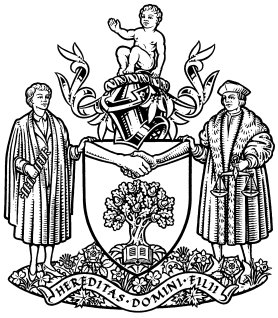

Royal College of Paediatrics and Child Health

RCPCH guidance on the role of the consultant paediatrician in providing acute care in the hospital

May 2009

Dr David Shortland, RCPCH Vice President – Health Services

RCPCH guidance on the role of the consultant paediatrician in providing acute care in the hospital

1. INTRODUCTION

Purpose

This guidance aims to disseminate information on new and innovative approaches to the role of the acute paediatrician in order to promote safe and sustainable services that meet the requirements of the 2009 Working Time Directive (WTD). It is intended to inform the process of business planning for new posts, utilising the new funds for consultant expansion in 2009, and to enable commissioners to work with paediatricians to allocate posts appropriately. While this initiative is currently for paediatric services in England only, the principles in this document are intended to apply to all four countries.

This guidance will be updated on a regular basis as new evidence about service standards and about innovative approaches to the role of the consultant become available.

Scope

The guidance is primarily about the role of general and neonatal paediatricians in acute hospitals, rather than community, specialist and academic paediatricians, although many of the principles are relevant to these groups as well. Whilst recognising the important role that paediatricians have in leadership, management, teaching, research and advocacy, these recommendations concentrate on contractual arrangements for consultants.

Method

The document was produced after a panel meeting at the College in January 2009, attended by representatives from a number of paediatric units and networks from across the country, College officers and other key stakeholders (see appendix A). The document has been endorsed by senior College officers.

Structure of this report

The document provides information on the changing role of the paediatrician, the medical workforce supply, the new funds that are being made available for consultant expansion in England, and the process of developing business cases. The guidance then outlines key recommendations for consultant paediatrician job plans. The appendices include more detailed information on the discussion at the panel meeting, proposed models of service delivery and criteria for consultant expansion.

2. THE CHANGING ROLE OF THE PAEDIATRICIAN

In 2008, the BMA defined a consultant as having 'ultimate responsibility' for patients under their care[1] and referred to the leadership, training and quality aspects of the role. The CanMeds Report[2] recognises the central role of the senior doctor as a medical expert, communicator, collaborator, manager, health advocate, scholar, and professional. While these key responsibilities still hold true, the role of trained doctors is changing (Academy of Medical Royal Colleges, 2008)[3], and there is a need for greater understanding and clarity about the roles of all doctors (Tooke)[4]. As stated by the Medical Schools Council (December 2008)[5], the role of the doctor must be defined by what is in the best interests of the patients and the population served.

There are a number of key factors that are responsible for service changes:

- Lord Darzi[6] emphasises the important role of the consultant in providing safe, effective and high quality services. This drive for quality has also contributed to the call by Royal Colleges and the British Medical Association for a consultant-based service with more 'hands-on' care being provided by trained doctors
- Lord Darzi's vision that senior doctors should become much more involved in the management of services will enable consultants to develop new expertise as their career progresses[6]
- There are already gaps in junior and middle grade rotas in many areas that are proving difficult to fill, and this situation is likely to worsen with the introduction of the WTD 2009[7] limit of 48 working hours per week for trainees
- The new pension ruling[8] means future generations of paediatricians are likely to work until 65 and may not want to continue with the more intensive and physically demanding aspects of their posts later in their careers.

Some units are responding to these challenges by increasing the proportion of consultants delivering services outside 'normal working hours' and a small number of new posts are incorporating a significant proportion of duties that would previously have been undertaken by middle grade paediatricians. In addition, the RCPCH Workforce Census 2007[9] showed that a large proportion of units use 'Consultant of the Week', thereby providing consultant-delivered care. However, many consultant appointments continue to reflect the more traditional consultant duties and most do not include resident on-call responsibilities or suggest any career progression throughout the tenure of the post.

When developing a service, consideration should also be given to how the roles of other professional groups can be changed or extended to help address WTD issues. Advanced (Neonatal) Nursing Practitioners and Physician Assistants can be used to take on traditional medical roles and consideration should also be given to the future role of GPs in contributing to urgent and emergency care services for children (see appendix A).

3. WORKFORCE SUPPLY

The supply of trained paediatricians available to take up new consultant posts is quantifiable in the short-term, but is subject to several modifying factors. These include the likely number of trainees achieving CCT on their expected dates; consultants taking early retirement; successful overseas applicants accepted onto the specialist register and doctors deciding to work abroad or not seeking full-time employment in medicine after obtaining their CCT.

The NHS Workforce Review Team[10] estimates the number of CCT awards in 2009 to range from between 175 and 294 (a mid-point of 235 in England, and an estimated mid-point of 276 for the UK). Recent College data indicates that there will be around 22 successful CESR applications (26 for the UK), and that there could be a pool of around 70 doctors on the specialist register (80 for the UK) not currently in consultant posts and therefore potential returners. The number of retirements in 2009 is expected to be approximately 65 (75 for the UK), based on individual forecasts in the College's workforce census, the current age profile of consultants and reasons given for consultant advisory appointment committees.

The additional trained workforce supply for 2009 is therefore estimated at 262 for England (307 for the UK), while the current rate of consultant expansion highlighted

in the 2007 Census would indicate a growth of only 90-100 jobs per year in England (100-115 in the UK). If the current rate of expansion is maintained and recent trends in appointing consultants with predominantly 'traditional' duties continues, it is possible that there will be an excess of doctors on the specialist register in relation to the number of available posts over the next few years. If, on the other hand, consultants are appointed to posts which involve them spending a proportion of their time in new and innovative roles, there should be employment opportunities for all doctors on the specialist registrar and potentially competition between employers for the doctors' skills.

As middle grade rotas become increasingly difficult to support with the new working time regulations and the lack of suitably trained applicants, appointing trained paediatricians to undertake a proportion of middle grade duties would provide a safe and sustainable solution that improves quality of acute services[11].

It should be recognised that in order for paediatrics to remain an attractive career prospect for trainees, it is extremely important that trainees are appointed to posts that fully recognise their high level of training after obtaining their CCT.

4. DEVELOPING A BUSINESS CASE FOR NEW CONSULTANT POSTS

To support services in meeting the 2009 WTD requirements, the Department of Health is making a total of £310m available by 2009/10 in recurrent PCT allocations. Of the £200m uplift on the 2008/9 allocation of £110m, £150m is expected to flow through tariff income to Trusts (via the 2009/10 uplift applied to all tariff prices). The remaining £50m in PCT revenue allocations will be held by SHAs and given to PCTs according to SHA direction and is intended to support trained doctor solutions, particularly in paediatric, neonatal, obstetric and anaesthetic services[12].

To obtain additional funding for consultant expansion, trusts will need to submit business cases to their PCT. These should make clear how the proposal will improve service quality, improve the quality of training, and contribute to WTD compliance. Close working with commissioning bodies is encouraged to facilitate this process. The strongest cases will also show how the proposal will contribute to, or is integrally linked to, the development of networks to provide safe and sustainable long-term solutions with an appropriate configuration of services[11].

It is not possible to agree workforce requirements without considering models of service delivery. Modelling the Future recommends a number of models of service delivery (see appendix B) and proposes that:

- Local units in close proximity should work together to provide safe and effective local acute services
- Specialist services should be provided on fewer sites with a very significant reduction in the number of sites providing comprehensive services, including specialist surgical care; outreach services should be considerably increased
- Trainees should work in places that offer the greatest opportunity for learning
- The immediate challenge of meeting WTD 2009 requirements and maintaining a safe acute service may require non-acute work (long-term condition management) to be shifted away from hospital-based paediatricians, and may therefore also involve increasing the number of paediatricians who do not contribute to the acute on-call rota.

All proposals should give consideration to the optimal models of service delivery, and before selecting proposals, each SHA should undertake a review of services in

relation to the predicted available workforce. This will require joined-up working between service, workforce, and training.

It is essential that short-term plans do not undermine longer term plans to create safe and sustainable services. All business cases should be framed within a plan looking at least 5 years ahead, and should consider potential unintended consequences as well as likely benefits. All business cases should include a strategy for evaluation at six months, one-year, and two years, to ensure the intended purpose is being achieved and buy-in from commissioners is achieved for this two year duration or longer.

5. JOB PLAN RECOMMENDATIONS

Proposals for consultant expansion should make it clear how exactly this additional resource would be used to promote the highest quality of service. This section provides recommendations for the job plans of consultant paediatricians.

All doctors on the specialist register who are offered substantive career grade posts should be appointed on the consultant contract - whilst consultant duties will change during their time in post (to recognise individual training and skills). There is no place for a sub-consultant grade for doctors on the specialist register.

Programmed Activities (PAs)

- Paediatricians should work within the hours limit set by the WTD
- A 10 PA contract should include a maximum of 4 PAs for resident on-call duties (12 PA contracts should include a maximum of 6 PAs resident on-call) – as out-of-hours PAs are 3 hours duration[13] this is equivalent to 12 – 18 hours while resident
- The remaining Direct Clinical Care (DCC) PAs will be spent on the clinical activities determined by the job plan
- While the 10 PA contract is the norm, consideration should be given to increasing this (up to the 48 hour limit), particularly when resident duties are required to support the acute service
- 4.5 DCC PAs (in addition to any resident PAs) is sufficient to enable a consultant to fulfil an appropriate consultant role and to maintain and develop their clinical skills
- The number of Supporting Professional Activities (SPAs) should be linked to expected output, and this should be explicit in the job description
- There should be a minimum of 1.5 SPAs for personal supporting professional activities:
    - Appraisal
    - Governance
    - Training
    - Continuing Professional Development (CPD) and activities supporting recertification and revalidation
- The job plan should also contain SPAs directed at service quality, development and leadership, for example some of the following:
    - College roles
    - Research (where the Trust is adopted into a Clinical Research Network (CRN) portfolio, it will be eligible to recoup an appropriate part of the consultant salary)
    - Management
    - Service Developments
    - Lead clinician roles

    - Project management
    - Teaching
- There may be a need for further external duty or additional responsibility PAs (for more information see job plan documentation on the NHS Employer website - www.nhsemployers.org/Pages/home.aspx, and on the BMA website - www.bma.org.uk/)
- SPAs should not be undertaken during the time that a consultant is undertaking resident duties (although there would be opportunities for informal teaching and training).

The resident consultant model

- The following recommendations apply to planned resident duties; Trusts would normally be expected to have arrangements agreed where consultants are resident in unforeseen circumstances
- The resident model will significantly contribute to a consultant-based, high quality service
- The workload should not be overly intense (the model is less likely to be sustainable in large District Hospitals with an excess of 400,000 total population, and particularly where the consultant is required to cover a level 3 NICU as well as wards)
- The resident model should also be considered as additional support for the acute service at the busiest times of the day (e.g. evening or weekend mornings)
- Where the consultant is resident, there should be arrangements for additional support from a second on-call consultant
- The local paediatric department should be supported by a clinical network so the paediatrician can obtain advice from a specialist colleague and transport facilities are available for paediatric and neonatal patients
- Resident duties should be reviewed annually and be agreed between the consultant and trust
- There should be an expectation to participate in resident shift on-call, and the model should be sufficiently attractive that most want to do so, but it should also be possible to opt out and there should be an appropriate career pathway to allow for this
- Consideration should be given to whether resident shift working duties are still appropriate for paediatricians as they progress through their career, particularly when the duties are regularly intense
- Paediatricians undertaking resident duties must maintain their practical skills and regularly update their life support and safeguarding qualifications
- Appropriate on-call residential facilities should be available (this includes appropriate accommodation and access to office space with IT facilities)
- The resident consultant model should be considered as an alternative to employing middle grade doctors who are not trainees or career grade paediatricians
- The business model should have the support of trust chief executives and managers and, where applicable, paediatricians should ensure these managers are aware that paediatric services may be essential in supporting other departments within the trust for example, through the resident on-call supporting another service.

Portfolio careers

Portfolio careers recognise the changing roles and responsibilities of the consultant paediatrician during their career, and formally incorporate this into their contracts. For example, as a consultant's career progresses, they may take on greater managerial

duties, College roles and trainee supervision, and reduce the amount of more intense clinical work.

- Portfolio careers should be strongly encouraged as they:
    - Recognise that a consultant's capacity for intense clinical work may reduce as they get older
    - Are therefore likely to improve the retention of the workforce
    - Enable a consultant to migrate from resident on-call to non-resident on-call and subsequently to no on-call. When non-resident, a more senior consultant should be supported by a middle grade paediatrician with appropriate practical skills
    - Should also recognise that not all consultants will want to reduce their clinical commitments and some younger consultants may want to become involved in management and already have the necessary attributes.

Team job planning / annualisation of hours

Team job planning involves the staff of a department jointly mapping their activities on an annual basis, taking into account seasonal variations in demand, and then matching these to contracts for individual paediatricians

- Team job planning should be encouraged as it:
    - Ensures that the whole service is considered and helps to foster a culture of joint-working
    - Recognises that some consultants within a department will have different responsibilities and allows for a fair distribution of SPAs
    - Is particularly beneficial for paediatrics where some parts of the service (particularly general paediatrics) have significant seasonal variations in demand.

Network appointments

Network appointments involve consultants taking on different duties at a number of hospitals, such as on-call duties at one hospital and outpatient duties at another. These appointments require joint leadership and management arrangements between trusts.

- Network appointments should be considered where there has been reconfiguration of paediatric services with a consequent reduction in the number of inpatient paediatric units, as they:
    - Encourage trusts to work together to solve workforce problems
    - Result in a larger group of consultants, thereby increasing the number of paediatricians who can take part in on-call rotas, and increasing the likelihood of portfolio careers for more senior colleagues.

6. FURTHER READING

- NHS Employers, *Medical Training and Careers – The Employers Vision, Briefing 52* (November 2008)[14]
- RCPCH, *Charter for Paediatricians* (November 2004)[15]
- BMA, *The BMA Contract Agreement* (2003)[13]
- RCPCH, *Solutions for the medical staffing of acute units* (2008)[16]
- RCPCH, *Long-term Workforce Briefing* (2008)[17]
- RCPCH and RCOG, *Children's and maternity services in 2009: Working Time Solutions* (2009)[18]
- Department of Health, *NSF Standards for Hospital Services* (2003)[19]
- Intercollegiate Committee Services for Children in Emergency Departments, Services for Children in Emergency Departments (2007)[20]

- Healthcare Commission, *Improving Services for Children* (Feb 2007)[21]
- RCPCH, Modelling the Future II (2008) [22]
- Greater Manchester, East Cheshire and High Peak Children, Young People and Families' NHS Network (CYPFN), Delivering Safe Services Consultant Delivered Care[11]
- RCPCH, *Supporting Paediatric Reconfiguration* (2008)[23]
- APHO, *Indications of public Health in the English Regions 5: Child Health*, (2006)[24]
- RCPCH, Guidance on Safe Cover for Paediatric Departments Out of Hours' , 2005[25]
- NHS Institute for Innovation and Improvement, Medical Leadership Competency Framework (2008) [26]
- Department of Health, High dependency care for children report of an expert advisory group for Department of Health (2001)[27]
- BAPM, Standards for hospitals providing neonatal intensive and high dependency care 2nd edition, (2001) [28]
- Department of Health, The acutely or critically sick or injured child in the district Hospital; A team response (2006)[29]

7. REFERENCES

1. British Medical Association, The role of the consultant, 2008, http://www.bma.org.uk/images/roleofconsultant0708_tcm41-169893.pdf (accessed 11 May 2009).
2. The Royal College of Physicians and Surgeons of Canada, Professional Role Document, 2000, http://rcpsc.medical.org/canmeds/index.php (accessed 11 May 2009)
3. Academy of Medical Royal Colleges, Medical workforce project to identify the added value doctors bring to the healthcare team, 2008, http://www.aomrc.org.uk/aomrc/admin/reports/docs/Medical%20Workforce%20Project.pdf (accessed 11 May 2009).
4. MMC Inquiry 2008. Aspiring to Excellence – Findings And Final Recommendations Of The Independent Inquiry Into Modernising Medical Careers led by Professor Sir John Tooke. London: Aldridge Press, Chiswick; 2008 http://www.mmcinquiry.org.uk/Final_8_Jan_08_MMC_all.pdf (accessed 11 May 2009).
5. The Medical Schools Council, Consensus Statement:The Role of the Doctor: Past, Present and Future, 2008, http://www.chms.ac.uk/documents/FinalconsensusstatementontheRoleoftheDoctor.doc (accessed 11 May 2009).
6. Department of Health. High Quality Care For All: NHS Next Stage Review Final Report. 2008 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825 (accessed 11 May 2009).
7. Council of the European Union, Council Directive No 2003/88/EC, 2003. (on RCP website) http://www.rcplondon.ac.uk/professional-Issues/workforce/Workforce-issues/Documents/EWTD-ojeu-18112003.pdf (accessed 11 May 2009).
8. NHS Pension Scheme, Final Agreement, 2008, http://www.nhsemployers.org/Aboutus/Publications/PayCirculars/Pages/PaycircularMD2-2008.aspx (accessed 11 May 2009)
9. Royal College of Paediatrics and Child Health, Developing the Workforce for Children RCPCH Medical Workforce Census 2007, 2008

http://www.rcpch.ac.uk/Research/Workforce/Census-2007 (accessed 11 May 2009).
10. Workforce Review Team http://www.wrt.nhs.uk/index.php/work/specs-profs/55-medical (accessed 11 May 2009).
11. Greater Manchester, East Cheshire and High Peak Children, Young People and Families' NHS Network (CYPFN), Delivering Safe Services Consultant Delivered Care, http://www.healthcareworkforce.nhs.uk/childhealth.html (accessed 11 May 2009).
12. Department of Health, European Working Time Directive, Letter Gateway Reference 11334, 12th February 2009, http://www.rcpch.ac.uk/Research/Workforce (accessed 11 May 2009)
13. British Medical Association, National Consultant Contract for England, 2003 http://www.bma.org.uk/employmentandcontracts/employmentcontracts/consultantscontracts/CCSCContractSummary.jsp
14. NHS Employers, Medical Training and Careers – The Employers Vision, Briefing 52, 2008, http://www.nhsemployers.org/Aboutus/Publications/Documents/Medical%20training%20and%20careers.pdf (accessed 11 May 2009).
15. RCPCH, A Charter for Paediatricians, 2004, http://www.rcpch.ac.uk/Publications/Publications-list-by-title#C (accessed 11May 2009).
16. Royal College of Paediatrics and Child Health, Solutions for the medical staffing of acute units, http://www.rcpch.ac.uk/Policy/ServiceReconfiguration (accessed 11 May 2009).
17. Royal College of Paediatrics and Child Health, Long-term Workforce Briefing http://www.rcpch.ac.uk/Policy/ServiceReconfiguration (accessed 11 May 2009).
18. The Royal College of Obstetricians and Gynaecologists and the Royal College of Paediatrics and Child Health working in partnership with National Workforce Projects. Children's and Maternity Services in 2009: Working Time Solutions, 2008, http://www.rcpch.ac.uk/Research/Workforce/Working-Time-Directive-Projects/WTD2009RCOG (accessed 11 May 2009).
19. Department of Health, Getting the right start: The National Service Framework for Children, Young People and Maternity Services – Standards for Hospital Services, 2003, http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyandGuidance/DH_4006182 (accessed 11 May 2009).
20. Intercollegiate Committee for Services for Children in Emergency Departments, Services for Children in Emergency Departments, RCPCH 2007, http://www.rcpch.ac.uk/Policy/Emergency-Care (accessed 23 Feb 2009).
21. Healthcare Commission, Improving Services for Children in hospital, 2007, http://www.cqc.org.uk/_db/_documents/children_improving_services_Tagged.pdf (accessed 11 May 2009).
22. Royal College of Paediatrics and Child Health, Modelling the Future II, 2008, http://www.rcpch.ac.uk/Policy/ServiceReconfiguration/Modelling-the-Future (accessed 11 May 2009).
23. Royal College of Paediatrics and Child Health, Supporting Paediatric Reconfiguration, 2008 ,

http://www.rcpch.ac.uk/Policy/ServiceReconfiguration/Reconfiguration-and-Improvement-Publications-and-Briefings (accessed 11 May 2009).
24. Association of Public Health Observatories, Indications Of public Health in the English Regions 5:Child Health, 2006 http://www.apho.org.uk/resource/item.aspx?RID=39371 (accessed 11 May 2009)
25. Royal College of Paediatrics and Child Health, Guidance on Safe Cover for Paediatric Departments Out of Hours' , 2005, http://www.rcpch.ac.uk/Research/Workforce/Useful-Workforce-Documents-and-Links (accessed 11 May 2009)
26. NHS Institute for Innovation and Improvement, Medical Leadership Competency Framework , 2008, http://www.institute.nhs.uk/images/documents/BuildingCapability/Medical_Leadership/Medical%20Leadership%20Competency%20Framework.pdf (accessed 11 May 2009)
27. Department of Health, High dependency care for children report of an expert advisory group for Department of Health 2001, http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4010058 28. (accessed 11 May 2009)
28. British Association of Perinatal Medicine, Standards for hospitals providing neonatal intensive and high dependency care 2nd edition, 2001, http://www.bapm.org/media/documents/publications/hosp_standards.pdf (accessed 11 May 2009).
29. Department of Health, The acutely or critically sick or injured child in the district Hospital; A team response, 2006 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_062668 (accessed 11 May 2009)

8. APPENDICES

Appendix A – Panel meeting, 29th January 2009

Attendees

Matt Bluck	Management Consultant, Teamwork Management Services
Bee Brooke	Acting Head of Health Services, RCPCH
Halcyon Edwards	Associate Director, Strategy and Quality Greater Manchester Children, Young People and Families NHS Network
Dr Carol Ewing	Consultant Paediatrician and Network Clinical Workforce Lead, Greater Manchester Children, Young People and Families NHS Network
Bryan Kessie	Programme Lead, Workforce Projects Team, Skills for Health
Dr Simon Lenton	Vice President, Health Services, RCPCH
Tim Lund	Programme Lead WTD, Skills for Health
Martin McColgan	Workforce Officer, RCPCH
Dr Mary McGraw	Vice President, Training and Assessment, RCPCH
Louis Merton	Associate Medical Advisor, WRT
Dr Simon Meyrick	Consultant Paediatrician, Hereford Hospital
Dr Robert Scott-Jupp	Consultant Paediatrician, Salisbury Hospital
Dr Rajesh Sharma	Specialist Registrar, Basildon Hospital
Dr David Shortland	Officer for Workforce Planning, RCPCH
Fiona Smith	Advisor in Children and Young People's Nursing, RCN
Dr Vivienne van Someren	Clinical Director, Women and Children's Services, Royal Free Hampstead
Professor Terence Stephenson	President-elect, RCPCH
Dr Tracy Tinklin	Consultant Paediatrician, Derbyshire Children's Hospital
Dr David Vickers	Registrar, RCPCH
Dr Steve Wadams	Locum Consultant, Poole Hospital
Dr Phil Wylie	Consultant Paediatrician, Dorset County Hospital

Presentations by units

The meeting began with presentations by representatives from five units that had been selected as having innovative staffing models. The key features of the units are listed below:

Small rural hospital with foundation status

- This hospital serves a rural population with approximately 35,000 0-16 years and has more than 2,300 deliveries per year.
- The unit provides the normal range of outpatient and inpatient (24 hour) services for a District General Hospital (DGH) (including short term intensive care for infants > 28 weeks gestation).
- The closest paediatric unit (full inpatient facilities) is 22 miles away.
- Key features of the staffing model include:
    - A combined paediatric and neonatal rota
    - Consultant resident on-call system operational since 2001
    - 6 consultants each doing an average of 17 hours per week resident on-call (5 PAs)
    - 5 middle grades (ST3-8) who work a shift system (band 1B and WTD compliant) to support the consultants
    - Most nights covered by consultant resident on-call, supported by a junior grade, with evenings being covered by junior / middle grade (consultant non resident) to maximise their clinical experience
    - 9 junior grades (not all are currently doing paediatrics during the day but all have previously done a paediatric attachment) who work shift (9am until 10pm; 9.30pm until 9.30am) pattern (band 1B and WTD compliant)
    - At present, consultants may have to work day after resident night on call
    - Average weekly hours for a consultant are approximately 48 hours.
- The resident system is popular with staff and patients, and as junior / middle grades are rarely doing night cover, they are not off 'post call', and are therefore more available for teaching etc during day.

Large children's DGH with foundation status

- This Children's Hospital, with an associated Graduate Entry Medical School, has an attendance of 24,000 per annum in the Emergency Department, and a delivery rate of 5,500 per annum, managing all medical pre-term infants locally.
- Key features of the staffing model include:
    - 5 Advanced Neonatal Nurse Practitioners contributing the equivalent of two junior grades to the neonatal rota
    - 5 Advanced Children's Emergency Nurse Practitioners in the Children's Emergency Department, working in addition to the junior grades to reduce work intensity and improve quality of care
    - A Paediatric Emergency Consultant who does evening / weekend sessions rather than a conventional on-call
    - 1.5 WTE consultants (two consultants) appointed five years ago for resident on-call, with duties including ongoing responsibility for patient care for acute admissions and outpatient clinics, and participation in the middle grade rota
    - The consultant work on-call is equivalent to half of that of the middle grades.
- The resident on-call system allowed a senior decision maker out-of-hours, but reduced daytime consultant duties.

- It was anticipated that the appointees might move into slots vacated by retiring paediatricians due to the age spread of the department, but this has not been the case; both individuals have become increasingly fatigued by the work intensity, and it has been decided that the posts will be converted to 'conventional posts'.

Medium-sized isolated DGH

- This medium-sized isolated DGH has one children's ward, a level 2 NICU, and about 2500 deliveries a year.
- There are only 4 middle grade trainees, and no non-consultant career grades.
- 24-hour skilled paediatric cover is essential, and there are no plans for service reconfiguration.
- Key features of the staffing model include:
    - 6 consultants on 12 PA contracts contributing to middle grade out-of-hours cover, requiring residence on site
    - About half of the out-of-hours time is covered by middle grades and half by consultants
    - Consultants take on these out-of-hours duties in addition to the normal consultant daytime workload and on-call cover from home
    - There is always a back-up consultant on-call to cover a resident colleague.
- With the requirements of 2009 WTD and the increasing daytime workload, the current system is inadequate. There are plans to expand to 10 consultants or 10 or 11 PA contracts.

Small relatively isolated hospital

- This hospital, serving a total population of 220,000, provides acute inpatient general paediatric services, short / medium term HDU, level 1-2 SCBU, and A&E services.
- It has one paediatric ward, 20 inpatient beds (medical, surgical, orthopaedic), and 4 day case beds for surgical and medical patients.
- The nearest hospital is around 1 hour away.
- Key features of the staffing model:
    - A total of 7 consultants (6.5 do emergency on-call; 1 does weekend on-call but not week nights on-call) and 2 middle grades (1 staff grade, 1 ST4)
    - Middle grades are unable to staff nights due to their small numbers, so they concentrate on daytime work, (ward work and ST1-3 supervision, and administrative work), evenings from Monday to Thursday, and daytime cover for 1 in 4 weekends
    - Consultant of the week pattern operates 7 days per week (8.30am – 6pm), with consultants being second on call for remainder of week (not included in PAs)
    - The remainder of the time, consultants provide resident cover all nights 6pm – 9am, with middle grade resident until 9pm handover four evenings per week (except if middle grade on leave or at study)
    - Consultants have a reduced working week in recognition of resident on call – only working 3 days for 4 weeks out of 7
    - 1 SPA and administration is undertaken whilst resident on-call.
- The staffing model provides a high quality service, with good supervision of middle grade and junior staff, and supervised handover three times per day.
- The reduced working week in 4 out of 7 weeks is also a benefit.
- However, it is crucial to have sufficient middle grades in order for the system to work - insufficient numbers results in consultants covering and the service

not being WTD compliant. This unit estimates that it needs a total of 8 consultants and 4 middle grades, or 9 consultants and 2 middle grades, to allow time for sufficient day-time consultant work, time for SPA activities, time to develop a special interest, and continuity for patients. There are plans to appoint an additional consultant to address these pressures.

Small to medium DGH in large city with some specialty paediatrics

- This hospital provides secondary care services for a child population of 30,000, with surgical services and some tertiary services for a wider population.
- The unit has 36 paediatric beds, 16,000 A&E attendances per year, 3,500 deliveries per year, and a level 1 neonatal service backed up by the city's neonatal transfer service and level 2 and 3 units within the network. There are also strong links to the community service run by the PCT.
- Key features of the staffing model include:
    - Consultant-delivered service, supported by ST1-3 specialist nurses, and physicians' assistants
    - 15 general paediatricians, 14 providing emergency care out-of-hours, and 12 sharing the night work
    - The consultant contract and annualised hours are used to measure and organise activity on a flexible rota
    - The role of the consultant is seen to be that of team leader, mature decision maker and service improver, with formal support for consultants to develop these new roles
    - SPAs are used for service improvement and patient safety initiatives
- The staffing model is continuously being adapted and improved. Achievements so far include lower admission rates, shorter lengths of stay, and shorter waiting times for out-patients.

Discussion - advantages and disadvantages of the proposed models

The resident consultant model

Advantages

- A trained doctor service will help to address WTD issues
- Improved training opportunities for junior doctors
- Improved quality of service 24/7
- Lower admission rates
- Some consultants enjoy the hands-on-work

Disadvantages

- Can cause exhaustion and fatigue
- Can result in a lack of a specific consultant availability during the day
- Can result in less time for appraisal, clinical audit, professional development, teaching and other support activities
- May be difficult to maintain neonatal skills
- Costly

Other factors to consider

The resident consultant model is most likely to be effective where:

- There is provision to allow additional support for the resident shift-working paediatrician on-call during situations of exceptional workload or provision via a specialist network

- The culture permits junior paediatricians to obtain an opinion from consultants when appropriate (this relies on consultants being very directive about what they should and should not be disturbed for)
- The trust does not require that SPA work is done during resident on-call night
- There are good quality residential facilities
- On-call duties are reviewed on an annual basis after the age of 50 (the age from which it may be appropriate for consultants to stop resident on-call)

Role substitution

Advantages

- Can help to address WTD issues

Disadvantages

- Can result in an increase in cost
- Can deplete the senior nursing workforce and other professional groups (particularly applicable to Advanced Neonatal Nurse Practitioners or Advanced Nurse Practitioners)

Other factors to consider

- Nurse practitioners can be difficult to recruit (partly because there is little career progression), as can physicians' assistants (partly because the training courses are difficult to set up due to a need to guarantee employment numbers)
- Nursing solutions will be less likely to contribute to WTD Compliance in small units with shared rotas (as medical staff cover both neonatal and general paediatric rotas)

Portfolio careers

Advantages

- Allows for the fact that consultants may have less capacity for intensive activities (such as neonatal work) as their career advances
- Allows consultants to develop new interests throughout their career (such as management, College roles or teaching)
- Is likely to increase the retention of senior paediatricians who can adapt their duties with increasing seniority

Disadvantages

- Can result in an increase in the intensity of clinical duties for those at earlier stages in their careers

Team job planning / annualisation of hours

Advantages

- Ensures that the whole service is covered and helps to foster a culture of joint-working
- Recognises that some consultants within a department will have different responsibilities and allows for a fair distribution of SPAs
- Is particularly attractive for paediatrics where some parts of the service (particularly general paediatrics) have significant seasonal variations in demand

Disadvantages

- Requires staff to commit to rotas and annual leave in advance (some may see this as an advantage)

Network appointments

Advantages

- Encourages trusts to work together to solve workforce problems
- Requires joint leadership and management arrangements between trusts
- By combining on-call rotas across a number of trusts there will be an increased 'pool' of consultants, thereby increasing the number of paediatricians who can take part in on-call rotas and increasing the likelihood of portfolio careers for more senior colleagues

Other factors to consider

- Is more likely to be practical and successful when there is a managed clinical network
- Is more likely to be successful where hospitals are relatively close together

Appendix B – Proposed models of service delivery

The following models of service delivery are supported in Modelling the Future[22]:

Small units, proximal to larger units
Service: Long day acute services - largely based around an ED and Short Stay Paediatric Assessment Unit (SSPAU). Where there are departments assessing children who do not have immediate access to medically trained paediatric staff there should be access to other clinical staff trained in the recognition resuscitation and stabilisation of the acutely ill child[29].
Paediatric career grade medical workforce: consultant presence 12-16/24.

Small units, remote from larger units, level 1 SCBU
Service: Long day acute services - largely based around an ED and SSPAU; but with a 24/7 paediatric inpatient unit
Paediatric career grade medical workforce: consultant presence 12-16/24; consultant non-resident overnight, trainees resident 24/7.

Medium sized units, level 2 NICU
Service: Long day acute services - largely based around an ED and SSPAU; majority of consultants contribute to acute on-call; overnight admission unit; level 2 NICU
Paediatric career grade medical workforce: consultant resident 24/7; consultant may be non-resident if appropriate resident competences are available; trainees resident 24/7.

Medium-sized units, level 3 NICU
Service: Long day acute services-largely based around an ED and SSPAU; overnight admission unit; level 3 NICU
Paediatric career grade medical workforce: 2x consultant resident 24/7; consultant may be non-resident if appropriate resident competences are available; trainees resident 24/7. Community child health work undertaken by paediatricians not contributing to the acute hospital rota, who will contribute to safeguarding / death review rota.

Larger units, level 3 NICU, some specialist services
Service: Long day acute services-largely based around an ED and SSPAU; overnight admission unit; level 3 NICU; PICU; specialist services minority requiring 24/7 hands on care
Paediatric career grade medical workforce: 3x consultant resident 24/7; consultant may be non resident if appropriate resident competences are available; trainees resident 24/7. Additional consultant rotas depend on specialist services offered; community child health work undertaken by paediatricians not contributing to the acute hospital rota, who will contribute to safeguarding / death review rota.

Comprehensive larger units, level 3 NICU, surgical specialties, specialist services (6-8 for UK)
Service: Long day acute services-largely based around an ED and SSPAU; overnight admission unit; level 3 NICU; PICU plus support for paediatric surgery; specialist services minority requiring 24/7 hands on care
Paediatric career grade medical workforce: 3x consultant resident 24/7; consultant may be non resident if appropriate resident competences are available; trainees resident 24/7. Additional consultant rotas depend on surgical services and the specialist services offered; community child health work undertaken by paediatricians not contributing to the acute hospital rota, who will contribute to safeguarding / death review rota.

APPENDIX C – Criteria for consultant expansion

Primary criteria

1. Improves service quality:
    a. Patient safety
    b. Clinical effectiveness
    c. Patient experience
2. Contributes to sustainable WTD solutions:
    a. Reduction in trainee hours
    b. Improved work-life balance
    c. Improved job satisfaction
3. Improves quality of training:
    a. Improved service-training balance
    b. Improved access to formal and informal training opportunities
    c. Improved opportunities for long-term condition management.

Secondary criteria

1. The solution strengthens networks:
    a. Creates leadership
    b. Enables outreach or rotations
    c. Spreads good practice
2. Considers the skill-mix/competence within teams:
    a. Between members of the medical team
    b. Within the health team
    c. Within the multiagency team
3. Enables appropriate reconfiguration:
    a. Within units
    b. Between services
    c. Across units, sometimes across regions.