Association of Paediatric Anaesthetists

Association of Surgeons of Great Britain and Ireland

British Association of Paediatric Surgeons

Royal College of Paediatrics and Child Health

Senate of Surgery for Great Britain and Ireland

19 August 2006

Dear <<Name>>

RE: Joint Statement on General Paediatric Surgery provision in District General Hospitals in Great Britain and Ireland.

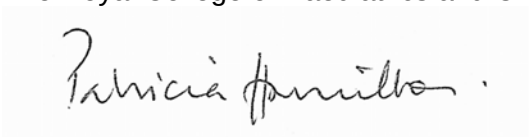
Please find enclosed a joint statement from the undersigned which outlines the current status of the provision General Paediatric Surgery in District General Hospitals in this country. This highlights a developing crisis which requires urgent attention by the commissioners of health care in order to avoid potential risks to children who require surgical intervention. These organisations would be glad to work with the appropriate authorities in advising on issues of configuration of services and the provision of training.

The Association of Paediatric Anaesthetists.

The Association of Surgeons of Great Britain and Ireland

The British Association of Paediatric Surgeons

The Royal College of Paediatrics and Child Health



The Senate of Surgery for Great Britain and Ireland

Association of Paediatric Anaesthetists

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Senate of Surgery for Great Britain and Ireland

Joint Statement on General Paediatric Surgery provision in District General Hospitals on behalf of the Association of Paediatric Anaesthetists, the Association of Surgeons for Great Britain and Ireland, the British Association of Paediatric Surgeons, the Royal College of Paediatrics and Child Health and the Senate of Surgery for Great Britain and Ireland.

Summary

The provision of General Paediatric Surgery (GPS) in the District General Hospital (DGH) setting is reaching a crisis. The underlying problem is a failure to train and recruit competent general surgeons with appropriate paediatric skills and experience.

The result is that increasing numbers of younger children requiring surgery are being transferred to regional/tertiary centres for both emergency and elective surgery, without this transfer being planned, managed or resourced. The impact is to reduce the efficiency and effectiveness of the specialist paediatric surgery undertaken in these units, as beds are occupied by infants and children requiring GPS. In the DGH, where even simple general surgery may no-longer be deemed possible, skills are being lost or eroded. The impact on families is that they may need to travel greater distances to obtain access to surgical care, particularly if the child is very young.

Moreover, without competent initial resuscitation, assessment and diagnosis, coupled with efficient and appropriately staffed systems for retrieval and transfer, the lives of children requiring urgent surgery are potentially put at risk. This is particularly true if delays are incurred.

Models to increase the competence of general surgeons in the provision of GPS are proposed. However, in the short-term, these are dependent on adequate numbers of competent general surgeons being willing and able to supervise trainees in a DGH setting. It is uncertain whether there are sufficient numbers of supervisors to ensure the success of this proposition.

The impact of the steady increase in transfers from DGH to regional/tertiary centres needs to be studied critically to enable the appropriate distribution of resources to maintain and enhance both regional and district GPS services.

Each hospital within a region should be assessed to determine its role in the overall provision of both emergency and elective GPS.

In order to maintain GPS competence in a DGH setting, managed clinical networks need to be developed to enable surgeons based in the regional/tertiary centre to provide outreach clinics and operating theatre time in the DGH. The provision of this service should maintain and develop paediatric surgical competence for general surgeons. Regular children's general surgical lists will also enable the maintenance of a service for other surgical groups, such as ophthalmology, dental, ENT, orthopaedics, plastic and maxillo-facial surgery, in the DGH. The training needs of paediatric medical teams also require to be considered if a safe initial surgical pathway is to be delivered without surgeons with GPS competence being available on-site.

The lack of a general paediatric surgery service at a DGH may impact on other surgical services. This in turn may be critical to the survival of a paediatric unit. Core competencies will need to be maintained in these centres, particularly in the recognition and early management of the sick surgical child.

These problems require urgent assessment by the commissioners of heath care in each region so that appropriate planning for the future can be put in place in an attempt to treat GPS problems as near to the homes of the families as is possible. At the same time, measures are required to maintain appropriate standards of care and avoid compromise of services in both DGHs and regional and tertiary centres.

Background

It is accepted that children deserve to be treated in a child friendly environment, by a competent team including appropriately trained and experienced surgeons, anaesthetists and paediatricians[1].

The 1989 NCEPOD report [2] highlighted the importance of avoiding occasional paediatric surgical or anaesthetic practice, and possible adverse effects on morbidity and mortality. Its recommendations have been reinforced by all the participating Medical Royal Colleges. Latterly, recommendations have evolved which state that children should not be treated in the DGH unless adequately trained or experienced surgeons and anaesthetists are available, paediatric medical care is on site, and the whole is delivered in a child centred environment [1,3,4]. Elective and emergency GPS should only be performed in a DGH where these criteria are met (see Appendix 1).

The Joint Committee in Higher Surgical Training (JCHST) in 1999 defined the standards for optional GPS training for all new DGH general surgeons. It recommended that a minimum duration of 6 months GPS training was required, in a recognised post, at year 4 or higher of the then Higher Surgical Training programme. This could be undertaken either wholly in a regional paediatric surgical unit or shared between such a unit and a DGH where there is an experienced trainer and sufficient volume of GPS cases to maintain competence. The latter was quantified as 1 operating list exclusively for children every 2 weeks. The objective was to provide a level of competency for general surgeons to manage GPS problems above the age of 1 year. They recommended that one or more nominated general surgeons with such training and experience should undertake GPS in a DGH. These surgeons were referred to as general surgeons with an interest in paediatric surgery.

Since then there has been virtually no uptake of this GPS training option by general surgical trainees despite recognised training posts being available. Nor is there any indication that uptake by trainees will improve in the future. A postal survey of 1044 DGH general surgeons in England and Wales in 2004, conducted by the Association of Surgeons of Great Britain and Ireland (ASGBI) indicated that only 18 (<2%) indicated a special interest in GPS. Consequently, the majority of DGH general surgeons who are being appointed have no training or competency in GPS problems. The model of having a nominated general surgeon with an interest in paediatric surgery who is responsible for providing the GPS in each DGH is not completely practical, as they cannot provide 24/7 cover for emergencies. This can only occur when all surgeons on call have the appropriate training and on-going experience in GPS.

As the “older generation” of surgeons reach retirement, they are not being replaced by general surgeons with specific training in GPS care. As a consequence there has been an increase in the numbers of children transferred from the DGHs to the regional paediatric surgical centres.

During the last 10 years there has been a significant decline in the GPS undertaken in the DGHs and this has been defined on behalf of the Department of Health for England and Wales [5]. This indicates that there were 435,525 FCEs where an operation was undertaken on a child in the DGHs in 1994-95, but only 316,911 in 2004-05. This is a reduction in DGH activity of approximately 27%. In contrast, in 1994-95 there were 118,683 FCEs where an operation was performed on a child in the regional/tertiary paediatric surgical centres compared with 207,629 in 2004-05. This represents an increase in activity of approximately 75% in the tertiary centres over the same 10 year period. The shift towards the regional centres affects all age groups and is largely GPS. Further, this change has been to a greater extent unplanned and unfunded.

Presuming that this trend continues, there are likely to be major adverse effects on the functioning of the regional centres, if there is no concomitant shift of resources. The care of children presenting at a DGH with acute surgical emergencies may also be compromised if good retrieval systems are not in place and if paediatricians and anaesthetists are not well prepared to resuscitate and stabilise the child.

As GPS activity reduces in the DGH, anaesthetic services for children will be threatened and this may affect the provision of other children's surgical services in these hospitals*. In the regional centres, the increase in GPS workload, particularly emergencies, threatens the availability of beds essential for specialist paediatric surgery e.g. oncology or urology. In addition, the increase in workload in these centres will necessitate an increase in the number of consultant paediatric surgeons.

Lastly, there will be significant implications for the families whose children will have to be transferred some distance from their home for their care. This is not only inconvenient, but there are real risks involved for the children, whose urgent treatment may be delayed without appropriate action being taken by the referring hospital before transfer.

*Special problems exist in remote and rural locations in the UK and attending surgeons, paediatricians and anaesthetists serving these communities require training and ongoing competencies of a higher level. These recommendations do not apply to these situations, which should be considered separately.

Possible Outcomes

The Senate of Surgery for Great Britain and Ireland has recognised this problem. In April 2005, in an attempt to provide comprehensive GPS cover for each DGH, it recommended that all general surgical trainees should have a *compulsory* period of 6 months training in GPS in the DGH under the supervision of an accredited general surgical trainer. This is currently included within the Intercollegiate Surgical Curriculum for General Surgery. It was planned that this would be a competency based training programme aimed at the generality of GPS, where the trainee could be expected to achieve a level of proficiency to deal safely with problems in children over the age of 5 years. This would be less comprehensive compared to the optional 1999 training programme for general surgeons which would still be available for those with a special interest in GPS. This latter programme involves at least 6 months at year 4 or above in a regional paediatric surgical unit or shared between a recognised DGH and a tertiary paediatric surgical unit. This would provide skills to enable the surgeon to treat children down to the age of 1 year**.** The proposed new GPS programme for general surgeons would be undertaken within the Modernising Medical Careers (MMC) training programme.

This training programme for general surgeons is very different from that of specialist paediatric surgeons, who at the time of CCT will be proficient in GPS as well as certain specialist aspects of paediatric surgery such as neonatal surgery. Currently, the CCST for paediatric surgery recognises competency in most aspects of the specialism enabling a newly appointed Consultant to practise independently. In the future it is envisaged that these specialist skills will mostly be acquired post CCT, following a period of credentialing and will only be undertaken by a minority of specialist paediatric surgeons. The remainder would largely be responsible for provision of GPS and would be referred to as general paediatric surgeons as opposed to general surgeons with an interest in paediatric surgery.

The success of this initiative is critically dependant on sufficient numbers of adequately trained and experienced general surgeons in DGHs to train all new general surgical trainees in GPS. Otherwise, not all trainees will have exposure to GPS and thus new consultants appointed to DGHs will lack GPS competence.

There are concerns that adequate numbers of appropriately trained and experienced general surgical trainers do not currently exist to support this training programme for GPS in DGHs. Further, it is recognised that there are insufficient training slots in the tertiary centres to compensate for this deficiency. There is an urgent need to determine the numbers of adequately trained and experienced general surgeons in each DGH in order to determine whether this approach is viable in the long-term. Trusts also have to include the time needed for training and for being trained in job planning.

In the event of this new GPS training programme failing, those DGH general surgeons who have no formal training or experience of GPS problems will still have generic surgical skills that apply equally to adults and older children. This would enable them to treat GPS

emergencies competently from about the age of 8 years upwards, provided that they have paediatric medical support. Depending on training, they may or may not be able to treat elective cases. The lack of specific training and ongoing experience in GPS problems would preclude them from managing younger children.

The situation is further complicated by MMC and the European Working Time Directive (EWTD). For specialist paediatric surgery, it is recognised that by 2013, there will probably be a Consultant-delivered service provided by an increased number of paediatric surgeons working in the regional/tertiary centres. To facilitate this change in practice, workforce planning estimates that there will be a need to increase the numbers of Consultant Paediatric Surgeons by at least 150% (from 106 in 2004 to 256 in England and Wales) by 2010 [6].This recommended increase does not take into account the increased demands created by transfer of GPS towards the regional centres from the DGH. It is recognised by the profession that this expansion cannot only occur by increasing the numbers of specialist paediatric surgeons. This might lead to a dilution of skills necessary to competently deal with specialist paediatric surgery. The urgent requirement is to increase the number of general paediatric surgeons and these professionals would largely be responsible for the management of most GPS problems.

If the new Senate Training Programme for General Surgeons is unsuccessful, it is likely that almost all children under the age of 5 years and most children under the age of 8 years with a GPS emergency, will, in the future, be transferred from the DGH to another unit where the appropriate expertise and experience exists, within the network of care. The management of these children will then be largely undertaken by general paediatric surgeons who would in addition, provide out-reach services to local DGHs by undertaking outpatient clinics and day case lists of GPS. This would have the additional benefit in providing continuing education and training of DGH surgeons.

This model, where children's day case operating lists are retained in the DGH, would maintain anaesthetic and theatre personnel skills. In turn this would facilitate the retention of ENT, ophthalmology, dental, orthopaedic, plastic, maxillo-facial surgery in the DGH - services which might otherwise be threatened.

There would be a need for greater involvement of the DGH paediatricians in the initial assessment and management of GPS emergencies as these professionals are best able to identify the "Sick Child" compared to their untrained surgical counterparts. This is already happening by default and can be compared to the arrangements already in place for the management of children with head injuries [7]. However the Royal College of Paediatrics and Child Health emphasises that there are training and workforce implications of this additional workload. This would need to be factored in alongside broader issues concerning paediatric workforce pressures and competency development. Local anaesthetists may also have an important role in this process [8]. There is a good case to be made for all personnel dealing with children in a DGH having specific acute life support training such as APLS or EPLS [9].

Not all DGHs will fulfil the criteria to manage GPS emergencies safely. Admissions policies to DGHs within a region will need urgent review in the light of this.

Robust retrieval and transfer arrangements will need to be developed for children who need to be transferred for emergency surgery. These children may require resuscitation and stabilisation and should be accompanied by a relatively senior member of staff. This obviously has commissioning and resource implications.

The transfer of children towards the regional/tertiary centre(s), outlined above, is likely to be significant and can only be sustained by an appropriate increase in resource allocation to these units. In particular there are implications not only for the number of general paediatric surgeons but for bed capacity, operating theatre sessions, anaesthetists (who may also be called upon to help resuscitate children prior to transfer), ward nurses and other relevant staff.

It is unlikely that there will be a solution that will be universally applicable to all regions and hospitals. It should be the responsibility of the commissioners in each region to identify the current provision of GPS in both DGHs and regional/tertiary centres and urgently action change to provide an acceptable safe service for the children within the region. This will require them to plan for the resource implications of providing outreach training and service support from larger units to small DGHs.

Key Recommendations

(a) Hospital Configuration within a region

It is envisaged that there will be a need for a 3 centre model to evolve forming managed networks of care for general and specialist paediatric surgery.

1. The small DGH

These hospitals should be able to provide resuscitation and stabilisation of all infants and children with surgical pathology. They should be capable of providing elective surgery for children, but this would also depend on other resources and on the skills of the local anaesthetic department. Normally, neonates and infants would not be offered elective surgery. Most urgent and emergency surgery under 5 or 8 years (dependent on skills of resident general surgeons) will need to be transferred to intermediate or regional/tertiary centres *.

2. The intermediate centre (large DGH or University Hospital)

These hospitals may be large enough to employ general paediatric surgeons or general surgeons with an interest in paediatric surgery (as defined above) who will provide on site emergency and elective care for non specialist paediatric surgery (including babies generally outside the neonatal period) and elective outreach services for neighbouring DGHs. They will require the support of trained paediatric anaesthetists, radiologists, pathologists etc. and on site paediatric HDU facilities.

3. The Specialist or Regional/Tertiary Centre

This centre should provide the full range of paediatric surgical care including neonatal, urological and cancer surgery, supported by neonatal and paediatric intensive care on site and full retrieval facilities. This care will be delivered by a complement of specialist paediatric surgeons and paediatric anaesthetists. Depending on the geography and population distribution of the regional network, general paediatric surgeons may also work from the same site (e.g. in large conurbations).

*recognising that special arrangements will need to be provided for the remote and rural community

Key Recommendations

(b) Actions by the commissioners of health care within a region.

It is accepted that each hospital will have different requirements for and solutions to the safe provision of GPS. However, within a region, it is imperative that:

1. ***In the light of the defined shift of GPS towards regional networks of care, there is adequate forward planning put in place, not only in terms of resource allocation but also in workforce and infrastructure.***
2. ***The numbers of adequately trained and experienced general surgeons available in each DGH are defined, in order to determine whether DGH GPS training is viable in the short to medium term.***
3. ***Admissions policies to DGHs are urgently reviewed. Not all DGHs will have sufficient work load to justify continued management of GPS problems.***
4. ***Where there is a defined need within a DGH for GPS, facilities should conform to the recommended standards. This would include ensuring that all staff, including surgeons, anaesthetists and nurses, are appropriately trained. In order to maintain GPS services in such a hospital, the commissioners of health care should ensure that the respective trust or trusts make arrangements for certified training in GPS, for general surgeons who have been appointed to a DGH, but who do not have the appropriate training in GPS. The numbers of General Surgeons so trained should be of an order to maintain 24/7 GPS emergency rota arrangements on site within the DGH.***
5. ***Where required, DGH Paediatricians should have the training and resources to provide a greater involvement in the assessment and management of GPS emergencies.***
6. ***All clinical staff managing children in a DGH should have specific acute life support training such as APLS or EPLS. This will include surgical, paediatric and anaesthetic medical staff, as well as nursing colleagues.***
7. ***Robust retrieval and transfer arrangements are developed for children who will require to be transferred for emergency surgery.***
8. ***Out-reach services should be developed from regional and tertiary centres for elective GPS through outpatient clinics and day case lists in the DGHs. There must also be ready mechanisms in place for referral, and planning of managed clinical networks.***
9. ***Commissioners of heath care should urgently assess the relative distribution of resources between centres which undertake GPS. Further, they should be involved in the planning process for the provision of GPS in DGH's including outreach services.***
10. ***An assessment is made of the need to appoint an increased number of general paediatric surgeons to provide GPS in the regional/tertiary centres and outreach services to DGHs within their network.***

Appendix 1

Definition of GPS that can be managed in the DGH [1]

Emergencies

1. Conditions that cause acute abdominal pain e.g. acute appendicitis. The diagnosis of intussusception can be undertaken in the DGH but management should only occur in the tertiary centre.
2. Obstructed hernias.
3. Conditions causing the acute pain or swelling in the scrotum.
4. Minor trauma including lacerations not involving the face.
5. Superficial abscesses.

Elective

1. Herniotomy for congenital inguinal hernia and hydrocoele
2. Orchidopexy for palpable undescended testis
3. Circumcision
4. Removal of minor soft tissue abnormalities
5. Umbilical herniotomy

Surgery on children that should not be undertaken in the DGH

1. Neonatal surgery
2. Oncology
3. Specialist urology
4. Major trauma. Stabilisation should occur in the DGH before transfer to the tertiary centre.
5. Children with a general paediatric surgical problem but who have significant co-morbidity e.g. complex congenital heart disease.

Children requiring GPS elective and emergency surgery should only be admitted to a DGH where there is resident inpatient medical paediatric support 24 hours per day and appropriate anaesthetic cover. Further, the training and experience of the surgeon should determine whether the child will be treated in the DGH or another hospital where appropriate expertise exists.

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