



# Workforce Data Pack 2018



# Workforce Data Pack 2018

ISBN: 978-1-900936-17-0

© 2018 Royal College of Anaesthetists

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission, in writing, of the copyright holders.

Whilst the Royal College of Anaesthetists has endeavoured to ensure that this document is as accurate as possible at the time it was published, it can take no responsibility for matters arising from circumstances which may have changed, or information which may become available subsequently.

All enquiries in regard to workforce planning should be addressed to:  
The Training Department, Royal College of Anaesthetists, Churchill House, 35 Red Lion Square, London WC1R 4SG  
020 7092 1500 [workforce@rcoa.ac.uk](mailto:workforce@rcoa.ac.uk) [www.rcoa.ac.uk/workforce](http://www.rcoa.ac.uk/workforce)

Design and layout by the Royal College of Anaesthetists.

## Acknowledgements

We would like to thank the following contributors for their time and expertise;

- Dr John Colvin
- Dr Lucy Williams
- Dr Eddie Wilson
- Dr Chris Carey
- Dr Helen Gordon
- Dr Hamish McLure
- Russell Ampofo
- Claudia Moran
- Afsana Choudhury

# Contents

**Introduction** 4

**Headlines** 5

**Current state** 6

**Data sources** 7

CfWI in-depth review of anaesthesia and ICM 7

Medical Workforce Census 2015 – key findings 8

Recruitment survey of clinical directors 2017 11

Rotamap 11

National recruitment 12

Regional engagement 13

Retirement projections and required CCT output 13

SAS doctors 14

Physicians' Assistants (Anaesthesia) and Advanced Critical Care Practitioners 15

Perioperative medicine 16

Gender and less-than-full-time working 17

Morale, welfare and fatigue 17

Survey of core trainees' choices 19

The European Economic Area workforce in the UK labour market 19

**RCoA key recommendations** 20

**References** 21

# Introduction

We are pleased to launch the second edition of the Royal College of Anaesthetists (RCoA) Workforce Data Pack. The information in this document has been collated from various sources, and aims to act as a supporting guide for commissioners, workforce planners, and those involved in overseeing and providing medical training at both regional and national level.

Workforce planning is a collaborative process. It involves input from local providers – who can bring a detailed understanding of local circumstances – and from national organisations, to give a long-term view on the workforce required now and in the future. Without the availability of accurate data to inform decision-making, there is a risk of Health Education England (HEE) commissioning too few places to train new staff,<sup>1</sup> and so trusts need to work with their local workforce planners to agree on what is required for the workforce. The College is supportive of effective regional engagement with national workforce planning, and we welcome your views, comments and contributions on how we can improve this area of work.

This document provides an analysis of the current anaesthesia workforce situation in the UK, and it can be shared within schools of anaesthesia and used locally in regional meetings. It is a resource to support our UK stakeholders in participating in and influencing local workforce plans. We have provided pages for notes at the end of this document, which we encourage you to use to include details of your own local workforce context in order to strengthen your case. If you are experiencing local workforce problems, challenges or successes, the College would like to hear from you in order to share good practice or, if appropriate, to provide central influence and support. We would also like to receive and share examples of innovative work undertaken at local or regional level which has improved recruitment and retention. Feedback can be sent to [workforce@rcoa.ac.uk](mailto:workforce@rcoa.ac.uk).

This Workforce Data Pack also includes references to our other workforce-related activities and the resulting recommendations, which we strongly encourage you to champion and promote locally.

In essence, this data pack provides a summary of the evidence that supports the College's case to HEE, devolved nations' Health Authorities, and other stakeholders for the need to increase the core anaesthesia and/or ACCS (Anaesthesia) and specialty training supply. It is a contemporaneous reflection of the state of the UK-wide anaesthesia workforce at the time of writing.

## Headlines

- The Centre for Workforce Intelligence (CfWI) in-depth review of anaesthesia and Intensive Care Medicine, published in 2015,<sup>2</sup> reported that the demand for anaesthesia and ICM services is expected to exceed supply over the next 20 years. The report also identified an existing unmet need of 15% in anaesthesia and 25% in ICM.
- The RCoA Workforce Census of 2015,<sup>3</sup> which received a 100% response rate from departments across the UK, corroborates the CfWI findings of the need for growth in consultant and SAS doctor supply, both to meet current service requirements and to accommodate predictable projected growth.
- Data from Rotamap, a web-based rota management system (previously known as 'CLW e-rota'), reveals a significant increase in extra work being delivered outside full-time contracts.<sup>4</sup> This non-contracted work is a strong measure of unmet need.
- Data from both the RCoA Census and Rotamap reveal significant gaps in rotas and the resulting cover arrangements, which is further indication of the current non-contracted service requirement and unmet need. Implementing cover for this need generates significant locum and other expensive short-term costs. This is an inefficient use of resources, and money would be better invested in the development and training of non-agency, permanent staff able to respond to the ever-increasing demands on the specialty.<sup>5,6</sup>
- The results from the 2017 survey of clinical directors<sup>7</sup> indicated that the average vacancy rate in departments of anaesthesia was 5.2%, which is higher than the 4.4% rate reported in the RCoA Workforce Census of 2015.<sup>8</sup>
- The latest fill-rate data for 2017 recruitment<sup>9</sup> reveal a slight decrease in the overall fill rate for core training (core anaesthesia and ACCS (Anaesthesia)) and specialty training. In 2017 the national fill rate for core training was 98.17% (down from 99.34% in 2016), and at ST3 level the fill rate was 86.18% (down from 89.04% in 2016). However, since 2015 the fill rate at ST3 has fallen by more than 7.5%, which suggests a more concerning trend.<sup>10</sup>
- The RCoA report on Morale and Welfare of anaesthetists in training, published in December 2017,<sup>11</sup> reported that 61% of respondents felt that their job negatively affected their mental health and that 85% of anaesthetists in training were at a risk of burnout.
- We support the Faculty of Intensive Care Medicine (FICM) view that there is strong evidence<sup>12</sup> to support a further increase in the ICM workforce. However, any funding for ICM expansion should not be taken from anaesthesia budgets without a joint review and consensus from all relevant parties.

**All data sources within this document recognise that there is significant need for growth in the consultant body (for both anaesthesia and ICM) if we are to meet the current needs of patients and the public's expectations of care for a growing and ageing population.**

**The RCoA strongly advocates that any proposed changes to anaesthesia training numbers take into consideration the above headlines, and that they are based on robust anaesthesia workforce planning data.**

### Current state

While we have welcomed the plans to increase medical school places,<sup>13</sup> this new cohort of medical students will not graduate until 2023, and those who go on to opt for specialist training in anaesthesia are anticipated to complete training in 2032; they cannot, therefore, be considered as a short-term 'auxiliary' in the immediate post-Brexit period after 2019.

The annual output from foundation programme training is approximately 7,500 doctors.<sup>14</sup> When viewed against the requirement to fill approximately 8,500 specialty training places each year, it is evident that there is an insufficient supply of graduates opting to undertake and complete foundation training in the UK. GMC analysis of the transition from the foundation programme to the next stage of training indicates that doctors are more likely to remain in the region where they completed their undergraduate and/or foundation training.<sup>15</sup>

Overall recruitment to anaesthesia and critical care remains robust in comparison to other specialties.<sup>16</sup> Recruitment to core anaesthesia and/or ACCS (Anaesthesia) currently fills available posts in many areas within the UK, at an average fill rate of 99% over the last four years<sup>17</sup> However issues remain in terms of recruitment to specialty training posts, and these UK-wide figures hide the significant geographical variation in fill rates which has proved to be a persistent issue in many Regions. For example, in 2017 the fill rate in anaesthesia at ST3 was just 50% in the Yorkshire and the Humber Region and 66.67% in the North East Region, but in a number of areas, including the London and South West Regions, the rate has been stable at 100%.<sup>18</sup>

Regions that experience poor specialty-training recruitment should consider tailored strategies to address their particular local issues. For example, areas that have struggled to recruit sufficient numbers could, in the short term, look to increase core-training intakes by converting ST3 vacancies to core-training posts. This would generate a better supply and, in the longer term, could help to sustain a higher fill rate at ST3 in all parts of the UK.

Evidence from Scotland indicates that increasing core training numbers is beneficial to the ST3 fill rate for anaesthesia. A sustained increase in core-training numbers since 2013 has led to the ST3 fill rate across Scotland increasing from 63% in 2013 to 90% in 2017.<sup>19</sup> Gaps that still exist are in large part explained by residual vacancies from previous years.

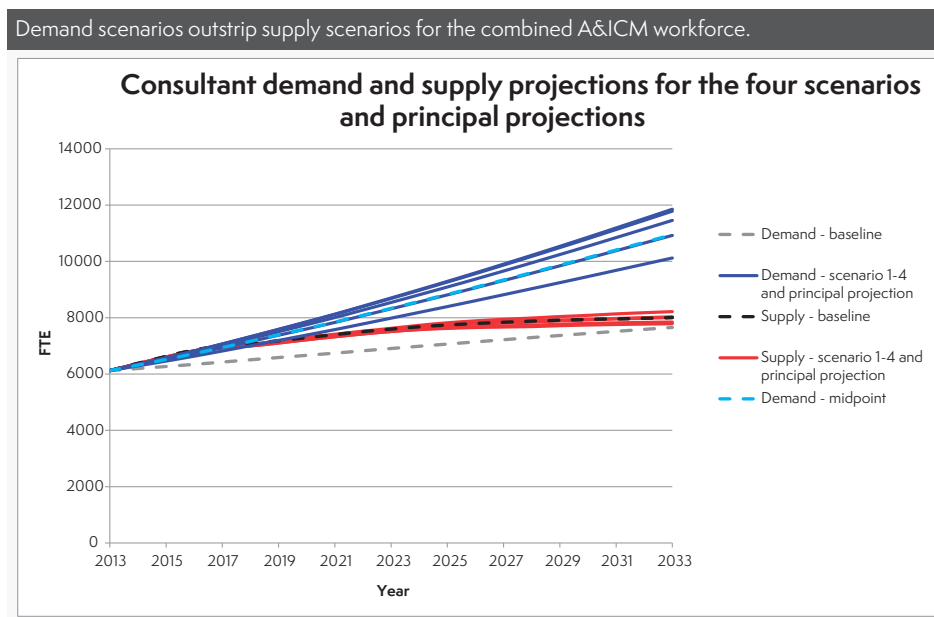
In addition, regions experiencing poor specialty-training recruitment fill rates should, through undergraduate and foundation programme leads working together, consider exploring long-term plans to encourage and improve the rates of alumni staying and working in the local area after graduating.



## CfWI in-depth review of anaesthesia and ICM

In 2015, the Centre for Workforce Intelligence (CfWI) (whose functions have now transferred to Health Education England) undertook an in-depth review of anaesthesia and ICM in England.<sup>20</sup> The RCoA made a significant contribution to this report, along with a range of other expert stakeholders. The report highlighted the forecast that the demand for anaesthesia and ICM services will outstrip supply over the next 20 years, and notes a need for growth of 4.7% per annum in both specialties. It also recognised an existing unmet need of 15% for anaesthesia and of 25% for ICM.

The graph below is taken from the CfWI report. The black dotted line represents the current supply of training numbers, and the workforce behaviour with no changes to key modelling assumptions. The four blue lines represent the expected or most likely future demand according to the expert panel participating in the Delphi study on the four scenarios presented to them. All of the possible future demand scenarios are higher than the supply line.



To summarise, the CfWI Delphi process suggested that **15% of current anaesthesia need and 25% of ICM current need is unmet today**. The baseline demand for anaesthesia services is expected to increase by **25% by 2033** due to demographic changes alone. The baseline supply of anaesthetists up to 2033, based on scenarios generated in the in-depth review, show an **undersupply in the anaesthesia workforce**.

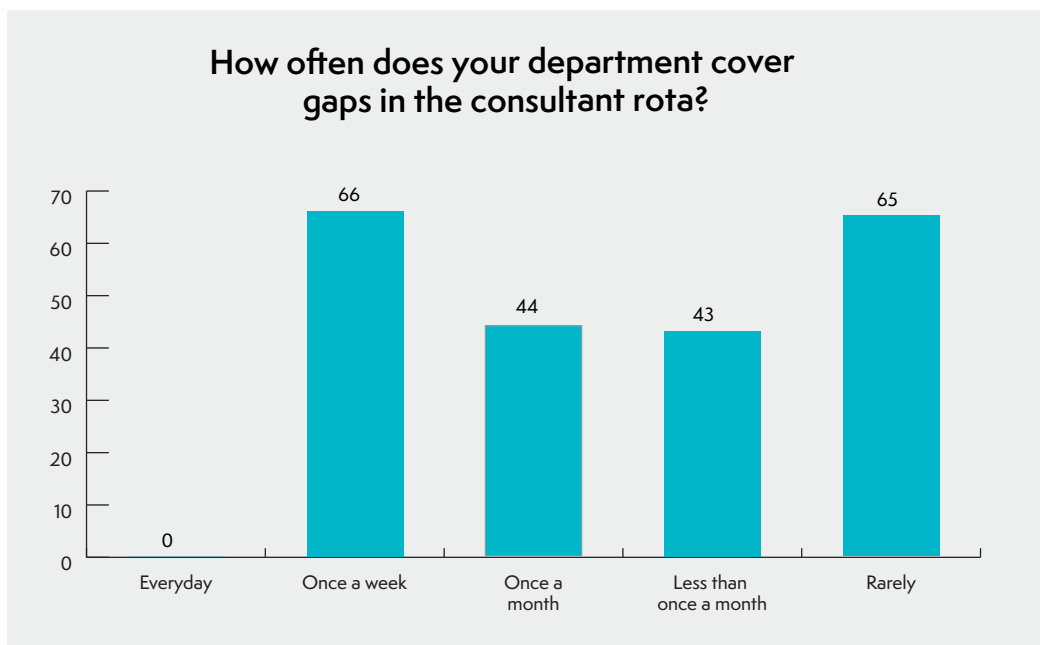
## Medical Workforce Census 2015 – key findings

The 2015 RCoA Medical Workforce Census report<sup>21</sup> is the most comprehensive information we have reflecting the state of the UK-wide anaesthesia workforce on the ground.

### Consultants

- There are 7,422 consultants in England, Wales, Scotland and Northern Ireland (7,439, including those from Crown dependencies such as the Isle of Man and the Channel Islands).
- There was an 8.4% increase in consultant numbers between 2010 and 2015 and a 10% increase between 2007 and 2010, which equates to a mean increase of around 2.3 percentage points per year between 2007 and 2015.
- 68% of the anaesthesia consultant workforce is male and 32% is female.
- Nearly three-quarters (74%) of consultants currently work more than 10 Programmed Activities (PAs), and of these 75% are male and 25% are female. 8.5% of consultants work nine or fewer PAs, and there are more female consultants than male in this group (5.4% vs 3.1%).
- Between 2010 and 2015, there has been a 28% increase in the number of consultants aged between 50 and 59 years, indicating an ageing consultant population.

The graph below illustrates the frequency with which departments have to cover gaps in the consultant rota. It indicates that 30% of departments need to cover gaps about once a week.



### SAS doctors

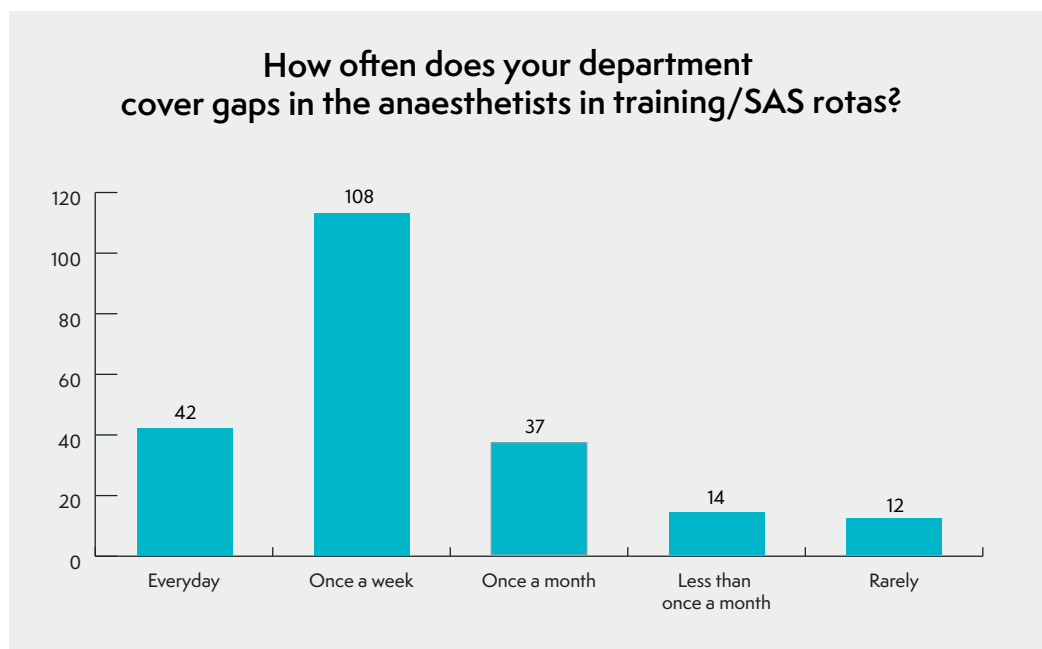
- There are 2,033 SAS and trust-grade doctors in England, Wales, Scotland and Northern Ireland (2,047 when those from the Crown dependencies are included).
- SAS doctors make up 22% of the trained anaesthesia workforce (2,047 SAS doctors vs 7,439 consultants).
- Overall, 61% are male and 39% female.
- SAS doctors have similar work patterns to consultants, with nearly three-quarters (74%) currently working more than 10 PAs. 10% of SAS doctors work nine or fewer PAs, and there are more female SAS doctors than male in this group (7% vs 3.1%). Just over a quarter (27%) are aged between 50 and 59 years.

### Training grades

- In 2014–15, throughout the UK there were 424 empty training posts funded by Local Education and Training Boards (LETBs) and deaneries.
- An additional 248 anaesthetists in training were absent because of maternity, paternity or long-term sick leave, or because of Out-of-Programme Experience.
- In total, 15% of all LETB/deanery-funded training posts were unfilled at the time of the Census.

### Gaps in the anaesthetist-in-training/SAS rotas

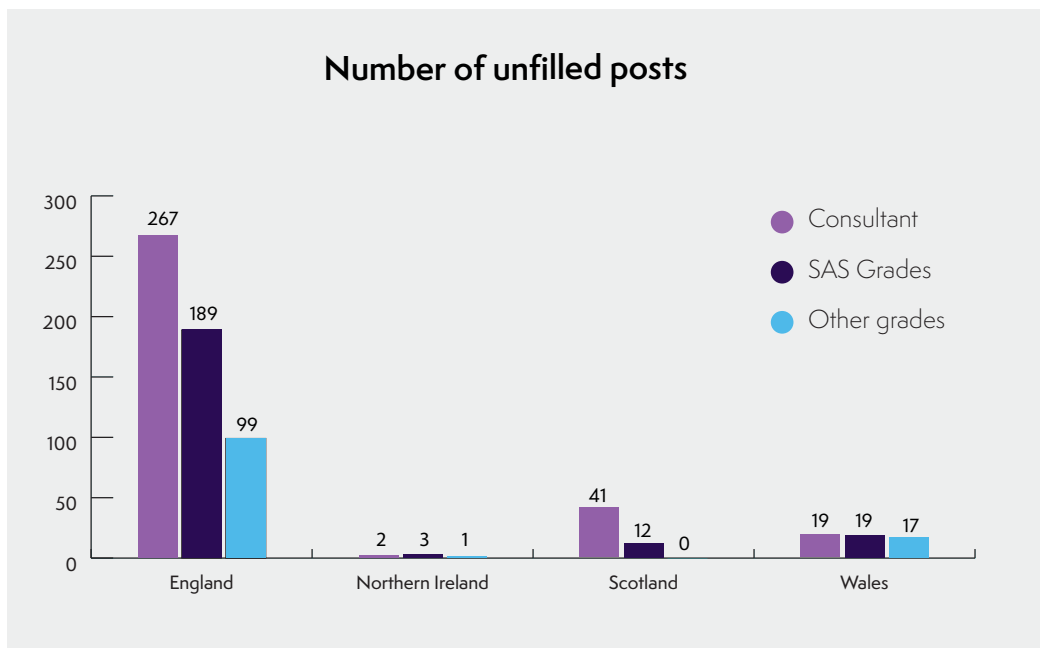
The graph below illustrates the frequency with which departments have to cover gaps in the anaesthetist-in-training/SAS rotas. It indicates that, overall, nearly 70% of anaesthesia departments have to cover gaps more frequently than once a week, with 19% needing to do so every day.



When asked how such gaps are covered, 98% of respondents said they use internal locums, almost three-quarters (74%) that they use external locums, and nearly half (48%) that they use consultants 'acting down'. Furthermore, anaesthetists in training themselves are increasingly being asked to fill rota gaps, on average six times each month per anaesthetist in training.<sup>22</sup>

## Vacancies

The graph below illustrates the number of unfilled consultant, SAS and trust posts.



It indicates that in the UK, 4.4% of consultant posts and 11% of SAS and trust-grade doctor posts are empty.

When asked how such vacancies are covered, the majority of respondents said they use internal locums – that is they cover vacancies from the existing complement of staff. Only a relatively small proportion use external locums for cover.

The Medical Workforce Census findings provide strong evidence of the continued need for growth. They also confirm a level of unmet need, as previously identified in the CfWI In-depth review of anaesthesia and ICM.

The College strongly advocates an increase in core anaesthesia and/or ACCS (Anaesthesia) and specialty training supply.

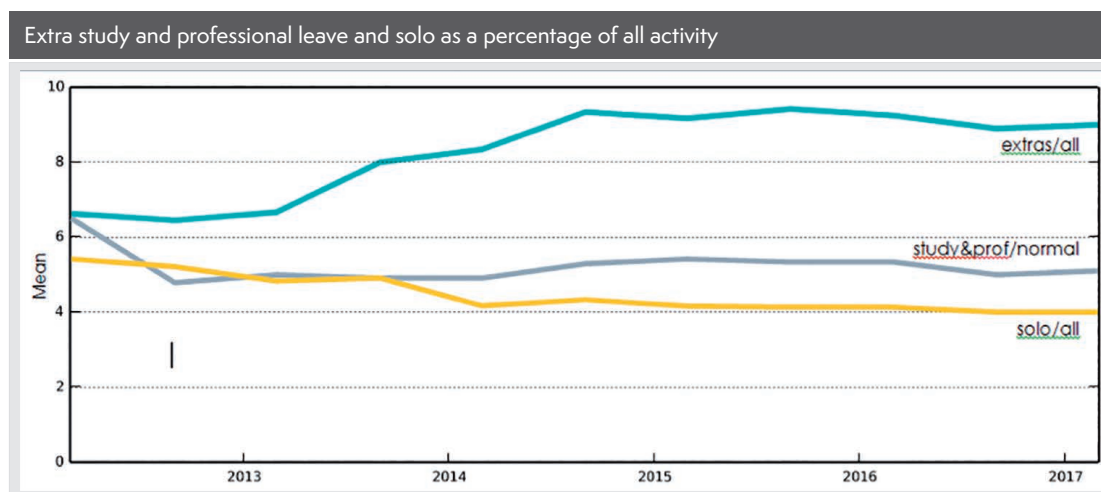
## Recruitment survey of clinical directors 2017

In November 2017 the College sent a survey to all clinical directors in the UK enquiring about recruitment. The survey had a high response rate, with results from 106 departments of anaesthesia. The results showed that the average consultant vacancy rate in departments of anaesthesia was 5.2%, which is higher than the 4.4% rate reported in the 2015 RCoA Workforce Census. Just under half (45.6%) of these vacancies were for general posts, and one-third (33.3%) were for anaesthetists with a special interest in ICM. The survey also demonstrated that recruitment is problematic, with 45.8% of departments reporting that they had advertised posts in the previous year but had been unable to appoint to them. In 43% of cases this was because there were no applicants, and in 45% because there were no suitably qualified applicants, **suggesting that within the UK labour market there is an insufficient supply of anaesthetists in terms of numbers and skill set.**<sup>23</sup>

## Rotamap

The Rotamap system helps NHS departments plan and report on anaesthesia activity. Rotamap manages over 10,000 NHS anaesthetists (including anaesthetists in training) around the UK, with 102 trusts using the system.<sup>24</sup>

The graph below shows averages taken from cross-departmental benchmarking conducted at six monthly intervals. The data shows that the dependence on extra sessions has been growing over the last four years. It also shows that, although there was a slight decline in the number of extra sessions at the end of 2016, it continued to rise again in 2017.



It can be seen from the graph that, in order to cover list-work, departments rely much more heavily now than they did four years ago on doctors undertaking additional sessions above and beyond their job plan, for which they are paid extra. Despite the fact that this is paid work, this cover does, nonetheless, depend heavily on the goodwill of doctors; the more doctors feel burnt out, pressurised and undervalued, the less effective this measure becomes as a way of meeting patient need.

There has been an increase in the need for three-session days and weekend work, much of which is being provided as extra sessions worked by existing anaesthetists or by consultants on the retire-and-return scheme.<sup>25</sup> Therefore, **although there is a rise in activity resulting from three-session days and from extra paid list-work, this is being achieved without a corresponding significant increase in the number of anaesthetists.**

The Rotamap system supports the management of rotas in two-thirds of UK anaesthesia departments. The crucial point about the data we have from Rotamap is that it reveals a significant increase in extra work undertaken beyond full-time contracts. This is a strong consolidated measure of **unmet need and of the corresponding increased pressure on existing staff.**

## National recruitment

Unit of Application	ST3 2014			ST3 2015			ST3 2016			ST3 2017		
	Posts	Accepted	Fill Rate	Posts	Accepted	Fill Rate	Posts	Accepted	Fill Rate	Posts	Accepted	Fill Rate
HEE East Midlands	18	13	72.2%	25	25	100%	32	20	62.50%	26	18	69.23%
HEE East of England	9	9	100%	8	8	100%	12	12	100%	16	16	100%
HEE Kent, Surrey & Sussex	23	23	100%	24	24	100%	26	26	100%	22	22	100%
HEE North East	15	10	66.7%	27	15	55.56%	25	17	68%	24	16	66.67%
HEE North West (Mersey)	14	14	100%	20	20	100%	Included in North West			Included in North West		
HEE North West	24	24	100%	24	20	83.33%	40	40	100%	40	39	97.50%
HEE South West	26	26	100%	24	24	100%	20	20	100%	17	17	100%
HEE Thames Valley	12	12	100%	12	12	100%	10	8	80%	11	11	100%
HEE Wessex	9	9	100%	11	11	100%	7	7	100%	6	6	100%
HEE West Midlands	23	16	69.6%	27	27	100%	17	17	100%	30	20	66.67%
HEE Yorkshire and the Humber	30	27	90.0%	25	25	100%	24	17	70.83%	44	22	50.00%
London Recruitment	102	78	77.5%	85	85	100%	83	83	100%	79	79	100%
Northern Ireland	10	10	100%	15	14	93.33%	10	10	100%	19	18	94.74%
Scotland	43	32	74.4%	43	36	83.72%	48	37	77.08%	47	42	89.36%
Wales	18	18	100%	18	18	100%	20	19	95.00%	17	17	100%
<b>TOTALS</b>	<b>375</b>	<b>321</b>	<b>85.6%</b>	<b>385</b>	<b>332</b>	<b>93.81%</b>	<b>374</b>	<b>333</b>	<b>89.04%</b>	<b>398</b>	<b>343</b>	<b>86.18%</b>

There continues to be growing concern over the inconsistent specialty-training fill rates, and these have been highlighted to HEE. Although there has been an increase in the number of training posts in some years (2015 and 2017), nationally we are not achieving 100% fill rate. Furthermore, since 2015 the fill rate has fallen by more than 7.5%, suggesting a more concerning trend.<sup>26</sup> One of the main factors that contributes to the low fill rate is the application-to-post ratio at ST3, which is impacted on by the natural attrition of anaesthetists in training during core training and the decisions anaesthetists in training make about their immediate future once they have completed core anaesthesia or ACCS training.

The College is increasingly aware that the low fill rate is having an impact at departmental level – shown by increasing consultant workloads and gaps in rotas which put yet more pressure on an already over-stretched anaesthesia workforce.<sup>27</sup> In those areas where fill rates are low year-on-year, there are fewer doctors completing the anaesthesia training programme than are required to meet local demands for anaesthesia consultants.

**The College recommends that there should be an increase in core anaesthesia and/or ACCS (Anaesthesia) and specialty numbers to meet demand. This is particularly pertinent in those areas of the UK where there is a pattern of under-recruitment.**

## Regional engagement

While historically some regions have experienced poor fill rates, over the years this has become more widespread, suggesting a national workforce-shortage issue in anaesthesia. During 2017, following discussions with HEE, the College coordinated a series of stakeholder events in regions where recruitment has been behind the national average.

Regional workforce stakeholder events were held in the East Midlands, Yorkshire and Humber, and the North East, and were used to discuss recruitment issues, to share perspectives, and to develop local action plans and workable solutions to improve the current situation. Local issues such as rota gaps, attrition, vacancies and staff shortages were all explored. Also, generic recommendations were made, such as the hosting and promoting of careers fairs, the improvement of the advertising and the attractiveness of the specialty at local level, and support of the existing workforce, and these were all deemed practical courses of action. The College will continue to provide assistance where appropriate.

## Retirement projections and required CCT output

The required output of CCTs will depend on a number of factors, including the existing manpower gap, growth in demand, and retirement rates. In terms of retirement, the College has analysed retirement projections and required CCT output using Scottish modelling assumptions (retirement age 60 x 1.4, plus 1% annual growth),<sup>28</sup> which maps to a required CCT output. The 2015 RCoA Workforce Census confirms a baseline figure of around 6,000 consultants in England. Compound expansion across a 10-year period can be calculated for a range of rates of consultant expansion rates demonstrating dramatically different requirements.

	1%	2%	3%	4%	5%
Average number of <b>new</b> posts <i>per year</i> over a 10 year period	63	131	206	288	377

A 1% expansion would initially equate to an additional 60 posts per annum. However, the CfWI report suggests expansion is more likely to be nearer 5%. If we take a mid-point and assume a 3% ongoing compound consultant growth rate, we could assume around 206 posts per year. If we accept a retirement

projection of 211 per annum for the period 2023–27, this would require a baseline CCT output of 417. Moving to the higher retirement figure of around 260 per year for the period from 2028 onward this would equate to a baseline CCT output requirement of 497 per annum.<sup>29</sup>

It should be noted that these calculations are of the need for English consultant posts only. However, these figures greatly exceed our current CCT output, and support the case that an increase in CCT output is required in order to meet future demand.

**The projected shortage of new consultants needs urgent review in order to avert an impending workforce crisis, and supports the College's recommendation for an increase in the supply of posts in both core anaesthesia and/or ACCS (Anaesthesia) and specialty training.**

## SAS doctors

SAS doctors continue to make a significant contribution to the anaesthesia workforce (22% of headcount)<sup>30</sup> in terms of numbers and clinical-service delivery. With increasing anaesthetist-in-training gaps in on-call rotas, it is even more vital to recruit and retain a motivated workforce in the SAS grade.

A survey of SAS anaesthetists was undertaken in 2016.<sup>31</sup> 634 responses were received from the 2,047 SAS anaesthetists identified in the 2015 College Workforce Census, which represents a 32% response rate. The survey indicated that 55% were from non-EU countries and 14% from the EU. 31% were UK graduates, a similar proportion to the previous College SAS Survey in 2009. An encouraging 47% of SAS doctors in anaesthesia chose the grade for better work-life balance, with 29% also citing the importance of location for family reasons.

The age profile of SAS doctors is very similar to that of the consultant workforce, with 39% of respondents having been in the grade for 10 years or more. It is important that new anaesthetists come into the grade to replace future losses due to retirement.

The vast majority of SAS doctors plan to stay in UK practice, although 14% were not sure and 5% said they were not planning to stay. For some, this was a planned, finite period of work in the UK to gain specific experience. We recognise that the survey was undertaken during the period of difficulty with the negotiation of the 2016 Junior Doctor contract, and that it also followed the UK referendum vote to leave the European Union. It is not clear what the implications of these events will be for the SAS workforce.

There is a substantial appetite for career progression within the SAS grade. Closure of the Associate Specialist grade was seen as a cap on career aspiration. The new Specialty Doctor grade and job title does not allow for immediate distinction between senior, experienced clinicians and those new to the grade who may have quite limited experience or capabilities. Individuals still on the national Associate Specialist contract are effectively prevented from changing jobs because they will be appointed to a new post on a Specialty Doctor contract. There has been some precedent for individual foundation trusts to offer a Trust Associate Specialist post. This offers recognition but without the protection of nationally negotiated terms and conditions.

In summary, the SAS grade is crucial for service delivery, but there are uncertainties about losses as a result of wider political events and immigration constraints. Many choose the grade to achieve a good work-life balance, but there is some frustration over how to progress their careers. This will be an important



consideration for retention in the grade to secure service delivery. SAS doctors are in demand, and could in theory move to a job that provides better development opportunities. In practice, many remain in a particular location for family reasons, and may not have a practical alternative hospital to work at. There is currently no systematic work on analysing or providing a replacement program through training to sustain this key section of the workforce.

The *SAS Anaesthetists: Securing our Workforce* report proposed 'Next Steps' for the College, and these also align with the College's five-year Strategic Plan for 2016–2021.<sup>32</sup> The first three of the strategic aims are directly relevant to SAS anaesthetists:

- supporting anaesthetists throughout their career
- setting and maintaining the highest standards for anaesthesia, and delivering healthcare improvements to secure the best outcomes for patients
- promoting anaesthesia by engaging members and informing the public.

**The RCoA recommends that sustaining the SAS section of the workforce be factored into national and regional workforce planning.**

## Physicians' Assistants (Anaesthesia) and Advanced Critical Care Practitioners

The changing demographics of the UK indicate a need for a 25–40% expansion in the anaesthesia workforce by 2035.<sup>33</sup> The RCoA believes that non-medically-qualified staff can make a valuable contribution towards a sustainable anaesthesia workforce, but only if these roles are properly regulated. Therefore, the RCoA strongly supports the introduction of statutory regulation of Physicians' Assistants (Anaesthesia) (PA(A)s) and Advanced Critical Care Practitioners (ACCPs). Such regulation will facilitate augmentation of the anaesthesia and critical care workforces respectively.

The RCoA currently administers a voluntary register for PA(A)s, and only recognises those who have qualified by completing the approved UK training programme, and who have subsequently been entered on the voluntary register. We would not support any advancement of the role without statutory regulation being in place.<sup>34</sup> There are currently 179 qualified PA(A)s in the UK.<sup>35</sup> These numbers are small and pending statutory regulation the numbers are unlikely to grow substantially.

While there is no voluntary register for ACCPs, the FICM provides an 'Associate' membership for this group, and believes that around 80% of practising ACCPs are members of the Faculty.<sup>36</sup> The further development and expansion of the role of both PA(A)s and ACCPs is restricted by the absence of statutory regulation.

Hospitals considering the introduction of PA(A)s are encouraged to review RCoA reports on how to plan for this.<sup>37</sup>

# Perioperative medicine

The RCoA introduced its Perioperative Medicine Programme at the beginning of 2015. A document entitled *Perioperative Medicine: The Pathway to Better Surgical Care*,<sup>38</sup> describes the vision for this emerging multidisciplinary approach, and outlines the improvements to patient outcomes that could be achieved by developments in perioperative medicine, as well as setting out how the anaesthesia profession could achieve these goals.

There are a multitude of drivers behind this work, including:

- a growing elderly population undergoing more and more complex surgical procedures
- increasingly complex medical co-morbidity at the time of surgery
- strong evidence that preoperative and postoperative interventions can improve outcomes, reduce complications and decrease length of stay
- an underlying requirement to use resources such as high-dependency and critical care facilities as efficiently as possible
- a loss of considerable numbers of junior surgical training posts to support the 'Broadening the foundation programme' initiative, and increased recruitment into primary care necessitating changes in the way that perioperative care is provided.

There are approximately 250,000 patients undergoing surgical treatment each year who are identified as being at high risk of complications, and this number is set to increase in the future. Anaesthetists have always possessed many of the professional skills and qualities required to contribute to perioperative care, with more and more anaesthesia skills and capabilities being used in an 'out-of-theatre' environment. This is a trend that is increasing across the UK, and it will continue to do so over the coming decades in order to meet the demands of patients presenting for surgery with increasingly complex co-existing medical conditions.

Developing perioperative services can also make a considerable contribution to the efficiency of NHS care by reducing complications and lengths of stay in hospital. There are already units that are able to show cost savings as a result of careful patient selection, preoperative optimisation, and the appropriate use of hospital facilities. The knowledge and skills required to undertake perioperative roles are considerable, and this work represents a natural extension to the role that consultant anaesthetists play in the care of patients. However, there are significant workforce requirements associated with this expanding area of work and, given the complexity of this care, much of it will need to be delivered by consultants.

There have been considerable developments in the provision of perioperative medicine services over the last two years. A network of perioperative leads has been established, and is led by two College-sponsored national perioperative medicine leads, Dr Mike Swart and Dr Chris Snowden. This group is driving developments in services throughout the UK. There is also an active perioperative medicine leadership group within the College, tasked with strategic planning for clinical and academic developments in perioperative medicine.

Changes to the training programme have been established, with new units of training introduced into the CCT curriculum in 2016, led by local training leads. These changes will support the development of the future consultant anaesthesia workforce in perioperative medicine and provide a baseline for consultant expertise, with the advanced unit-of-training enabling some to become service leaders and developers in this field.

The way in which future services will run, and the impact of perioperative medicine on the requirements for the anaesthesia workforce, will require careful consideration. It is essential that perioperative medicine services are included in regional sustainability and transformation plans for surgical services to ensure that patients are able to receive effective perioperative care.

## Gender and less-than-full-time working

The 2015 RCoA Workforce Census<sup>39</sup> showed that 8.4% of consultants were working less-than-full-time (LTFT), with a preponderance of females (5.4% vs 3.1%). The figures suggested that approximately 17% of female consultants were working LTFT compared to 4.6% of males. There was an increase in the proportion of female consultants between 2007 and 2015, and this looks set to continue. If the proportion of male and female consultants working LTFT remains the same then it can be estimated that, as gender demographics change, there could be an increase in the number of LTFT consultants of 25–30%. The consequent reduction in clinical activity would require additional workforce numbers to maintain services.

## Morale, welfare and fatigue

Between December 2016 and January 2017, the RCoA conducted a survey of anaesthetists in training on the issues of morale and welfare, and this received more than 2,300 responses. The report of the findings was published in December 2017.<sup>40</sup> The survey revealed that 85% of anaesthetists in training are at risk of becoming burnt out (as measured on the Oldenburg Burnout Inventory). Long hours, concerns over patient safety, the disruption caused by working night shifts, and long commutes were identified as major reasons for growing fatigue and disillusionment.

The survey also highlighted the findings that:

- 61% of respondents felt that their job detrimentally affected their mental health
- 64% felt that their job had detrimentally affected their physical health
- 75% of respondents reported working a shift without adequate hydration
- 95% of respondents had stayed on after their shift

In June 2017, the results of a separate survey concerning the impact of fatigue among anaesthetists in training were published in the journal *Anaesthesia*.<sup>41</sup> The survey, which was led by members of the RCoA Council and the Association of Anaesthetists of Great Britain and Ireland (AAGBI), revealed the following key findings from the 2,170 respondents:

- 75% of anaesthetists in training drive to work, and 60% have a commute of 30 minutes or more each way
- more than half of respondents (57%) have had an accident or a near-miss
- 84% of respondents have felt too tired to drive home after a night shift
- less than two-thirds of respondents (64%) have access to rest facilities in the hospital where they work

We believe that there is an urgent need to respond to the issues raised by anaesthetists in training in the recent College surveys, and to address the reasons why these doctors are at a higher risk of burnout, why they are feeling undervalued, and why they feel that their job is negatively impacting on their physical and mental health.<sup>42</sup>

Being acutely aware of the issues affecting anaesthetists in training and fully committed to addressing them at the highest level, during 2017 the College launched a series of Listening Events to further understand the needs and pressures, and to discuss and share potential solutions. Designed specifically for anaesthetists in training, these Listening Events provided the opportunity for anaesthetists in training to talk freely and directly to the RCoA President and senior College Council members about issues that affect them, and to offer suggestions as to what the College and others might do to improve their working lives.

A number of recurring themes were reported during open and candid discussions at the Listening Events, which all culminated in the development of a report with recommendations for organisations, government and the College. The events also highlighted the significant tensions that exist between Junior Doctors, the government and hospital management.

Overworked doctors, demoralised staff and under-resourced hospitals have been cited as issues in the Francis Report that followed the Mid Staffordshire NHS Foundation Trust Public Inquiry in 2013.<sup>43</sup> It is worrying that these themes are still apparent in our surveys and Listening Events nearly five years later.

The Morale and Welfare survey and Fatigue survey of anaesthetists in training, coupled with the Listening Events, inform a number of recommendations for a range of stakeholders and decision-makers.<sup>44</sup> It was noted that one recommendation in particular is overarching and should be heeded by all – ‘Listen!’. Policy makers and senior NHS leaders need to listen to staff and engage with clinicians in order to work with them to manage the current service pressures and the financial realities of today’s NHS.

Other recommendations in the report include the following:

- work schedules and rotas need to allow anaesthetists in training to develop personally and professionally
- all employers should provide adequate rest and catering facilities for all clinicians working during and after on-call periods
- the RCoA should undertake regular monitoring of workforce welfare and morale
- the RCoA must consider welfare and morale while rewriting the anaesthesia CCT curriculum and assessment guidance
- there should be an increase in Core Training posts to increase the numbers eligible for appointment at Specialty Training.

## Survey of core trainees' choices

In July 2017, the College conducted a survey of core trainees across the UK to find out more about their career intentions once they finish core training. The survey, which received an overall 45% response rate, reported that only 40% intend to apply for specialty training, with 21% intending to take a break and 11% intending to go abroad. However only 4% intended to change specialty or pursue a different career. Of those who indicated that they intend to take a break, plans included applying for an additional year of core training or a fellow job in anaesthesia or in a related area such as simulation/research/teaching/academia.

Core trainees were also asked, were they planning to come back to anaesthesia training in the UK if they were planning to go abroad or take a break after completion of core training. Of the 181 Core trainees who responded and the question applied to, 56% planned to return, 35% were unsure and 8% did not plan to return.

It is encouraging from these results that many intend to return to specialty training after taking a break. However, of those who do leave, it is very difficult to ascertain whether they do actually return.<sup>45</sup>

## The European Economic Area workforce in the UK labour market

The NHS relies heavily on doctors trained outside the UK, and, as the largest single hospital specialty, anaesthesia is a service delivered by a diverse and international workforce.

Around 12% of all NHS staff working in England are citizens of a country other than the UK, and almost 10% of doctors working in the NHS in England have an EU nationality other than UK. In addition, 6.8% of NHS staff working in England are citizens of a non-EU country.<sup>46</sup>

Following the introduction of English language requirements in June 2014, the number of new doctors who graduated in the European Economic Area (EEA) joining the profession in the UK nearly halved from 3,387 to 1,777 (a 48% decrease) between 2014 and 2015.<sup>47</sup>

A previous tightening of immigration rules for non-EU citizens brought in by the government between 2008 and 2010 has been shown to be the most significant factor in the reduction of healthcare workers from non-EU countries. However, during that period, workforce shortages in the NHS were mitigated by an influx of EEA staff that had the right of free movement throughout the EU.<sup>48</sup>

There are indications that the uncertainty created by Brexit is undermining the position of health and social care staff. Surveys conducted by the GMC and the British Medical Association (both in 2017) reported that more than 40% of surveyed doctors from the EEA are considering leaving the UK in the near future.<sup>49, 50, 51</sup>

While we acknowledge the restrictions on the limited evidence available at this stage, it is our view that **limitations to the freedom of movement between the UK and the EU will limit the ability of the NHS to solve workforce shortages in the future.**

## RCoA key recommendations

The evidence presented in this document supports the following key recommendations of the College.

- Core anaesthesia and/or ACCS (Anaesthesia) training posts must be increased to ensure sufficient supply to fill specialty training programmes. The total number of core anaesthesia training posts should equal the number of specialty anaesthesia training posts plus a minimum of 25% to take account of natural attrition from the training programme.
- Specialty anaesthesia training numbers must be increased in the light of future demand projections, most notably from Health Education England's work conducted by the CfWI. As a minimum, the number of specialty anaesthesia training posts must be maintained at current levels across the UK.
- SAS and trust-grade doctors make up 22% of the trained anaesthesia workforce,<sup>52</sup> with the largest cohort aged between 40 and 54 years. While retirement plans will vary, as is the case with consultants, this must be taken into account when conducting national and regional workforce planning.
- The College supports an increase in the intensive care medicine workforce. However, any expansion must not occur at the expense of anaesthesia training numbers. This is a joint RCoA and FICM position.
- There is a need for improved flexibility across postgraduate training including the reintroduction of Locum Appointment of Training (LAT) posts and the reintroduction of additional National Training Numbers to compensate for trainees undertaking Out-of-Program Experience and for those training on a less-than-full-time basis.

## References

1. National Audit Report: Managing the supply of NHS clinical staff in England. *National Audit Office*, London, February 2016 (<http://bit.ly/2l8vrn2>).
2. In-depth review of the anaesthetics and intensive care medicine workforce. *Centre for Workforce Intelligence*, London, February 2015 (<http://bit.ly/2HdkP58>).
3. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
4. Rotamap (<http://rotamap.net/>).
5. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
6. In-depth review of the anaesthetics and intensive care medicine workforce. *Centre for Workforce Intelligence*, London, 2015 (<http://bit.ly/2HdkP58>).
7. Recruitment Survey to Clinical Directors, data provided by Dr Hamish McLure, England Representative, RCoA Workforce Advisory Group. December 2017.
8. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
9. Unpublished data from Health Education England provided by the Anaesthetics National Recruitment Office, July 2017.
10. Workforce Data Pack 2016. RCoA, 2016 (<http://bit.ly/RCoA-WDP2016>).
11. A Report on the Welfare, Morale and experiences of anaesthesia in training: the need to listen. RCoA, December 2017 (<http://bit.ly/RCoAWelfare>).
12. Critical Futures: A Report on the First Wave Surveys. *The Faculty of Intensive Care Medicine*. October 2017 (<http://bit.ly/2FqLniR>).
13. Medical places to increase next year. *BBC Health*, August 2017 ([www.bbc.co.uk/news/health-40863448](http://www.bbc.co.uk/news/health-40863448)).
14. Training Pathways: analysis of the transition from the foundation programme to the next stage of training. GMC, November 2017 (<http://bit.ly/2oUViWE>).
15. Training Pathways: analysis of the transition from the foundation programme to the next stage of training. GMC, November 2017 (<http://bit.ly/2oUViWE>).
16. Moberly T. Specialty training vacancies increase by 30% in a year. *BMJ Careers*, 19 July 2017.
17. Unpublished data from Health Education England, provided by the Anaesthetics National Recruitment office, 2013–2017.
18. Unpublished data from Health Education England provided by the Anaesthetics National Recruitment Office, July 2017.
19. Briefing paper – based on an analysis of NHS Education Scotland data by the Royal College of Anaesthetists' Scottish Board 2017.
20. In-depth review of the anaesthetics and intensive care medicine workforce. *Centre for Workforce Intelligence*, London, 2015 (<http://bit.ly/2HdkP58>).
21. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
22. A Report on the Welfare, Morale and experiences of anaesthesia in training: the need to listen. RCoA, December 2017 (<http://bit.ly/RCoAWelfare>).
23. Recruitment Survey to Clinical Directors, data provided by Dr Hamish McLure, England Representative, RCoA Workforce Advisory Group. December 2017.
24. Rotamap (<http://rotamap.net/>).
25. Re-employing staff who receive an NHS pension. *Department of Health*, August 2017.
26. Unpublished data from Health Education England provided by the Anaesthetics National Recruitment Office, July 2017.
27. A Report on the Welfare, Morale and experiences of anaesthesia in training: the need to listen. RCoA, December 2017.
28. RCoA Scottish Board Workforce Planning, data provided by Dr Eddie Wilson, Former Scottish Representative RCoA Workforce Advisory Group. August 2014.
29. Data provided by Dr Hamish McLure, England Representative, RCoA Workforce Advisory Group. February 2018.
30. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
31. SAS Anaesthetists – Securing our Workforce. RCoA, June 2017 (<http://bit.ly/2Ah3ghm>).
32. Our Strategic Plan 2016–2021. RCoA, 2016 (<http://bit.ly/RCoAStrategic>).
33. Joint statement from the RCoA and the AAGBI on the Scope of Practice of Physicians' Assistants (Anaesthesia). RCoA & AAGBI, 2016 (<http://bit.ly/2oPqFCL>).
34. Joint statement from the RCoA and the AAGBI on the Scope of Practice of Physicians' Assistants (Anaesthesia). RCoA & AAGBI, 2016 (<http://bit.ly/2oPqFCL>).

35. Data provided by the University of Birmingham, Education Services and Support December 2017.
36. Important Information concerning ACCP Associate Membership. Faculty of Intensive Care Medicine, May 2017 (<http://bit.ly/2oUWnOc>).
37. Planning the Introduction and Training of Physicians Assistants (Anaesthesia), Considerations for your Anaesthetic Department. RCoA *et al*, 2016 (<http://bit.ly/2laAMKL>).
38. Perioperative Medicine: The Pathway to Better Surgical Care. RCoA, 2015 (<http://bit.ly/RCoA-POM>).
39. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).
40. A Report on the Welfare, Morale and experiences of anaesthesia in training: the need to listen. RCoA, December 2017 (<http://bit.ly/RCoAWelfare>).
41. McClelland L *et al*. A national survey of the effects of fatigue on trainees in anaesthesia in the UK. *Anaesthesia* 2016; **72**(9):1069–1077 (<http://onlinelibrary.wiley.com/doi/10.1111/anae.13965/full>).
42. Two-thirds of young hospital doctors under serious stress, survey reveals. *The Observer*, 11 February 2017 (<http://bit.ly/2zsEKxB>).
43. Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, 6 February 2013; UK Government Web Archive ([www.midstaffspublicinquiry.com/report](http://www.midstaffspublicinquiry.com/report)).
44. A Report on the Welfare, Morale and experiences of anaesthesia in training: the need to listen. RCoA, December 2017 (<http://bit.ly/RCoAWelfare>).
45. Survey of core trainees' choices, data provided by Dr Helen Gordon, RCoA Trainee Committee Representative and Ms Afsana Choudhury RCoA Workforce Planning & Recruitment Coordinator. November 2017.
46. NHS staff from overseas – statistics. Commons Library Briefing, *House of Commons Library*, February 2018.
47. Evidence from NHS Improvement on clinical staff shortages – a workforce analysis. *Monitor* (now NHS Improvement). 2016 (<http://bit.ly/2F1IEtO>).
48. Evidence from NHS Improvement on clinical staff shortages – a workforce analysis. *Monitor* (now NHS Improvement). 2016 (<http://bit.ly/2F1IEtO>).
49. GMC Survey of EEA doctors. GMC, February 2017 (<http://bit.ly/2lcblmw>).
50. An exit from Brexit, BMA, February 2017 ([www.bma.org.uk/news/2017/february/an-exit-from-brexit](http://www.bma.org.uk/news/2017/february/an-exit-from-brexit)).
51. BMA Survey of EU doctors working in the UK. BMA, September 2017 (<http://bit.ly/2FpNDGW>).
52. Medical Workforce Census Report 2015. RCoA, 2015 (<http://bit.ly/2Ffq72M>).









**Royal College of Anaesthetists**

Churchill House, 35 Red Lion Square, London WC1R 4SG

020 7092 1500 | [workforce@rcoa.ac.uk](mailto:workforce@rcoa.ac.uk) | [www.rcoa.ac.uk/workforce](http://www.rcoa.ac.uk/workforce)

 @RCoANews

 RoyalCollegeofAnaesthetists

**Information correct as at March 2018**