RCOA
Royal College of Anaesthetists

Workforce Data Pack 2016

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Introduction

This document provides anaesthetic workforce data which has been collated from sources including the College Census 2015, the Centre for Workforce Intelligence's in-depth review of anaesthetics and intensive care medicine, the National Recruitment Office, Rotamap and various other sources.

Health Education England (HEE) have changed their workforce planning process in order to develop a more robust evidence base for medical education commissioning decisions. This includes a new approach to medical planning for selected large and small specialties. There will no longer be an annual Call for Evidence (CfE) from HEE to which the College has responded in the previous two years.

This document is similar to the CfE document in outlining the issues and pressures in anaesthesia which impact on the workforce. It will be used to feed into the HEE review process. Devolved Nations' Advisory Boards may use it as overall context.

This document informs you of the current anaesthetic workforce data in the UK and it is also a supporting resource to help you. You can use the information locally in your regional meetings and can share this information with your school and local workforce planners. You may also have local pressures which strengthen your case. We encourage you to add your local perspective and to inform your local workforce planners of any problems. We have included text boxes so that you can include your own workforce content. You can also inform the College if you are having local workforce problems. The College can meet with you to discuss how we can support and provide central influence.

The information in this document is accessible, open, and transparent and we encourage you to use it as a tool with which to engage in the workforce planning process as much as you can.

In essence the information is a summary of evidence which supports the College case to HEE for the need to increase the anaesthetic core supply. It is the most current evidence showing the state of the anaesthesia workforce UK-wide.

Headline points

- The Centre for Workforce Intelligence (CfWI) in-depth review of anaesthesia and ICM, published in 2015, reported that the demand for anaesthesia and ICM services could outstrip supply over the next 20 years. The report also identified an unmet need of 15% in anaesthetics and 25% in ICM (http://bit.ly/2eVkTZh).
- The RCoA Census 2015 report (www.rcoa.ac.uk/census2015), which received a 100% response rate from across the UK, corroborates these findings of a need for growth in consultant and SAS doctor supply, both to meet current service requirements and to accommodate predictable projected growth.
- Rotamap data (previously known as CLW e-rota) reveal a significant increment of extra work being carried out beyond full time contracts. This non- contracted work is a strong measure of unmet need.
- The Census and Rotamap data reveal significant gaps in rotas and cover arrangements – further evidence of non-contracted service requirement and unmet actual need now. This generates significant locum and other expensive short term costs. Money might be better spent on permanent staff who will be there to respond to ever-increasing demand.
- The number of unfilled ST3 posts over the last four years continues to be strong evidence of the need to increase supply of core training posts. We also strongly recommend that ST3 numbers are maintained at least at the current level.
- We agree with the Faculty of Intensive Care Medicine (FICM) that there is strength of evidence to support a further increase in the ICM workforce. However, any funding for ICM should not be taken from anaesthetics budgets without a joint review and an agreement by relevant parties.

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All data sources, including the RCoA's comprehensive Census and the Department of Health/Health Education England's own CfWI in-depth review, recognise significant need for growth in consultant establishment for anaesthesia and Intensive Care Medicine (ICM), if we are to have any chance of meeting the public's expectations of care for a growing and ageing population. This requires ST numbers to be maintained, with an increase in CT numbers to improve filling ST3 posts.

Based on the above headlines we would expect that any changes to anaesthesia numbers will be based on robust anaesthesia workforce planning data rather than extrinsic factors.

Census 2015

Consultants

- There are 7,422 consultants in England, Wales, Scotland and Northern Ireland (7,439 including those from Crown dependencies such the Isle of Man and the Channel Isles).
- There was an 8.4% increase in consultant numbers between 2010 and 2015 (and a 10% increase between 2007 and 2010), which equates to an increase of around 2.3% per year between 2007 and 2015.
- 68% of the anaesthetic consultant workforce is male and 32% is female.
- The percentage of female consultants has risen in each of the devolved nations over the period 2007 to 2015.
- Nearly three-quarters (74%) of consultants currently work more than ten 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% versus 3.1%).
- There has been a 28% increase between 2010 and 2015 in the number of consultants aged between 50 and 59 years, indicating an ageing consultant population.
- This growth has in some areas outstripped a supply which was modelled on lower growth rates, due to HEE and Local Education Training Board (LETB) workforce planning constraints on trainee numbers, this is despite consistent RCoA advice that a larger workforce is required.

Staff and Associate Specialist (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 21.6% of the trained anaesthetic workforce (2,047 SAS doctors versus 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 ten PAs. 10% of SAS doctors work nine or fewer PAs, and there are more female SAS doctors than male in this group (7% versus 3.1%). Just over a quarter (27%) are aged between 50 and 59 years.

Consultant and SAS posts needed in the next two years

- Over 50% of the 217 responding departments expected to require 0–5 posts and over 30% expected to require 5–10 posts in the next two years.
- A further 10% suggested they would require 10–20 posts.

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Training Grades

- There were 424 empty LETB/deanery-funded training posts throughout the UK in 2014-2015.
- An additional 248 trainees were absent because of maternity, paternity or long-term sick leave, or because of Out-of-Programme Experience.
- Taken together, 15% of all LETB/deanery-funded training posts were unfilled at the time of the Census.

Gaps in the trainee/SAS rotas

- Overall, nearly 70% of departments have to cover gaps in trainee/SAS rotas more frequently than once a week, with 19% needing to do so every day.
- When this is broken down by UK nation, 35% of departments in Scotland have to cover gaps in the trainee or SAS rotas once a week or more. The figures for England, Wales and Northern Ireland are 74%, 92% and 100% respectively.
- Just over half (55%) of respondents stated that the number of trainee/SAS rota gaps has increased over the last 12 months, although 30% stated that they had remained the same.
- 98% of respondents said they use internal locums, almost three-quarters (74%) use external locums and nearly half (48%) use consultants 'acting down'.

Gaps in these rotas cause risk to patient safety, service sustainability, trainee health and wellbeing, quality of training and recruitment.

Vacancies

- In the UK, 4.4% of consultant posts and 11% of SAS and trust-grade doctor posts are empty.
- A majority of respondents use internal locums – that is, they cover vacancies from the existing complement of staff. Only a relatively small proportion use external locums to provide such cover.

The Census findings provide strong evidence towards the continued need for growth and confirm a level of unmet need which was previously identified in the CfWI in-depth review of anaesthesia and ICM.

The College strongly recommends that ST3 numbers are at least maintained at the current level, if not increased, and that there should be an increase in supply of core trainees.

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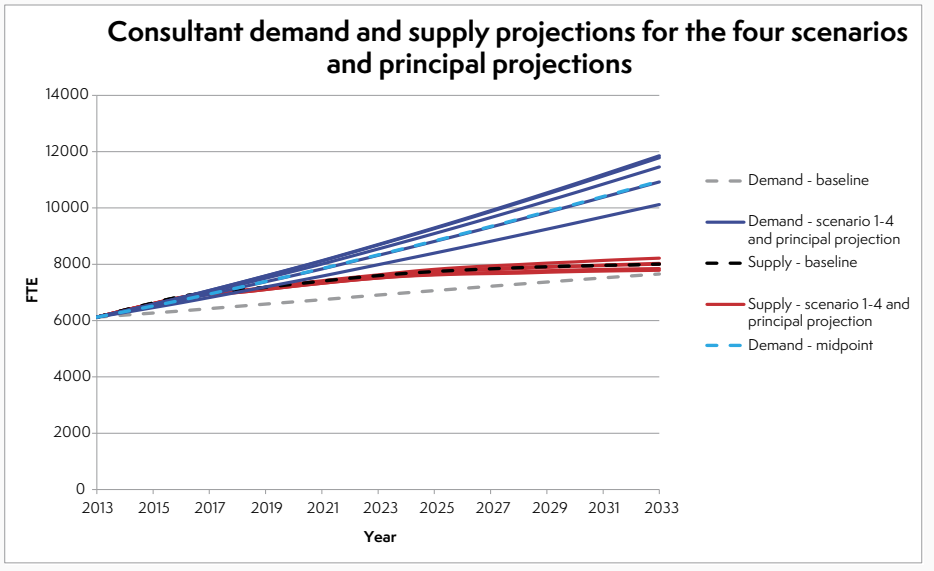
CfWI In-Depth Review of Anaesthetics and ICM

The CfWI in-depth review of anaesthetics and ICM highlights that by 2033 there will be a 25% increase in baseline demand, if we deliver only the services we provided in 2013, from approximately 6,100 to approximately 7,600 full time equivalents (FTE). However, the CfWI review also suggests that to meet 'expected' or 'most likely' future demand will need an increase in workforce of 4.7% annually. This would see the number of anaesthetist and intensivist CCT holders needed rising to 11,800 FTE in 2033. If we continue with current numbers of training places, 'supply' is projected to increase by 31%, from approximately 6,100 to approximately 8,000 FTE in Anaesthesia and ICM from 2013 to 2033. This would leave the NHS short of approximately 3,800 anaesthetist and intensivist CCT holders by 2033 – in effect meaning that every NHS Trust would be short of between 10 and 20 consultants.

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 Delphi panel on the four scenarios that was presented to them. The future demand scenarios are higher than the supply line.

Demand scenarios outstrip supply scenarios for the combined A&ICM workforce.



Graph from CfWI In-Depth Review on Anaesthetics and ICM (http://bit.ly/2eVkTZh).

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Rotamap

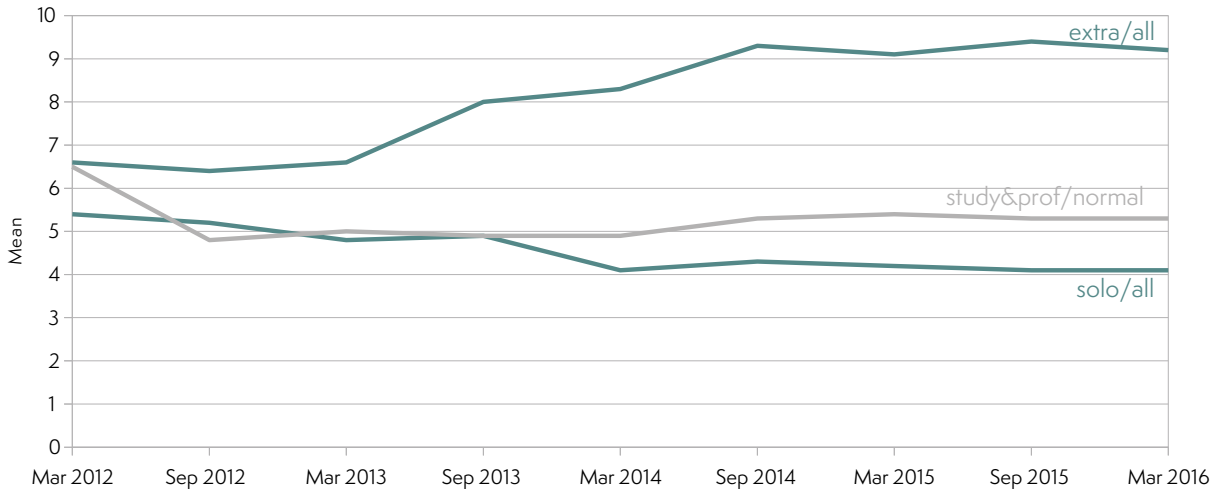
Rotamap is a web-based rota management system which helps NHS departments plan and report on anaesthetic activity. Rotamap manages just under 8,000 NHS anaesthetists (including trainees) around the UK, with 93 Trusts using the system.

The graph opposite is taken from Rotamap. It shows averages taken from cross-departmental benchmarks done at six monthly intervals. The three measures are: extra sessions as a percentage of total department activity, solo sessions as a percentage of total department activity and study & professional leave as a percentage of consultant activity. The data clearly shows that the dependence on extra sessions has been growing over the last three years, whereas the number of lists allocated to trainees working on their own has declined. After an initial decline in September 2012, study and professional leave rates are reasonably static.

It can be seen from the graph that, in order to cover list work, departments rely much more heavily now than they did three years ago on doctors doing additional sessions above and beyond their job plan, for which they are paid extra. Despite the fact that it is paid, such work nonetheless is done on a goodwill basis; the more people feel burnt out, pressurised and undervalued, the less effective this becomes as a way of meeting patient need. There has been an increase in demand for three session days and weekend work, much of which is being done as extra sessions, or by consultants who have retired and returned to work. Therefore, the rise in activity from three session days and in extra paid list work is being achieved without significant increase in the number of anaesthetists.

Rotamap supports management of rotas in more than a third of UK anaesthesia departments. The key point about the Rotamap data is that it reveals a significant increase in extra work beyond full time contract. This is a strong consolidated measure of unmet need.

It must be noted that this is indicative information; however, what the data tells us is still very powerful.



Taken from Rotamap (www.rotamap.net).

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National Recruitment Data

	ST3 2013			ST3 2014			ST3 2015			ST3 2016		
UoA	Posts	Accepted	Fill Rate	Posts	Accepted	Fill Rate	Posts	Accepted	Fill Rate	Posts	Accepted	Fill rate
HE East Midlands	9	9	**100%**	18	13	**72.2%**	25	25	**100%**	32	20	**62.50%**
East Midlands South	12	12	**100%**				*Included in East Midlands*			*Included in East Midlands*		
East of England	11	11	**100%**	9	9	**100%**	8	8	**100%**	12	12	**100%**
Kent, Surrey & Sussex	21	21	**100%**	23	23	**100%**	24	24	**100%**	26	26	**100%**
London	103	103	**100%**	102	78	**77.5%**	85	85	**100%**	83	83	**100%**
Mersey	12	12	**100%**	14	14	**100%**	20	20	**100%**	Included in North Western		
North Western	20	20	**100%**	24	24	**100%**	24	20	**83.33%**	40	40	**100%**
Northern	20	10	**50.00%**	15	10	**66.7%**	27	15	**55.56%**	25	17	**68%**
Oxford	12	12	**100%**	12	12	**100%**	12	12	**100%**	10	8	**80%**
Severn	11	11	**100%**	Included in South Western			Included in South Western			Included in South Western		
South West Peninsula	11	11	**100%**	26	26	**100%**	24	24	**100%**	20	20	**100%**
Wessex	10	10	**100%**	9	9	**100%**	11	11	**100%**	7	7	**100%**
West Midlands	30	30	**100%**	23	16	**69.6%**	27	27	**100%**	17	17	**100%**
Yorkshire and the Humbe	28	20	**71.43%**	30	27	**90.0%**	25	25	**100%**	24	17	**70.83%**
Scotland	50	30	**60.00%**	43	32	**74.4%**	43	36	**83.72%**	48	37	**77.08%**
Wales	20	19	**95.00%**	18	18	**100%**	18	18	**100%**	20	19	**95.00%**
Northern Ireland	10	9	**90.00%**	10	10	**100%**	15	14	**93.33%**	10	10	**100%**
Totals	390	350	89.51%	375	321	85.6%	385	332	93.81%	374	333	89.04%

Under Recruitment

There continues to be growing concern over the inconsistent ST3 fill rates, which have been highlighted to HEE by the College in previous years. Results received recently for the ST3 August intake 2016 show fill rates of 89.04%, with some areas suffering poor fill year on year. The College is increasingly aware that this is having an impact at departmental level, by increasing consultant workloads and gaps in rotas. In those areas where fill rates are low year on year, there are fewer trainees coming out of the training programme than are required to meet local demand for consultants. On top of this, jobs are less attractive as there is constant pressure to work beyond the contract in order to provide the level of service needed by the local community. This in turn can lead to burnout among staff and to less satisfactory training.

The College view is that, to correct the persistently recurring ST3 under–fill, we strongly recommend an increase in core supply to meet ST need. This is particularly urgent in those areas of the country where there is a pattern of under-recruitment.

SAS Doctors

SAS doctors are a significant part of the anaesthetic workforce. They make up 21.6% of the headcount but contribute a greater proportion of direct patient care. Most work without direct supervision and many are hugely experienced. They provide a vital contribution to the number of people making up on call rotas and may be clinical leads within a sub-specialty area. Others have less experience and have training and development requirements which need to be addressed, in order to help them progress and build up to more autonomous practice. It is vital that the needs of this group of doctors are addressed in the light of the RCoA Census 2015 data, which suggests that there are too few doctors in anaesthetic training to meet consultant needs in the future. SAS anaesthetists can become consultants through the CESR route, or may remain in SAS grades as safe, highly skilled anaesthetists.

The RCoA is currently undertaking a survey of SAS doctors to improve understanding of workforce issues within the grade. There is a significant demand for SAS anaesthetists and many unfilled posts. There has been increased recruitment from Europe in recent years and this may be impacted by the decision of the UK to leave the EU.

Please note the results of the SAS survey will be available in due course.

Dr Lucy Williams
Staff Associate Specialist and RCoA Council Member

Physicians' Assistants (Anaesthesia) (PA(A)s)

The RCoA has recently established a voluntary register of PA(A)s in order to establish their numbers, locations and clinical scope of practice. We believe that approximately 165 PA(A)s have qualified in the UK with the postgraduate diploma for physicians' assistants in anaesthesia. Currently 98 PA(A)s have registered with the RCoA, working in a total of 41 hospitals in the UK under the supervision of consultant anaesthetists.

We believe that in the future the non-medically qualified workforce of PA(A)s could usefully augment anaesthetic service delivery in the UK. Currently there are two significant impediments to further development of the PA(A) workforce:

1 lack of formal registration and regulation of the PA(A) title

2 lack of funding for the 27 month training period for the PA(A) diploma.

Dr George Collee
Consultant Anaesthetist and RCoA Council Member

Advanced Critical Care Practioner (ACCP)

The Advanced Critical Care Practitioner (ACCP) role exists in ICU as part of a workforce solution for ICM. ACCPs are trained following the Faculty of Intensive Care Medicine (FICM) ACCP (2015) curriculum for a postgraduate Diploma/ Masters level qualification in Advanced Critical Care Practice. Successful completion leads to FICM Associate Member status which defines a nationally recognised competency and skill set.

Trained ACCPs function at an advanced level of practice as part of the multidisciplinary team as determined by the competency framework work autonomously in recognised situations inclusive of independent non-medical prescribing. Their clinical practice is in place of medical trainees on the ICU rota. As such they increasingly are seen as part of a sustainable workforce solution for ICM as defined in the Guidelines for the Provision of Intensive Care Services (GPICS) (http://bit.ly/2fDljDV).

There is currently no specifically designated regulator for Advanced Practitioners. It is expected currently that ACCPs remain registered with their primary professional body, such as the Nursing and Midwifery Council (NMC) or the Health and Care Professions Council (HPC).

Mrs Carole Boulanger
FICM ACCP Advisory group; Co Chair

Perioperative Medicine

The Royal College of Anaesthetists introduced its Perioperative Medicine Programme at the beginning of 2015. A document was published describing the vision for this specialty and outlining the improvements to patient outcomes that could be achieved by developments in perioperative medicine, as well as setting out how the anaesthetic profession could achieve these goals. Since this time there have been considerable advances in perioperative services such as pre-operative assessment clinics. This is an area of considerable research interest and development.

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 pre and post-operative interventions can improve outcomes, reduce complications and decrease length of stay.

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- 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.

Anaesthetists have always possessed many of the professional skills and qualities required to contribute to perioperative care, although time spent in the 'out of theatre' environment has historically been very limited. This is starting to change and 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. 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.

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 identify cost savings as a result of careful patient selection, pre-operative 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. Given the complexity of this care, much of it will need to be consultant-delivered. **This will require additional numbers in the consultant workforce in all units to ensure that services are provided for the benefit of patients across the entire country.**

Changes to the training programme have been established, with new units of training introduced in 2016 to support the development of the anaesthetic workforce in perioperative medicine. Careful consideration will need to be paid to the way in which future services will run and the impact of perioperative medicine on the requirements for anaesthetic workforce. A significant increase in the consultant workforce is likely to be required to ensure that comprehensive perioperative services are available to all surgical patients.

Dr Chris Carey,
Consultant Anaesthetist and Associate Postgraduate Dean
www.rcoa.ac.uk/perioperativemedicine

Less Than Full Time (LTFT)

There are continuing concerns around variation in provision of flexible training. There is an inconsistent approach between LETBs, with little flexibility in many; some offer only 50% slot shares, others provide the RCoA's recommended minimum of 60% and others a fixed option of 70%. Best practice would be a range of options to suit training needs and personal circumstances. The lower the percentage offered, the longer the time to complete the training in anaesthetics; mastering new skills and techniques and consolidating this experience when only working 50% is challenging, may take longer and can affect confidence levels. There has to be recognition of the additional cost to supporting LTFT – some Deaneries/LETBs have a fund to 'top up' 50% to 60% in slot shares.

- Combining trainees into slot shares leaves an empty FT training placement which cannot be backfilled due to the rigidity around national training numbers (NTNs) and inability to appoint LATs.

  The College recommends that less than full time training is managed on a whole time equivalent basis rather than head count (NTNs).

- The GMC trainee survey 2015 showed demand for LTFT training in anaesthetics continuing at 12%, suggesting that the rise in uptake may be plateauing. On the other hand, the number of male trainees taking up LTFT training might increase. Current approximately 18% of anaesthetic LTFT trainees are male . We would then see an increase in LTFT trainees and a concomitant reduction in 'full time' trainees.
- A project, supported by the RCoA, reviewed outcome data from 1,200 anaesthetic trainees completing their training between 2009 and 2011. The College's trainee database provided accurate information on each individual's training programme and this was matched with data collected by the College from their representatives on Advisory Appointment Committees. This showed the average length of (full time) training to be longer than that predicted – eight years and five months to complete the GMC approved seven-year competency-based training programme. The figure for those who train LTFT in anaesthetics was relevant to workforce planning as it showed those who request LTFT-only train on a part-time basis for limited periods of time and not the totality of the training programme. The take up of part-time consultants' posts was small regardless of whether training had been FT or LTFT.

  Published data: 'Influence of less than full time or full time on totality of training and subsequent consultant appointment in anaesthesia' (Randive S et al. *Anaesth* 2015;**70(6)**:686–690 http://bit.ly/2eVm0Yz).
- Demand for part-time consultant working may increase in the future, influenced by factors including:
  - the expectation of having to work beyond 60 years of age
  - the impact of 2014 legislation on requesting flexible work.
  - the impact of cutting the lifetime allowance to £1million.
- The RCoA has led the way with active involvement in return to work initiatives, to help ensure that trainees returning from maternity leave, a career break or sick leave are more likely to make a successful and rapid return to training. The College in 2014 hosted the first Giving Anaesthetics Safely Again (GAS Again) simulation day and this educational day is now offered via the College in two other UK sites. Further courses run by schools of anaesthesia are also developing across the country and these are enabling more trainees to access good support prior to returning to anaesthesia. The Association of Anaesthetists of Great Britain and Ireland offers the opportunity to work with a mentor during this transition period. The delivery of a structured return to work at all levels has been led by patient safety demands but also ensures a seamless and supported return to the workplace for those in training.

Dr Susan Underwood
Bernard Johnson Advisor, LTFT

Workforce Productivity

There has been a huge drive over the last few years to have consultant cover for all activities, meaning that the number of solo lists done by trainees has reduced (see Rotamap graph page 5). This has increased the amount of consultant-delivered activity without actually increasing the overall output, i.e more work delivered by consultants.

In departments where numbers of trainee anaesthetists have been cut, consultants have taken on increased out of hours and overnight work. This continues to adversely affect the frequency of trainee/consultant interactions, in both service and training, as well as having significant cost implications for the Trust.

Seven Day Consultant Care

There is an expectation that the NHS will move to seven day working with Seven Day Consultant Present Care (http://bit.ly/2eVoINU). The quality of care delivered to patients admitted at weekends and on bank holidays needs to match that delivered during the week. **This will require an increase in the anaesthesia workforce.**

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Retirement

The cut in the lifetime allowance from £1.25 million to £1million has meant that more consultants reach this threshold in their mid to late 50s. Continuing to build one's pension is not then an incentive to continue working.

The new lifetime and annual allowance contribution limits may mean that NHS consultants adopt different strategies to work and financial planning. Two strategies, (termed 'Earn Fast, Drop Out' and 'Never Enter') involve a break in the relationship between working and saving for a pension. Consultants may elect to maximise their total income in their early years, doing less work in the NHS and more in alternative, higher paying (i.e private) sectors, and then retiring. A third strategy ('Go Slow, Stay Low') also involves less-than-full-time NHS work. The tax changes may lead to future senior consultants devoting proportionately much less of their time to NHS work than before and have important implications for NHS workforce planning.

Pandit JJ. Pensions, tax and the anaesthetist: significant implications for workforce planning. *Anaesth* 2016;**71(8)**:883–891 (http://bit.ly/2eVsyq7).

Locum Appointment for Training (LATs)

The College strongly recommends that the option to appoint LATs is re-introduced in England. Reinstatement of this option for trainees who return from abroad or who become eligible for ST3 between standard recruitment cycles, for example by passing examinations, to move to 'registrar' training will reduce the total time spent in training, improve CCT output and offer flexibility around the CT/ST interface. It would also help to fill the ability to appoint CT2 LATs increasing CT output, thus contributing to improved ST3 recruitment – especially important as inadequate CT supply continues to be a particular problem for anaesthesia in a number of regions across the UK.

Summary recommendations

- Grow or at least maintain Specialty Training numbers based on strong evidence of unmet need and future growth predictions.
- Grow numbers of core trainees to fix the recurrent Specialty Training supply problem.
- Separately model and provide for future ICM workforce, but not at the expense of anaesthesia.
- That the option to appoint LATs is re-introduced in England.

Local Workforce Pressures (please use this section should you wish to note any local workforce pressures and inform us of any local issues)

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