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 or an A&E. 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 published examples of an operational Paediatric Assessment Unit (PAUs) which was not co-located with either in-patient paediatric beds or an A&E (see **appendix 1**). 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

PAEDIATRIC ASSESSMENT ARRANGEMENTS AT LOCAL HOSPITALS SUMMARY

PURPOSE

This paper considers the options for developing a paediatric assessment service at a hospital which will cease to have an inpatient paediatric service, as requested by the South Wales Programme Board.

BACKGROUND

The service model for paediatrics consulted upon as part of the South Wales Programme clearly indicated that in-patient services should be provided on four or five hospital sites. This change was predicated on the basis that children are rarely admitted to hospital and most sick and injured children are assessed and treated by healthcare professionals in the community, their GP surgery and local hospital – and that for these children nothing would change under the plans for consultation.

The consultation also recognised that nobody should come to hospital unless they have to, and that *"to make this a reality we must strengthen our primary care services, including out of hours. We need a strong system of community services, which together with our GPs and paramedic colleagues in the Welsh Ambulance Services, will be able to better identify and treat people in the community, without the need for hospital admission".*

The Paediatric Clinical Reference Group (CRG) considered the options for establishing Short Stay Paediatric Assessment Units in local hospitals without in-patient beds, and recommended in its service model that these should not be established. The Programme Board asked the CRG to further review the potential for establishing such units during the period of public consultation.

CONCLUSION

The CRG has undertaken significant research and reviewed different options for establishing Stand Alone Paediatric Assessment Unit(s) on local hospital site(s) which do not have in-patient beds. The attached paper sets out the evidence, research, methodology, findings and conclusions of the CRG. The overall conclusion of the Clinical Reference Group is that this option should not be pursued as part of the South Wales Programme at the current time.

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Dr Ian Bowler, Consultant Paediatrician, Aneurin Bevan LHB; Clinical Lead, Paediatric Clinical Reference Group
Siân Harrop-Griffiths, Assistant Director of Planning; Cardiff and Vale UHB; Planning Lead, Paediatric CRG
On behalf of the Paediatric Clinical Reference Group, South Wales Programme

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PURPOSE

This paper considers the options for developing a paediatric assessment service at a hospital which will cease to have an inpatient paediatric service, as requested by the South Wales Programme Board.

BACKGROUND

The increasing demand for paediatric emergency assessment is not new, with recommendations from the Royal College of Paediatrics and Child Health (RCPCH) and others that short stay paediatric assessment units (SSPAUs) should be widely implemented (RCPCH 2009; Jones, 2011). Evidence has also shown that more than 40% of children attending such acute assessment units in paediatric departments and over 60% attending acute assessment units in A&E departments do not require inpatient admission. There is little evidence of serious adverse consequences for children discharged from these units, although up to 7% may subsequently return to hospital (Ogilvie 2005). However, the concern about the *possibility* of failing to recognise serious clinical illness (in any clinical setting) among medical professionals and parents remains very significant.

In developing the clinical model for paediatrics for the South Wales Programme (SWP), it has become clear that the prevailing models for SSPAUs in the UK are at sites co-located with a paediatric inpatient unit, an emergency department (ED) or both. However the SWP assumes that not all the existing DGH sites will retain a paediatric inpatient service, the rationale for which is that concentrating medical staffing on fewer sites will allow a guaranteed level of care while maximising training opportunities and thereby (hopefully) improving recruitment into specialist training programmes within Wales. For the purpose of this document, hospitals with an onsite paediatric inpatient unit are referred to as the 'inpatient centres' and those that do *not* as 'local hospitals'.

Because of parallel pressures also facing the emergency medicine service, while all local hospitals would continue to have an A&E department, the prevailing service may be more akin to a minor injuries unit, probably managed by nurses or advanced nurse practitioners with offsite support from ED consultants and medical staff based at another centre. This would impact on an A&Es' capacity to manage sick children. The conclusions of this review are based on this premise.

The Clinical Reference Group (CRG, membership at *Appendix 1*) carefully reviewed the potential for establishing short stay paediatric assessment units in local hospitals which do not have inpatient paediatric beds or a consultant led A&E and proposed a service model which stated that:

"Local Hospital Service
Children can receive a specialist assessment and advice through rapid access paediatrics "hot" clinics to which GPs or community healthcare professionals can refer on an urgent basis. In addition, children with minor injuries can be assessed and treated in a local hospital minor injuries department, although those patients requiring more specialist assessment or admission will require onward transfer to the regional hospital. Elective day case services for a selected range of low risk interventions and surgical procedures may also be undertaken.

The Short Stay Paediatric Assessment Unit (SSPAU) service model has been explored as an option for provision of service at the local hospital. National evidence suggest that these units are successful when they are either co-located with a full A&E or where they have access to beds 24/7. The proposed local hospital model will have ENP minor injuries service which will not receive children other than for minor injuries and will not have inpatient beds. For these reasons, the SSPAU is not recommended as a service option for the local hospital".

The Programme Board considered this proposal and has asked the Paediatric CRG to undertake a further review of the potential for establishing Short Stay Paediatric Assessment Units. This paper presents the combined view of members of the CRG on the potential for establishing such a service.

METHODOLOGY FOR THIS REVIEW

The review has been undertaken in the following manner:

a. Confirmation of clinical standards from Royal Colleges;
b. Review of literature to determine evidence from other studies and SSPAU models;
c. Discussions with the Royal College of Paediatrics and Child Health (RCPCH) to identify models with field work to identify potential models and learning form SSPAUs elsewhere in the UK and Ireland; and
d. Ongoing discussion with clinicians through the Clinical Reference Group and other LHB representatives to review the options, including possible new solutions.
e. Informal discussions with primary care to elicit their views on options.

A. STANDARDS AND EVIDENCE FOR PAEDIATRIC ASSESSMENT UNITS

Published documents setting out standards for SSPAUs and for emergency care for children and young people include the following *(See Appendix 2)*:

Standards for Children and Young People in Emergency Care Settings **(RCPCH 2012)**

This report sets out standards of care applicable to all urgent and emergency care settings across the UK. The standards are measurable and auditable and are designed to improve the experience and outcomes of children and young people (CYP) in their journey through the urgent and emergency care system.

The paper recognises the changes in urgent and emergency care provision and that pathways have become much more complex. The standards recognise that the vast majority of consultations for CYP for undifferentiated urgent care need to take place outside emergency care settings and that the delivery of care must take place within an integrated urgent care system. The following elements are particularly pertinent to SSPAUs:

- The aim of providing expert help as early as possible in a child's illness in order to improve clinical outcomes has to be balanced by the importance of accessible services as close as possible to home.
- Whenever services are provided at facilities on a part-time basis, the public must be fully informed of the opening hours and how to access alternative care in a safe and timely way. Where on-site 24-hour paediatric services are not available, emergency services will continue to receive very sick children, even where 'bypass' arrangements have been made with the ambulance service, because parents with very sick children (particularly babies and infants) will go directly to the nearest facility. In these situations the paediatric skills of the ED staff must be enhanced – especially in distinguishing minor from more serious illness.
- When paediatric advice is not available onsite, criteria should be in place detailing when referral to a paediatric centre for assessment and/or admission, or later out-patient management is appropriate. The development of an observation area of a SSPAU can assist in this decision and avoid unnecessary transfers. SSPAU opening hours should reflect attendance patterns and those of surrounding units, and collaboration between senior doctors

and nurses in the emergency department and in-patient children's services is essential to enable optimum functioning of such units.

- The development of Managed Clinical Networks and community children's nursing teams, a flexible approach to traditional professional, organisational and managerial boundaries, and an emphasis on the competencies of the ED team are key elements in designing a safe service. Cross-site or hospital/community arrangements should be regularly reviewed to ensure the service is safe and integrated.
- EDs without paediatric support should liaise with the local children's unit for expert advice regarding issues of concern including training and development of staff.
- There should be a whole system approach to the provision of urgent care, with shared protocols, shared training, staff rotations and quality improvement programmes across the whole geographical area covered by the network. Clinical guidelines and referral pathways should be consistent. Establishing link posts – e.g. through staff rotation will enable the development of consistent skills and appropriate referral patterns.
- Staff in all urgent and emergency care settings may not be aware of the whole family context and therefore linking with GPs is essential.
- The ability to follow up children in community settings to help avoid admissions, enable earlier discharge through, for example outreach teams, out-patient or day-case care, and community children's nurses should be enhanced. Ambulatory care pathways and joint referral protocols should be developed.
- Discharge arrangements must be robust with clinical governance systems applied and outcomes monitored.

***Facing the Future: A Review of Paediatric Services (*RCPCH 2011**)**
This Report sets out service standards which should be achieved by all acute, general paediatric services which were used as the basis for the clinical model developed by the CRG:

- Every child or young person with an acute medical problem who is referred for a paediatric opinion is seen by, or has the case discussed with, a paediatrician on the consultant rota, a paediatrician on the middle grade rota or a registered children's nurse who has complete a recognised programme to be and advance practitioner. *(Standard 3)*
- All SSPAUs (Short Stay Paediatric Assessment Units) have access to a paediatric consultant (or equivalent) opinion throughout all the hours they are open. *(Standard 4)*
- A paediatric consultant (or equivalent) is present in the hospital during times of peak activity.*(Standard 6)*
- Specialist paediatricians are available for immediate telephone advice for acute problems for al specialties, and for all paediatricians. *(Standard 9)*

The report suggests four options which may be considered when an inpatient unit closes, in particular advising that a standalone SSPAU, staffed by a combination of ST1-3 trainees; foundation year doctors, GP trainees and ANPs and supported by a consultant is appropriate for approximately two-thirds of units especially those which are larger or more geographically isolated. Unfortunately, identifying such a unit with this model actually in operation has proved problematic.

***Short Stay Paediatric Assessment Units: Advice for Commissioners and Providers* (RCPCH 2009)**
This report proposed that SSPAUs can improve the provision of safe emergency service for children and should be developed more widely. It identifies that SSPAUs could mirror CDUs developed in adult emergency settings where automatic inpatient admission can be avoided,

with length of stay tailored to the condition for which the child is being observed – e.g. 4 / 8 /12 hours.

The key benefits of an SSPAU are identified as the ability to discharge patients earlier alongside anecdotal evidence of no change in re-attendance rates. It also points out that inpatient wards are likely to have a greater proportion of patients with higher dependency and that the SSPAU itself will need a relatively high level of staffing, but it suggests that there is the potential for a reduction in cost due to the reduced admissions through greater efficiency.

The report sets out that the following requirements should apply to all SSPAUs, regardless of the specific model of care locally:

- Senior clinical staff should be involved in gate-keeping and should be pivotal in decision making, providing effective training and delivery of services;
- Senior clinical staff should be available at times of peak demand, including during evenings and weekends;
- Bed numbers in the SSPAU should be sufficient for needs and should accommodate variable admission rates;
- There should be good access to diagnostics;
- The expectation should be for discharge rather than later admission;
- Discharges can be nurse-led according to pre-set criteria with robust safety netting and clear re-attendance policies;
- Access to enhanced community care nursing teams is essential and there should be close links with the acute unit to allow early discharge and home review (7 days/week).

Three types of models were considered by the RCPCH:

1. **Co-location with the paediatric ward (widespread in UK)**
   Units are co-located with the acute in-patient wards.
   This model is not further considered as this would not be the position at a local hospital.

2. **Co-location with ED, run by the paediatric department and ED (eg Hope Hospital, Salford).**
   This type of model is encouraged by the Academy of Royal Colleges and the College of Emergency Medicine as on-site in-patient paediatric services become less prevalent. Lessons learned from these units include:
   - Units of this type are easier to staff if the critical mass of staff is increased (i.e. combining paediatric and ED staff into one rota);
   - Opening hours will be dependent on local pathways of care. These can vary – '8 until late' or '24 hours' - to ensure safe discharge of 'out of hours' presentations. Maximum lengths of stay will depend on local patterns of attendance to the ED and adjacent facilities;
   - Staff with appropriate competencies should be available to provide support for resuscitation or major trauma cases;
   - Close liaison and support needed for paediatric training and CPD; and
   - Clear protocols and integrated care pathways are necessary: these units should be developed within the context of a local paediatric emergency care network.

   Pitfalls included:
   - Limited opening hours may increase transfer rate (although not in the more established units where alternative pathways are being established);

- There is potential for the de-skilling of existing ED staff – a rotation policy is therefore needed to ensure core competencies are maintained; and
- Social services, paediatricians and health visitors should be actively involved in the department to handle safeguarding (child protection) issues.

While these points are important, this model would only be applicable to the SWP if a fully operational ED is co-located at a local hospital.

3. Co-location with ED, run by ED in a specialist paediatric hospital (e.g. Birmingham's Children Hospital)

This model is not further considered as this would not be the position at a local hospital.

B. EVIDENCE FROM THE LITERATURE

Several reviews of SSPAUs and their effectiveness have been undertaken. Ogilvie (2005) suggested that the RCPCH had identified two types of service: acute assessment *units* that provide rapid specialist consultation for acutely ill children in support of primary care and A&E departments providing in effect admission facilities for periods measured in hours rather than days; and acute assessment *clinics* which provide emergency outpatient consultations.

The review demonstrated that ~40% of children attending a PAU and ~60% of children attending A&E were not admitted; between 0.4% - 7% of attendees were re-admitted; and levels of satisfaction from staff, GPs and parents were good.

Ogilvie advised caution in interpreting his results due to the quality of some studies, but concluded that the evidence supported the view that acute paediatric assessment services are safe, efficient and an acceptable alternative to inpatient admission. He advised further research to ensure that reorganisation does not disadvantage children and their families where inpatient services are withdrawn from a hospital.

Blair *et al* (2011) assessed the impact of their purpose-built short stay paediatric ambulatory care unit (PACU) on a DGH site, close to in-patient wards and outpatients with an A&E on site. High levels of satisfaction were reported.

A systematic review of Paediatric Observation Units (OUs) in the United States (Macy *et al* 2010) found that OUs were located in or near the emergency department in all but two hospitals which had ward-based units. The ED was the primary entry point into the OU with only two open model units accepting patients from other settings. Their view was that the benefits of OUs were not necessarily confirmed, that there was a need for standard reporting of outcomes to be able to assess performance across different institutions.

COMMENTARY

A series of conclusions can be drawn from these standards and published evidence:

- SSPAUs are acknowledged as providing alternatives to in-patient admissions and attendance at A&Es.
- Services need to be provided to acknowledged standards, particularly in terms of staffing and governance.
- If not providing direct care, paediatric consultant advice needs to be immediately available to other staff on the unit.
- Services should be provided as part of a network with in-patient care.
- There need to be clear protocols and pathways of care, including admission criteria and referral sources.
- There is insufficient high quality evidence available at present to fully quantify the impact of SSPAUs.

- **Following extensive research, we have identified <u>no</u> published examples of operational SSPAUs which are <u>not</u> co-located with either in-patient paediatric beds or an A&E.**

C. SERVICE MODELS FROM THE UK AND BEYOND

In Wales, DGHs currently have an SSPAU co-located with an inpatient unit or an A&E or both (with variation in operational detail).

A significant number of SSPAUs across the UK have been investigated as part of this review. A direct approach was made to the RCPCH to seek advice on examples of possible standalone SSPAUs (as the RCPCH has proposed), with further discussions with representatives from the Royal College of Nursing. Following phone discussions, neither Royal College was able to identify examples of the SSPAUs required.

A summary of some the different models identified is attached in *Appendix 3.* Almost all were clearly of an SSPAU co-located with a in-patient paediatric ward, or with an A&E, or both. A few models appeared potentially applicable to the SWP and these were reviewed in greater detail. The models operational at Burnley and Blackburn Hospitals, and Halifax and Huddersfield Hospitals are attached (see *Appendix 4*). In our research, we have *only* been able to identify SSPAUs that are co-located with an in-patient or an ED service.

In Ireland, a National Model of Care for Paediatric Healthcare Services has been developed with a new Children's Hospital as a central component of an integrated system for children and young people. Part of this network will include an Ambulatory and Urgent Care Centre at another site in the city of Dublin; however, while the plans and service models have been agreed, this model is not yet operational. Similarly, the proposed model at Shrewsbury & Telford is still in development without a clear timeline for opening.

D. DEVELOPING POSSIBLE MODELS OF CARE FOR A LOCAL PAEDIATRIC ASSESSMENT SERVICE

As indicated above, the RCPCH has suggested four options for when an inpatient unit is closed:

i. No alternative arrangements are made, all children flow to the nearest alternative unit.
ii. The local children's community nursing team could be strengthened, thereby increasing the proportion of children avoiding admission through earlier intervention.
iii. Alternative provision is made at a local GP practice / health centre where Advance Nurse Practitioners (ANPs) could staff observation beds – e.g. for up to 4 hours / child.
iv. SSPAUs (standalone) are established, staffed by a combination of ST1-3 trainees; foundation year doctors, GP trainees and ANPs, all supported by a consultant who is available for advice and review.

Across the UK, referrals to children's services are increasing with increasing demands on SSPAUs. It is for this reason that retaining and ideally enhancing local unscheduled care services for children is desirable, not least if a change in existing services is proposed as part of the SWP.

Strengthening local community nursing teams (as in RCPCH *option ii.* above) would seem to be highly desirable in every circumstance.

In developing further options, the following models, which are not mutually exclusive, were considered:

1. Consultant-delivered rapid access clinics *(also called 'urgent slots' or 'hot slots')*

This is not the same as an urgent outpatient appointment (which should be available in any case) and offers an outpatient consultation with a paediatrician within 24 – 48 hours. It is not featured in the RCPCH's four options (above); would not include a period of observation and therefore represents a service for only a subset of patients who might currently attend an SSPAU and requires primary care to retain full clinical responsibility pending the review. The

model only adds value if an unscheduled attendance is avoided. It also assumes that patients can be seen by their GP and subsequently in the rapid access clinic in a sufficiently timely fashion to meet the expectations of both parents and GPs.

Precedents in Wales from such service operated in Neath, Llandough and Gwent would suggest that this type of service is valued by primary care, but its impact on the potential flow to an SSPAU is unlikely to be significantly impacted. This model could be established to reflect the public consultation commitment to strengthen services in local hospitals.

2. Standalone SSPAU models

This section discusses alternatives around *RCPCH option iv* (above)

While SSPAUs see an increasing number of children, many do not require admission: recent data would suggest that approximately three-quarters of the children seen in SSPAUs with medical problems, even after referral by a GP, will not require admission (see 2012 audit data. *Appendix 5*). The corollary is that most of these children are not significantly unwell at the time of their presentation and it could be that the inability to provide short stay observation in the primary care setting leads to a referral to an SSPAU.

We suggest that the 'target' population for an unscheduled ("assessment") service for children at a 'local hospital' (without a co-located inpatient unit or consultant-led ED unit) might be defined by exclusion:

- Children who are *unlikely* to require admission. Children who are signposted as requiring admission to paediatric inpatient unit would be directed to the appropriate inpatient centre. If this was misapplied because of failings in triage arrangements, this would place an unacceptable burden on the ambulance service.
- Children who may require emergency care. In practice this means that children requiring transport to assessment by 999 ambulances, whether *de facto* an emergency or otherwise, would always be directed to an inpatient centre.
- Children who live in the appropriate geographical catchment area. If patients live equidistant from a standalone SSPAU and one attached to an inpatient facility, patients and primary care will make a judgment on where they should be seen based on the likelihood of admission and access to each unit.
- Children with minor injury would continue to be seen at a local unit but they would not be within the service remit of a paediatric assessment service.
- Children who are likely to have completed the assessment and observation process before the standalone SSPAU closes (for less than 24 hour services). There is a peak is SSPAU activity (referrals for primary care) in the early evenings on weekdays which requires a unit to continue to observe patients at least two hours after the last admission (probably nearer to four hours).

Based on the audit data, we estimate that this 'target population' for a local service would be a *maximum* of 65% of patients of those currently seen at their current DGH service, probably considerably fewer. If the hours of operation effectively divert the evening referral peak to another unit, this percentage would fall considerably. Importantly, if the hours of operation of the SSPAU do not allow this peak activity to be observed sufficiently to allow safe discharge, the level of secondary transfers would again be unacceptably high.

The RCPCH *option iv* envisages a staffing plan based on junior doctors (ST1-3 trainees; foundation year doctors and GP trainees) and ANPs. These will be considered in turn

Junior doctor staffing

The CRG's view is that junior doctors with limited experience in paediatrics would lack the confidence to undertake this role without the onsite support of senior doctor, either a paediatric

middle grade or a consultant paediatrician. It is unlikely that there are sufficient junior tier doctors in Wales to allow this approach to be pursued in isolation but it is the need to provide senior doctor presence that is the greater difficulty to be overcome.

Advanced Nurse Practitioners

For many children the decision as to whether a patient can be cared for at home (as well as the care in the SSPAU) is actually made by an experienced nurse; unfortunately it would appear that many nurses would prefer the support of a doctor at the point of discharge (evidence from visit to Halifax and Huddersfield). Whilst both Dublin's and Telford & Shrewsbury's reconfiguration plans are based on an ANP model, neither plan is currently operational, are unlikely to be so for some years, and at least for the Telford model, *are* clearly dependent on middle grade support.

Rolling out an ANP model of care would probably be desirable, noting that there is limited provision of ANP training in Wales at present associated with very limited deployment. To progress this idea would necessitate a major 'gearing up' of the nurse training programme, but his has to be within the context of a specific and defined service model. The lead time for such a programme would be over several years and costly. Moreover its applicability at a time when there is a shortage of nurses to provide more traditional roles is debatable.

Paediatric middle grade doctor staffing

One of the principal drivers for the SWP is that there are too few middle grades doctors to be able to staff the existing inpatient units. While paediatric middle grades could make some contribution to a standalone SSPAU, it is improbable that such a model based on this staffing approach could be delivered in Wales. The levels of middle grade staffing in the units further investigated are significant – e.g. 14 middle grades in Burnley and Blackburn.

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.

3. An "enhanced primary care assessment service"?

The most common diagnoses of the children discharged following assessment at an SSPAU are febrile illness, vomiting and diarrhoea, and wheeze. These children are unlikely to be significantly unwell at the point of presentation and are managed according to well defined pathways, but importantly it is the period of observation that is pivotal to the decision as to whether a child can continue to be cared for at home. The RCPCH in *option iii* suggests that this model of care could be delivered in a primary care setting.

The CRG agree that experienced nurses are the key to the successful operation of such a service, but our view is that some contribution from medical staff is always likely to be required. Could this be provided by primary care?

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?

Service model ideas
In the UK, over 95% of NHS clinical contacts are made in general practice with over 300 million taking place each year (Academy of Medical Sciences. 2009) and consultations, with children under 15 years representing 18% of all primary care consultations in the UK, (Royal College of General Practitioners (2008). A 10,000-patient general practice will expect to have 1,500 children less than 16 years of age registered.

There are certainly recruitment issues and service pressures in primary care, however there are numerically far more general practitioners than paediatricians. If the provision of a 24/7 service for children falls only to secondary care paediatricians, we should not be surprised that the current issues driving reconfiguration have arisen, but we should be concerned that in a free labour market young doctors may turn away from the more onerous specialties such as paediatrics if there are alternatives that appear to offer a more favourable work-life balance.

The CRG has considered potential options for developing such a service:

Centralised primary care-led SSPAUs could be established either in a larger health centre or, more likely, on the site of a local hospital, potentially in the Out of Hours facility which is usually co-located with the ED. Access would be based on telephone triage just as for all primary care services, but it would be preferable if this was delivered by clinical staff (nurses) rather than clerical staff. The unit should also be unambiguously signed as a “primary care unit”, and to avoid confusion this should be identifiably distinct from an ED department and any former inpatient paediatric unit.

On arrival patients would be triaged by an experienced nurse with immediate assessment by a doctor only as required. A period of observation is likely to be needed for many patients, supplemented by simple investigations (a blood count, chest x-ray, urinalysis) a required. A doctor’s input may be required at the point of discharge. Care pathways would need to be developed based on NICE guidelines.

Observation areas adjacent to clinics may be established, staffed by very experienced paediatric nurses who could undertake regular observations, tests such as checking urine and provide paracetemol. GPs would undertake other activities on site, and be able to observe and then choose to admit/discharge following a period of observation. Access would be based on telephone triage as previously and/or GP assessment in surgery.

Hours of operation
The service could operate based on primary care hours (08:00 to 19:00 hours) but allowing up to four *additional* hours for patient observation. The service might operate similar hours at weekends.

Onward transfer of patients

Even with the most effective triage, some patients would need to be admitted to hospital after observation or at the point of presentation, however the need for this be provided by ambulance (as opposed to the family's own arrangements for transport) should not be significantly greater than the current rates from primary care premises. A Pre-hospital Ambulance Paediatric Conveyance Model has been developed by WAST and agreed by the CRG to support this model and is attached at *Appendix 7*.

Staffing

Patently this is contentious, however we believe that the argument for standalone assessment units for children based on an enhanced primary care model represents the only potentially viable model to provide local care for patients whose care will be continued at home.

We suggest that the model is in effect based around "general practitioners with an interest in paediatrics" or "GP paediatricians" first proposed almost 40 years ago (*Fit for the Future* 1976 – "The Court Report"). Recruiting paediatric trainees to this role (as recently suggested by the President of the RCPCH) might be a viable approach; however this would require significant investment, major changes to existing training programmes, and would have a major impact on UK general practice.

An alternative might be to organise children's services around a collaborative of all primary care practices in a catchment area. It may be operationally preferable for *all* primary care services for children in an area to be focussed in this way to allow expertise and experience to be concentrated, but whether this might involve all GPs or a subset of those designated as responsible for children's services would be of course an issue for primary care.

Whilst this is in theory a potentially viable model, informal discussions with primary care have indicated that it is unpalatable and unlikely to be implemented. There are several reasons for this:

- GPs will wish to refer to a paediatrician rather than another GP to make a decision re admission.
- GPs have expressed little/no interest in participating in a similar service between 6-10pm based in an EU to see children despite enhanced remuneration.
- Informal advice from primary care is that they would not use such a service – they would either refer to admit or send home with personal follow up with parents.

The nursing workforce implications would be that there is minimum lead in time of at least two years before ANPs would gain the qualifications needed, e.g. two years to gain the Masters Degree. This would then need to be followed by a series of module training in practical skills, well supported by consultant(s) and a period of settling in time of at least six months after qualifying. This was the experience at Halifax and locally at Cwm Taf. The experience in Halifax & Huddersfield showed that it actually took 7 years to train the required numbers of ANPs.

We have established that there are currently less than 10 trained ANPs in the SWP areas working covering the gaps in medical rotas. Three more are due to qualify in 2014. There are also small numbers of specialised ANNPs working in Neonatology.

Anecdotal evidence suggests that few qualified Paediatric nurses are interested in qualifying to become ANPs and that depending on the level of activity and the numbers required a targeted recruitment campaign would be needed to recruit them directly onto an ANP programme.

SUMMARY AND CONCLUSION

We have reviewed SSPAU services across the UK and appreciate that retaining a local SSPAU if a children's inpatient unit is reconfigured to another site would be attractive to families, clinicians and politicians. Unfortunately we have not been able to identify a standalone SSPAU currently operational in the UK that would be immediately applicable for implementation in Wales. Having reviewed the possible options, given the magnitude of the service change

proposed, the CRG view is that the only potential model would be one based on enhanced primary care, even though this may also require major change within primary care services. The conclusion is that this is **not** an option which should be further explored.

Appendix 1

SOUTH WALES PROGRAMME – PAEDIATRIC REFERENCE GROUP

MEMBERSHIP

Graham Shortland (Chair)	Cardiff and Vale UHB
Ian Bowler (Clinical Lead)	Aneurin Bevan LHB
Lynne Millar-Jones	Cwm Taf LHB
Katherine Wooding	Abertawe Bro Morgannwg LHB
Allan Wardhaugh	Cardiff and Vale UHB
Shirley Jonathon	Abertawe Bro Morgannwg LHB
Richard Lee	Welsh Ambulance Services NHS Trust
Marcus Pierrepoint	Aneurin Bevan LHB
Helen Fardy	Deanery
Vicki Goodwin	Cwm Taf LHB
Kurt Burkhardt	GP (nominated as part of PAU review)
Rose Whittle (Therapies lead)	Cardiff and Vale UHB
Siân Harrop-Griffiths (Planning lead)	Cardiff and Vale UHB
Angela Lloyd (Workforce lead)	Cwm Taf LHB

Appendix 2

Standards for Children and Young People in Emergency Care Settings, RCPCH, 2012
Complete list of standards for children and young people in emergency care settings

Service design: an integrated urgent care system

1. All staff delivering urgent care to children are competent in the basic skills required for safe practice, in whichever setting they work.
2. Service planners, commissioners and providers work together to provide safe urgent care for children in a geographical network, taking local needs into account.
3. Healthcare organisations encourage shared or rotational posts, or regular secondments to the acute unit.
4. Emergency departments work with local community providers to develop care pathways for common conditions to facilitate care closer to home.
5. The *Urgent and Emergency Care Clinical Audit Toolkit* is used to review individual clinician consultations systematically wherever children with urgent care needs are assessed, including on the telephone, face to face, in hospital or in the community.
6. Regional critical care networks are in place to develop protocols to stabilise and transfer children to specialist centres.

Environment in emergency care settings

1. Emergency care settings accommodate the needs of children, young people and accompanying families and comply with DH *You're Welcome* and HBN 22 standards.
2. As well as audio-visual separation from adults, consideration is given to security issues, availability of food and drink, breast-feeding areas, and hygienic, safe play facilities.
3. At least one clinical cubicle or trolley space for every 5,000 annual child attendances is dedicated to children.
4. Young people have access to quieter waiting and treatment areas, and age-appropriate games, music or films.
5. Emergency departments seeing more than 16,000 children per year employ play specialists at peak times or have access to a play specialist service.
6. Participation is encouraged by children, young people, siblings, parents and carers regarding on going quality and improvement of services or facilities.

Management of the sick or injured child

1. All facilities receiving sick or injured children are equipped with an appropriate range of drugs and equipment.
2. All children attending emergency care settings are visually assessed by a registered practitioner immediately upon arrival, to identify an unresponsive or critically ill/injured child.
3. An initial clinical assessment occurs within 15 minutes of arrival.
4. A system of prioritisation for full assessment is in place if the waiting time exceeds 15 minutes.
5. Initial assessment includes a pain score.
6. Analgesia is dispensed for moderate and severe pain within 20 minutes of arrival.
7. Individualised management plans are accessible for children who attend the emergency care setting with priority access e.g. 'emergency passport/card holder'.
8. Systems are in place to ensure safe discharge of children or young people, including advice to families on when and where to access further care if necessary.
9. All urgent care attendances in children and young people are notified to the primary care team: ideally both the GP and the health visitor/school nurse.

Staffing and Training

1. Nurses working in emergency care settings in which children are seen require a minimum level of knowledge, skills and competence in both emergency nursing skills and in the care of children and young people.

2. Acute healthcare providers facilitate additional training in paediatric skills for the nursing staff in the emergency department, and have a long-term strategy for recruitment and retention of registered children's nurses.
3. All clinical staff working in emergency settings have a minimum level of knowledge, skills and competence in caring for children and young people, e.g. recognition of serious illness, basic life support, pain assessment, and identification of vulnerable patients.
4. All emergency departments receiving children have a lead RN[Children] nurse and a lead nurse responsible for safeguarding children.
5. Sufficient RN[Children] nurses are employed to provide one per shift in emergency departments receiving children.
6. In emergency care settings where nurses work autonomously to see and treat patients (usually called ENPs) these nurses undergo an assessment of competencies in the anatomical, physiological and psychological differences of children.
7. Emergency doctors and nurses are familiar with local guidelines and know when and how to access more senior or specialist advice promptly for children.
8. Level one ultrasound competency is recommended for medical staff training in emergency medicine.
9. Emergency care settings seeing more than 16,000 children per annum employ a consultant with sub-specialty training in paediatric emergency medicine.
10. All staff working in facilities where children present are trained in paediatric basic life support. Emergency department nursing staff should be PILS/PLS or equivalent trained. Senior trainees and consultants in emergency medicine, paediatrics and anaesthetics dealing with acutely unwell children should be trained to an appropriate level dependent on role.
11. Urgent help is available for advanced airway management and intubation and ventilation is only carried out by competent staff.
12. If paediatric on-site support is unavailable, the paediatric skills of the emergency department staff are enhanced, or additional paediatric-trained staff employed.

Safeguarding in emergency care settings

1. All staff are aware of and follow the recommendations outlined in statutory, royal college and other key guidance.
2. All staff receive appropriate safeguarding training in line with the guidance document *Safeguarding Children and Young People: roles and competences for health care staff.*
3. All emergency departments nominate a lead consultant and a lead nurse responsible for safeguarding.
4. All emergency care settings have guidelines for safeguarding children and young people and include the 'safety net' arrangements.
5. All staff in emergency care settings are able to access child protection advice 24 hours a day from a paediatrician with child protection expertise.
6. Direct or indirect access to the Child Protection Plan is available.
7. Systems are in place to identify children and young people who attend frequently.
8. The primary care team, including GP and health visitor/school nurse, are informed, within an agreed timescale, of each attendance.
9. A review of the notes is undertaken by a senior doctor or nurse when a child or young person is not brought for a follow-up appointment, or if they leave the department without being seen.
10. When treating adults, staff must recognise the potential impact of a parent's or carer's physical and mental health on the wellbeing of dependents, and take appropriate action.

Mental health, substance and alcohol misuse

1. Emergency clinicians with responsibility for the care of children and young people receive training in how to assess and manage their mental health needs and support their family/carers.
2. Emergency clinicians are familiar with current legislation surrounding consent, confidentiality, mental capacity and safeguarding.
3. Local policies are in place for the involvement of a mental health practitioner for those children and young people at immediate risk.

4. Policies are in place for the management of an acutely distressed child or young person incorporating the use of restraint for those acutely disturbed or at risk of harm to themselves or others.
5. Policies are in place detailing the action required when adults with carer responsibilities present with acute mental illness or are identified as having alcohol or substance misuse problems.
6. Adequate space is available for children/families in crisis and should include a private room with suitable supervision by emergency staff.
7. There is improved access to mental health records and development of individual crisis plans.
8. A liaison health worker is appointed to improve access to information, education and clinical expertise.

Major incidents involving children or young people

1. All healthcare organisations ensure children are included in major incident plans and are involved routinely in appropriate major incident exercises.
   In establishing a local network of hospitals, statutory agencies and other services, children are specifically considered.

Death of a child

1. Local checklists based on national recommendations are used in all emergency care settings.
2. All children dying unexpectedly are taken to the emergency department unless there is a need to preserve a crime scene.
3. The consultant paediatrician on call is advised as soon as possible about an unexpected child death.
4. A consultant in paediatrics or emergency medicine receives early information about the death of a child.
5. Parents are offered an appointment to see the bereavement counsellor swiftly and a relevant consultant at a suitable time interval.
6. There is co-operation with the Rapid Response Team as well as Child Death Overview panels.

Information system and data analysis

1. The needs of patients, clinicians, managers, service planners/commissioners and regulators are defined, and used to inform the development of emergency care setting information systems.
2. Emergency care setting staff participate in the national information technology agenda and engage proactively to design local systems.
3. There is a minimum dataset which incorporates the specific needs of children.
4. Emergency care setting information systems link up with other health information systems, so that data on all local health service contacts are available with the emergency care setting.
5. Injury surveillance data is collected and accessible as appropriate.
6. Hospitals subscribe to the Trauma Audit and Research Network (TARN), to assess their own outcomes for patients with major trauma and national audits such as CEM analgesia in children with injuries.
7. All providers of urgent and emergency care monitor the care provided for children using nationally defined indicator sets and use this, and additional data, when planning service improvement and proposing further quality indicators.
8. Emergency care settings utilise the resources of research networks to participate in and plan research projects.

Facing the Future: Standards Applicable to Paediatric Assessment Units (RCPCH 2011)

3. Every child or young person with an acute medical problem who is referred for a paediatric opinion is seen by, or has the case discussed with, a paediatrician on the consultant rota, a paediatrician on the middle grade rota or a registered children's nurse who has complete a recognised programme to be and advance practitioner.

This refers to all children and young people referred for an urgent paediatric opinion, whether the source of the referral is general practice, ED or SSPAU. As a minimum all cases should be discussed with a senior doctor or nurse as specified. This would preclude a less experienced doctor who has not achieved level 1 competences in paediatric working sending a child or young person home who has been referred by a GP without that child or young person being discussed with a more senior colleague.

4. All SSPAUs (Short Stay Paediatric Assessment Units) have access to a paediatric consultant (or equivalent) opinion throughout all the hours they are open.

Studies have shown that availability of consultants can decrease the rate of unnecessary admissions without compromising patient safety or patient satisfaction. Therefore, the RCPCH view is that all SSPAUs should have consultants (or SSASG) equivalent available for advice even if they are not physically present. Any child or young person who is continuously present in an SSPAU for more than eight hours will be discussed with a consultant or paediatrician on a middle grade rota to decide upon ongoing treatment and/or transfer. This standard is based on published evidence.

6. A paediatric consultant (or equivalent) is present in the hospital during times of peak activity.

The peak admission time for acute paediatrics is the early evening, 5-10 pm, when traditionally the consultant has not been present. Consultant presence during this time would improve patient outcomes, but would also provide an excellent training opportunity for junior staff.

9. Specialist paediatricians are available for immediate telephone advice for acute problems for al specialties, and for all paediatricians.

With increasing centralisation of specialist care and in order to facilitate appropriate long term condition management closer to the child or young person's home, it is imperative that local paediatrician have access to appropriate specialist advice in a timely manner, at least if unnecessary referrals and admissions are to be avoided. This standard should ensure that a local paediatrician – in the community, an SSPAU or in-patient unit – can access the specialist opinion hat is needed when faced with acute problems in children and young people with complex and specialist needs. It is optimal if such advice is provided as part of managed clinical network which encompasses all local secondary care providers. This standard does not apply when the presenting problem is not an emergency, nor does it apply to referrals from non-paediatricians who should, in the first instance, seek the advice of their local paediatric service.

APPENDIX 3

SHORT STAY PAEDIATRIC ASSESSMENT UNITS – SUMMARY OF MODELS INVESTIGATED

SITE/CONTACT	ACCESS & OPENING HOURS	STAFFING	ACTIVITY/CASE MIX	TRANSFER ARRANGEMENTS	OTHER INFO
Kingfisher Unit, Grantham Hospital, United Lincolnshire NHS Trust	10 - 5 M-F Latest arrival 4.30 p.m. A&E, GPs, Out-of-hours, Midwives, Health Visitors, Children's Community Nursing Team	Visiting consultant every day with a junior doctor. Band 5s, 6, 7, HCSW	640 attends Apr 2013-Mar 2013 773 ward attends for other investing 1477 total All medical assessments, no surgical/trauma	All transfers go by ambulance – sometimes wait until 11pm for last patient to leave	Two inpatient sites ~30 miles apart. Strong community nursing service to support. V expensive model. Currently being reviewed by CCG due to funding issues.
Childhood Illness Unit, Burnley Hospital	10:00-20:00 M-F 12:00-20:00 S/S Triaged by nurses (inc GP referrals). Some 'walk ins'	Middle grade and junior doctors, supported by nurses. Burnley and Blackburn Trust has ~ 15 middle grade doctors (inc 5 non-training grades)	Needs to be quantified – but impression of quite low numbers	Shuttle bus.	Acute Emergency Care Centre on site (not full A&E but is some anaesthetic support). Consultant led-maternity and NICU on site
PANDA Unit, Salford Hospital,	24/7 Mean los 8-10 hours. Can stay up to 24 hours. GP referrals, self referrals, A&E	7 consultants, 6 consultant paediatricians (2 have paediatric A&E training), 1 nurse consultant. Consultant on floor 09:00-23:00 and then on-call from home. 7 ANPs provide middle grade cover (mainly from paeds nursing background) 5 junior doctors – but probably need more than this.	~20,000 pa (~1/3 should have been seen by GP). 12 beds (8 cubicles - 1 of which is HDU, 4 curtained bays) Medical problems, minor injuries, some major injuries – adult A&E is designated trauma centre	4% require onward transfer. Sometimes need to transfer out of Greater Manchester when no beds – increasingly difficult problem.	Co-located paediatric A&E and short stay AU, adjacent to adult A&E. On-site anaesthetic support, and up skilling through secondment to tertiary centre and undertaking children's surgery. Well resourced Acute Community Children's Nursing Team ~10 nurses – see patients in homes after initial presentation – who rotate through the Unit.
Maidstone and Tunbridge Wells	09:00 – 21:00 M-F	Paediatric junior trainees, middle grade and consultants. Trust has 13 paediatric middle grades.	Not quantified, but numbers are reducing		No co-located i-p paediatric unit, but is A&E dept on site. Future appears uncertain
Shrewsbury,	08:00-21:00 – last	Up to 9 additional	tbc	Pathways being prepared,	Plans in development for i-p and PAU unit

SITE/CONTACT	ACCESS & OPENING HOURS	STAFFING	ACTIVITY/CASE MIX	TRANSFER ARRANGEMENTS	OTHER INFO
(proposed model – service due to open in Sept 2014)	admission 19:00. GPs – phone calls triaged through middle grade on acute site. Some walk ins from co-located A&E.	consultants to staff the stand alone PAU and provide on-call for PAU and A&E. If not req to cover A&E, need for + 14 consultants.		but will be a combination of ambulance; patient/parent; PICU retrieval	at Princess Royal Hospital (Telford) and PAU at Shrewsbury and Telford.
Halifax (hot site) and Huddersfield (warm site)	24/7 – staffed by ANPs on rota, some gaps filled by registrars. Walk ins from A&E. All GP referrals and ambulances go direct to hot site.	ANP staffed. 5 ANPs on rota, 2 more being trained. Skilled in procedures, NLA & APLS trained, supported by anaesthetists for emergencies. Staffing/shift: 1xPaediatric NP; 2xPaeds nurses; 1xHCA (no play therapist). Consultant support from hospital 20 minutes away – often give advice on phone, rarely asked to attend. Nurses work traditional shifts and 12 ½ hour shifts – rotate between sites also.	35 beds – includes a CAMHS room, developed following advice from a young person admitted.	Own ambulances purchased for transfers. No dedicated transport team.	On-site A&E. Anaesthetists and Paediatricians consult from distance. ANPs have undertaken MSc in Clinical Practice, then assigned to individual consultants who have developed an in-house programme with competencies. No child protection assessments undertaken. Paediatric community nursing runs 9 - 5 seven days/week. Decision to establish service made in 2000 – service operational in 2008 – lead in time to train ANPs.

APPENDIX 4

Burnley and Blackburn PAU – Tele Conference, 25th July

Burnley and Blackburn
Dr Javed Iqbal, Clinical Director
Tina Webb, Matron
Catherine Vozzolo, Directorate Manager

South Wales
Dr Graham Shortland , Medical Director, Cardiff and Vale University Health Board
Dr Ian Bowler, Clinical Director Aneurin Bevan Local Health Board
Siân Harrop-Griffiths, Assistant Director of Planning, Cardiff and Vale UHB

Burnley and Blackburn SSPAU
The SSPAU was established when two Trusts merged (2009), and two in-patient sites could not be sustained. The prime reason for establishing the PAU was to maintain some local service within safe limits through a minor illness/injury unit. The different sites provide:

Blackburn:
- Assessment Unit
- Out-patients
- In-patients

Burnley:
- Out-patients
- Assessment Unit
- Day Cases
- NICU & Obstetrics

Both Trusts have a similar catchment population and population breakdown. Blackburn has a larger minority ethnic population. They are 17 miles (20 minutes) apart by motorway.

Other Services
The PAU is run as a Minor Illness Unit. There is an Urgent Care Centre on site (no ED) which sees both adults and children. There is no dependency between the MIU and NICU – they work closely, but have separate staffing arrangements at all levels: FTs; specialty trainees and consultants.

Anaesthetic cover is available on site.

Paediatric out-patient department is on site adjacent to the PAU, which has consultants on site if necessary, and there are clinics on for most sessions.

Have a good working relationship with GPs who are keen to keep services locally.

Access
The Trust has tried to communicate to the population that parents who are worried about a sick child should take them directly to Blackburn. Initial referral by GP is triaged by a senior nurse at time of referral by phone who decides which site to send them to, but if they arrive at Burnley following a referral by a GP they will be triaged by the registrar and sent on to Blackburn if necessary. If a child arrives outside of opening hours they will be seen by the ED. There is no clear algorithm which is followed to determine suitability for referral.

GPs know that if a child is very sick they should go to Blackburn.

Opening Hours
10 a.m. – 8 p.m., last child accepted at 6 p.m.

Staffing
The unit is staffed by middle grades (14 to reduce to 12), and there are two consultants who are on call 24/7. The Trust has introduced a tier of 5 "acute" consultants, who do a session 1p.m. – 10 p.m. at the Blackburn PAU.

There have been shortages of middle grades, and they have had to close the unit when this has happened.

Two senior nurses ordinarily in the unity, but have put in additional nursing cover at the end of the day – ie it goes beyond the 8p.m. closure.

Activity
The numbers of children who go to Burnley is less than expected.

Summer – mainly injuries. ~ 8/day in the week and 1-2 at the weekend.
Winter - ~ 12/day in the week.

Numbers are static, although levels of non-elective activity across the Trust have increased by 20-25% (going to Blackburn).

Hot clinics have been established on the back of the new acute consultant tier to try and control the levels of additional activity, with patients seen within the next day or two. If they need to be seen the same day then they come through the PAU. Usage of hot clinics is about 50%.

Funding
Commissioners agreed to fund the anaesthetic rota – and split the paediatric and neonatal rota to make it viable. The Trust was given a lump sum by the commissioner when the service was established to support. The unit is not financially viable as a stand alone service, but commissioners not looking to review at present.

Transfers
By ambulance – approximately 3-5 a day. There is an ambulance that runs between the Urgent Care Centres at Burnley and Blackburn that can be used.

Halifax and Huddersfield PAU

Cwm Taf LHB visitors
Vicki Goodwin, A&E consultant
David Deekollu, consultant paediatrician

Halifax and Huddersfield SSPAU
The plan to establish the PAU at Huddersfield was taken in 2000, but not implemented until 2008. The main challenge in establishing the service was bringing the teams together (medical, nursing and midwives) from both sites to support the agreed plan. Strong view that surgical services should not be provided on the warm site.

Halifax (hot site)	**Huddersfield (warm site)**
24/7 in-patient paediatrics (35 beds)	SSPAU – open 24/7
10 bedded PAU	Paediatricians consult from a distance
4 bedded bay of HDU	Paediatric pharmacy support on site
Specially designed CAMHS room/cubicle	
Consultant led obstetrics – 6,000 deliveries pa; inc 860@ MLU Halifax and	On-site anaesthetists

650 @ MLU Huddersfield

Consultant led A&E

Level 2 plus neonatal (all gestations exc surgical babies), applied for level 3 status.

Staffing
The Unit is staffed by Advanced Nurse Practitioners – 1 paediatric nurse practitioner, 2 paediatric nurses and 1 Health Care Assistant per shift (no play therapist). Consultant support is provided from a hospital 20 minutes away – there is regular telephone advice, but only rare requests to attend. There are anaesthetists available on site to support in case of emergencies.

At the time of the visit there were 5 ANPs on the rota, some gaps are filled by registrars. The number of ANPs was to be increased to 7, negating the need for registrars. No SHOs provide cover/work on the unit.

The ANPs are skilled in procedures, NLA and APLS. They have undertaken a MSc in Clinical Practice, and are then assigned to an individual consultant for support – a period of settling time after qualifying up to 6 months. The consultants developed an in-house programme with competencies, which they would be willing to share.

Retention is difficult, and they have lost staff – they need to pay well to keep the staff.

Access
The only children seen in the SSPAU in Huddersfield are those who walk in with parents to A&E and referred there from there to SSPAU. All GP referrals and Ambulance transfers are directed straight to Halifax.

Transfers
The Trust purchased its own ambulance for transfers.

APPENDIX 5

PATHWAYS OF CARE: PERSPECTIVES ON ACTIVITY IN SOUTH WALES

Two audits were undertaken within the South Wales Programme area during 2012 to review paediatric attendances at Emergency Departments – at the Royal Gwent and Prince Charles Hospitals.

The audit at the Royal Gwent Hospital (Dr R Bebb. 2012; n=236) showed that overall 65% of patients referred to SSPAU were not admitted for inpatient care. 104/236 referrals were made by GPs of whom 76% were discharged; 18 of 30 referrals from the out-of hours team were discharged.

54% of 85 patients referred by A&E were discharged, but other children self-referring to hospital would have been discharged without reference to the paediatric service. Outwith these data, minor injury is of course a very common presentation to the emergency department, but these children would rarely require the involvement of paediatricians, except when there is concern about the possibility of non-accidental injury.

At Prince Charles Hospital, all children (including children referred by heir GP) that presented to PCH on Monday to Thursday for a six week period (11/06/12 – 19/07/12) were seeing in the Emergency Department by either an experienced ED middle grade of consultant or a paediatric doctor. The data, including patient numbers, times and other quality indicators, was captured on a live database (at the time of attendance) as well as documented in a book kept in Paediatric ED. A summary of the results is as follows:

Total no. patients that attended PED M-Thurs inclusive	830
Total no. GP patients	110
Av no. GP paediatric patients	4.6/day
Total no. ED patients	720
Av no. ED paediatric patients	30/day
No. GP patients discharged from the PED – 28	25%
No. ED patients admitted – 159	24% (76% discharged)
Total no. patients admitted M-Thurs for duration of trial	241
No. patients presenting after 22:00	71
No. GP patients discharged after 17:00	4
No. clinician incidents	0

N.B. – the number of patients referred to paediatrics from the ED would normally be higher as children seen by less experienced doctors are more likely to refer on to Paeds but all unwell children during the trial were either seen by experienced ED middle grade an ED consultants or a paediatric doctor. Fri-sun were not included in the trial, but are usually the busiest days for paediatric attendances in the ED. Sat-Sun averaged 40-50 ED paediatric patients/day during the trial period.

APPENDIX 6

CONSULTANT-DELIVERED SHORT-STAY ASSESSMENT SERVICE: ESTIMATED MEDICAL COSTS

For the basis of illustration this papers considers the consultant medical staff element of the workforce; the full operational costs would of course need to include nursing and support staff.

For purposes of the calculation it is assumed that the existing consultant paediatric medical staff resource based at the local hospital would (notionally) provide the senior medical staffing for the SSPAU; however in practice all consultant paediatric staff at the two units would need to operate within a network to ensure maintenance of skills.

It is assumed that the resource currently allocated to attending consultant weeks at the local hospital (9DCCs/week) could notionally be allocated to the new service together with the sessions currently allocated to on-call work (1DCC/week).

The calculated additional sessions need to be scaled to allow for prospective cover and the calculations estimate only the requirement for additional DCC sessions; however of course all consultants would also need to be contracted for SPA time.

Resources required

	Operational hours 12:00 20:00		*Operational hours 12:00 22:00*		*Operational hours 12:00 00:00*	
	hours	*sessions*	*hours*	*sessions*	*hours*	*sessions*
Daytime hours (09:00 - 17:00 M-F)	25	6.7	25	6.7	25	6.7
Outside daytime hours (17:00 - 20:00 M-F)	15	4	15	4.0	15	4.0
Outside daytime hours (20:00 - 00:00 M-F)	0	0	10	4.0	25	10.0
Outside daytime hours (weekends)	16	6.4	20	8.0	24	9.6
Required sessions		17.1		22.7		30.3
Currently available sessions		10		10		10
Net required DCC sessions		7.1		12.7		20.3
Scaled to allow for prospective cover		8.5		15.3		24.5
Additional consultants required (assumes 7.0 DCC / consultant)		2		3		4

Consultant Costs
(based on 2012 data) **£235,082** **£352,623** **£470,164**

SUMMARY

Even based on a limited, 8-hour period of operation (12:00 and 20:00 hours), a SSPAU based on consultant staffing would require the recruitment of an additional *two* consultants to operate seven days each week.

Unfortunately this model would fail to provide any local service during the predictable service peak observed in the early evenings on weekdays. These costs rise to *four* additional consultants to be able to operate an extended service from 12:00 to midnight on seven days each week.

These costs are in addition to those required for nursing and other staff and the costs for any additional consultant staff that might be require to cope with increased activity at the inpatient unit are also not included.

APPENDIX 7

Prehospital Ambulance Paediatric Conveyance Model

Situation
As part of the South Wales Plan paediatric work stream, there is a requirement to develop a safe and consistent ambulance conveyance model to directs children to either local assessment services or consultant led inpatient assessment centres. This will help ensure children are conveyed or referred to the most appropriate point of care for their ongoing assessment and management.

Background
Currently sick children presenting to the ambulance service are usually directed towards either the nearest emergency department (ED) or paediatric assessment unit (PAU). The later (PAU) may be collocated with existing EDs at district general hospitals (DGHs).
Assuming the current situation is likely to change, in that not all DGHs will retain paediatric services, there is a need to ensure an effective model of prehospital triage and conveyance to ensure children are directed to the correct point of care.
This may be either [i] an inpatient consultant led paediatric assessment centre, or [ii] an alternative lower acuity option, yet to be fully decided, but includes referral to a general practitioner and or a local paediatric assessment unit.
This paper utilises the terminology of 'CENTRE' defined as an inpatient consultant led paediatric assessment service at a DGH, and the term 'UNIT' which is defined as a lower acuity paediatric assessment service assimilated to that of a general practitioner.

Assessment
The paramedic assessment and management of children is underpinned by evidence based clinical practice guidelines (CPGs) developed by the Joint Royal Colleagues Ambulance Liaison Committee (JRCALC).
These guidelines focus on contemporary paramedic practice for medical and traumatic emergencies, along with respiratory and febrile illness in children. As such they set the UK ambulance services clinical standards for recognising and managing any impairment of a child's airway, breathing circulation and disability.
In conjunction with these guidelines, and as part of core registrant paramedic education and training in Wales, all paramedics are trained and equipped to provide both basic and advanced paediatric life support.
As part of the approach to managing minor illness in children, the CPGs provide further advice to paramedics on the management of febrile illness in children using the traffic light system.
The Welsh Ambulance Services NHS Trust is also currently developing its clinical capability to deliver '*hear & treat*' paramedic practice. It is proposed that this specialism will be delivered by advanced and senior paramedics using the Manchester Triage System - Telephone Triage and Advice Model (MTS - TTA).
The attached algorithm utilises the content and direction of UK Ambulance Services Clinical Practice Guidelines (2013) as a primary triage and management tool, and the MTS - TTA model as a secondary telephone triage tool to support paramedic decision making.

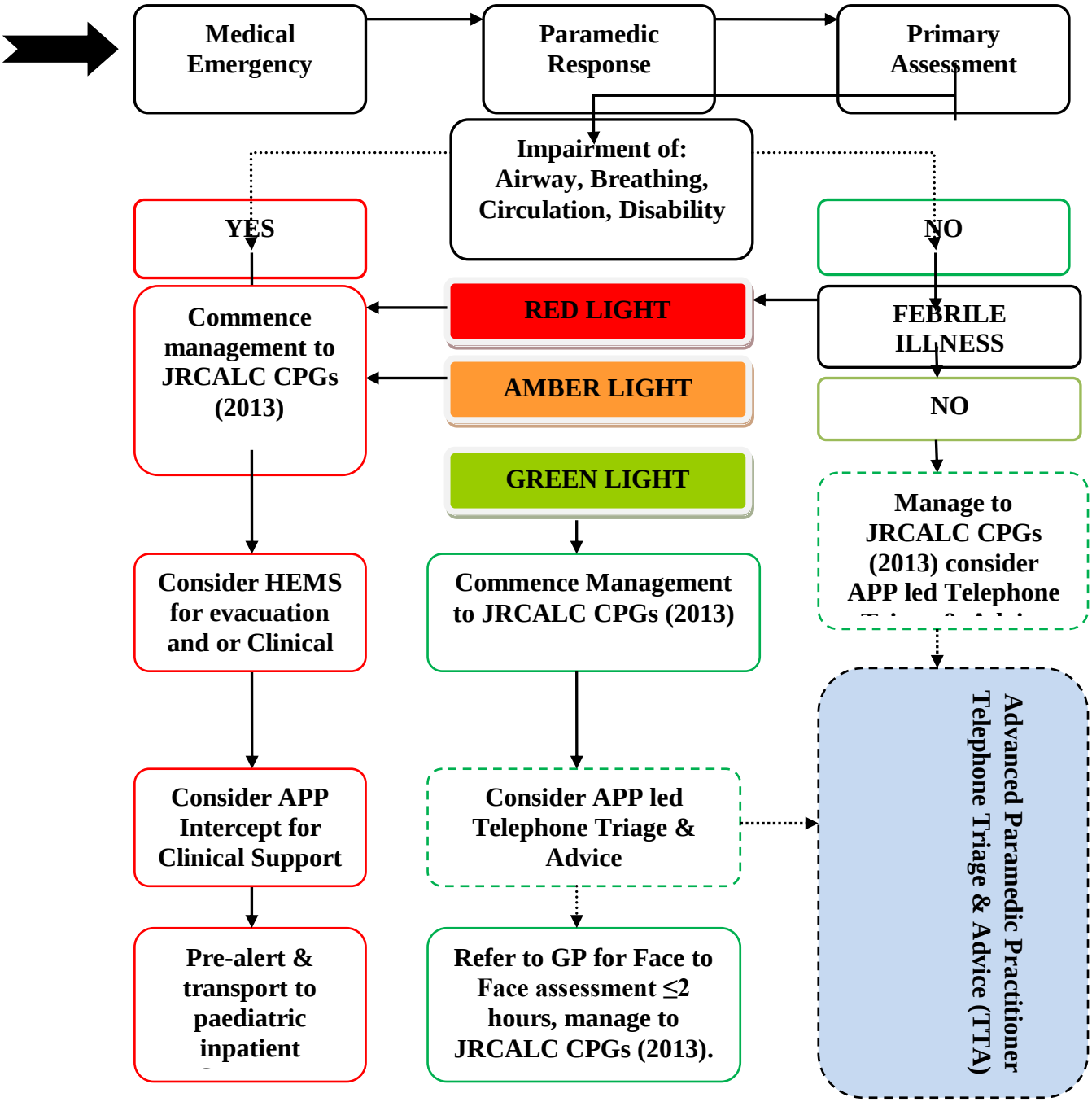
Recommendations
The SWP paediatric clinical reference group are requested to acknowledge the content of this paper and to support the attached algorithm as the preferred prehospital ambulance service conveyance model in order to:

a) Select those children who require direct conveyance to an inpatient consultant led paediatric assessment centre.
b) Select those children with minor illness who are suitable for referral to a general practitioner for further face to face assessment within 2 hours.

This approach acknowledges that those children with lower acuity presentations following prehospital triage can also be directed to dispositions other than GP referral e.g. local paediatric assessment units, without necessarily altering this preferred overall ambulance conveyance model.

South Wales Plan - Paediatric Clinical Reference Group

Proposed Draft Ambulance Paediatric Conveyance Model



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