

Paediatric Rota Gaps and Vacancies 2017

Findings of a survey carried out between January and April 2017

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Executive summary

This is the report of the seventh survey in the last seven years that the RCPCH has conducted to monitor rota vacancies and gaps and to assess rota compliance with Working Time Regulations (WTR). This data provides us with the opportunity to look at trends in terms of vacancy rates and compliance with WTR and to monitor the potential impact of service changes.

Since the full introduction of Working Time Regulations (WTR)[1] took effect in 2009, the RCPCH has carried out regular winter surveys of compliance with the regulations and an assessment of the vacancies on paediatric and neonatal rotas in the UK[2]. Vacancies and gaps, especially those at tier 2 (middle grade) continue to raise concern about the sustainability of services and to trainees' wellbeing.

While the working time regulations are well established and our survey reports that compliance remains generally high, this report needs to consider other factors which influence service delivery in paediatrics and neonatology. Therefore the 2017 survey has been widened to include questions about the impact of the 2016 Junior Doctors' Contract (in England), the imposition (in England) of caps on locum pay rates and the effect of winter pressures on services and staffing. This has provided us with a greater depth of qualitative data to support the statistical findings.

Key findings

Vacancies and gaps

- The rota vacancy rate is 14.6% on tier 1 rotas and 23.4% on tier 2 rotas. Averaged across both tiers, there has been an increase in the vacancy rate from 14.9% in January 2016 to 18.6% in January 2017.
- The vacancy rate is highest on tier 2 general/neonatal rotas (27.2%) where the recorded vacancy rate has fallen from 27.6% in January 2015.
- Across both rota tiers, 41.2% of vacant posts are filled by locums (46.5% in January 2016).
- The highest vacancy rates are on tier 1 rotas in Northern Ireland (27.3%) and also on tier 2 rotas in Northern Ireland (37.4%). Vacancy rates on Welsh rotas are also higher than the overall UK rate.
- The average general paediatric training rota size in UK units is 9.5 WTE for tier 1 and 8.9 WTE for tier 2 which falls below the Facing the Future standard of 10 WTE posts.

Compliance with Working Time Regulations

- Overall compliance of tier 1 and 2 rotas with EWTR on paper is high at 99.3% - 98.8% in January 2016.
- Non-compliance in practice is highest on tier 2 rotas (12.7%) and in particular general/neonatal rotas (15.3%). Overall, rates of non-compliance in practice have increased slightly - 9.4% in January 2016 and 11.0% in January 2017.

Consultants working resident shift and unplanned cover

- 54 (45.4%) of the responding units reported that they have consultants who permanently work resident shifts, an increase since 2015-16 where 23 (31.9%) of units reported this.

2016 junior doctors' contract and locum caps

- 67% (65/97) of respondents stated that the effect of the 2016 junior doctors' contract was either negative or moderately negative.
- 82.5% (80/97) of respondents stated that the effect of the introduction of locum caps was either negative or moderately negative.

Winter pressures

- 72.3% of units reported experiencing difficulties as a result of winter pressures.

Concern about the future

- 87.4% of respondents were either very or moderately concerned about how the service will cope in the next 6 months. All responding units in Northern Ireland and Scotland were either very or moderately concerned.

Conclusion

The results of this survey provide evidence that the concerns of those responsible for organising safe paediatric services for children in hospital, be they consultants, trainees or directorate management are well-founded and that acute service provision for children remains under considerable strain across the UK.

Concern over the continuing and increasing rota gaps is exacerbated by data relating to recruitment into paediatric training at ST1[3] (the first year of specialty training). In 2017 the fill rate i.e. accepts of available posts has fallen to 89.4% from 92.9% in 2016.

Aims of the survey

The purpose of the survey was to collect evidence on the extent of rota vacancies and gaps, the current state of compliance with the Working Time Regulations (WTR), the extent to which consultants are working resident shifts and the concerns of those responsible for managing these services.

Methodology

In January 2017 a short questionnaire, similar to previous surveys, was sent via SurveyMonkey® to clinical directors/leads responsible for all units in the UK providing general paediatric inpatient and neonatal services. The survey closed in mid-April 2017 and obtained a response rate of 62.6% (132/211).

The data were downloaded to an MS Access database and analysed by the RCPCH workforce team using MS Access and MS Excel. The report was compiled by the workforce team.

A proportion of the rota data received was excluded due to poor quality or inconsistency; responses which have omitted either the posts/WTE on the rota or the vacant posts, or where data is inconsistent have not been included in this analysis. When calculating the average number of PAs consultants spent undertaking resident duties, any value 6.0 or greater was considered an outlier and therefore not included in the analysis. This should be borne in mind when interpreting the results. Across both tiers, data from 73.5% (222/302) rotas was deemed to be good quality and included in analysis. This compares to 78.2% (205/262) which were deemed to be good quality in the previous survey of January 2016.

Detailed findings

1. Compliance with WTR

For each tier 1 (junior) and tier 2 (middle grade) rota for general paediatrics, shared general/neonatal and neonatal services we asked if the rota was compliant with WTR on paper and in practice. The results are shown in Table 1 and Table 2.

Table 1: Compliance with WTR on paper by rota tier and service

	Yes		No		Total
	No.	%	No.	%	No.
Tier 1 General Paediatrics	50	100.0%	0	0.0%	50
Tier 1 General/Neonatal	52	98.1%	1	1.9%	53
Tier 1 Neonatal	36	100.0%	0	0.0%	36
Tier 1 overall	138	99.3%	1	0.7%	139
Tier 2 General Paediatrics	37	100.0%	0	0.0%	37
Tier 2 General/Neonatal	61	98.4%	1	1.6%	62
Tier 2 Neonatal	31	100.0%	0	0.0%	31
Tier 2 overall	129	99.2%	1	0.8%	130
Tier 1 and Tier 2 overall	267	99.3%	2	0.7%	269

* This question was not answered in respect of 33 rotas

Overall, 99.3% (138/139) of tier 1 rotas and 99.2% (129/130) of tier 2 rotas are compliant with WTR on paper. The overall the level of compliance on paper of 99.3% (267/269) has remained broadly similar since January 2016 when compliance was 98.8% (253/256).

Table 2: Compliance with WTR in practice by rota tier and service

	Yes		No		Total
	No.	%	No.	%	No.
Tier 1 General Paediatrics	47	94.0%	3	6.0%	50
Tier 1 General/Neonatal	45	86.5%	7	13.5%	52
Tier 1 Neonatal	32	91.4%	3	8.6%	35
Tier 1 overall	124	90.5%	13	9.5%	137
Tier 2 General Paediatrics	32	86.5%	5	13.5%	37
Tier 2 General/Neonatal	50	84.7%	9	15.3%	59
Tier 2 Neonatal	28	93.3%	2	6.7%	30
Tier 2 overall	110	87.3%	16	12.7%	126
Tier 1 and Tier 2 overall	234	89.0%	29	11.0%	263

* This question was not answered in respect of 39 rotas

In practice, 90.5% (124/137) of tier 1 rotas and 87.3% (110/126) of tier 2 rotas are compliant with WTR. Non-compliance in practice is highest among tier 2 general/neonatal rotas (15.3%) and this has decreased since January 2016, where non-compliance on tier 2 general/neonatal rotas was 17.3%. Overall non-compliance on tier 2 rotas has increased to 12.7% (16/126) since January 2016 (11.4%, 14/123). Across both tiers non-compliance is 11.0% (29/263); a 1.6% increase since January 2016 (9.4%, 24/256).

This year 14.5% of reporting units stated they had at least one non-compliant tier 2 rota in practice, a decrease compared to 19.3% in January 2016.

Table 3: Compliance with WTR on paper and in practice by country

	No. of rotas	Compliance on paper	No. of rotas	Compliance in practice
Tier 1				
England	115	99.1%	113	90.3%
Northern Ireland	5	100.0%	5	100.0%
Scotland	11	100.0%	11	81.8%
Wales	8	100.0%	8	100.0%
United Kingdom	139	99.3%	137	90.5%
Tier 2				
England	109	99.1%	106	87.7%
Northern Ireland	4	100.0%	4	75.0%
Scotland	9	100.0%	8	100.0%
Wales	8	100.0%	8	75.0%
United Kingdom	130	99.2%	126	87.3%

Table 3 compares compliance with the working time regulations in the four UK nations. 99.1% of tier 1 rotas are compliant on paper in England while in the other three nations there is 100% compliance. On tier 2 rotas, Northern Ireland, Scotland and Wales have 100% compliance on paper and England is 99.1% compliant on paper.

Tier 2 rotas in Scotland are 100% compliant both on paper and in practice. The compliance rate in practice for tier 2 in England has decreased from 88.8% in 2016 to 87.7% and decreased from 91.7% to 75.0% in Wales.

2. Rota vacancies and gaps

For each rota, clinical directors and leads were asked to indicate:

- the number of vacancies due to failure to recruit;
- the number of gaps due to out of programme (OOP);
- the total number of positions and WTE on the rota and;
- how many of the vacancies and gaps were filled by a locum;

Table 4 shows the number of vacancies and gaps, along with the vacancy rate for each type of rota on tier 1 and tier 2. For this analysis we have only included rotas where the quality of data is good quality (see methodology). Across both tiers, data from 73.5% (222/302) rotas was deemed to be good quality and included in this analysis.

In the UK in 2015 there were a total of 255 tier 1 rotas and 236 tier 2 rotas [4]. This represents a small reduction in the total number of rotas since 2013 and we can estimate, assuming a constant proportion of vacancies, that there are approximately 358 and 483 vacancies and gaps on tier 1 and tier 2 rotas respectively across the UK.

Table 4: Rota vacancies, gaps and rate by tier and service

	Vacancies due to failure to recruit	Gaps due to OOP	Total vacancies and gaps	Vacancies and gaps %
Tier 1 general paediatrics	33.4	11.6	45.0	10.9%
Tier 1 general/neonatal	58.7	17.7	76.4	17.1%
Tier 1 neonatal	31.9	10.9	42.8	16.3%
Tier 1 overall	124.0	40.2	164.2	14.6%
Tier 2 general paediatrics	31	12.2	43.2	16.4%
Tier 2 general/neonatal	73.2	37.8	111.0	27.2%
Tier 2 neonatal	40.5	20.0	60.5	24.9%
Tier 2 overall	144.7	70.0	214.7	23.4%
Tier 1 and 2 overall	268.7	110.2	378.9	18.6%

Table 4 indicates that there is a 14.6% vacancy rate on tier 1 rotas due to failure to recruit and gaps due to out of programme reasons, an increase on January 2016 when the vacancy rate was 10.4%. Vacancy rates on tier 1 rotas are highest in general/neonatal rotas.

The vacancy rate is considerably higher among tier 2 rotas – 23.4% overall; this represents an increase on January 2016 when 20.3% of tier 2 rota posts were vacant. In December 2012 the rate was 15.2%. The vacancy rate is highest on shared general/neonatal rotas (27.2%).

70.9% (268.7/378.9) of the total WTE vacancies and gaps are reported to be due to failure to recruit, whilst the remainder are gaps due to out of programme (OOP). This is almost identical to the 70.8% reported in the January 2016 survey.

Table 5: Number and percentage of rota vacancies and gaps filled by locums

	Total vacancies and gaps	Number filled by locum	Filled by locum %
Tier 1 general paediatrics	45.0	25.6	56.9%
Tier 1 general/neonatal	76.4	36	47.1%
Tier 1 neonatal	42.8	12.9	30.1%
Tier 1 overall	164.2	74.5	45.4%
Tier 2 general paediatrics	43.2	15.9	36.8%
Tier 2 general/neonatal	111.0	46.7	42.1%
Tier 2 neonatal	60.5	18.9	31.2%
Tier 2 overall	214.7	81.5	38.0%
Tier 1 and 2 overall	378.9	156.0	41.2%

Respondents were asked how many of their vacancies and gaps were filled by locums, and the results are shown in Table 5.

On tier 1 rotas, 45.4% (74.5/164.2) of vacancies are filled by locums and on tier 2 rotas 38.0% (81.5/214.7) of rotas are filled by locums (Table 5). This compares to January 2016, when 50.4% (51.3/101.8) of tier 1 vacancies and 44.1% (72.9/165.3) of tier 2 vacancies were filled with locums.

Standard 8 of the Facing the Future [5] standards for acute general paediatric services states that all general paediatric training rotas are made up of at least ten whole time equivalent (WTE) posts, all of which are compliant with the UK Working Time Regulations and European Working Time Directive. Units were asked to state the WTE staff on each rota. The average general paediatric training rota size in UK units is 9.5 WTE for tier 1 and 8.9 WTE for tier 2 which falls below the Facing the Future standard of 10 WTE posts. In addition to shortages created by vacancies and gaps, there is therefore an additional shortage factor to be considered due to rota size failing to meet published standards.

Regional variation in vacancies and gaps

There is considerable variation across the UK in the vacancies and gaps rate across both tiers ranging from 10% to 31.4%. Because of variability in the proportion of good quality response, conclusions from regional data need to be treated with caution. The five regions with the highest overall vacancy and gaps rate (with the rate of good quality responses in brackets) are Northern Ireland 31.4% (38.9%), Wales 25.9% (43.3%), Kent, Surrey and Sussex 24.5% (62.5%), North West 23.1% (50.8%) and East of England 19.3% (52.3%). South London and North West London have the lowest rates at 10%.

3. Consultants working resident shifts

Table 6 shows the number of units who have consultants permanently working resident shifts by country and the number of resident consultants recorded.

Table 6: Units with consultants permanently working resident shifts

Country	Units with resident consultants	Units without resident consultants	No. of resident consultants
England	42	52	297.7
	44.7%	55.3%	
Northern Ireland	0	5	0
	0.0%	100.0%	
Scotland	6	5	46
	54.5%	45.5%	
Wales	6	3	16
	66.7%	33.3%	
Total	54	65	359.7
	45.4%	54.6%	

54 (45.4%) of the responding units reported that they have consultants who permanently work resident shifts – this represents a considerable increase from 31.9% in January 2016. Wales has the highest proportion of units with permanent resident consultants – 66.7% (6/9 units) whereas none of the responding units in Northern Ireland have resident consultants.

A total of 359.7 consultants permanently working resident shifts were reported. If this rate of resident shift working is applied to all non-responding units we estimate there are approximately 638 consultants filling these roles – a substantial increase compared to our estimate of 410 from the 2015/16 survey.

Units were asked to supply an average number of PAs that each consultant worked resident shifts. We calculate that consultants permanently working resident shifts spent on average 2.38 PAs undertaking resident duties in comparison to winter 2016 when the average was 2.35. RCPCH guidance on the role of the consultant paediatrician recommends a maximum of 4 PAs for resident on call duties [6].

Type of resident shifts worked

The 54 units in which consultants work resident shifts were asked whether they were resident as part of the consultant rota or as part of the tier 2 (middle grade rota) and which shifts were worked by the consultants.

Table 7: Number of units where consultants work resident shifts by type of shifts worked

	Weekday - during day time	Weekend shifts	Twilight shifts (7-10pm)	Night shifts
Consultant	33	28	28	12
	61.1%	51.9%	51.9%	22.2%
Tier 2 rota	7	17	18	14
	13.0%	31.5%	33.3%	25.9%
Total	40	45	46	26
	74.1%	83.3%	85.2%	48.1%

The data analysed for Table 7 shows that in some units resident consultants worked on both rotas and worked on a variety of shifts. Overall consultants were resident on consultant rotas in 85.2% (46/54) of these units and on tier 2 rotas in 51.9% (28/54) of units. When resident on tier 2 rotas, consultants were more commonly working twilight shifts (33.3%) or weekend shifts (31.5%). When resident on the consultant rota, they only undertook resident nights in 22.2% (12/54) of units. In 61.1% (33/54) of units consultants worked on weekday day-time resident shifts and 51.9% (28/54) on twilight shifts.

4. 2016 Junior Doctors' contract

Clinical directors/leads in England were asked whether the 2016 junior doctors' contract had any effect on their ability to staff departments within their unit and the responses are provided in Table 8 below.

Table 8: Effect of 2016 junior doctors' contract on ability to staff departments

	No.	%
Positive	1	1.0%
Moderately positive	4	4.1%
No effect	20	20.6%
Moderately negative	40	41.2%
Negative	25	25.8%
Prefer not to answer	7	7.2%
Total	97	

* 35 did not answer this question

67.0% of respondents stated that the 2016 junior doctors' contract had either a moderately negative or negative effect on their ability to staff departments. Only 5.1% of respondents stated that the junior doctors' contract had either a moderately positive or positive effect. 20.6% stated that the junior doctors' contract had no effect.

Responders in 49 units took the opportunity of commenting on the effect of the junior doctors' contract. 37 of commenting units had stated that the effect was negative or moderately negative, 7 had said the contract would have no effect and 3 were positive or moderately positive (2 units preferred not to answer). Responders often made more than one comment - the 62 classifiable comments are set out in Table 9.

Table 9: Summary of comments about effect of 2016 junior doctors' contract

	Number of comments	%
Negative comments	53	85.5%
Relating to recruitment and retention issues	42	67.7%
Increased recruitment difficulties	17	
Staff retention difficulties	7	
More difficult to cover rota gaps internally	5	
Rota non-compliance expected	5	
Increased vacancies expected	3	
Difficulty meeting peak demand expected	1	
Higher rates for internal locums expected	1	
Increased internal locums	1	
Increased use of Foundation doctors on rota	1	
Move of doctors to Scotland possible	1	
Other negative comments	11	17.7%
Low morale	4	
Impact on training and service availability	2	
Leave arrangements will make rota management more difficult	2	
Increased need for admin support expected	1	
Less resilience	1	
Middle grade working pattern will be worse	1	
Positive comments	1	1.6%
More flexibility	1	
Neutral comments	8	12.9%
Comment not classifiable	4	
Low impact	2	
Will need to wait and see	2	
Total Comments	62	100%

85.5% (53/62) of comments made could be classified as negative and 42 of those were concerns relating to recruitment or retention. 11 other negative comments were received, 4 of these relating to low morale. Only 1 positive comment (1.6%) was made about the new contract and 8 were classified as neutral.

5. Locum caps

Respondents in England were also asked how the introduction of locum caps may have affected their ability to staff departments and the results are detailed in Table 10.

Table 10: Effect of locum caps on ability to staff department

	No.	%
Positive	0	0.0%
Moderately positive	2	2.1%
No effect	12	12.4%
Moderately negative	34	35.1%
Negative	46	47.4%
Prefer not to answer	3	3.1%
Total	97	

* 35 did not answer this question

82.5% of respondents found the introduction of locum caps to have either a moderately negative or negative effect on their ability to staff departments within the unit, while only 2.1% of respondents stated that the locum caps had a positive effect.

Responders in 47 units took the opportunity of commenting in relation to the effect of locum caps. 39 of those units had stated that the effect was negative or moderately negative, 6 had said the contract would have no effect and 1 was moderately positive (1 unit preferred not to answer). Several responders often made more than one comment and the 56 classifiable comments are set out in Table 11.

Table 11: Summary of comments about the effect of locum caps

	Number of comments	%
Negative comments	47	83.9%
Increased difficulty to recruit locums	23	41.1%
Exceeding locum cap because of market	13	23.2%
Impact on staffing	6	10.7%
Poor service for patients/continuity of care	2	3.6%
Negative impact	1	1.8%
Increased financial pressures on NHS	1	1.8%
Clinic cancellation	1	1.8%
Neutral comments	9	16.1%
No impact	5	8.9%
All trusts need to hold line for policy to be effective	3	5.4%
Unclear what locum cap is	1	1.8%
Grand Total	56	100%

83.9% of the comments made could be classified as negative. Almost half (23/47) of the negative comments related to an expected increased difficulty to recruit locums and there was a substantial number of respondents (13) who stated that the market meant that the locum cap was or will be exceeded. There were 9 neutral comments, 3 of which stated

that the policy would only be effective if all trusts held the line. No positive comments were received about locum caps.

6. Winter pressures

Units in all four nations were asked whether they had experienced any difficulties as a result of the winter crisis.

Table 12: Number and percentage of units experiencing winter crisis difficulties

	No.	%
Yes	86	72.3%
No	33	27.7%
Total	119	100.0%

* 13 did not answer this question

Of the 119 responding units, 72.3% (86/119) had experienced difficulties due to the winter crisis, while 27.7% (33/119) stated that they had not experienced any winter crisis difficulties (Table 12).

Table 13 indicates the departments in which winter pressures were experienced. Of the responding units, it was reported that 80.2% of inpatient departments and 64.0% of paediatric assessment units experienced difficulties as a result of winter pressures in 2016-17. 45.3% of neonatal units, 31.4% of emergency departments and 30.2% of outpatient departments also experienced winter pressures, while dedicated paediatric emergency departments and PICU experienced the least amount of winter pressures at 18.6% and 1.2% respectively.

Table 13: Winter pressures experienced, by department

Department	No.	%
Inpatients	69	80.2%
Paediatric assessment units	55	64.0%
Neonatal unit	39	45.3%
Emergency department	27	31.4%
Outpatients	26	30.2%
Dedicated paediatric emergency department	16	18.6%
PICU	1	1.2%

* 2 units did not answer this question

Responders in 73 units outlined the winter pressures experienced in their units; 70 of these units had stated that they had experienced difficulties delivering services, 1 stated they had not and 2 had not answered. Responders from the 73 units made 190 classifiable comments which are set out in Table 14.

Table 14: Type of winter pressures experienced

Winter pressure type	Number of comments	%
Insufficient staff	78	41.1%
Recruitment difficulties	27	14.2%
Sickness and absence	18	9.5%
High service demands	16	8.4%
Outpatient clinics (cancellation)	14	7.4%
Inadequate training provided	9	4.7%
Emergency department	7	3.7%
Patient safety concerns	6	3.2%
Low morale	4	2.1%
Inflexible rotas	2	1.1%
Insufficient resources	2	1.1%
Assessment Unit	1	0.5%
CAMHS service	1	0.5%
Inflexibility of staff	1	0.5%
Network issues	1	0.5%
PICU	1	0.5%
Staff competency	1	0.5%
Workforce planning failure	1	0.5%
Total comments	190	

Over 41% of comments related to there being insufficient staff. The 78 comments concerning insufficient staff were made by responders in 40 of the 73 units who responded. The second most common pressure reported was recruitment difficulties with 27 comments, over half (14/27) of which related to problems recruiting and supervising locums. Almost 10% of comments related to pressures caused by sickness and absence.

7. Concern about the future

Clinical directors were asked “How concerned are you that your service will not be able to cope with demands placed on it during the next 6 months?” and the response is reported in Table 15 below with the data sub-divided for each UK country.

Table 15: Concern that service will not be able to cope during next 6 months by UK country

Country	Very concerned	Moderately concerned	Unconcerned	Total
England	34	46	14	94
	36.2%	48.9%	14.9%	100.0%
Northern Ireland	2	3	0	5
	40.0%	60.0%	0.0%	100.0%
Scotland	3	8	0	11
	27.3%	72.7%	0.0%	100.0%
Wales	3	5	1	9
	33.3%	55.6%	11.1%	100.0%
Total	42	62	15	119
	35.3%	52.1%	12.6%	100.0%

* 13 units did not respond to this question

100% of respondents in Scotland and Northern Ireland were either moderately or very concerned that services would not be able to cope during the next six months. Across the four nations, 87.4% of clinical directors/leads who answered this question reported being either moderately or very concerned. In January 2016, 89% of respondents were moderately or very concerned.

8. References

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