Appendix 12

Children Services in Worcestershire: future model of care (January 2016)

Date	Author	Version	Details
09.12.15	LBlankly	V 5.0	
12.01.16	CAustin	V 6.0	Included section on ambulance conveyances
	TMeadows	V 6.1	Appendix 4 included

Children Services in Worcestershire: future model of care (November 2015)

Background

This paper has been produced following on from the paediatric proposals contained within the Emergency Care Redesign Group presentation to the Future of Acute Hospital Services in Worcestershire (FoAHSW) Programme Board on 23 October 2015. Evidence was presented to FoAHSW stakeholders that a Paediatric Assessment Unit (PAU) would not be a viable option at the Alexandra Hospital (AH) site when all inpatient paediatric care had been moved to the Worcestershire Royal Hospital (WRH) site (see appendix 1); the question arose as to precisely what paediatric services would remain locally, for the population of Redditch.

At a subsequent Quality and Service Sustainability (QSS) sub-committee meeting, held on 30 October 2015, it was recommended to FoAHSW Programme Board to establish a short-life task & finish group to rapidly identify and describe what services will be available locally and, how these can provide better options for community-based services for children as well as support a shift from hospital-based care, whilst also satisfying the recommendations outlined in the final report of the West Midlands Clinical Senate (WMCS), June 2015 (Appendix 2).

The resulting enhanced model of paediatric care integrates with the emergency care proposals already reported to the FoAHSW Programme Board as outlined in the ECRG report. The following summary incorporates additional comments and feedback received from QSS and the NHS Redditch and Bromsgrove CCG Clinical Executive. It should be noted that the model addresses concerns raised by the WMCS as itemised in Appendix 2. The model of care described below provides children and their families with increased levels of quality of care within primary care and the community, reducing admission rates and inpatient stays and provides an increase in rehabilitation for children convalescing or being observed in their own home, supported by community based healthcare professionals. Outcomes for children will, as now, continue to be monitored across the system. Outliers will be investigated and learning implemented to ensure the highest possible delivery of care is offered to patients within the county of Worcestershire as a whole.

Signposting of the most relevant point of access to care for patients should be articulated and communicated heavily prior to, during, and following implementation. A full communication strategy should be planned to highlight the common illnesses that occur in children and how these can be treated and cared for within primary and community based services.

Aims

The main aims of the enhanced model are:

- To provide multi-agency, multidisciplinary, ambulatory services for children outside of hospital
- To link seamlessly across GP, primary care, community, ambulance and, specialist hospital services
- To align with current and future arrangements for provision of urgent and emergency care
- To be applicable and accessible across the whole of the county of Worcestershire

Key Components

- Primary care
- Community services
- Urgent and emergency services

- Inpatient and specialist care

Primary and Community Care

The majority of children access the health service through primary care and their local GP practices. Whilst studies suggest that over 95% of emergency paediatric consultations can be successfully managed in primary care, increasing numbers are bypassing their GP and going straight to an Urgent Care Centre (UCC) or, Hospital Emergency Department (ED). For children attending ED, or admitted to the ward for assessment, most are discharged home within a short time and simple advice and reassurance provided. The majority of children currently attending ED can be safely 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, in particular when supported by outreach assessment and support from the community (e.g. "COAST" in Southampton http://www.rcpch.ac.uk/improving-child-health/better-nhs-children/service-standards-and-planning/facing-future-together-c-0 and "CCNOT" in Southport and Ormskirk http://www.magonlinelibrary.com/doi/abs/10.12968/bjon.2014.23.4.209).

Recent studies of health outcomes for children in European countries have shown that the UK does not compare favourably and has excess mortality. (*Wolfe et al: Health Services for children in Western Europe; Lancet 2013; 381: 1224–34*). In the words of one group "Our analysis leads us to recommend that comprehensive integrated teams in primary care settings should provide the majority of children's healthcare. We believe such teams stand the best chance of delivering the right care, at the right time, in the right place, and by the right people. The teams should comprise jointly of trained general practitioners and paediatricians working with children's nurses, health visitors, allied health professionals, and mental health professionals." (*Wolfe et al: Improving child health services in the UK: insights from Europe and their implications for the NHS reforms; BMJ 2011;342:d1277*)

Important aspects of community care for children are already in place in Worcestershire, provided by Worcestershire Health and Care NHS Trust. These services include Health Visiting*; School Nursing; hospital at home support for children (Orchard Service in Worcestershire) 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.

**Community Care (NHS England: "Health visiting programme") There are 4 Levels of service that set out what all families can expect from their local health visitor service, these are:*

1. *Community: health visitors have a broad knowledge of community needs and resources available e.g. Children's Centres and self-help groups and work to develop these and make sure families know about them.*

2. *Universal (the five key visits): health visitor teams ensure that every new mother and child have access to a health visitor, receive development checks and receive good information about healthy start issues such as parenting and immunisation.*

3. *Universal Plus: families can access timely, expert advice from a health visitor when they need it on specific issues such as postnatal depression, weaning or sleepless children.*

4. *Universal Partnership Plus: health visitors provide ongoing support, playing a key role in bringing together relevant local services, to help families with continuing complex needs, for example where a child has a long-term condition.*

Access from Primary and Community care to advice and guidance from senior hospital clinicians will be available via telephone triage and/or telemedicine. Clear urgent care referral guidelines will be developed to describe pathways for children within primary care and the community should they require hospital based treatment and care. Children requiring short periods of observations can be managed in their own homes by the children's nursing teams from the hospital at home (Orchard) service.** Rapid access to consultant led paediatric outpatient clinics will be available at both AH and WRH; accessed either on the same day or, next day by telephoning the Paediatrician on site during normal working hours.

***The Hospital at Home (Orchard) service has proposed an enhanced provision to the Children's Community nursing team to complement the reconfiguration proposals for Worcestershire Acute Hospitals NHS Trust, see appendix 3. This describes a service that will ensure sustainability, and is accessible and efficient to meet the growing demand of care for sick babies, children and young people. This enhancement will maintain the provision of care and make the service available to a wider range of children and their families, minimising referral and assessment within the hospital setting and therefore reduce unnecessary admission to hospital and excess lengths of stay. The service will reduce admission rates and help reduce delayed discharge, where applicable. Key elements include:*

- *An increase in hours of provision*
- *Implementation of direct referrals from GP and 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.

Urgent and Emergency Care

Different local models of primary care and community-based access to urgent care exist across Worcestershire (Clinical Navigation Unit (Pilot) at AH; Urgent Care Centre (UCC) at WRH; Minor Injuries Unit (MIU) at KHTC). Guidance for commissioners regarding Urgent Care Centres, Emergency Centres and Emergency Centres with specialist services is imminently due to be published by NHS England. It is likely that this will recommend that all urgent primary care and community facilities are re-named "Urgent Care Centres" accessible 24/7 and, co-located within Emergency Departments, in order to avoid confusion for patients and the public; and that UCCs provide access for children, as well as adults. The UCC model will be essential to support an enhanced paediatric model; and the UCC workforce will require the appropriate skills to treat children, including resuscitation support for the sickest presentations. Staff will require Advanced Paediatric Life Support (APLS) skills, and it is

already confirmed in the ECRG report that a resident on-call anaesthetist will be available on site at the AH 24/7. The role of the UCC within the emergency care network will be to deal with less serious illness and this will be publicly communicated. However in the unexpected event that a very sick child is brought to the UCC as the 'closest place of safety' by parents; or if there is sudden deterioration, Emergency Care doctors will be available to provide immediate care, supported by APLS trained staff and resident on-call anaesthetist, with telephone advice available from consultant paediatricians at WRH (A resuscitation policy is already in place and outlines the current procedure for this cohort of patients that could present at the MIU at KHTC, it is assumed that this document will be reviewed and updated to consider and outline the provision of care available at AH post reconfiguration). Once stabilised the patient will be transferred to the most appropriate inpatient service for their needs i.e. children under the age of 5 years requiring specialist treatment will be conveyed to Birmingham Children's Hospital by the KIDS retrieval team; West Midlands Ambulance Service NHS Foundation Trust (WMAS) will provide secondary transfer to WRH; this may include a specialist team. All secondary transfers will be effected within 1hr of notification.

Whilst the imminent guidance from NHS England is not yet published it is believed that the content will align to our proposed model for Emergency and Urgent Care for children in Worcestershire. It is worth noting that co-location within an Emergency Department can deliver advantages (for both adults and children) including:

- Single point access and triage
- Access to varying pathways of appropriate care i.e. GP/Primary Care, Community or, Hospital and specialist treatment both outpatient and inpatient.
- Access to full diagnostic facilities
- Immediate resuscitation facilities with on-site expertise in critical care and anaesthesia, as described above.
- The benefit of shared governance arrangements

The ECRG report to FoAHSW Programme Board outlined the safety reasons why a Paediatric Assessment Unit (PAU) should no longer be considered as a viable future option at AH (see appendix 1 for detail). Although primary and community care services for children as described above may reduce the need for attendance at hospital, a significant number will continue to arrive as self-presentations. Rather than being seen in the ED, the majority could be more appropriately managed in the described UCC facility with diagnostic and support facilities, and defined pathways into other primary and community care services. This can include the options of short term observation, GP review, or children's nurse led home review (which has already been piloted in Worcestershire).

The NHS 111 directory can be used to direct children to the appropriate pathway i.e. to GP, community, or Urgent and Emergency care. Whilst some defined ambulance conveyed patients may be appropriate for transport to an UCC this is less likely for children. A pre-determined WMAS triage pathway for children will determine conveyance to WRH or directly to Birmingham Children's Hospital. Urgent care referral guidelines will be widely available for primary and community care professionals to help with appropriate referral practice for illness in children.

Inpatient and Specialist Care

The proposals to transfer Paediatric inpatient beds from AH will provide an inpatient facility only available at the WRH and ambulance protocols will focus on seriously ill children being transported directly to WRH. Some children will continue to be treated as required at the Birmingham Children's Hospital and conveyed directly by WMAS or, transferred following stabilisation and/or diagnosis via the KIDS retrieval service.

Arrangements for early supported discharge via the Hospital at Home (Orchard) service will enable early return home with appropriate community based support.

Rapid access children's outpatient clinics will be available and senior triage telephone advice will be available to GPs across the county as well as to UCCs and emergency departments. Telemedicine links will also be developed. (NHS Scotland has produced a paper on unscheduled paediatric care that outlines the benefits of primary and community clinicians having 24/7 access to paediatric consultants via telemedicine).

The hospital based paediatric department at WRH will continue to support paediatric education and junior doctor training posts across Worcestershire.

Commissioner Support arrangements

NHS Redditch & Bromsgrove CCG should consider the commissioning implications of this model and provide confirmation of their support for this proposed model of care for Paediatric patients across the county of Worcestershire. QSS, NHS South Worcestershire CCG and, NHS Redditch & Bromsgrove CCG Clinical Executive support is received in favour of the model.

Whilst it is clear that further work is required to consider the commissioning of the 'enhanced' Hospital at Home (Orchard) service the appendix enclosed 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.

Implementation

Due to the differing needs across sites it is anticipated that one stage implementation may not be feasible. Consideration should be given to a phased approach which addresses practicality, clinical risk, and service continuity.

Ambulance Conveyances

The aim of the enhanced model is to centralise inpatient paediatrics and also to provide better local primary and community care in order to safely reduce the number of children's ED attendances and admissions.

There may be some children who could be appropriately conveyed to an Urgent Care Centre 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 need for ambulance conveyance will reduce. Whilst it would be helpful to enquire what the experience has been other parts of the country where this model is already in place, we would not know precise numbers until the new model was in place.

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. See appendix 4 for current conveyance rates to Alexandra Hospital.

Outline of Model

The attached diagrams (figures 1 & 2) outline the components and organisational integration in the

proposed model for integrated paediatric care for the whole of Worcestershire.

Figure 1: System components – integrated paediatric care across Worcestershire

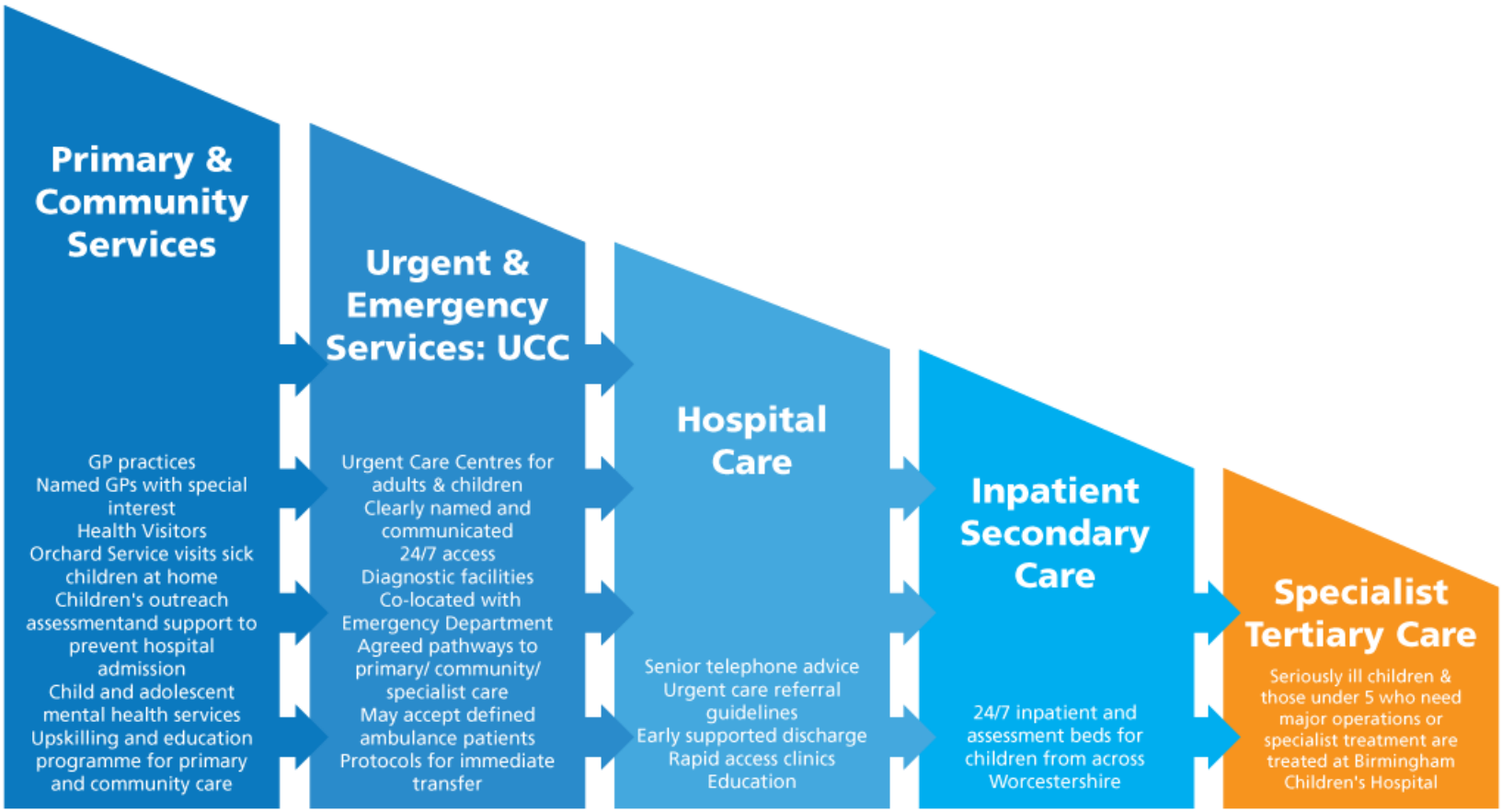
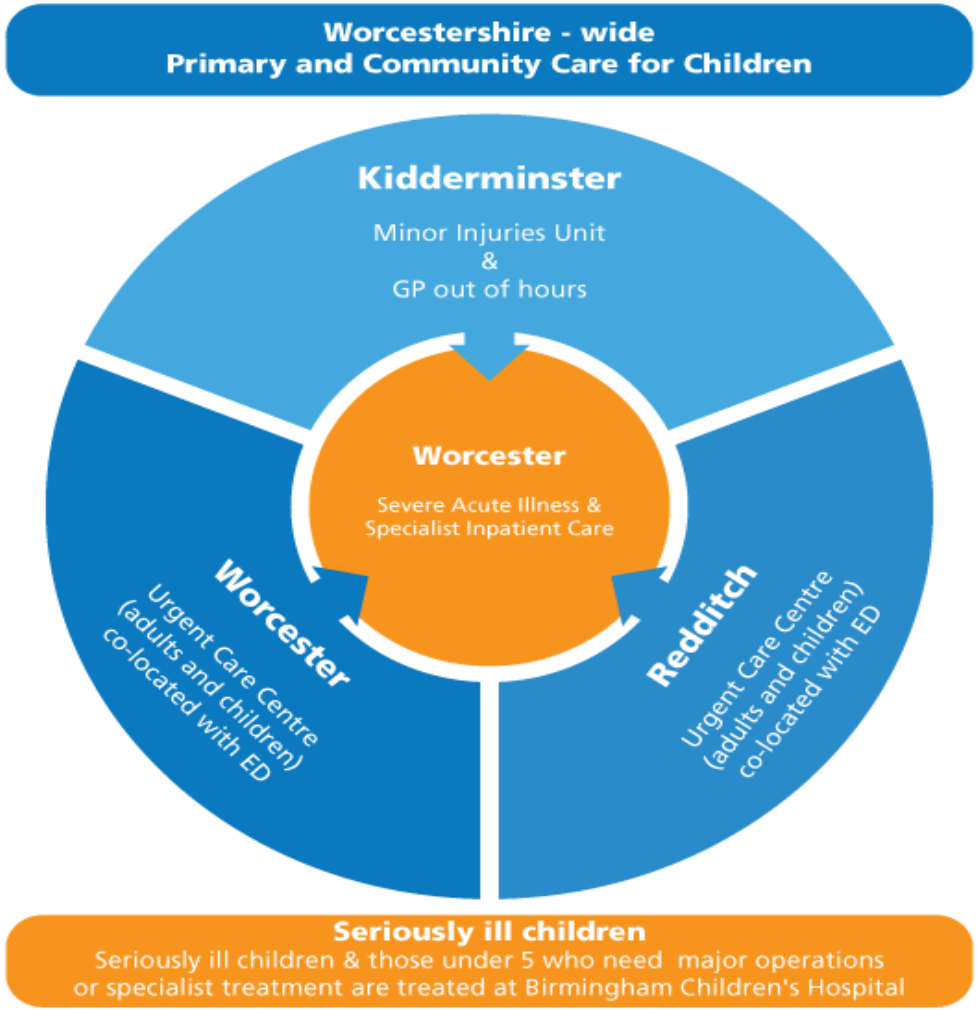


Figure 2: Worcestershire-wide care for children



Recommendation

The FoAHSW Programme Board is asked to receive this proposal and approve the enhanced model of paediatric care as outlined and, as a supplement to the ERCG report presented on 23 October 2015.

Actions Required:

Action	Lead	Progress	RAG
Commissioners to consider the model and how it will be integrated into commissioning plans			
As with the ED model engage hospital, community and primary care clinicians in discussions around the model	CA/AP	A continuous programme of engagement with clinicians from the hospital trust, community and primary care is on-going	
Discussion with R&B CCG re the current format of the clinical navigation unit and the proposal within this model to commission an integrated urgent care centre which is aligned with the new national model for urgent care centres	SH/ Jonathan Leach		
In response to the findings and recommendations from the West Midlands Clinical Senate, the task and finish group should clearly: • articulate how children would access services via the model • how same day rapid access outpatients would be accessed • how and where seriously ill children would access services • impact on other acute services, community services and ambulance services.	ML/AS/ CA		
Comms plan for implementation will include a major awareness raising exercise on where sick children in Worcestershire will be treated	CA/CT		

Appendix 1:

Patient safety concerns regarding a stand-alone PAU

Although the concept of a stand-alone Paediatric Assessment Unit is one that is endorsed by the RCPCH, there are few, if any, examples of functioning assessment units which are not co-located with inpatient paediatric beds. When the RCPCH was commissioned to investigate the potential benefits of this model as part of the AA Wales NHS review, they were unable to find any example of a stand-alone PAU. Therefore arguments for or against this model are based primarily on clinical opinion and consensus statements from expert groups.

Much of the work undertaken in acute paediatric units is work which could be safely undertaken in primary care. Although hospital admission rates are rising, the average length of stay is falling and the majority of paediatric patients are sent home within 24 hours. Many of these patients are managed with a period of observation and reassurance, and there are models with enhanced community provision of paediatric services which could prevent many of these admissions.

The decision by WAHNHST not to support a stand-alone Paediatric Assessment Unit has been made following further advice from external advisers. The trust was put in touch with two independent consultant paediatricians with wide experience of service reconfiguration. Dr Andy Raffles is a senior consultant at Stevenage and East Hertfordshire Hospitals, and Dr James Purcell is a consultant involved in reconfiguration of services at Bedford and Milton Keynes. During a conversation arranged by and involving NHS England we were advised that it would be safer to have no stand-alone PAU. Reasons given by these external experts included:

- PAU could not offer a consistently high standard of care.
- Rather than ensuring the right person in the right place at the right time, there is a clear risk of the wrong person in the wrong place.
- Having to transfer patients to the right place without the dedicated staff to do this will introduce a new patient safety risk
- A PAU conveys a mixed message to the public which is confusing and unhelpful
- Achieving equity of the quality of care would not be possible at a PAU without inpatient facilities on site.
- Despite attempts to limit referrals to GP's, word of mouth would mean that families would seek to access the service through the ED/CDU. With this unselected group of patients there is a risk that some could be acutely ill and need stabilisation and transfer off site.

The RCPCH was asked to undertake a review of the role of a stand-alone PAU for the All Wales NHS. The following is an extract from their report. I have highlighted some key statements in bold.

Consultant-delivered short-stay assessment

Given the limited availability of paediatric middle grade doctors, this model assumes that care in the SSPAU would be provided by consultant paediatricians working with experienced paediatric nurses in a network with an inpatient unit.

Referrals would only be though primary care or telephone triage as to do otherwise would effectively provide un-gated access to a consultant paediatrician and risk unrealistically high patient flows.

Irrespective of planned triage, ***there could be an increased risk of more seriously ill patients attending*** *and therefore appropriate anaesthetic support would be needed.*

The peak time for referrals to SSPAUs is from late morning until approximately 22:00 hours, with the peak in activity described previously in early evenings on weekdays. Appendix 6 illustrates the notional costs to deliver such a consultant-based SSPAU (excluding nursing costs) over a range operational hours.

Retaining and recruiting the consultant resource to provide this type of service would be potentially problematic as well as expensive: it is unlikely to be professionally acceptable or popular with a consultant workforce. Moreover, while politically attractive, its value would be limited. If the resource is from the former local DGH inpatient paediatric team, when the flows of patients are actually to a different unit, unless there is additional investment, ***the quality of the service directed at patients who do require the expertise of consultant delivered service may perversely be diminished.***

A paucity of experienced paediatric doctors is one of the major drivers for reconfiguration and therefore designing standalone SSPAUs based on paediatric medical staffing for patients who in all likelihood do not require (inpatient) paediatric care seems inconsistent. These patients present locally to primary care, can largely be managed by experienced nurses, and after a period of observation can safely return to be cared for in a primary care setting. ***Why then would the service not be configured around primary care with appropriate service redesign to ensure that safe and effective observation can be provided?***

In the RCPCH Policy Document to commissioners regarding short stay PAU services the following comments are made

- Limited opening hours may increase transfer rate (although not in the more established units where alternative pathways are being established).
- There is potential for de-skilling of existing ED staff – a rotation policy is therefore needed to ensure core competencies are maintained

It is important to recognise that the impact on quality of care and patient safety will be felt not just on the stand-alone PAU, but also potentially in the Emergency Department/Clinical Decisions Unit due to lack of continuing experience with and exposure to sick children, and at the WRH site where the sickest paediatric and neonatal inpatients deserve and require the greatest input from consultant medical staff.

The consultant paediatricians in Worcestershire accept all of the above and are in agreement that the safest model of care is to provide the assessment and inpatient services together at one site in Worcester.

Andrew Short
October 2015

Appendix 2:

13.1 Recommendations

Recommendation 1: Obstetrics and Gynaecology and Emergency Surgery

- The Panel **supports** the proposals set out within the Summary Model of Care to reconfigure the Obstetrics and Gynaecology and Emergency Surgery services through transferring these from AH and consolidating them onto the WRH site.

Recommendation 2: Inpatient Paediatrics

- While the Panel **supports in principle** the proposal set out within the Summary Model of Care to transfer Inpatient Paediatrics from AH to the WRH site, it remains concerned, however, regarding the capacity to accommodate additional paediatric inpatients from Redditch and Bromsgrove at WRH. The proposed model of care relies on ambitious plans to reduce the average length of hospital stays through prompt discharge of children into the community for on-going care. The ability to achieve this objective is a risk, the extent of which needs to be clearly understood and managed.

- The Panel, therefore, **recommends** that clear plans are drawn up to demonstrate how additional paediatric capacity can be developed at WRH in order that the flow of inpatients from Redditch and Bromsgrove can be accommodated at the site, with evidence-based ambitions set for the prompt discharge of children into the community for on-going care.

This would need to include:

- A clear plan and risk assessment of the likely shortfall of paediatric nursing recruitment at the WRH site
- The expansion of car parking/park and ride provision at WRH to cope with the increased demands of those travelling by car from Redditch and Bromsgrove.

Recommendation 3: Urgent Medical Care

- While the Panel endorses the previous Independent Clinical Review Panel's findings that some form of ED provision is required at the AH site, the Panel **does not support** the detail of the proposed model of Emergency Medicine at AH as set out within the Summary Model of Care.

- The Panel has a number of concerns with the detail of the model of Emergency Medicine at AH with respect to patient safety. These concerns relate to issues of:
    - Sustainable staffing, with a national shortage of ED Consultants, middle grades and the potential for trainees to be removed from the AH site
    - Public and staff misunderstanding of the model of Emergency Medical Care at AH (see also Recommendation 4, below)
    - Increased clinical risk arising from the removal of key services from AH aligned to the management of emergency care, including Inpatient Paediatrics and Emergency Surgery - and their further critical interdependencies with other clinical specialties, including Anaesthetics and Critical Care.

Recommendation 4: Urgent Medical Care for Children at AH

- The Panel was particularly concerned about the practicalities and clinical risks associated with the delivery of the proposed model of urgent medical care for children presenting at the AH site, as well as by the varying interpretations of the proposed paediatric service model at AH that it had received from frontline staff.

- The Panel, therefore, strongly **recommends** that further work is required to develop a common understanding between both staff and members of the public regarding where sick children from Redditch and Bromsgrove should be taken to and when. This should include:
    - Making absolutely explicit the extent and remit of urgent/emergency paediatric cover
    - Having a clear plan for dealing with paediatric emergency presentations at AH out of hours
    - Undertaking a full risk assessment in respect of any proposals for paediatric emergency provision that are less than 24/7
    - A detailed consideration of how seriously unwell children presenting at the AH site, who do not meet critical care transport team criteria, will be safely transferred to the WRH site. This should encompass personnel, equipment and transport logistics.

Recommendation 5: Engagement and Co-ownership from Frontline Clinical Workforce

- The Panel accepted that a certain amount of clinical engagement had taken place within WAHT to develop the proposed model of care for the 'Emergency Centre' at the AH site. During Day 4, however, it became apparent that there was not strong clinical support for this model, due to concerns about patient safety and service sustainability.

- The Panel, therefore, **recommends** that before any model proceeds to formal public consultation it should be demonstrated that there is strong clinical support from frontline clinicians across WAHT for this model from the perspectives of both patient safety and clinical sustainability.

Appendix 3:

Worcestershire Health and Care NHS
NHS Trust

Business Case / Options Paper

Development of a Countywide, Enhanced Children's Community Nursing Service

Date: 18th June 2015
Version: 2.6

Authors	Stephanie Courts, CYPF SDU and Mark Smedley, Business Development Manager, WHCT
Owner	Tessa Norris, CYPF SDU Lead, WHCT
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Document History

Version	Date	Summary of Changes
0.1	27th November 2014	Not applicable
0.2	28th November 2014	Sections 7 and 8 expanded / completed.
1.0	3rd December 2014	Minor amendments made following circulation to BDG members
2.0	5th December 2014	Finance summary amended to include exact rather than approximate costs.
2.1	22nd May 2015	Paper revised to include options following a meeting with CCG and JCU representatives
2.2	29th May 2015	Minor amendments
2.3	3rd June 2015	Minor amendments and amendments to format.
2.4	10th June 2015	Minor amendments
2.5	17th June 2015	Minor amendments

Distribution

Version	Date	Distributed To
0.1	27th November 2014	Jane McClements, Stephanie Courts, Mark Smedley, Naomi Manning, Sue Harris, Andrew Millwood
0.2	1st December 2014	Business Development Group members
1.0	3rd December 2014	Sue Harris (for discussion with Robert Mackie/Sarah Dugan)
2.0	5th December 2014	Sue Harris, Robert Mackie and Sarah Dugan
2.1	22nd May 2015	Stephanie Courts, Lindsey Sandler and Tessa Norris
2.2	29th May 2015	Andy Millward , Lindsey Sandler, Steve Sidwell, Tessa Norris, Mark Smedley
2.3	3rd June 2015	Mark Smedley
2.4	10th June 2015	Business Development Group, Andy Millward, Stephanie Courts, Mark Smedley
2.5	16th/17th June 2015	Tessa Norris, Stephanie Courts, Andy Millward, Robert Mackie, Naomi Manning, Sue Harris
2.6	18th June 2015	Philippa Coleman, Jess Glenn, Tessa Norris, Stephanie Courts, Mark Smedley, Sue Harris, Naomi Manning

Contents

Executive Summary

Due to fundamental changes to the urgent care pathways for babies, children and young people within Worcestershire, there is a now a real opportunity to enhance the current Community Children's Nursing (CCN) service by extending service hours, implementing advanced nursing roles, improving pathways of care and reducing the number of acute admissions.

This options paper has been developed following a meeting with the three Worcestershire Clinical Commissioning Groups and local Joint Commissioning Unit when the original business case was considered. It breaks the original case down into a number of potential developments – all of which would enhance the current community nursing service – and therefore gives commissioners the opportunity to develop the service in a phased manner.

Implementing one or more of the options detailed in this paper would facilitate care closer to home, give GP's access to community nursing support for children and families who experience acute episodes of illness and improve the care and support for children with long term complex health conditions. The use of approved pathways of care would strengthen clinical governance arrangements, promote best practice and improve outcomes for children and families. There would also be a reduction in the number of acute admissions – a key outcome given the criticism and feedback received to date from parents and GPs on potentially avoidable hospital stays.

Background

Models of community children's nursing continue to vary considerably throughout Great Britain with patches of fragmented post code lottery provision (Carter B et al 2009).

To meet the needs of children in the community, the Department of Health recommended in 2011 that a 'comprehensive' service should be the bedrock of out of hospital services for ill and disabled children.'

This includes children with the following conditions:

- Children with acute and short term conditions
- Children with long term conditions
- Children with disabilities and complex conditions, including those who require continuing health care
- Children with life threatening and life limiting illness including palliative and end of life care.

Current Provision

The CNN service currently provides care to children in South Worcestershire, Wyre Forest and Redditch and Bromsgrove.

This includes:

- Acute nursing care to promote early discharge and prevention of unnecessary admission to hospital. To access this service, children are referred under the care of an acute paediatrician either following admission or to prevent admission overnight.

- Children with long term conditions who require nursing support and interventions to prevent admission or hospital attendance. These children usually have open access to the ward and usually remain the responsibility of community or hospital paediatricians.
- Long term care to children with complex health care conditions including palliative and end of life care. These children also have open access to inpatient care if care cannot be delivered in the home environment. community paediatricians are usually responsible for their care but on occasions a child may remain the responsibility of the acute paediatrician. Most of these children require caseload management and a key working role due to the complexity of their needs.
- Provision of continuing health care packages for children and young people who have individually assessed need and associated funding agreements to deliver exceptional care usually via 1:1 care provision.

Within the provision of care listed above, South Worcestershire CCG has commissioned a pilot service enabling GP's to refer children for community children's nursing support as an alternative to referral to acute inpatient care. During the 6 months prior to 1st November, an enhanced GP service had been provided for 6 months from 4pm to 8pm, Monday- Friday.

This pilot commenced on 1st November 2014 and will continue until 30th September 2015. It has been successful in preventing hospital admissions with 59 fewer admissions between 1st November 2014 and 6th June 2015 – a figure that is expected to increase due to A&E direct referrals although numbers are not yet predictable.

The service hours are currently 9am to 8pm x 7 days per week. Within Redditch and Bromsgrove, staffing levels have resulted in service provision 9am to 5pm only at weekends. 24 hour on call is also available for named children with palliative and end of life care needs.

Nursing staff are all registered children's nurses with a wide variety of experience in acute and complex care of children and young people. A number of these nurses also have a qualification in community nursing, either district nursing or specialist practitioner's in community children's nursing.

The current service is commissioned via block contracts. These include a contract with WHCT for complex and palliative care via the JCU and a separate contract for acute care with WAHT via the Worcestershire CCGs. Recently, there has been agreement to transfer the remaining WAHT staff working with the WHCT community team to WHCT, which will have the following benefits:

- Reduction in duplication of provider policy and process thus increasing time to care
- Reduction in duplication of communication with providers by commissioners
- Clear governance responsibilities
- Clear service specification within one organisation

These arrangements are currently being finalised and it is hoped the appropriate level of funding will be agreed imminently.

Current Activity

Data regarding acute admissions of < 24 hours is already available for each CCG locality and is therefore not included in this paper.

Current caseloads of children include long term conditions and oncology diagnoses requiring care that would otherwise require hospital attendance. There are also children and young people who have highly complex conditions requiring case management and key working within the community. This care usually involves social care and education who also need health support to facilitate positive outcomes for the child and their family.

There are currently no dependency tools to identify safe caseload sizes for children's community nursing. Therefore, workload and capacity is difficult to quantify. That said, as the community children's nursing service in Worcestershire has been established for over 10 years, it is clearly evident that increased complexity has been recognised, in addition to increased life expectancy of children and young people with complex conditions, improved technological treatments and higher expectation of support available to children and families in the community.

A study was undertaken by Together for Short Lives in 2011 which identified the prevalence of children with life limiting conditions within Worcestershire as 364. The CCN service currently cares for and supports 169 children. Consequently, it is likely over half the children diagnosed with life limiting conditions do not currently access nursing care in the community. A recent peer review by West Midlands Quality Review Service (WMQRS) identified the skill mix with Worcestershire CCN teams to be lean.

Data on 2014 and current caseloads, including acute referrals, is shown in figure 1.

Figure 1 Caseload Numbers March 2014 and March 2015

Locality	**Complex Case Management & Key Working**	**Long Term Conditions - Oncology**	**Long Term Conditions- Other**	**Acute** **1.5.13 to 30.4.14**
South Worcester	March 2014: **44** March 2015: **49**	March 2014:**10** March 2015:**13**	March 2014:**29** March 2015:**31**	2013/14:**167** 2014/15: **201**
R& B	March 2014:**29** March 2015: **34**	March 2014: **5** March 2015:**7**	March 2014:**17** March 2015:**18**	2013/14:**118** 2014/15: **114**
Wyre Forest	March 2014: **16** March 2015: **21**	March 2014: **9** March 2015: **8**	March 2014:**10** March 2015:**12**	2013/14:**63** 2014/15: **41**

WHCT activity is currently recorded via NCRS. The data collected is currently being reviewed in order to capture meaningful information regarding caseloads and activity.

Options for Future Provision

It is essential to ensure the CCN service within Worcestershire remains efficient, sustainable, accessible and able to meet the growing demand of care for sick babies, children and young people.

By enhancing the current CCN service, provision of care would not only be continued but would be available to a wider range of children and families. This would minimise referral and assessment within the hospital setting and reduce unnecessary admission to hospital.

In order to offer opportunity to develop appropriate care throughout the county, the following development options are detailed with cost implications to ensure a service can be agreed that is affordable and appropriate to local need. It is important to note these are standalone options and the costs/resources only relate to the option in question (eg. the costs/resources in options 4 and 5 are not included in option 3).

OPTION 1

Current service provision to continue.

Benefits to commissioners, GPs, patients and families

- No additional financial investment required

Considerations

- Inequitable countywide service at weekends 17.00 - 20.00
- Service may be reduced or even unsustainable at times of unexpected staff leave
- Inability to accept additional referrals
- Inability to further reduce admissions

OPTION 2

Reallocation of **£70,617** to WHCT to provide direct GP& A&E referral for children with acute illness.

This option relates to the extension of the current South Worcester pilot to the Redditch & Bromsgrove and Wyre Forest localities. It would deliver an assessment and monitoring service for all children referred by GPs and local Accident and Emergency centres, 9am to 8pm, 7 days a week.

In order to deliver this option in the most cost effective manner, the Trust would need to upgrade 2 band 5 staff to band 6 and appoint 2 band 4 staff. These staff would work across all three CCG localities and therefore, the costs associated with the current pilot and this proposal would need to be re-apportioned across the three CCGs, based on their respective populations.

In terms of activity, the Trust would anticipate the following numbers per annum initially.

South Worcestershire: 114
Redditch and Bromsgrove: 76
Wyre Forest: 38

These numbers should rise as the service is promoted and developed.

Benefits to commissioners, GPs, patients and families

- Reduced hospital attendance/ admission (5 - 10 per week countywide)
- Reduced cost of acute care (approximately £700 per referral)
- Improved education for parents regarding management of common childhood illness
- Appropriate triage of cases by skilled CCN's to ensure safe and effective clinical pathway implemented.
- Care closer to home

Considerations

- Achievement of admission prevention during pilot study
- Increase in admissions for <24 hours stays
- Service user feedback during pilot currently 100% positive

OPTION 3

Reallocation of **£258,000** to WHCT to extend hours of service to 10pm, seven days per week (countywide).

These costs would cover the following:

Nursing staff: 50 hours per week
HCA: 150 hours per week *
Administration: 60 hours per week
Pay enhancements (from 8pm)
Non pay

*safety of staff late shift x 7 days (3 localities) and inclusion of play specialist

This option would promote opportunity for both clinical nursing interventions but due to a safety requirement for x 2 staff to be on duty, additional benefits would include play support if children require invasive procedures e.g. IV medication, nebulisers. It would also enable delegation for techniques for monitoring children and supporting parents in administration of medication or for e.g. fluid intake to prevent dehydration.

There would also be a foundation workforce to develop competencies towards supporting children requiring home total parenteral nutritional feeding. This would however need to be reviewed on a case by case basis but would potentially lead to cost savings from current contracts in place.

Numbers of children to be supported are difficult to predict. Therefore a pilot investment could be considered to establish demand and productivity.

Benefits to commissioners, GPs, patients and families

- Ability to prevent additional admissions (a pilot of this option would confirm the numbers)
- Ability to provide increased home treatments eg. three times daily IV treatment thus promoting early discharge of wider range of children
- Increased opportunity to prevent admissions from out of hours services
- Ability to maximise nursing time by introduction of health care assistants to maintain staff safety but also undertake tasks and care co-ordination thus freeing up registered nursing hours
- Increased ability to meet the needs of growing population of children with complex and palliative care needs

Considerations

- Staff safety

- Increased disparity with neighbouring services / CCG's. Inability to provide care to children/ YP not registered with Worcestershire GP but accessing acute care may reduce opportunity to promote discharge.
- Costs required to maintain staff safety

OPTION 4

Reallocation of **£92,000** to WHCT for an Advanced Nursing Practitioner and advanced practice assessment skills within the service (including non pay resources).

1 WTE Band 7
1.2 WTE Band 6

In addition to improving governance, there would be the potential for children who show signs and symptoms resulting in progression towards 'red flags' to be reviewed at home by ANP level nurses.

Benefits to commissioners, GPs, patients and families

- Enhanced quality and clinical governance
- Potential to further increase admission prevention by approximately 4 cases per month (estimated)
- Career development of skilled workforce and staff retention
- Ability to support and develop workforce of CCN's thus promoting safer care

Considerations

- Countywide equity of access to advanced nursing skills
- Ability to recruit Paediatric Advanced Nurse Practitioner
- Requirement to promote staff development of advanced nursing skills.
- Medical supervision of Advanced Nurse Practitioner.

OPTION 5

Reallocation of **£46,000** to WHCT rotational development post between acute inpatient services, paediatric assessment unit and community.

Benefits to commissioners, GPs, patients and families

- Enhance workforce skills to support children with all needs in every setting.
- Reduce admissions to regional centres for children who currently cannot be admitted locally due to skill of ward staff e.g. tracheostomy, assisted ventilation (Bipap).
- Reduction in approximately 8 - 10 regional centre admissions per year
- Ability to maintain skills with in all teams.
- Flexible workforce to meet needs of local population of children

Considerations

- Ability to recruit and retain staff to complete rotation
- Suitability of newly qualified staff
- Potential for pre band 6 rotation

5. Summary of Benefits and Outcomes

- Delivering an enhanced, high quality and sustainable service across the county
- Ensuring access to safe and appropriate assessments, treatment and care for children with a wide range of needs within a community setting including:
    - Acute illness
    - Oncology conditions
    - Complex and degenerative conditions
    - Long term conditions requiring clinical interventions
- Prevention of hospital admission
- Prevention of hospital attendance
- Promotion of early discharge
- Empowerment and support for children/ YP and families during episodes of acute illness.
- Empowerment and support for children/YP and families throughout the trajectory of long term conditions.

Key Outcomes and KPIs include:

- Prevention of short stay (<24 hours) hospital admissions
    - KPI - Admission prevention data monitoring
- Reduced length of hospital stay
    - KPI – Length of stay data monitoring
- Delivery of care in the most appropriate environment for the child/YP
    - KPI – Numbers of children/YP receiving care at home
- Full recovery from acute illness without complications
    - KPI – Number of children discharged from service
- Prevention of admission due to long term conditions
    - KPI – Admission prevention of children with long term conditions
- Prevention of hospital attendance for clinical interventions
    - KPI Numbers of children receiving clinical intervention in home environment.

Outcomes would be monitored monthly and reported to CCG's quarterly.

Finance Summary

The current service in Worcestershire has the potential to expand, to ensure children are cared for in the community wherever possible and only admitted to hospital if it is clinically unsafe to provide care within their home environment.

The potential increase in demand for CCN services due to life limiting conditions and the imminent reconfiguration of children's acute services requires a significant reallocation of existing funds to WHCT that recognises the diverse skills and flexibility required to meet the needs of children and young people within Worcestershire. This will ensure high quality, safe care, with strong governance arrangements, is embedded in all areas of service delivery.

The estimated cost of implementation will depend on which of the options above are taken forward.

Service Evaluation

The project will be monitored using the following methods:

- Service user feedback
- Monitoring clinical incidents/ near misses
- Monitoring complaints
- Recruitment and staff turnover
- Achievement of mandatory training
- Monitoring staff appraisal and development
- Implementation and audit of clinical guidelines /pathways

Recommendation

Naturally, investment in all of the components contained within this paper would be the Trust's preferred option, totalling **£466,617**. However, if a phased approach is to be considered, in view of the financial implications, then the following is suggested:

Phase 1: Implement Option 2	£70,617
Phase 2: Implement Option 4	£92,000
Phase 3: Implement Option 5	£46,000
Phase 4: Implement Option 3*	£258,000

*possibly as a pilot initially.

Appendix 4 - West Midland Ambulance Service conveyances to Alexandra hospital – May 2014

Infant	00 - Uncoded	24
	01 - Abdominal pain/Problems	1
	02 - Allergies/rash/med reaction/stings	3
	06 - Breathing problems	70
	07 - Burns	4
	09 - Cardiac/Respiratory Arrest	2
	11 - Choking	2
	12 - Convulsions/Fitting	6
	17 - Falls/Back injuries - traumatic	7
	19 - Heart problems	1
	21 - Haemorrhage/Lacerations	4
	23 - Overdose/ingestion/poisoning	2
	26 - Sick person – Specific Diagnosis	48
	30 - Traumatic injuries, specific	4
	31 - Unconscious/passing out	7
	Total	**185**
Toddler	00 – Uncoded	30
	01 - Abdominal pain/Problems	3
	02 - Allergies/rash/med reaction/stings	4
	03 – Animal bites/attacks	1
	05 – Back pain – Non-traumatic	1
	06 – Breathing probelms	131
	07 – Burns/explosion	5
	09 – Cardiac/respiratory arrest	3
	11 - Choking	6
	12 – Convulsion/fitting	77
	15 – Diabetic probelms	1
	17 – Falls/back injuries - Traumatic	44
	18 – Headaches	2
	19 – Heart problems	1
	21 – Haemorrage/Lacerations	4
	23 - Overdose/ingestion/poisoning	8
	26 - Sick person – Specific Diagnosis	69
	29 – Traffic accident – RTA	1
	30 - Traumatic injuries - specific	16
	31 - Unconscious/passing out	13
	Total	**420**
Child	00 – Uncoded	13
	01 - Abdominal pain/Problems	18
	02 - Allergies/rash/med reaction/stings	4
	04 – Assault/Rape	1
	05 – Back pain – Non-traumatic	2
	06 – Breathing probelms	35
	07 – Burns/explosion	1
	10 – Chest pains	10
	11 - Choking	1
	12 – Convulsion/fitting	52
	17 – Falls/Back injuries - Traumatic	89
	18 - Headaches	3
	19 – Heart problems	1
	21 – Haemorrhage/laceration	1
	23 - Overdose/ingestion/poisoning	17
	25 – Psychiatric/Suicide attempt	10
	26 – Sick person – specific diagnosis	31
	28 – Stroke	1
	29 – Traffic Accident - RTA	9

	30 - Traumatic injuries - specific	95
	31 - Unconscious/passing out	28
	32 – Unknown problem - collapse	2
	Total	**424**