Clinics
PAU – Paediatric Assessment Unit
PCT – Primary Care Trust
QSS – Quality and Service Sustainability Sub-committee
RCPCH – Royal College of Paediatrics and Child Health
RECM – Royal College of Emergency Medicine
SAU – Surgical Assessment Unit
TDA – Trust Development Authority
ToR – Terms of Reference
UCC – Urgent Care Centre
Upper GI - Upper Gastrointestinal tract
WAHT – Worcestershire Acute Hospital NHS Trust
WMAS – West Midlands Ambulance Service NHS Foundation Trust
WMCS – West Midlands Clinical Senate
WRH – Worcestershire Royal Hospital