Improving the working environment for safe surgical care

A discussion paper from the Royal College of Surgeons of Edinburgh

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH

Contents

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Executive summary

In this discussion paper, the Royal College of Surgeons of Edinburgh (RCSEd) reports on what a cross-section of the UK surgical workforce believes is most needed to improve the delivery of safe surgical care within their working environment. The report uses these results, and other evidence from across the profession, to make a series of recommendations for such improvements.

Although a call from National Health Service (NHS) staff for more resources is not surprising, these results show what the common concerns are in relation to surgical care. In particular, it demonstrates that staff believe there is a link between broad deficiencies and inefficiencies on the frontline which impact the working environment and the delivery of a safe service.

Perhaps of most concern is that the results provide further confirmation that a lack of team structure is adversely affecting morale, communication, stress levels and training opportunities. It is also notable that staff, at times, feel diverted away from the patient-centred care they strive to deliver because of administrative and information technology (IT) issues, and believe that being more innovative and efficient with existing resources could make a positive difference.

The RCSEd advocates a combination of simple steps that would have a cumulative effect for the better. The recommendations include: re-establish the traditional team structure; reintroduce a communal area, such as the hospital mess; support the extended surgical team; maximise training during daylight hours; minimise use of shift systems; provide rotas 6–8 weeks in advance; provide recognition and job-planning for trainers; provide a better title for 'junior doctors'.

The report's authors appreciate the diverse geographical and sociodemographic settings in which surgical care is delivered across the UK, and that the array of issues covered in this report will not apply to all surgical departments. It is, however, hoped that most surgical departments will find at least some relevant suggestions for their particular setting.

The RCSEd looks forward to working with government and the profession to deliver a better environment in which the surgical workforce can provide a safe service and the excellent training that our trainees and patients expect.

Foreword

This discussion paper is published at a time of considerable debate about the NHS. In the last two years, we have witnessed unprecedented disquiet in relation to the dispute about the junior doctors' contract and, over the winter of 2016–17, there was intense media interest in pressures across the NHS and social care.

While these issues are broad and complex, we should not lose sight of the fact that strain within the system ultimately has an impact upon individual lives. As a College, we have been deeply saddened and concerned in recent years by the deaths of several doctors in training, in circumstances believed to be associated with work-based stress or tiredness.

This report is a snapshot of what a cross-section of the UK surgical workforce believes is lacking from their working environments. Requests for greater resources will come as no surprise in the current climate, but this particular discussion paper illustrates the common concerns and perceived relationship between the workforce, the working environment and the delivery of a safe service.

I am particularly encouraged that many of those who gave us their views suggested more innovative and efficient ways of working with existing resources. It is this College's responsibility to represent these views and offer potential solutions to the wider profession and to government.

It strikes me that many of the key elements of delivering a clinical service, which would have been taken for granted by previous generations of doctors, now appear to be missed by today's workforce. Lack of team structures, insufficient handovers, inadequate time for training and reduced support from senior colleagues individually are significant concerns, but the combined effect of these factors could compromise surgical safety.

As this discussion paper goes into circulation, I look forward to collaborating with all interested parties to create a working environment in which the surgical team can deliver the best possible service for patients, with world class training and education for the workforce. Throughout this discussion paper, we have included quotes from Fellows, Members and Affiliates who gave us additional comments as part of the survey. While it isn't possible to include all the comments we received, we have included a wide range, covering different topics, from individuals in different grades and settings.

I am extremely grateful to all those who took part in the survey and those who contributed to this discussion paper, particularly the members of the Short-life Working Group (SLWG; see Appendix 6). Finally, I would like to conclude on a personal note. I have commented previously that I do not believe the term 'junior doctor' reflects the seniority or responsibility of many in Foundation, Core and Specialty Registrar training grades. Accordingly, this discussion paper deliberately minimises use of this term, and I would encourage others to consider its suitability.

Professor Michael Lavelle-Jones
President, The Royal College of Surgeons of Edinburgh

Summary of key recommendations

RECOMMENDATION 1
Establish structured senior support
This can be done by re-establishing the team structure with consultants at the forefront of the delivery of care. Time should be made for safe handovers and structured ward rounds, utilising every opportunity to train. Finally, opportunities should be identified each day when Foundation Doctors and Core Trainees can contact seniors to discuss problems.

RECOMMENDATION 2
Reintroduce the hospital mess
It is important for doctors to have a protective environment in which they can unburden themselves and socialise with colleagues across the specialties.

A hospital mess reduces staff isolation and enhances a sense of community within the working environment.

RECOMMENDATION 3
Intelligent design of rotas
Continuity of patient care, safety and a symbiosis between service and training must be integral to rota design.

RECOMMENDATION 4
Streamline and reorganise the overall workload to prioritise core clinical duties and create an integrated multidisciplinary surgical team
Systems and staff (medical and non-medical) could be organised more efficiently to allow doctors to

dedicate the maximum amount of time to the clinical responsibilities most relevant to their grade. Where appropriate, consideration should be given to developing the extended surgical team to enhance the continuity and delivery of safe surgical care.

RECOMMENDATION 5
Recognise that better training delivers better care
Educational supervisors must be supported to deliver training through protected time in job plans. But training can also benefit from the merging of tiers within training and maximised training opportunities during the day. It is also important to use training to develop and invest in the multi-professional workforce.

RECOMMENDATION 6
Promote human factors training
The profession must embrace a safety-centred team approach from the early stages of medical training.

RECOMMENDATION 7
Support and Training the Trainers
Trainers should be supported to plan, manage and focus on training at a local level, while having the opportunity to develop their faculty through formal activities such as 'Training the Trainers' courses and informal activities such as developing enhanced mentorship programmes for trainees and consultants alike.

Current challenges

The delivery of safe surgical care within the United Kingdom is a complex and multi-faceted issue. To date there has been limited direct engagement with the stakeholders on the frontline of acute surgical services to ascertain what matters to them when considering how to improve patient safety in this challenging environment.

What we do know is that the health and well-being of the surgical team is traversing some of the most challenging times since the inception of the NHS. Even before the recent industrial dispute between junior doctors and the UK Government over the implementation of a new contract, the numbers applying for surgical training were declining[1]. In addition, the emerging theme over the past five years is that of a service under extraordinary pressure.

The King's Fund Quarterly Monitoring Report for November 2016 shines a spotlight on some of the strains the NHS is currently facing[2]. For example, the proportion of patients waiting more than four hours from arrival to discharge in Accident and Emergency (A&E) peaked at its highest level since 2003/2004. Compared with with the same quarter in 2015, A&E attendances were up 5%. This is the monthly equivalent of 77,530 more A&E attendances and 13,835 further admissions from A&E compared with the previous year. Perhaps equally worrying, the maximum 62-day wait for first treatment of all cancers has not been met for 2.5 years and the number of delayed transfers of care from hospitals reached the highest level ever recorded in England.

Performance figures for the devolved nations also indicate significant service pressures. In Scotland, while 92.6% of patients waited less than four hours in A&E in December 2016, in the quarter ending September 2016, 87.1% of patients urgently referred with a suspicion of cancer began treatment within 62 days (the lowest since

September 2014)[3]. Wales and Northern Ireland fare even worse, with 82.8% and 72% waiting less than 4 hours in A&E, respectively[4,5].

The arguments surrounding NHS funding are highly contentious, but it is an inescapable observation that NHS finances look bleak. The £2.45 billion overspend by NHS Providers in England in 2015/2016, alongside the forecast deficits for 2016/2017, suggest a 'perpetual winter'.

While increasing demand for the service alongside the scarcity of capital funding are inextricably linked, it is paramount for the College to continue to search for innovative ways to constantly improve the working environment for all our members and strive to enhance the delivery of safe surgical care. Many of the themes in this discussion paper are familiar to the RCSEd; we are proud of our involvement in the seminal Non-Technical Skills for Surgeons (NOTSS) programme, which aims to improve overall surgical performance and outcomes. In 2013, we launched the Faculty of Surgical Trainers (FST), which works for better recognition and support for those who provide training. One of the FST's main achievements was publication in 2014 of the first comprehensive standards for surgical training. More recently, the RCSEd launched the Faculty of Perioperative Care to support and promote members of the wider surgical team.

To continue to improve the working environment we need to address some uncomfortable questions that may or may not be linked to pressures on the service. For example, the General Medical Council (GMC) National Training Survey for 2014[6] highlighted surgery as having the lowest satisfaction scores of all medical specialties. Moreover, a recent study reported that "good working conditions" came top of the list of what UK doctors value in a post, much ahead of any financial rewards[7].

With this in mind, the RCSEd appointed a working group to identify the fundamental issues that would improve the working environment for all those involved in providing safe surgical care to our patients. From

> **❝ I want to be able to take annual leave and not be bullied by management to work to cover shifts ❞**

February to May 2016, the group conducted a UK-wide survey into the factors that those on the frontline thought crucial for the delivery of safe surgical care. This discussion paper and its recommendations are based on that survey, though it also cites key evidence from other sources wherever possible.

Good working conditions in this study referred to rotas, amount of on-call time, time off or staffing levels. Poor satisfaction among Foundation Doctors and Core Trainees may also be assessed indirectly by the fact that only 50.4% of Foundation Doctors progressed to specialty training posts in 2015[8].

In 2015, the GMC underscored their concern with the apparent rise in undermining and bullying within the medical workplace. They concluded that such behaviours may make doctors in training less likely to raise concerns about patient safety, or to seek help if faced with problems beyond their competence[9]. This conclusion was not only reinforced by the extensive evidence documented in the Francis Report[10], but is also supported by evidence within the scientific literature, which has shown that disruptive behaviours in hospital can be linked to 67% of adverse events, 71% of medical errors and 21% of deaths[11]. The effect of rudeness on cognitive performance is well known and does not just affect those on the 'receiving end', but also those witnessing such an event[12,13], which is of particular concern within the surgical arena[14]. To this end, in June 2017, RCSEd launched its Bullying and Undermining campaign to encourage healthcare professionals to speak out against undermining and bullying in the workforce.

While the health and well-being of the workforce underpins a small piece of the human factors 'jigsaw' which ties into patient safety, it is in turn intrinsically linked to team work and team performance. Moreover, there is a vast array of literature outwith healthcare, and increasingly within, which focuses upon the critical relationship between non-technical skills, team performance and improved clinical outcome[15].

A recent publication from the Royal College of Surgeons of England identified 26 recommendations for improving surgical training[16] and the Royal College of Physicians of London have also published a guidance document for NHS hospitals on valuing medical trainees and how they can support doctors in training[17].

Discussion of key recommendations

RECOMMENDATION 1
Establish structured senior support

This can be done by re-establishing the team structure with consultants at the forefront of the delivery of care. Time should be made for safe handovers and structured ward rounds, utilising every opportunity to train. Finally, opportunities should be identified each day when Foundation Doctors, Core Trainees and Specialty Registrars can contact seniors to discuss problems.

Over half of the consultants who took part in the RCSEd survey listed staff and non-staff resources as crucial factors to help them deliver safe surgical care. Continuity of team members and returning to a 'firm' structure was a popular answer among consultants. In the same survey, Foundation Doctors provided the highest number of responses out of all grades regarding the need for support (18%), which related mostly to requesting more input from their senior colleagues.

Support for trainees remains poor and there is a very strong perception that better supervision and support for Foundation Doctors and Specialty Registrars would improve patient safety. A perceived lack of senior support by Foundation Doctors was also reported during the pilot implementation of Professionalism Compliance Analysis Tool for Rotas (PCAT)[23] in Aberdeen Royal Infirmary (R Al Soufi, personal communication). Trainees felt that when their senior decision makers (consultants and Specialty Registrars) were in theatre, it was inappropriate to interrupt them unless there was an emergency. This perception made them feel unsupported when dealing with uncertainties on the ward, or when struggling to execute tasks from morning ward rounds. The feeling that there was a lack of timely access to

seniors was more prominent during the 'receiving week' because emergency theatre lists came under more pressure, and so did the receiving ward(s). Consultants, however, were under the impression that if their Foundation Doctors and Core Trainees required support they would have called them for help at any time.

Communication and a sense of belonging to 'the team' would alleviate such perception of lack of support. Consultants and Specialty Registrars might consider a mid-day catch-up with their Foundation Doctors and Core Trainees to provide advice and moral support. Phoning the Foundation/Core Doctor in-between cases could provide an alternative if seniors were unable to leave theatre to meet at midday.

Surgical ward rounds and handovers – if structured with well-documented decisions – could save time and reduce levels of anxiety for Foundation Doctors and Core Trainees. Checklists for ward rounds have been reported to improve the quality of ward rounds in several specialties, including surgery[24, 25].

RECOMMENDATION 2
Reintroduce the hospital mess

It is important for doctors to have a protective environment in which they can unburden and socialise with colleagues across the specialties. A hospital mess reduces staff isolation, particularly for Foundation Year and Core grades, and creates an empathetic working environment. The hospital mess also provides places for senior trainees on full-shift rotas to rest and, if necessary, sleep.

It is essential – yet sadly lacking in most UK hospitals – to have a place where staff can go during protected rest periods. Only rarely do some hospitals provide rest rooms for Registrars on night shift – something which can help improve subsequent decision-making.

It is not, however, surprising that a frequent suggestion in the survey from Registrars and Core Trainees relating to working conditions was improved facilities, such as a doctors' mess and catering.

Lack of a common area, such as a hospital mess, makes it more difficult for consultants and trainees to find space for 'catch-up' meetings, where advice and moral support can be provided.

It is an indictment of our NHS hospitals that facilities

> **❝ With better staffing we could reallocate tasks, reducing the hours spent on duties such as phlebotomy, cannulas and discharge letters ❞**

for those persons working on the frontline, especially out of hours, remain so poor. This study has shown that there remains inadequate access to hot food and appropriate facilities where staff can relax during their breaks (if they are fortunate enough to get them) without meeting patients or their relatives. Many would regard such facilities as a fundamental requirement. Those who do not work inside the profession would be surprised that these basic amenities do not exist.

RECOMMENDATION 3
Intelligent design of rotas

Continuity of patient care, safety, and a symbiosis between service and training must be at the forefront of rota design.

There is no 'one-size-fits-all' rota, and the context of each department and specialty will dictate the optimum formula. However, rotas that are designed with input from compassionate doctors in training produce more successful models. The PCAT[23] is currently being piloted in Scotland to assess rotas for their ability to provide a professional design in accordance with the GMC definition of Professionalism in Action[30] (see Appendix 4). In general, a full-shift rota pattern is more suitable for the Foundation and Core tier of doctors working on the 'old Senior House Officer rota' in surgical specialties with a high degree of intensity and significant out-of-hours workload. The high intensity of working hours will not allow for a safe 24-hour on-call model. In less intense services, an on-call rota might be sufficient provided the doctors are unlikely to be disturbed during their mandatory rest period (5 continuous hours between 22:00 and 07:00, receiving 8 hours of rest in total during their on-call period)[28].

For the senior trainees' rota (Specialty Registrar level), the vast majority of doctors interviewed in PCAT[23] felt that

an on-call pattern is more suitable for surgical training because it allows trainees to maximise their theatre time and maintain a better degree of continuity of care. In services with high out-of-hours demand and inadequate rest periods, a full-shift pattern will be required.

Initial work was presented at the 4th National Scottish Medical Education Conference, Edinburgh, May 2014, and described the development of the PCAT[23]. This has five broad principles:

- Rotas should have patient care and safety at the centre of their design.
- Quality of training: a good rota has symbiosis between training and service.
- Team cohesiveness and compassion – support for Foundation Year and Core doctors, and indeed for every member of the firm.
- Rota-monitoring process – robust, without cheating (and worse, pressure to cheat).
- Workload intensity must allow timely breaks – it is the law!
- There is no doubt that the limit on working hours and the move to a full-shift structure have made continuity of care more difficult, but a great deal of work has been done on determining which type of rota might best be used in each type of service. It is still possible to provide some form of continuity of care if dedicated time is set aside for handovers involving the whole team, including consultants.

The minimum suggested cell size for a 48-hour compliant full-shift rota is eight whole-time equivalent (WTE) doctors[32], resulting in 1:4 weekend cover and 1:8 night shifts (if one WTE is sufficient for each of these shifts).

While eight WTE doctors are the bare minimum it is worth emphasising that 11 WTE doctors are the recommended rota cell size to provide average normal working-day availability (day shifts) of 3.03 days per week. Such a cell size will be more resilient and will allow better exposure to formal training opportunities, most of which occur during daytime.

Departments with more intense workloads will require more clinicians on their rota than 8–11 WTE doctors if night shifts or weekends demand more than one doctor. The presence of less-than-full-time trainees (LTFT) and any occupational-health restrictions applied to doctors on the rota will result in 'hidden' rota gaps, where the 'head count' does not represent the actual hours of work available to cover the service, while simultaneously allowing training opportunities to take place.

What is essential – and sadly lacking in most UK hospitals – is a place where doctors in training can go during their protected rest periods.

In conclusion, workforce planning for doctors in

Aspects of a holistic rota

Patient-centred	Quality of Training	Health & Well-being
Adequacy of medical staffing	Trainees involved in rota design	Post night recovery > or = 48 hours
Adequacy of nursing and AHP staffing	Formal teaching time is protected Accessibility of study leave	Timely release of rota > or = 6/52 ahead
Workload intensity	Time for indirect and non-clinical tasks	Healthy shift patterns (e.g. circadian rhythm and maximum weekend frequency)
Preparedness for changes in workload intensity	Adequacy of supervision	% out-of-hours work
Continuity of care: Turnover of medical staff	'Acting up' support	Teams synchronised on rota (team cohesiveness)
Handover (time and quality)	Mentorship structure	Awareness of well-being at work
Induction (time and quality)	Formal teaching and planning for unique learning opportunities within the rota	Flexibility of annual leave

training should be based on a symbiotic relationship between service provision and good training where both elements complement each other. The GMC *Promoting Excellence: The New Standard*[22] emphasised this symbiosis in their first theme: Learning Environment and Culture.

RECOMMENDATION 4
Streamline and reorganise the overall workload to prioritise core clinical duties and create an integrated multidisciplinary surgical team

Systems and staff (medical and non-medical) could be organised more efficiently to allow doctors to dedicate the maximum amount of time to the clinical responsibilities most relevant to their grade. Where appropriate, consideration should be given to developing the extended surgical team to enhance the continuity and delivery of safe surgical care.

While many of the results from the survey are not surprising, they do help to identify and pull together the key areas which must be addressed to improve the working environment for the safe delivery of surgical care.

The unanimous opinion that more staff are required may be expected, although when the free text comments were dissected further, this did not always equate to more medical staff. Other suggestions included reorganising working practices more efficiently (an opinion that is sadly all pervasive in the NHS), reconfiguring services, integrating specialist nurses into the multidisciplinary team, providing phlebotomy services at a weekend and additional secretarial staff. Many of these solutions do not necessarily require significant funding, just a reallocation and more efficient use of current funding and work distribution.

Developing and investing in the extended surgical team is a concept that has gained traction across many centres in the UK, and is one that RCSEd views as pivotal to the modern surgical workforce. The Faculty of Perioperative Care was launched by RCSEd in 2017 and aims to offer support, standards, education and career-development opportunities for practitioners in the field.

In our survey, Foundation Doctors who participated provided the highest number of responses for 'staff resources' and tended to want more staff to support their ward roles, such as phlebotomists, Advanced Nurse Practitioners and Physician Associates, as well as more Foundation Doctors to facilitate a full rota.

The introduction of advanced surgical nurse practitioners has transformed some departments because they offer continuity of care to patients, a knowledge of how a unit functions and runs on a day-to-day basis, and in-depth knowledge of unit protocols for the management of specific conditions. Moreover, they can help protect time for training by sharing on-call responsibilities with some of the more junior members of the team. While such persons require additional funding, those units who have invested in them have reaped rewards in improved efficiency, patient care and trainee support. In some specialties, such as urology, experienced nurses can provide frontline urgent clinics, thereby reducing admissions and workload for trainee doctors[26]. Similarly, consultant-led emergency 'hot clinics' have been shown to result in a significant reduction in emergency admissions and hospital stay, which in turn has an effect on reducing the overall perception of workload[27].

Non-staff-related issues in the survey focused on IT services. Poor IT systems can take up more of doctors' time, taking them away from frontline care, whereas better systems can help to streamline clinical duties, resulting in an equivalent increase in staffing. Unfortunately, a national strategy for the integration of NHS IT services has hit significant obstacles. The multi-billion pound Lorenzo integrated care programme for NHS England was described by the Public Accounts Committee as "one of the worst and most expensive contracting fiascos in the history of the public sector".

Other non-staff factors highlighted in the survey were more beds, although many would recognise that most hospitals probably have adequate beds if there were better support and facilities in the community, so that patients who are medically ready for discharge could actually leave hospital.

> 66 We ought to have a senior-led ward round at least once per day 99

RECOMMENDATION 5

Recognise that better training delivers better care

Educational supervisors must be supported to deliver training through protected time in job plans. Training can also benefit from merging of tiers and maximised training opportunities during the day. It is also important to use training to develop and invest in the multi-professional workforce.

In 2010, Sir John Temple's *Time for Training* Report underscored the exposition that "training is patient safety for the next 30 years". Concerns raised from our survey highlighted that trainees of all levels and grades often felt unsupported by their senior colleagues and that training was suffering from pressures on the service. This in turn can contribute to increased stress levels among trainees and feelings of isolation (see Recommendations 1 and 6).

Improving overall support for all trainees is clearly a major factor underpinning a better working environment but also improved patient safety. This requires a significant change in service delivery so that consultants and Registrars are free from all elective activity when on-call and can, therefore, become more involved during the day in the running of the surgical wards, and in supporting Foundation Doctors, Core Trainees and other members of the surgical team.

Many units now offer this service and have found that it has allowed a partial return to the old firm structure in which the same team looks after a group of patients for several days in a row. This requires a significant change in how units and hospitals function and the reorganisation of clinics, operating sessions and ward rounds, as well as identification of those surgeons who are not in theatre and might, therefore, be available to help with problems on the wards if they arise during the day. Pivotally, this can also allow time for training. A typical three-tier rota may comprise: a Foundation Doctor to manage the wards; a core trainee to support them to assess critically ill patients and also develop technical skills in the emergency surgery setting; and a Specialty Registrar to oversee the latter two, during which time they can enhance decision-making and leadership skills while gaining exposure to emergency surgery.

Finding a balance between service provision and training has been an interminable challenge for the NHS. Innovative solutions have been suggested and the authors of this discussion paper point to the highly successful report commissioned by Health Education England (HEE): *Better Training, Better Care*[29]. This programme aimed to improve the quality of training by enabling the key recommendations from Sir John Temple's *Time for Training* and Professor John Collins' *Foundation for Excellence* reports. A pilot project for *Better Training, Better Care* ran in Leeds and York, which modified the rotas to maximise the potential time for training and "100% of the trainees at Leeds and York have reported more confidence in their work since the pilot and 83% agree, or strongly agree, that they have benefited from the change in rota. The pilot saw an increase in productivity, with weekday activity increasing by 37.7%, weekend activity rising by 29.1% and night shift activity by 22.1%."

As a piece of health and safety legislation intended to reduce fatigue in doctors and to improve their own safety and that of their patients, several organisations have expressed support for the European Working Time Regulations (EWTR), although they have often noted problems with its implementation. HEE expressed the view that any increase in working hours could be dangerous to patients and doctors, whereas the Royal College of Obstetricians and Gynaecologists (RCOG) viewed the EWTR as beneficial in the context of supporting safe working practices. They all, however, recognise that it has had consequences, the most important of which appears to be the reduction in the available hours for training for trainees at all levels. The RCSEd believes that training can be delivered within the 48-hour working week, but equally recognises that this task requires commitment by senior management to help reorganise the working week, and to a rota that does not run with several gaps in perpetuity.

In conclusion, workforce planning for doctors in training should be based on a symbiotic relationship between service provision and good training in which both elements complement each other. The GMC's *Promoting Excellence: The New Standard*[22] emphasised this interdependence in their first theme: Learning Environment and Culture. Furthermore, we eagerly await the findings of the Improving Surgical Training pilots[16], which aim to provide the appropriate balance between service provision and training, professionalise trainers, introduce curricula that emphasise competency-based training and improve the training experience.

RECOMMENDATION 6
Promote human factors training

The profession must provide a safety-centred team approach from the early stages of medical training.

Since the publication of the Institute of Medicine's report *To Err is Human* in 1999[33] and the Department of Health's *An Organisation with a Memory*[34], the importance of human factors within the healthcare environment in the UK and USA has risen in prominence. The intimate link between human error and patient safety had been placed firmly under the spotlight by several key studies which estimated that approximately 10% of all hospital admissions result in an adverse event[35]. This was directly responsible for the introduction of variously titled 'patient safety' organisations worldwide and the development of 'bundles of care' for standardising protocols for several procedures, as well as the World Health Organisation's 19-item *Surgical Safety Checklist*[36].

Despite these and other initiatives, many would argue that we are merely 'scratching the surface' of integrating human factors into everyday practice[37]. Falling morale, increasing workload, burnout and significant funding restrictions are now the main barriers to further improvements. The Royal Medical Colleges have a part to play in monitoring and publicising such problems and speaking out on behalf of their members.

To develop our focus on human factors and non-technical skills we would, therefore, recommend:

- The creation of an open and honest reporting culture by embracing transparency, allowing any member of the team to raise a concern about patient care in an environment of safety, and recognising the aim is not to apportion blame.
- A working environment which is free from bullying and undermining behaviour.
- Reflective practice, through weekly morbidity and mortality meetings, which allow units to harness a working environment that is open and honest about its practices, with a specific focus on patient safety and enacting change.
- *The Surgical Checklist* should be embedded into everyday practice.
- NOTSS should be mandatory for surgeons in training, but non-technical/human factors training

should also be considered essential for building resilience within all surgical teams, regardless of the seniority of individual members.

RECOMMENDATION 7
Support and Training the Trainers

Trainers should be supported to plan, manage and focus on training at a local level, while having the opportunity to develop their faculty through formal activities such as Training the Trainers courses, and informal activities such as developing enhanced mentorship programmes for trainees and consultants alike.

Much is expected of trainers; they must coach, mentor, assess, monitor, supervise, design educational activities and model good practice while juggling many competing pressures for their time. The RCSEd's Faculty of Surgical Trainers produced the *Standards for Surgical Trainers* in accordance with the GMC's guidelines on the recognition and approval of surgical trainers. While we recognise that trainers must exhibit the aptitude and qualifications to become an educational and clinical supervisor, we also appreciate that NHS Trusts and Health Boards need to go much further to help facilitate these activities. A frequent bugbear highlighted in the survey by trainees and consultants across the specialties was that there was simply no time in the working day to facilitate face-to-face educational meetings. In an ideal model, trainees would have an assigned educational supervisor, a clinical supervisor and a mentor to support their progression over a 12-month training period. To help facilitate protected time with an Assigned Educational Supervisor (AES), one suggestion by the Improving Surgical Training Pilot is to pool educational supporting professional activities (SPAs) from consultants within a unit, and for these to be redistributed to an AES responsible for trainees rotating through a unit.

It is important to also mention that training and education should be viewed holistically and not solely be focussed on one group within the team. The development of an educational community should be fostered within a department to allow all members of the team to benefit, from foundation doctors to specialty and associate specialist (SAS) doctors, through to consultants.

OTHER RECOMMENDATIONS
Listen and learn from our workforce and support the whole surgical team

Continue to act upon challenges identified by the Joint Committee for Surgical Training (JCST) Survey, the GMC Survey and the RCSEd Members Survey. Build upon regional fora and strengthen local support networks such as Regional Surgical Advisers (RSAs).

The JCST Trainee Survey has been running since 2011 and provides valuable information about the quality of surgical training nationally. In 2011, the Specialty Advisory Committees (SACs) and the Core Surgical Training Committee (CSTC) developed a series of quality indicators (QIs) to assess the quality of surgical training placements in each specialty and at core level. As such, the QIs act as a benchmark against which the quality of training placements, and not the achievements of individual trainees, is measured to assess the standard of training they deliver. The survey is one of the tools by which the deliverability of the JCST QIs is measured. The survey reports are available, via the Intercollegiate Surgical Curriculum Programme (ISCP), to Heads of School, Training Programme Directors (TPDs) and SAC Chairs and Liaison Members. They are used to help identify good- and poor-quality training placements so that appropriate action may be taken.

The surgical colleges should continue to utilise the JCST trainee survey and intelligence gathered from the memberships to ensure we support the workforce in the UK. Many of the solutions are provided by those working 'at the coalface' and these voices must not be ignored.

66 Better out-of-hours access to urgent radiology would improve surgical safety 99

Enhance efficiency in surgical care

Better access to diagnostic services and improved community support would reduce duration of hospital stay, while dedicated areas for assessment of emergencies would improve efficiency. Finally, specialist nurse/consultant-led clinics would reduce admissions.

Better support and facilities in the community would allow patients who are medically ready for discharge to leave hospital. Improved diagnostic services for inpatients, particularly out of hours, would also permit speedier diagnosis and, therefore, treatment, which in turn would result in reduced duration of hospital stay and 'more' beds. There was also a general reflection in the survey results that keeping acute admissions in the same area improves efficiency and, therefore, reduces 'workload' – and acute receiving areas or units should become commonplace in those hospitals who have significant emergency activity.

Conclusion

In addressing this broad and complex issue, the RCSEd has sought to highlight the resources that a cross-section of the surgical workforce believes would improve surgical safety in the working environment. Based on this, we have made recommendations that we believe would have the most positive impact for the workforce and patients.

It is perhaps not surprising that NHS staff would like more resources, but our survey has identified specific areas where members of the workforce believe that change would improve surgical safety. This does not necessarily equate to a request for more frontline staff. As the quotes throughout this report show, many respondents felt that structures and systems were influencing the delivery of safe surgical care. The survey also highlighted (like many other studies) that a lack of team structure is having an adverse effect on morale, communication, stress levels and training opportunities.

None of what we suggest is radical. Indeed, our suggestions are a combination of simple steps that would have a cumulative effect for the better. We call for the following: re-establish the traditional team structure; reintroduce a communal area, such as the hospital mess; maximise training during daylight hours; minimise use of shift systems; provide rotas 6–8 weeks in advance; increase recognition and job-planning for trainers; devise a better title for 'junior doctors'.

The RCSEd looks forward to working with government and the profession to deliver a better workplace that allows the surgical workforce to provide a safe service alongside the excellent training that our trainees and our patients expect.

> 66 We need to mobilise the consultant body to engage 'at the coalface' and move away from a hierarchical system where patients are first reviewed by two or three junior doctors 99

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Appendix 1

RCSEd Survey

Aims

The objectives of this SLWG were to identify the fundamental issues which would help to improve the working environment for all those involved in providing safe surgical care to our patients.

Methods

We conducted a UK-wide survey into the factors that those on the frontline thought crucial for the delivery of safe surgical care. Thereafter, we combined these findings with parallel work streams from within and outside the College to create a comprehensive discussion with a set of key recommendations.

Data collection

A prospective cross-sectional qualitative online survey was distributed to members of the surgical teams in hospitals across the UK by email and social media using RCSEd and authors' contact lists. The survey design and questions were approved by the Patient Safety Board and the SLWG before distribution.

Responders were asked to provide up to five free text answers to the following question:

"In the delivery of safe surgical care, what are the five most important things which would improve the workplace environment for you?"

Responses were collected between February and May 2016.

Results

A total of 932 people started the survey, but only 505 responders proceeded to complete at least one free text response, resulting in a 54% completion rate. Those 427 remaining responders who did not meet the inclusion criteria of entering at least one free text answer were excluded from analyses. Of the 505 responders, 2,238 individual free text responses were obtained.

Data analyses

Data analyses were conducted by three members of the SLWG. The process involved each free text response being coded individually, and then these codes were matched to fit the answers provided. This strategy resulted in the creation of 92 codes in total (see Appendix 2). Subsequently, the 92 codes were grouped into nine broad categories as decided by the SLWG (Figure 1).

Figure 1 – Code breakdown
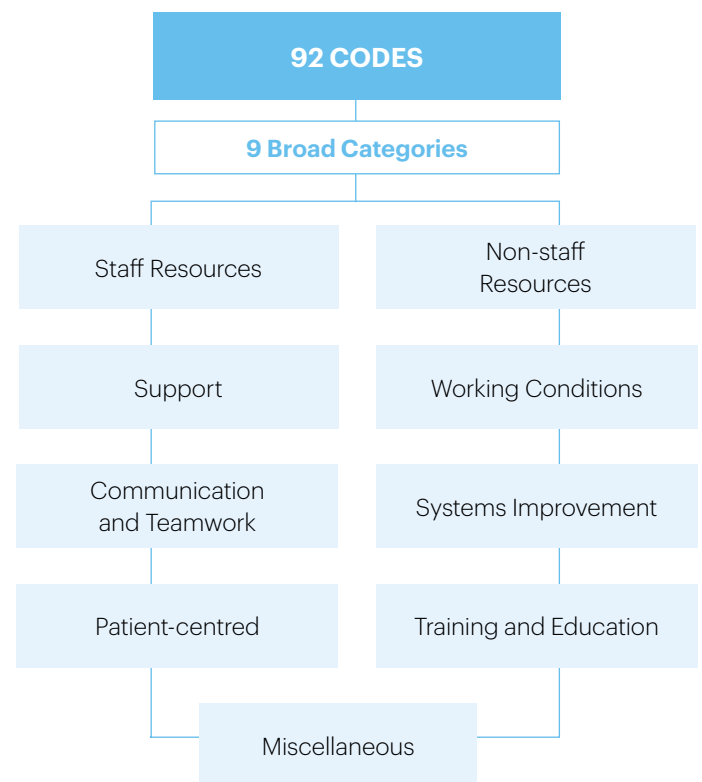
Overall, there were 296 responses from consultants (32%), 155 from Registrars (17%), 106 from Specialty Doctors (11%), 48 from Core Trainees (5%), 301 from Foundation Doctors (32%), 11 from Surgical Nurse Practitioners (1%) and 5 from 'others', including patients.

Most responses were from those working in hospitals in England (63.8%), with 31.5% from Scotland, Wales 2% and Northern Ireland 1.8%. There was an even gender distribution (57% of responders were male). Only one responder was from a remote and rural hospital, with the largest response group obtained from those working within a large city hospital (58%), the remainder from district general hospitals.

Figure 2 – Breakdown of responses

505 RESPONDERS

LOCATION
England **63.8%**
Scotland **31.5%**
Wales **2%**
NI **1.8%**

SEX
Male **57%**
Female **43%**

HOSPITAL
Large City Hospital **58%**
District General **41%**

GRADE
Consultant **35%**
Specialty Doctors **11%**
Registrars and Core
Trainees **23%**
Foundation Doctors **30%**
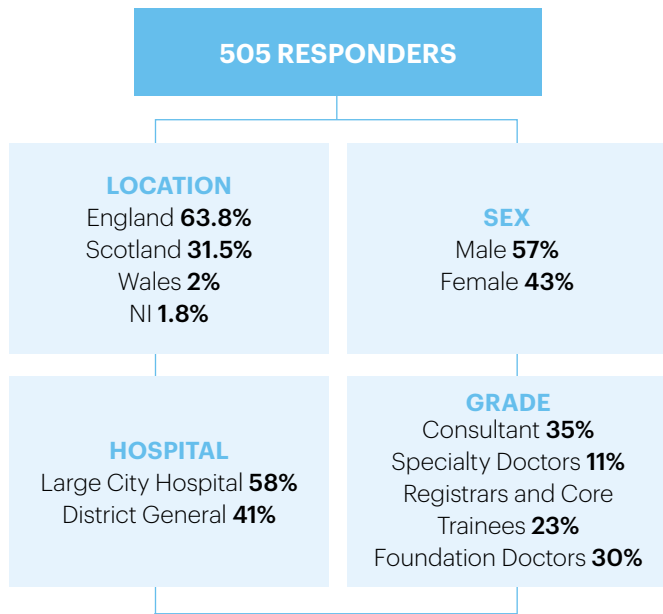
The flowchart shown as Figure 2 gives a breakdown of the characteristics of the responders. Consultants and Foundation Doctors made up most of the responses (35% and 30%, respectively). Despite distributing the survey among patient-safety groups, there were no responses from patients, and only six Nurse Practitioners completed any free text responses.

Figure 3 shows the overall responses across each of the nine broad categories. Most responses relate to resources (staff or non-staff). The full dataset can be viewed in Appendices 1–3.

❝ There should be on-call facilities so night staff can rest if they are not busy and can sleep in the morning if they are too tired to drive home after a night shift ❞

Figure 3 – Total number of responses by category

120 Patient-centred
155 System Improvement
287 Communication and Teamwork
162 Training and Education
432 Staff Resources
533 Non-staff Resources
289 Working Conditions
246 Support
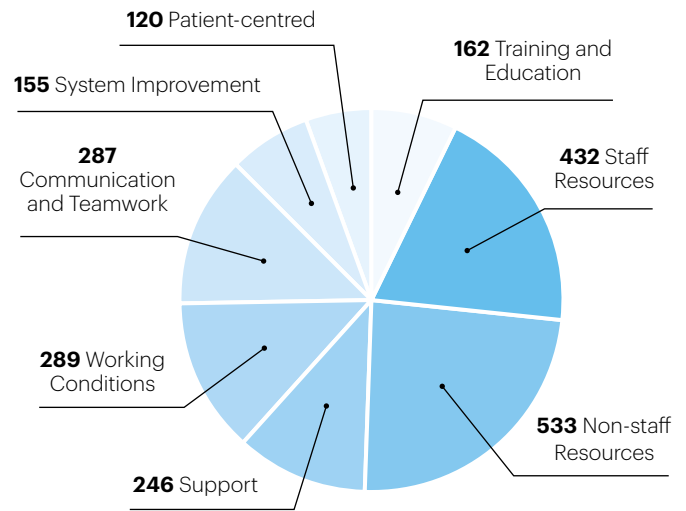
Figure 4 – Consultant responses

3% Training and Education
1% Misc
7% Patient-centred
10% System Improvement
15% Staff Resources
9% Communication and Teamwork
37% Non-staff Resources
12% Working Conditions
6% Support
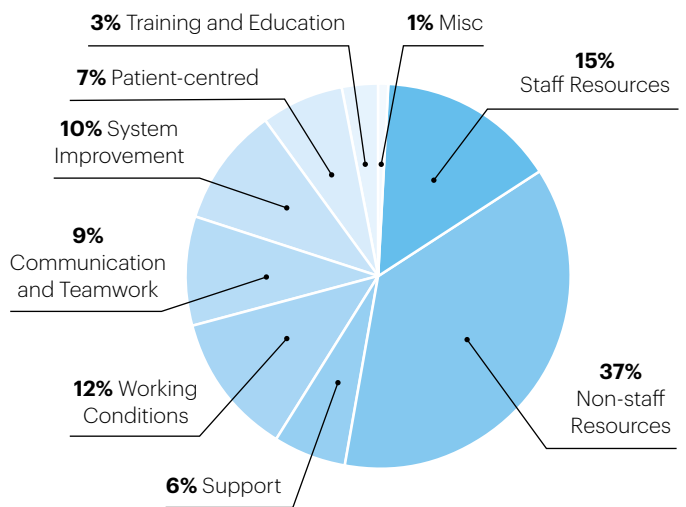
Consultant breakdown
Consultants provided 801 individual free-text responses; over half of these responses related to resources (staff and non-staff-related) (Figure 4). From the consultant cohort, 37% of the responses were regarding non-staff resources and included the need for "better IT systems", "more beds" and "better availability of imaging/diagnostic services".

The most frequent individual code pertained to "more staff", which included medical, nursing and surgical auxiliary staff.

> ❝ Good-quality training is important – all too often I feel there is a mismatch between service provision and training (i.e., the former takes precedence) ❞

The second most-coded group for consultants was "working conditions" and, of these, over half of the responses were about "continuity of team members" and "returning to a 'firm' approach".

Only 6% of the total consultant responses were about "support" and this mostly referred to support from hospital management, as opposed to support from senior colleagues.

Registrar and Core Trainees breakdown

This group provided 434 responses, with the largest category being non-staff resources (22% compared with 37% of consultant responses). The next equally popular categories were "staff resources", "working conditions" and "communications and teamwork". The frequently recurring suggestions within the working conditions category were continuity of team members and improved facilities, such as a doctors' mess, parking, office space and catering.

Figure 5 – Registrar and Core Trainee responses

- 8% Training and Education
- 1% Misc
- 6% Patient-centred
- 5% System Improvement
- 18% Staff Resources
- 14% Communication and Teamwork
- 22% Non-staff Resources
- 17% Working Conditions
- 9% Support
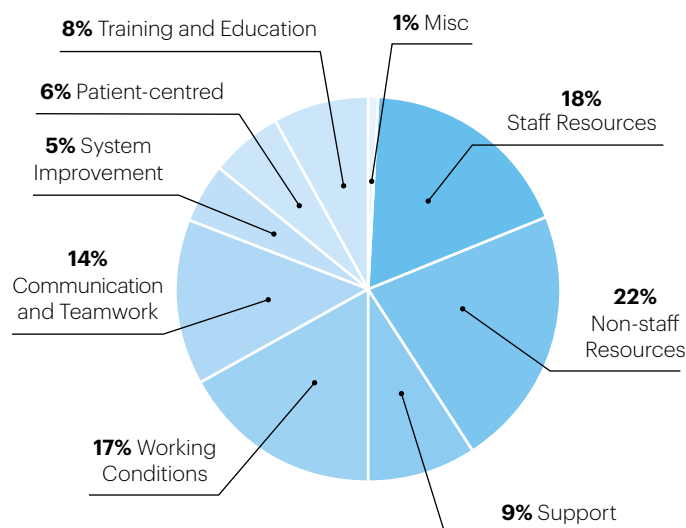
Figure 6 – Specialty Doctor responses

- 1% Misc
- 16% Training and Education
- 5% Patient-centred
- 13% Staff Resources
- 8% System Improvement
- 7% Communication and Teamwork
- 30% Non-staff Resources
- 10% Working Conditions
- 10% Support
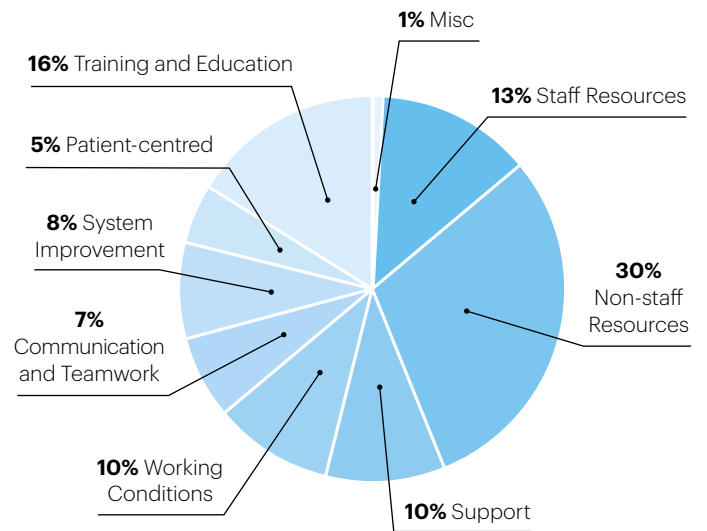
Specialty and associate specialty doctors

Similar to consultants, around one-third of specialty doctors' responses related to non-staff resources, such as adequate equipment (Figure 6).

Of all the grades, specialty doctors provided the highest number of responses within the "training and education" category, which mostly related to career progressions and access to training.

Figure 7 – Foundation Year responses

- 10% Training and Education
- 3% Patient-centred Care
- 3% System Improvement
- 20% Staff Resources
- 20% Communication and Teamwork
- 14% Non-staff Resources
- 12% Working Conditions
- 18% Support
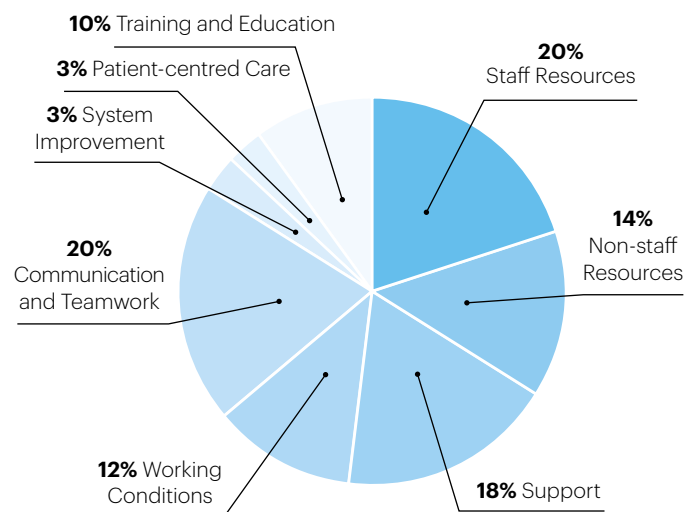
Foundation Doctors comprised the second largest group, second only to consultants, with 651 responses (Figure 7). Compared with the other grade groups,

Foundation Doctors provided the least number of responses regarding non-staff resources, but the highest percentage of responses regarding "support" (18%), which corresponded mostly to requesting more support from their senior colleagues. Compared with consultants, Foundation Doctors were much more concerned with "communication and teamwork" (20% vs. 9%), and suggested improved handovers, better team cohesion and clearer plans from their consultants with regard to patients.

Within the category "staff resources", Foundation Doctors provided the highest number of responses and tended to seek more staff to support their ward roles, such as phlebotomists, healthcare assistants and physician associates, as well as more 'juniors' to facilitate a full rota.

Table 1: Top 5 responses by grade

Consultant	Staff Return to firm approach Improved access to imaging/ diagnostic services/ interventional radiology Improved access to CEPOD/ emergency theatre Ring-fenced patients
Specialty Registrar	Staff Improved facilities Return to firm approach Improved IT systems Improved handover
Core Trainee	Staff Senior support Support from other specialities More time in theatre Improved facilities
Specialty Doctor	Staff Senior support Teaching/training Adequate equipment Improved facilities
Foundation Doctor	Staff Senior support Teaching/training Improved IT systems Better communication

Summary of responses by grade

There are several similarities in responses between each grade, as discussed above. Table 1 outlines the top five responses from each grade, to highlight the recurring concerns of each group.

The need for more staff was an area of concern identified across all grades. This included the need for not only more doctors, but also the need for increased staffing levels of all members of the surgical team (junior doctors, nurses, theatre and auxiliary staff). Interestingly, this also included the need for more administrative and secretarial staff. There was a significant overlap with many of the responses, many of which can be linked to one another. For example, fewer staff leads to poor resources, higher workload, reduced teamwork, poor patient care and continuity, and fewer opportunities for training.

> 66 I want somewhere to take a rest and get food. We undertake 24-hour on-call shifts. The hospital canteen closes at 19:00 and does not open until 08:00. There are only vending machines that sell chocolate bars. It is unacceptable that staff are not provided with adequate provision of food, and it is completely impractical to bring three meals to work 99

Appendix 2

Breakdown of total responses by grade and category

Category		ALL	Consultant	Foundation Years	Specialty Doctor	Registrar and CT	Other
Resources	**Staff**	432	146	140	34	111	1
	Non-staff	533	275	81	67	99	11
	Total	965	421	221	101	210	12
Support		246	51	120	23	46	6
Working Conditions		289	95	81	24	88	1
Communication and Teamwork		287	67	127	17	70	6
Systems Improvement		155	82	23	20	27	3
Patient-centred		120	57	17	12	31	3
Training and Education		162	20	62	39	40	1
Miscellaneous		14	8	0	3	3	0
Total		2238	801	651	239	515	32

Appendix 3

Coding system for analysing results

STAFF RESOURCES

RESPONSES	CODE
More staff	1.10
More consultants	1.20
More registrars	1.30
More juniors	1.40
More nurses	1.50
More theatre staff	1.60
Surgical auxiliary staff/phlebotomists/support staff	1.12
Physicians' associates	1.14
Administrative/secretarial support	1.33
Fewer locum/agency workers	1.70
Adequately trained juniors	1.80
Adequately trained/improved quality nursing staff	1.90
Adequately trained theatre assistants/junior assistants	1.11

NON-STAFF RESOURCES

RESPONSES	CODE
More beds	1.15
More HDU/ICU/ critical care beds	1.16
Patients in one area/less boarding/ring-fenced	1.17
Imaging/diagnostic services/interventional radiology	1.18
Adequate emergency theatre/CEPOD	1.19
More theatre lists/theatre space	1.21
Adequate surgical equipment	1.22
Adequate equipment	1.23
Better IT systems	1.24
Improved patient records/availability of notes	1.25
Designated surgical admissions department	1.26
OP facilities/social services	1.27
More time with patients	1.29
More time for surgical lists	1.31
More time on ward round	1.32
More funding	1.34
Less time pressure	1.35

SUPPORT

RESPONSES	CODE
Senior support/availability	2.10
Consultant-led care/present on ward rounds/writing in notes	2.50
Junior support	2.20
Nursing support	2.30
Hospital management	2.40
From other specialties	2.60

WORKING CONDITIONS

RESPONSES	CODE
Better working hours/rota improvement	3.10
Return to 'firm' approach /continuity in team members	3.20
More/dedicated breaks	3.30
Workload/stress/burnout	3.40
Improved facilities	3.50
Fewer distractions	3.60
Pay/contract	3.70

COMMUNICATION AND TEAMWORK

RESPONSES	CODE
More decision-making for NP/juniors	4.10
Approachable	4.20
Team-working	4.30
Better communication skills	4.40
Improved referral system	4.50
Job description/induction	4.60
Team morale (culture)	4.70
Feeling valued/respected	4.80
Less hierarchy/bullying	4.90
Multidisciplinary team meetings	4.11
Leadership	4.12
less blame culture/environment	4.13
Handover	4.14
Clear plan of care plus escalation	4.15

66 Junior rotas are increasingly fragmented, leading to lack of continuity of care – this, combined with consultants working across multiple sites, puts patient care at risk 99

SYSTEMS IMPROVEMENT

RESPONSES	CODE
Use of protocols/policy/guidelines	5.10
Less bureaucracy	5.20
Discharge planning/follow-up arrangements	5.30
Faster transfers	5.40
Less overbooking of clinics	5.50
Ward design/proximity of theatre	5.60
Patient waiting lists	5.70
Less paperwork	5.80
Patient throughput/theatre-list delays	5.90
Separated elective vs emergency	5.11
Less focus on service provision	5.12
Clinician involvement in managerial decisions	5.13

PATIENT-CENTRED

RESPONSES	CODE
Mortality and morbidity meetings/safety meetings	6.10
Quality improvement/audits	6.20
Improved system for reporting errors/near misses	6.30
Evidence-based practice	6.40
Key indicator registers	6.50
Continuity of patient care	6.60
Continuity of patient care – operating on own patients	6.70
In-patient care pathways	6.90
Adequate pre-assessment	6.11
Patient information resources/patient involvement	6.12

TRAINING AND EDUCATION

RESPONSES	CODE
More appraisals/feedback	7.10
Mentorship	7.20
Funding of compulsory courses	7.30
Recognition of career progression	7.40
Opportunity for career progression	7.50
Protected teaching time	7.60
More/better teaching/training	7.70
Departmental training	7.80
Ward teaching	7.90
More time in theatre/theatre experience	7.11
Opportunity to improve/update skills	7.12
Greater opportunity to teach others	7.13

Appendix 4

Full dataset

STAFF RESOURCES

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
1.10	More staff	31	21	6	14	62	1	0	135
1.20	More Consultants	2	0	0	0	0	0	0	2
1.30	More Registrars	2	3	1	1	7	0	0	14
1.40	More Juniors	16	16	4	5	21	0	0	62
1.50	More Nurses	19	11	3	4	11	0	0	48
1.60	More theatre staff	4	1	0	0	0	0	0	5
1.12	Surgical axillary staff/phlebotomists/support staff	3	1	0	4	14	0	0	22
1.14	Physicians' Associates	3	1	1	0	2	0	0	7
1.33	Administrative/secretarial support	19	11	3	4	11	0	0	48
1.70	Fewer locum/agency workers	5	3	1	1	2	0	0	12
1.80	Adequately trained juniors	14	5	4	1	2	0	0	26
1.90	Adequately trained/improved quality nursing staff	16	3	7	0	8	0	0	34
1.11	Adequately trained theatre assistants/junior assistants	12	0	4	1	0	0	0	17
Total Staff Resources		146	76	34	35	140	1	0	432

NON-STAFF RESOURCES

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
1.15	More beds	26	11	2	2	3	3	0	47
1.16	More HDU/ICU/critical care beds	14	6	1	1	1	0	0	23
1.17	Patients in one area/less boarding/ring-fenced	29	3	5	0	3	1	0	41
1.18	Imaging/diagnostic services/interventional radiology	37	10	3	3	3	1	0	57
1.19	Adequate emergency theatre/CEPOD	33	10	1	0	3	0	0	47
1.21	More theatre lists/theatre space	6	3	6	0	0	0	0	15
1.22	Adequate surgical equipment	14	2	4	0	0	0	0	20
1.23	Adequate equipment	10	3	13	0	20	3	0	49
1.24	Better IT systems	28	16	8	4	24	2	0	82
1.25	Improved patient records/availability of notes	10	4	6	2	5	0	0	27
1.26	Designated surgical admissions department	11	1	1	0	5	0	0	18
1.27	OP facilities/social services	7	0	0	0	0	0	0	7
1.29	More time with patients	9	3	7	1	3	1	0	24
1.31	More time for surgical lists	9	1	7	0	0	0	0	17
1.32	More time on ward round	2	1	0	1	10	0	0	14
1.34	More funding	13	1	1	0	0	0	0	15
1.35	Less time pressure	17	7	2	3	1	0	0	30
Total Non-staff Resources		275	82	67	17	81	11	0	533
Total Resources		421	158	101	52	221	12	0	965

SUPPORT

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
2.10	Senior support/availability	6	11	13	6	88	3	2	129
2.50	Consultant-led care/present on ward round/ writing in notes	4	4	3	3	10	0	0	24
2.20	Junior support	2	0	0	0	0	1	0	3
2.30	Nursing support	3	0	0	0	6	0	0	9
2.40	Hospital management	25	5	6	1	1	0	0	38
2.60	From other specialities	11	10	1	6	15	0	0	43
Total Support		51	30	23	16	120	4	2	246

WORKING CONDITIONS

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
3.10	Better working hours/rota improvement	11	11	2	1	23	0	1	49
3.20	Return to 'firm' approach/continuity in team members	55	22	2	3	11	0	0	93
3.30	More/dedicated breaks	2	4	0	3	7	0	0	16
3.40	Workload/stress/burnout	2	4	1	1	16	0	0	24
3.50	Improved facilities	19	24	12	6	21	0	0	82
3.60	Fewer distractions	2	2	3	0	2	0	0	9
3.70	Pay/contract	4	7	4	0	1	0	0	16
Total Working Conditions		95	74	24	14	81	0	1	289

COMMUNICATION AND TEAMWORK

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
4.10	More decision-making for NP/juniors	0	1	1	0	0	1	0	3
4.20	Approachable	1	2	0	1	10	1	0	15
4.30	Team-working	19	9	3	3	22	0	1	57
4.40	Better communication skills	10	9	2	2	24	1	0	48
4.50	Improved referral system	0	1	2	0	2	0	0	5
4.60	Job description/induction	0	3	0	2	12	0	0	17
4.70	Team morale (culture)	13	1	4	1	8	0	0	27
4.80	Feeling valued/respected	5	5	2	0	4	0	0	16
4.90	Less hierarchy/bullying	2	0	1	1	6	0	0	10
4.11	Multidisciplinary team meetings	3	2	0	1	2	0	0	8
4.12	Leadership	5	4	0	1	3	0	0	13
4.13	Less blame culture/environment	5	0	0	2	2	0	0	9
4.14	Handover	3	13	1	2	15	0	0	34
4.15	Clear plan of care plus escalation	1	2	1	2	17	2	0	25
Total Communication and Teamwork		67	52	17	18	127	5	1	287

SYSTEMS IMPROVEMENT

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
5.10	Use of protocols/policy/guidelines	15	8	2	0	12	1	0	38
5.20	Less bureaucracy	20	4	4	0	0	0	0	28
5.30	Discharge planning/follow-up arrangements	2	1	0	0	2	0	0	5
5.40	Faster transfers	1	1	2	0	0	1	0	5
5.50	Less overbooking of clinics	3	0	2	0	0	0	0	5
5.60	Ward design/proximity of theatre	7	2	1	0	6	1	0	17
5.70	Patient waiting lists	2	1	1	0	0	0	0	4
5.80	Less paperwork	8	1	2	0	2	0	0	13
5.90	Patient throughput/theatre list delays	3	4	2	1	0	0	0	10
5.11	Separated elective vs emergency	7	1	0	1	0	0	0	9
5.12	Less focus on service provision	11	2	0	0	1	0	0	14
5.13	Clinician involvement in managerial decisions	3	0	4	0	0	0	0	7
Total Systems Improvement		82	25	20	2	23	3	0	155

PATIENT-CENTRED

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
6.10	Mortality and morbidity meetings/safety meetings	5	3	1	1	4	0	0	14
6.20	Quality improvement/audits	5	5	2	0	0	0	0	12
6.30	Improved reporting system for errors/near misses	6	5	0	1	0	0	0	12
6.40	Evidence-based practice	5	0	0	0	3	0	0	8
6.50	Key indicator registers	1	0	0	0	0	0	0	1
6.60	Continuity of patient care	11	7	2	0	1	0	0	21
6.70	Continuity of patient care – operating on own patients	11	2	3	0	0	0	0	16
6.90	Inpatient care pathways	4	3	0	1	4	1	0	13
6.11	Adequate pre-assessment	6	1	4	0	2	0	0	13
6.12	Patient information resources/patient involvement	3	2	0	0	3	1	1	10
Total Patient-centred		57	28	12	3	17	2	1	120

TRAINING AND EDUCATION
Personal development

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
7.10	More appraisals/feedback	2	0	3	2	4	0	0	11
7.20	Mentorship	0	1	3	4	2	0	0	10
7.30	Funding of compulsory courses	0	0	1	0	1	0	0	2
7.40	Recognition of career progression	1	0	5	0	0	0	0	6
7.50	Opportunity for career progression	1	0	8	0	0	0	0	9
7.60	Protected teaching time	2	1	0	1	3	0	0	7
7.70	More/better teaching/training	6	5	13	4	27	0	0	55
7.80	Departmental training	3	5	1	2	10	1	0	22
7.90	Ward teaching	1	2	0	0	4	0	0	7
7.11	More time in theatre/theatre experience	1	5	3	6	10	0	0	25
7.12	Opportunity to improve/update skills	0	1	1	0	1	0	0	3
7.13	More opportunity to teach others	3	1	1	0	0	0	0	5
Total Training and Education		20	21	39	19	62	1	0	162

MISCELLANEOUS

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
—	—	8	2	3	1	0	0	0	14
Total Miscellaneous		8	2	3	1	0	0	0	14

OVERALL TOTALS

CODE	Responses	Cons	SpR	SpDr	CT	FY	Nurse	Other	TOTAL
—	—	—	—	—	—	—	—	—	—
Overall Totals		801	390	239	125	651	27	5	2238

Appendix 5

Professionalism Compliance Analysis Tool (PCAT)

The PCAT is a quality-improvement framework for the working patterns of doctors in training (rotas), aiming to foster a synergistic relationship between safe patient-centred care and high-quality training.

WHY IS PCAT RELEVANT TO TRAINEES ACROSS SCOTLAND?

1. Recruitment and retention:
The great majority of trainee doctors have working patterns that are compliant with European Working Time Regulations (EWTR) and the New Deal (ND). However, this contractual compliance does not guarantee high-quality rotas and current practices vary widely. Several areas with poor recruitment and retention quote rota/working pattern issues as a major factor in reducing the attractiveness of their posts.

2. GMC visit to the Scotland Deanery in 2017:
The General Medical Council (GMC) has launched new Promoting Excellence: Standards for Medical Education and Training and all boards in Scotland will be expected to provide solid evidence that they are meeting the standards for excellence, many of which are enshrined in the PCAT framework.

3. Workforce 2020 Vision – Scottish Government
Providing a medical workforce that can deliver the aspirations of the Quality Strategy, the Professionalism and Excellence in Scottish Medicine Agenda and Everyone Matters: 20:20 Workforce Vision. A total of 40–50% of the medical workforce in Scotland is currently delivered by doctors in training.

What are the aims of the PCAT?
1. Assessing the ability of rotas to provide an environment that fosters professional behaviour among doctors, facilitates safe patient care, high quality of training, and trainee well-being.
2. Benchmarking rotas across Scotland to highlight good and bad practices.
3. Providing a framework for supporting improvement and disseminating good practice in rota design.
4. Supporting trainees acting as 'rota guardians' at local and national levels.

What are the components of the PCAT?
PCAT evaluates rotas in terms of their template design and the supporting environment across three domains:
A. Patient-centred safe care.
B. Quality of training and education.
C. Health and well-being of trainees.

In addition to this evaluation framework, the PCAT support package includes:
1. PCAT Champions: key personnel who deliver initial PCAT training.
2. Intelligent Rota Design Guide.
3. Rota Guardian Network: Lead Trainees are encouraged to share ideas.
4. Best Practice Library: educational and support resources.

To deliver PCAT to a health board, the PCAT Champions will initially meet with the identified key departmental stakeholders including a Trainee Lead, Service Representative and a Training Representative. This visit allows dissemination of information, agreement of roles, discussion and agreement on the time frame for department engagement and an opportunity to clarify issues or concerns.

Subsequently, the Trainee Lead will disseminate a departmental survey among the trainees and collate the completed surveys. These will inform the completion of the Rota Assessment Framework, which is returned in its completed form to the PCAT Champions.

A departmental presentation of the results then provides the opportunity for staff engagement, discussion of the report findings and defining the improvement plan, including identification of sources for support and identification of roles within improvement implementation.

Any feedback or requests for further information are welcome: j.colvin@nhs.net

Appendix 6

SLWG members

Simon Paterson-Brown	Consultant Upper Gastro-intestinal Surgeon and Chair Patient Safety Board
Richard McGregor	ST5 General Surgery, SE Scotland Deanery. Immediate Past Trainee Member of Council
Lydia Robb	Foundation Doctor, SE Scotland Deanery
Alice Baggaley	Core Surgical Trainee, SE London Deanery
Alice Hartley	ST5 Urology, NE England deanery. Trainee Member of Council
John Hill	Consultant ENT Surgeon, Newcastle
Victoria Dobie	Associate Specialist in Orthopaedics and Trauma, Borders General Hospital. SAS Representative on Council
Mike Griffin	Professor of Oesophago-gastric Surgery, Royal Victoria Infirmary, Newcastle. Member of Council
Rowan Parks	Professor of Hepatobiliary and Pancreatic Surgery, University of Edinburgh. Member of Council
Reem Al Soufi	Consultant Physician, Aberdeen Royal Infirmary
James Hutchison	Regius Professor of Orthopaedic Surgery, University of Aberdeen. Past Vice-President RCSEd

The Short Life Working Group would like to thank all those who
contributed to the survey for their very helpful and constructive opinions.

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