

Obstetrics & Gynaecology Surgical Skills Project: Interim Report

February 2025



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This report is for healthcare professionals who provide surgical obstetrics and gynaecological care for women, non-binary and trans people.

Within this document we use the terms woman and women’s health. However, it is important to acknowledge that it is not only women for whom it is necessary to access women’s health and reproductive services in order to maintain their gynaecological health and reproductive wellbeing. Gynaecological and obstetric services and delivery of care must therefore be appropriate, inclusive and sensitive to the needs of those individuals whose gender identity does not align with the sex they were assigned at birth.



Foreword

Obstetrics and gynaecology (O&G) has long been a specialty characterised by a blend of both medical and surgical practice which over the past three decades have transformed significantly. Advances in medical treatments now offer effective solutions for many gynaecological issues, while surgical techniques and procedures have undergone dramatic changes.

A striking example of this shift is the significant reduction in major surgical procedures, such as the 5,000 fewer hysterectomies performed annually compared to a decade ago. At the same time, the use of newer, less invasive techniques such as laparoscopic hysterectomy has surged, with the number of procedures doubling during the same time period.

This evolving landscape of surgical procedures is mirrored in both obstetrics and gynaecology where the case mix of patients has also shifted. Today, more patients with medical co-morbidities are offered surgery than ever before, reflecting the complexity of modern practice. Procedures themselves have become more intricate, and demographic factors such as age and obesity have added to the complexity of surgical practice. Obstetric surgery is often complex, difficult operative vaginal delivery is less acceptable and increasing prevalence of previous caesarean section and placenta accreta spectrum require careful planning and advanced surgical skills.

Alongside these changes, the workforce has also evolved. It is no longer acceptable to work in excess of 80 or even 100 hours a week which has brought significant benefits in reducing doctor fatigue and improving work-life balance. However, it has also resulted in the introduction of working patterns that limit continuity and opportunities to develop skills through frequent exposure to surgical procedures. Surgery in O&G has become increasingly specialised with the day of the multiskilled generalist practising at an expert level across all areas of surgical practice being long past. Nevertheless, except for highly specialised regional services, it is necessary for there to be a workforce that is suitably skilled to provide the full spectrum of surgical services in most hospitals around the United Kingdom and Northern Ireland.

Public expectations have also evolved, with patients now reasonably expecting high quality care delivered by a well-trained surgeon. Efficient management of operating lists is essential to meet clinical targets and minimise waiting times, though these pressures can limit opportunities for trainees to gain hands-on experience necessary for skill development.

Both before and after the Covid pandemic, the Trainee Evaluation Form data have consistently reported good supervision but limited opportunity to gain the surgical skills in the Core Curriculum. This has resulted in doctors, upon completion of their training, lacking the confidence required to practice independently as a new Consultant or Specialist.



To address these challenges we first have to understand them in depth.

It is clear that returning to the long working hours or outdated clinical practices of the past is not the solution to improving access to surgical training.

It is not feasible for the traditional model of training based on a clinical “apprenticeship” to provide opportunities for all doctors training in the specialty to develop high level surgical skills. Moreover, this is not required to provide the workforce required for future surgical practice.

Instead, surgical training must become more organised with consistent structures and processes around the country, where appropriate supported by innovative technology and Artificial Intelligence. Developing skills outside the operating theatre through simulation will be essential. Still, simulation must also be structured and evidence based to facilitate skills development and enable the best use of training opportunities in the clinical setting not replace them entirely. Furthermore, educators must receive adequate training and support to ensure they are equipped to guide the next generation of surgeons.

This Interim Report for the RCOG Surgical Skills Training Project outlines the need for a different approach to surgical training in O&G. It is the first part of the three-year project aimed at reviewing the evidence and opportunities for developing a comprehensive approach to surgical training aligned to the needs of our future workforce. The report highlights five workstreams that have been identified from the first phase of the project and are described in detail within. We extend our gratitude to the two Fellows working on the project, Hannah Pierce and Naomi Harvey, whose excellent work has contributed to the creation of this report.

This project represents an exciting opportunity to develop an approach to training in the specialty that is arguably overdue but will ultimately serve both the specialty and the people we care for well in the future.

Ranee Thakar
President



Ian Scudamore
Vice President for Education





Introduction

The landscape of obstetrics and gynaecology (O&G) is undergoing significant transformation due to evolving clinical practices, technological advances and shifting workforce demands. Over the past decade, innovations such as minimal access surgery, robotic-assisted procedures and advances in diagnostic tools have altered the approach to patient care. These changes are not only improving surgical outcomes, but also driving the need to redesign how surgical skills are taught, developed and sustained.

The Royal College of Obstetricians & Gynaecologists (RCOG) recognises the disconnect between doctors' training needs and the ability of the current system to meet those needs. We can no longer rely on the training strategies of the past, when learning purely by apprenticeship was achievable. Improving surgical training in O&G is therefore one of the current presidential priorities and has established the formation of the O&G Surgical Skills Project.

The project aims to assess the current state of surgical skills within O&G, identify areas for improvement and recommend strategies to future-proof the surgical skills of our workforce. This involves considering how resident doctors are equipped to meet the challenges of tomorrow's healthcare, ensuring that training programmes foster the necessary expertise, flexibility and innovation required to deliver exceptional patient care across diverse settings.

The project consists of three phases:

Phase 1

Establishing the current baseline of surgical skills training in O&G, changing trends in operating practices and establishing potential solutions

Phase 2

Research and development of potential solutions to improve gynaecology surgical training

Phase 3

Evaluation of pilot projects and wider implementation of findings and recommendations

The findings of Phase 1 are included in this interim report.



In this report we aim to:

- Define the current unmet needs in O&G surgical training.
- Analyse data to understand the root causes of gaps in surgical training, and explore solutions to close the gap.
- Make recommendations on areas for future research and development in conjunction with key stakeholders, including surgical trainers, policy makers and technology (industry) partners, in preparation for Phase 2 of the surgical skills project, commencing in early 2025.

The core aims of the surgical skills project are to:

1. Enable O&G doctors to reach their full surgical potential.
2. Effectively use educational resources and learning opportunities.
3. Provide a competent, future-proofed workforce to safely care for women and people with a uterus.

A note on terminology

The difficulties obtaining, maintaining and developing surgical skills in O&G affect all doctors in the specialty with a surgical practice. This includes those:

- in Deanery training programmes
- gaining out-of-programme experience
- working in locally employed doctor (LED) roles
- working as specialist, associate specialist and specialty (SAS) doctors
- working as consultants, including clinical academics.

The Surgical Skills Project is mainly focused on those doctors not yet granted specialist registration by the General Medical Council (GMC). Many will be aiming for specialist registration either by obtaining a CCT or by an alternative route such as the Portfolio Pathway. Some will not be aiming for specialist registration, but will still want to develop skills allowing them to contribute as proficient clinicians, researchers and clinical educators.

It is not possible to always describe the specific needs of these different groups of doctors in this report. Each will have different needs depending on their circumstances, particularly for issues such as sources of funding and methodology for recording evidence of competence.

This report has been developed over a time of change in the terminology used to describe doctors and their specific roles within our O&G workforce. On many occasions, we will refer to O&G trainees, fully qualified doctors who currently hold a national training number and who are following the RCOG curriculum with the intention of obtaining a Certificate of Completion of Training (CCT). Sometimes the issues under discussion will be specific to this group of doctors, but often they will also be relevant to doctors pursuing a different career



path, and should then be seen in the context of what is most appropriate for their needs. To reflect the recent British Medical Association changes, we have strived to use the term 'resident' when appropriate.

Our goal for the Surgical Skills Project is to improve the surgical experience of all those working in O&G, and throughout this report there are challenges, aims and potential solutions that affect all doctors of all grades working in the specialty.

We also recognise that not all trainers and educators within our O&G workforce are consultants, and SAS doctors play a vital role in the education and mentorship of less experienced doctors. When we refer to trainers/educators/mentors throughout this report, we also include the valued input of SAS doctors.

We recognise the importance of support during a doctor's transition into a new role as a consultant or specialist (e.g. a senior SAS doctor). Therefore, when referring to new consultants, we mean those within their first 5 years in post; however, many of the challenges and solutions will be applicable beyond this 5-year period, and will also apply to positions outside of consultant posts.

Phase 1 methodology

Step 1: Surgical training summit

In April 2024, key stakeholders in O&G surgical skills training were invited to attend a 1-day surgical training summit at the RCOG headquarters, Union Street, London. Several workshops were run, covering challenges to surgical training in O&G, potential solutions, future predicted workforce needs and the role of the College.

Transcriptions of these discussions were reviewed, and six unmet training needs were derived. The following unmet training needs form the basis of this report:



Equitable access to simulation training across regions



Rota gaps and design



New consultant support



Reprioritisation of gynaecology surgical training



Trainer development



Workforce planning

Step 2: Data collection

The identified unmet training needs formed the structure for more in-depth data collection and analysis.

- A training needs survey was sent to all Heads of School via the Specialty Education Advisory Committee.
- A training needs survey was sent out to all O&G residents via the National Trainee Committee.



- The annual Training Evaluation Form (TEF) questions on surgical training from 2019 to 2024 were analysed.
- Hospital Episode Statistics data were analysed to demonstrate changing trends in key O&G operative practices in the UK.
- A review of publications, national guidance documents and relevant literature pertaining to surgical skill training was conducted.

Step 3: Recommendations for future research and development

Analysis of the data from Step 2 has enabled us to expand these unmet needs to key areas of focus that then map on to potential solutions. This report gives insight on how potential solutions might improve surgical skills training in O&G, and will form the basis for Phase 2 of the project.

These potential solutions will undergo further evaluation to ensure deliverability and cost-effectiveness, before entering pilot phases with measured outcomes for both resident training and patient care. It is essential that if any new simulation or technology-based education tools are introduced, they have established validity to act as additions to hands-on operating and patient contact, rather than replacements.

RCOG Curriculum 2024

The solutions and recommendations from the Surgical Skills Project are being developed alongside the introduction of the RCOG Curriculum 2024.¹ The curriculum covers three stages of training, and selected surgical procedures require evidence of competence during each stage.

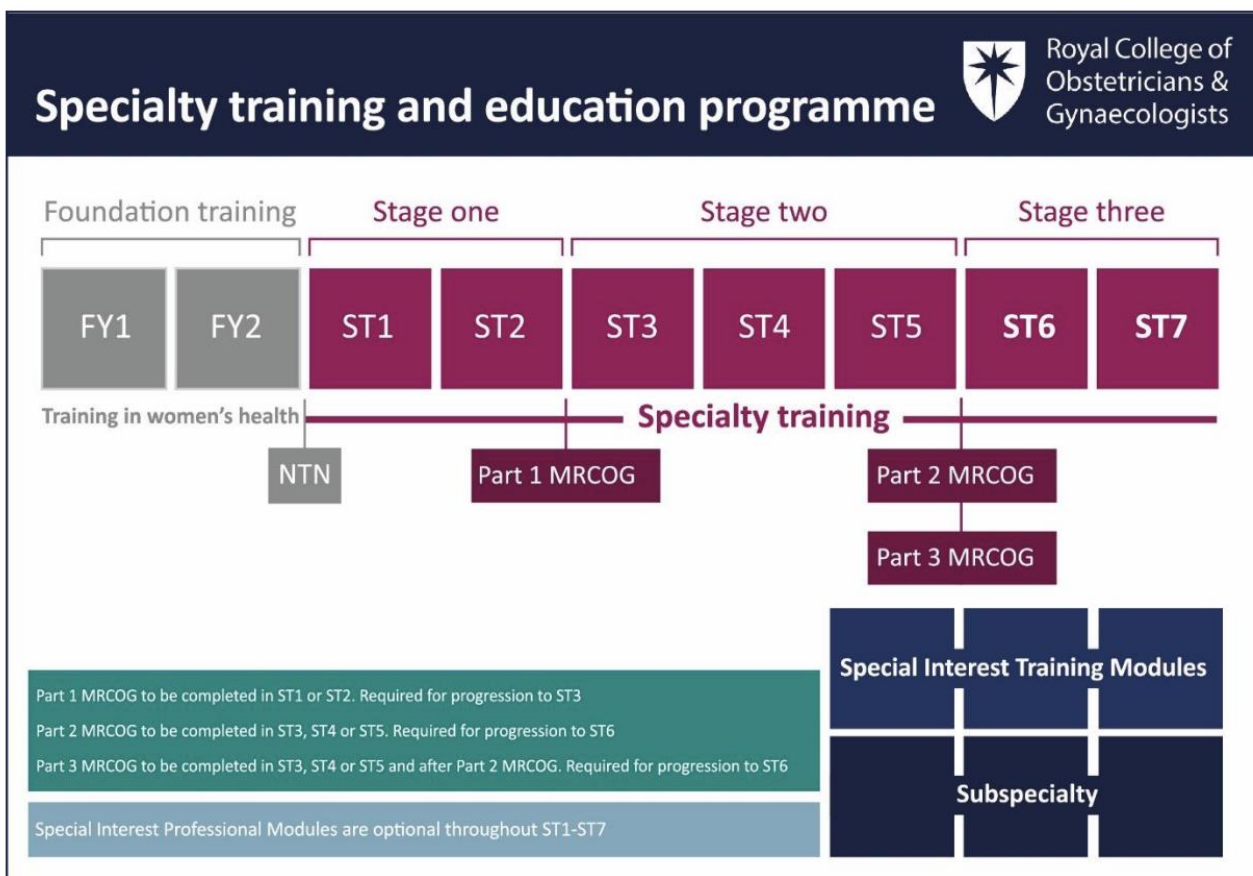


Figure 1. RCOG speciality training and education programme.



Stage 1 surgical competencies

- Caesarean section
- Perineal repair
- Surgical management of miscarriage/surgical termination of pregnancy <16 weeks

Stage 2 surgical competencies

- Caesarean section (intermediate)
- Hysteroscopy
- Diagnostic/simple operative laparoscopy
- Third-degree perineal repair

Stage 3 surgical competencies

- Caesarean section (complex)
- Laparoscopic management of ectopic pregnancy
- Ovarian cystectomy (open/laparoscopic)
- Surgical management of postpartum haemorrhage
- Surgical evacuation of uterus >16 weeks

From ST5, O&G residents can then choose two Special Interest Training Modules (SITMs) to further develop their surgical skills. For example, those undertaking the Gynaecological Surgical Care SITM will develop the following additional surgical competencies (to agreed levels of entrustability):

- Midline incision, safe opening and closure technique
- Adnexal surgery (cystectomy, oophorectomy, post-hysterectomy)
- Abdominal total (or, if appropriate, subtotal) hysterectomy +/- bilateral salpingo-oophorectomy including surgery for large fibroids
- Abdominal myomectomy
- Adhesiolysis (including omentum, bladder and bowel)
- Surgical management of pelvic abscess
- Treatment of superficial endometriosis/adhesions
- Total laparoscopic hysterectomy (or laparoscopic-assisted vaginal) in uncomplicated cases
- Emergency hysterectomy (e.g. major obstetric haemorrhage).



Our areas of focus

Workforce of the future

Demand for gynaecological services will likely continue to grow, in part due to an ageing population in the UK. According to the Department of Health and Social Care, by 2043, at least 11% of the population of most areas of England will be aged over 75 years, which is a significant increase from current levels.² The need to establish a well-trained, adequately supported workforce is more critical than ever.

The current O&G workforce faces evolving operational trends, changing societal expectations of the speciality and economic pressures on the NHS. Fewer operations are being performed, making it more difficult to train doctors in these procedures. The loss of the apprenticeship team-based structure, restructuring of doctors' contracts and increasing rota gaps have resulted in the training landscape changing dramatically. New approaches need to be explored to overcome these challenges.

Furthermore, with fewer operative opportunities, many doctors who aspire to a career in gynaecological operating are experiencing multiple barriers in securing high-quality training. This has also affected complex obstetric operating, as O&G doctors may not have transferable open operating skills from their gynaecology training.³ This disparity is reflected in resident feedback, and means that new consultants are requiring support for complex cases.⁴

Simulation and virtual learning

Simulation is a vital tool for surgical skills acquisition, providing a safe, controlled environment where doctors can practice procedures without risking patient safety. Simulation training improves skills acquisition and retention, and doctors learn skills quicker than in traditional training.⁵ In addition, surgeons who use simulators perform better and faster in real operating environments.⁶ Simulation also makes it easier to standardise training and ensure that doctors meet specific proficiency levels before performing real surgeries.

Simulation also allows for practice of clinical decision-making, enabling surgeons to gain confidence outside of high-stress clinical environments. This is supported by evidence that simulation improves patient safety by enhancing attainment of safety critical skills and behaviours in staff.⁷ Simulation also offers unique ways of continuing professional development by providing training in new skills before real-life adoption, and skill maintenance of less common procedures or scenarios.



Simulation has become a cornerstone of modern surgical education, significantly enhancing technical skill development, confidence and patient safety by providing a structured, risk-free learning environment.

Reprioritising surgical training

Training gynaecologists in the NHS faces several challenges, including workforce shortages, limited surgical exposure and systemic issues. Rota gaps limit access to surgical procedures, reducing hands-on practice for residents. The European Working Time Directive (EWTD), aimed at reducing work fatigue, also limits the number of hours certain doctors can work, restricting their time in theatre and hindering skill development. These factors, combined with a focus on managing long waiting lists for surgery, have further reduced operative opportunities to gain necessary experience, affecting doctors' confidence and competency development.

Additionally, the shift toward outpatient care has reduced the volume of hands-on surgical training. This shift, although beneficial for patient access, may not provide residents with the same opportunities to develop essential surgical skills. Increasing complexity in patient cases also affects the ability of residents to operate independently, as they rely more on senior supervision. The emphasis on managing complex patient cases further detracts from their hands-on experience, delaying competency in surgical procedures and increasing anxiety among residents.

The COVID-19 pandemic and recent maternity service crises have also exacerbated training challenges. The pandemic led to the postponement of elective procedures, limiting opportunities for practical experience and increasing the pressure on current residents. Meanwhile, the maternity crisis has led to a focus on safe staffing and increased medical cover in obstetric areas, which has reduced exposure to gynaecology training. The compounded effect of these factors underscores the urgent need to rethink the approach to training gynaecologists in the NHS.

Lifelong learning

The acquisition and maintenance of extended surgical skills for O&G consultants and senior specialists is a critical aspect of professional development, ensuring that practitioners are equipped to deliver high-quality care in an evolving healthcare landscape. As the demands on gynaecological services grow and we continue to recover from the COVID-19 pandemic, it is increasingly important for new consultants and specialists to take on the mantle of being a surgical mentor alongside refining their surgical skills.

One of the most effective ways to nurture skill acquisition is through structured mentorship. Support systems such as mentorship programmes and buddy operating arrangements, together with effective job planning, play pivotal roles in facilitating this process.



It will be important to create a structure where experienced consultants and senior specialists can provide regular mentorship and share their expertise with less experienced colleagues. Furthermore, to provide constructive feedback or skill assessments, buddy operating (paired surgical practice) could ensure that new consultants and specialists remain supported in their surgical journey. This collaborative approach promotes learning from experienced colleagues during surgery, fostering a culture of ongoing development and support. It is essential that strategic job planning facilitates both senior and new consultants and specialists to have the time and opportunity to focus on skill development and teamwork. Through investment in continuous learning and professional growth, we can help ensure that new consultants and specialists are well-prepared to meet the challenges of their roles.

Investing in the educators

Educators in O&G are the greatest asset to the specialty, and are key to improving surgical skills training. Although every doctor can act as an educator or trainer in the speciality, most training is provided by senior experienced clinicians either in a consultant or specialist role. However, in recent times, our educators have faced many unprecedented challenges. These challenges, which predate the COVID-19 pandemic, include lack of time and resources, burnout, rapidly evolving technologies, limited access to simulation tools, lack of mentorship and lack of structured feedback on the training they provide.

Senior experienced clinicians in O&G work in high-pressure environments, with demanding schedules and high administrative workloads. With growing clinical responsibilities, many find it difficult to dedicate adequate time to teaching and mentoring the next generation. High levels of burnout among seniors, resulting from workforce shortages and increasing patient demand, make it harder for them to engage effectively in teaching. Fatigue and stress reduce trainers' ability to focus on educational responsibilities.

The field of gynaecology is evolving rapidly, with new technologies and minimally invasive techniques such as robotic surgery. Educators need to stay up to date, not only with clinical skills, but also with the most effective ways to teach these skills to new doctors. Consultants and specialists need time to learn new surgical skills themselves, which reduces the opportunity for the trainee to have hands-on skills development time and surgical mentorship.

We are fortunate to have a strong cohort of O&G educators who provide invaluable training to our doctors. However, they face many challenges in providing this aspect of their role without enough financial support or protected time. Action needs to be taken to improve their training environment and better recognise their contribution to the specialty.



Focus 1: Workforce of the future

Defining the gap

The future of the O&G workforce faces significant challenges shaped by the evolving healthcare landscape and increasing complexity of patient needs. RCOG training must be strategic to meet these demands. Shifting demographics, an ageing population, increasing complex obstetric cases and advances in minimally invasive surgery further emphasise the need for a workforce that is both highly skilled and adaptable.

In addition, the current pressures on healthcare systems – exacerbated by the COVID-19 pandemic – have highlighted gaps in workforce capacity and underscored the importance of adaptable, well-trained clinicians. This chapter explores the key factors influencing the O&G workforce of the future, including changing clinical demands, trends in operating practices and the need for innovative national changes to occur that will be replicated at a local and regional level.

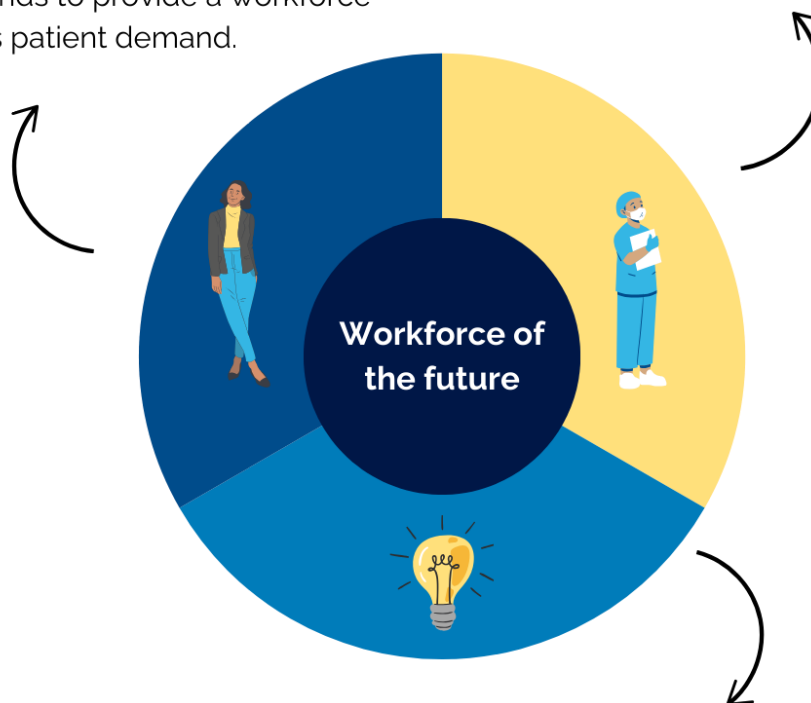
How does this chapter align with our aims?

Provide a competent, future-proofed workforce to safely care for women and people with a uterus

- Implement a fair, transparent selection process for advanced surgical training to foster a standard of excellence.
- Ensure that we adapt to changing operative trends to provide a workforce that matches patient demand.

Enable O&G doctors to reach their full surgical potential

- Evolving operative practices has meant that doctors' learning needs are also evolving, and training needs to reflect this in order to adequately prepare them for their future careers.



Effective use of educational resources and learning opportunities

- Changing management of gynaecological conditions has meant a reduction in the volume of routine gynaecological procedures.
- As opportunities for training reduce, we need to ensure that training opportunities are accessed by the residents who will provide this service in their future careers.
- Utilise existing educational resources and consider innovative new methods to maximise learning opportunities for surgical skills.



Analysing the gap

Gynaecology waiting lists

The RCOG published the *Left for too long* report in April 2022.⁸ The report warned that gynaecology waiting lists had grown dramatically since the beginning of the COVID-19 pandemic, an increase of over 60% compared with pre-pandemic levels. In June 2024, the RCOG published *Waiting for a way forward*, which stated that 763,694 people across the UK are waiting for gynaecology care – an increase of a third compared with April 2022 and 112% compared with pre-pandemic numbers.⁹ Gynaecology has the worst waiting list of all medical specialties, with some people experiencing delays of over a year for necessary treatments, such as surgeries for endometriosis or prolapse.

This backlog is primarily due to the suspension of non-urgent elective surgeries during the pandemic, which further compounded pre-existing delays in gynaecology services. There has also been a long-term lack of prioritisation of gynaecological surgical care in the NHS, with other general surgical procedures receiving priority for theatre lists and hospital bed capacity. Waiting times in some areas have risen from an average of 4.8 weeks in 2012, to as long as 15.6 weeks in 2022. Such prolonged delays have had a detrimental impact on the physical and mental health of people who require gynaecological care, often worsening their health issues.

Many advances have been revolutionary for our patient population, with targeted therapies and hormonal treatments improving quality of life while avoiding a surgical procedure. The reduction in gynaecological operating procedures can be attributed to several interrelated factors. Advances in non-invasive treatments and technologies, such as medical management and minimally invasive techniques, coupled with an increased emphasis on conservative management of conditions, have led to a reduction in the number of surgical cases.

Changing operative trends

Hospital Episode Statistics (HES) plays a crucial role in capturing and analysing data on patient care within hospitals, particularly in the context of surgical operations. These statistics provide a comprehensive overview of patient interactions, including admissions, treatments and outcomes.

Operations are coded using a standardised classification system, which allows for consistent reporting and analysis across different healthcare settings. This coding system not only facilitates the tracking of surgical volumes and trends, but also aids in resource allocation, quality improvement initiatives and policy planning. It is an incredibly complex process to code completely accurately for a procedure while ensuring that there are negligible unit, regional or national discrepancies. Although the following HES data provides an invaluable insight into operating trends in O&G, it is important to acknowledge that inaccuracies can arise from coding errors.

The following paragraphs will utilise HES data to illustrate the changing volumes and nature of operating for some of the most common gynaecological surgical procedures.¹⁰

Hysterectomies

Hysterectomies are a crucial skill for a gynaecologist to address critical conditions that affect the health of women and people with a uterus, ranging from menstrual conditions to malignancy to an immediate lifesaving procedure in an obstetric setting. They are a mandatory requirement of competency for four Advanced Training Skills Modules (ATSMs) and five SITMs.

Using HES data, the number of hysterectomies performed annually during 2012–2023, via different approaches, is shown below. It highlights the decline in open operating correlating with an ongoing rise in minimally invasive laparoscopic procedures.

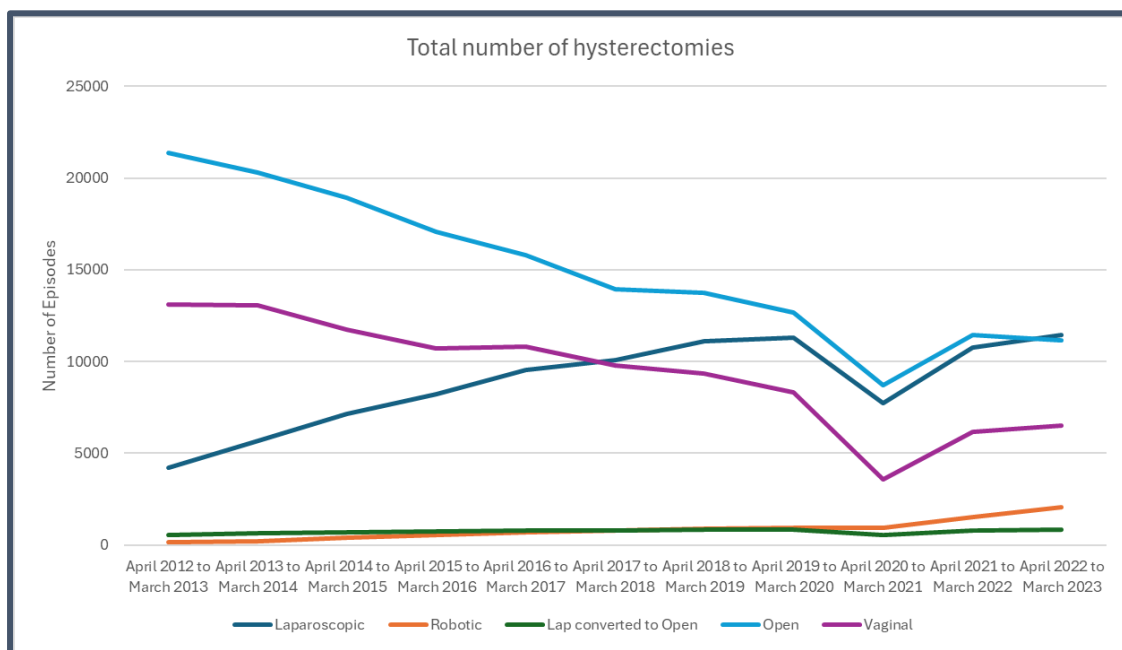


Figure 2. HES data for total hysterectomies, 2012–2023.

The same decline is seen when the data are divided between hysterectomies with and without concomitant adnexal surgery:

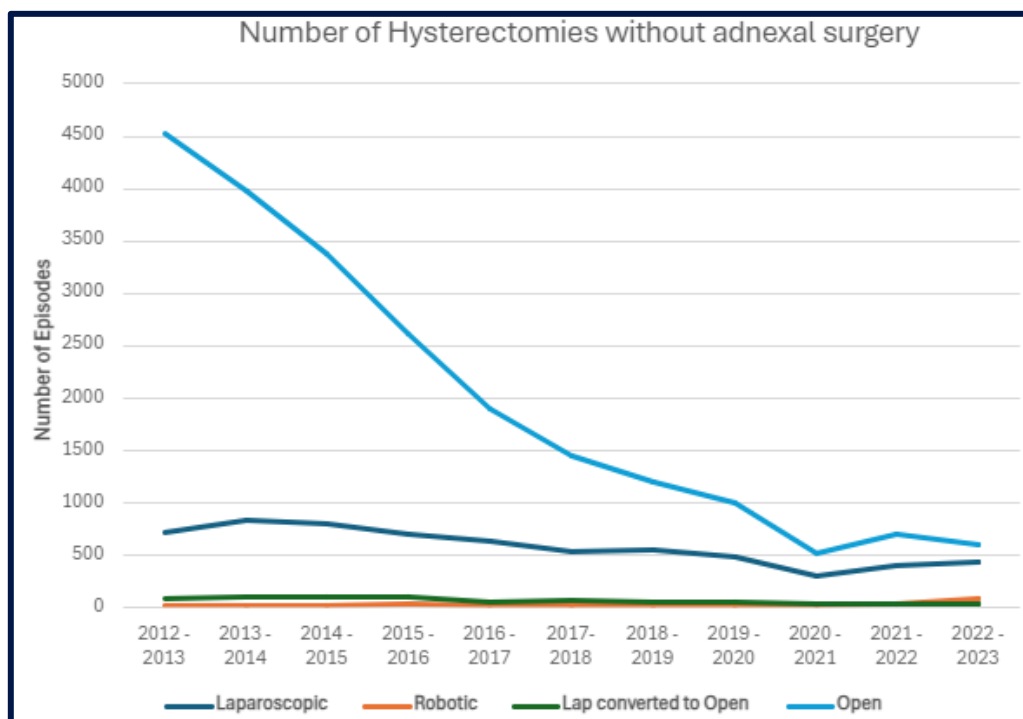
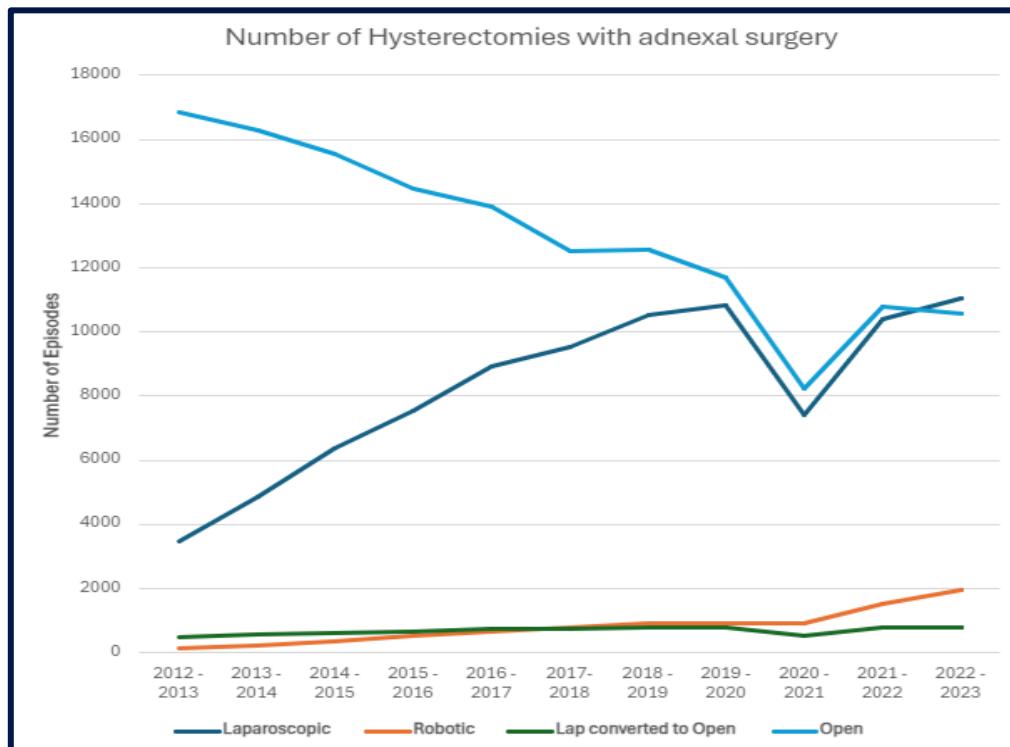


Figure 3. HES data for hysterectomies with and without adnexal surgery, 2012–2023.

Many argue that vaginal surgery should be an essential skill in a gynaecologist's toolkit. Performing a vaginal hysterectomy has several proven advantages over abdominal approaches, such as reduced recovery time, less postoperative pain and overall improved quality of life.¹¹

However, with the rise of endoscopic and robotic surgery, the decline in vaginal operating is evident (Figure 4). This is concerning, as with the evolving ageing population and post-pandemic extreme demand on urogynaecology and pelvic health, we must retain these essential vaginal operating skills.

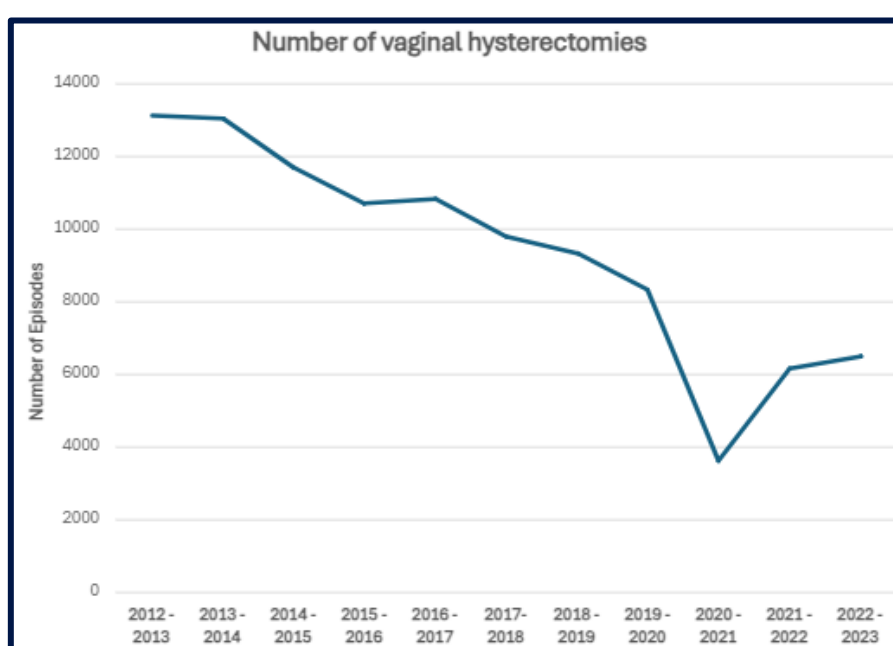


Figure 4. HES data for vaginal hysterectomies, 2012–2023.

Other vaginal procedures

Pelvic floor repair is considered a fundamental skill for a urogynaecologist. Mastery of the technique is essential for improving patients' quality of life by restoring pelvic support and function. Although it remains a crucial competency for the urogynaecology SITM, fewer procedures are being performed.

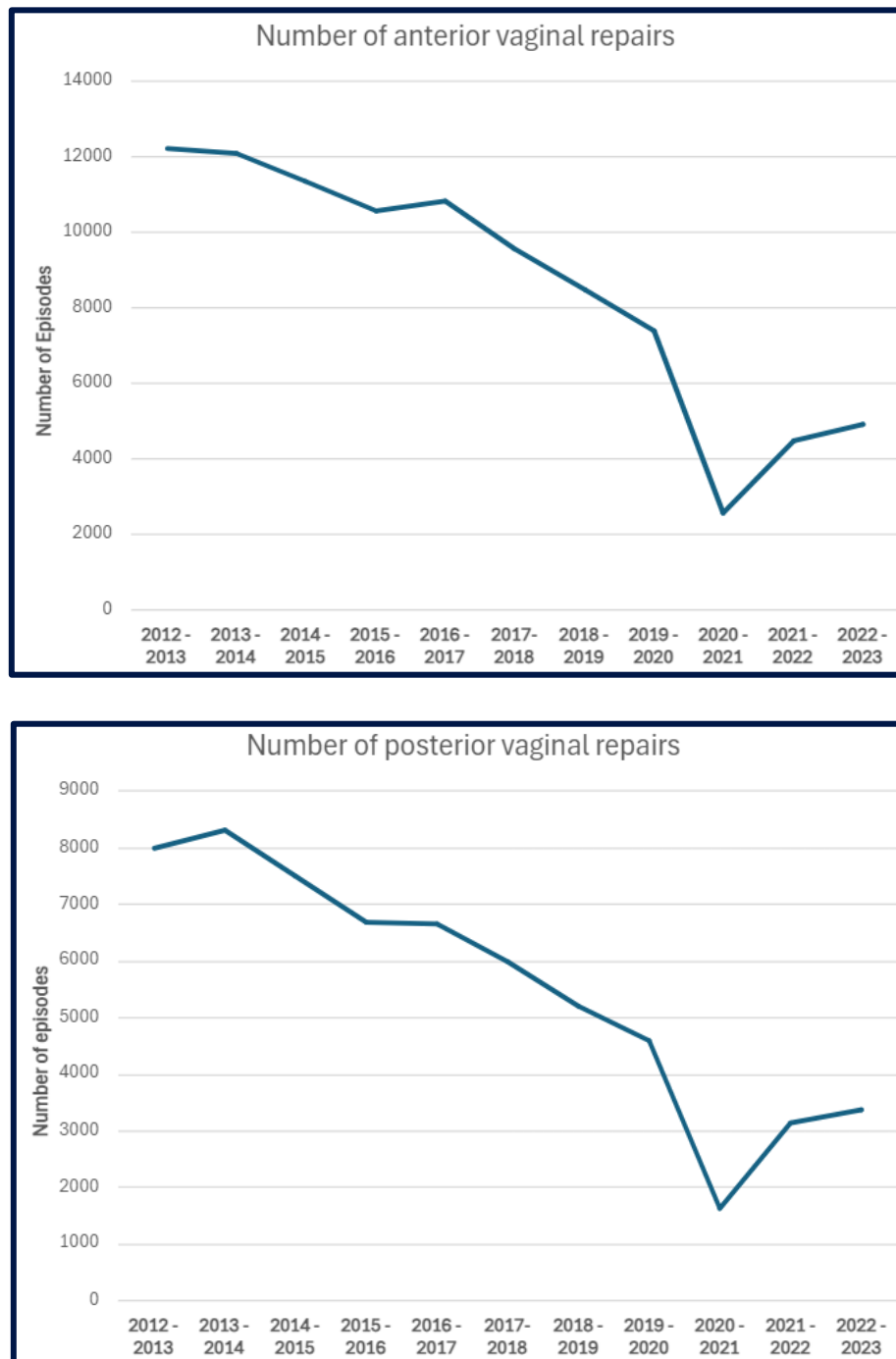


Figure 5. HES data for pelvic floor repair, 2012–2023.

Colposuspension involves the suspension of the bladder neck and urethra to the surrounding pelvic tissues, requiring true knowledge of the pelvic floor anatomy. In the RCOG Curriculum 2024, a first-line procedure for stress urinary incontinence is required, either colposuspension (open or laparoscopic) or autologous fascial sling. On completion of the urogynaecology SITM, an O&G doctor should be able to be entrusted to perform these

procedures independently (level 5 supervision). **In 2022–2023, there were slightly over 600 colposuspensions performed nationally.**

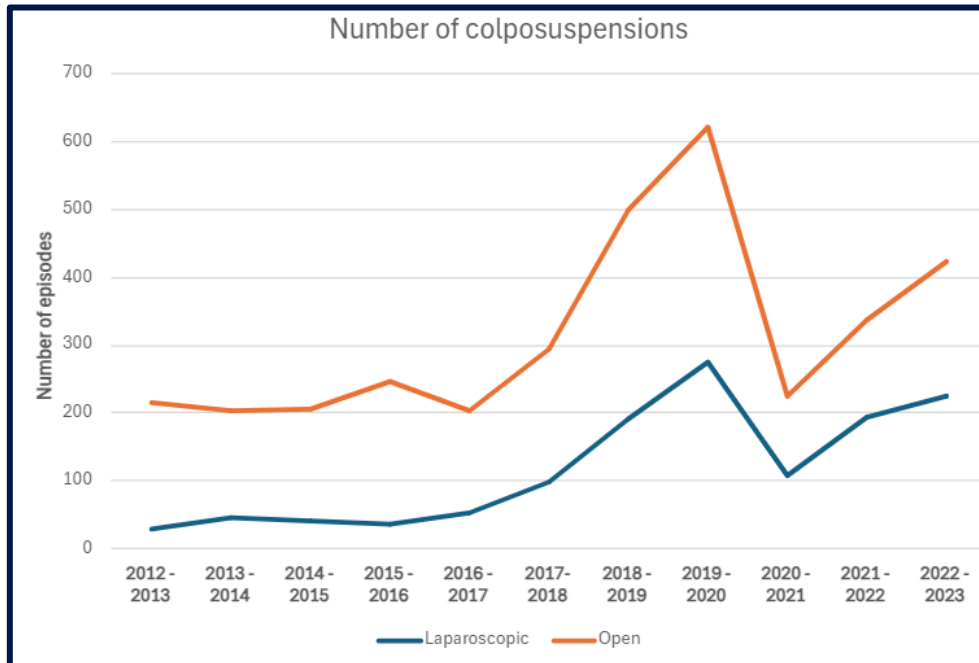


Figure 6. HES data for colposuspensions, 2012–2023.

Adnexal surgery without hysterectomy

Adnexal surgery with uterine preservation is a relatively common procedure whereby one or both fallopian tubes and/or ovaries are removed for a multitude of pathologies. At stage 2 of training, simple operative laparoscopy involving the adnexa is a mandatory requirement for ST5, and at stage 3, laparoscopic management of an ectopic pregnancy and ovarian cystectomy is required for ST7.

Advances in laparoscopic techniques have resulted in an overwhelming majority of adnexal operating being performed endoscopically, with open surgery usually reserved for potential malignancies. The volume of laparoscopic adnexal operating appears to be either steady or on a slight incline, which could suggest that we need to review at what stage endoscopic procedures are introduced to the training curriculum.

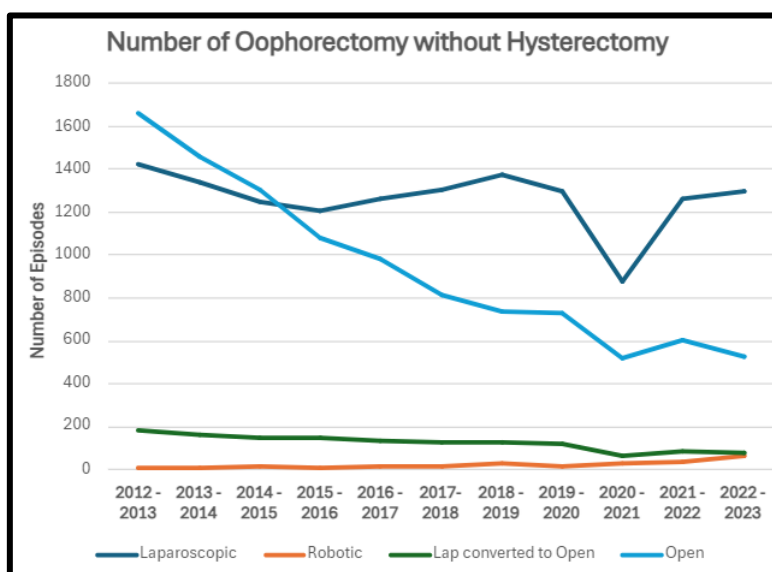
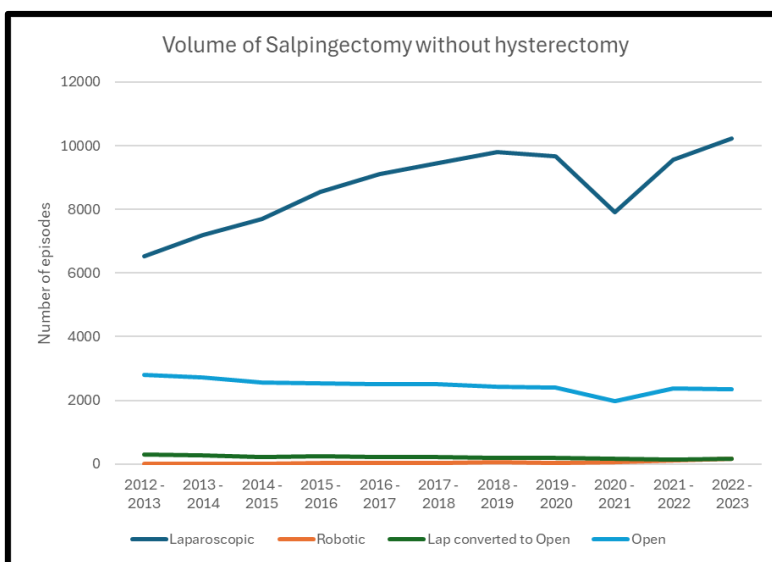
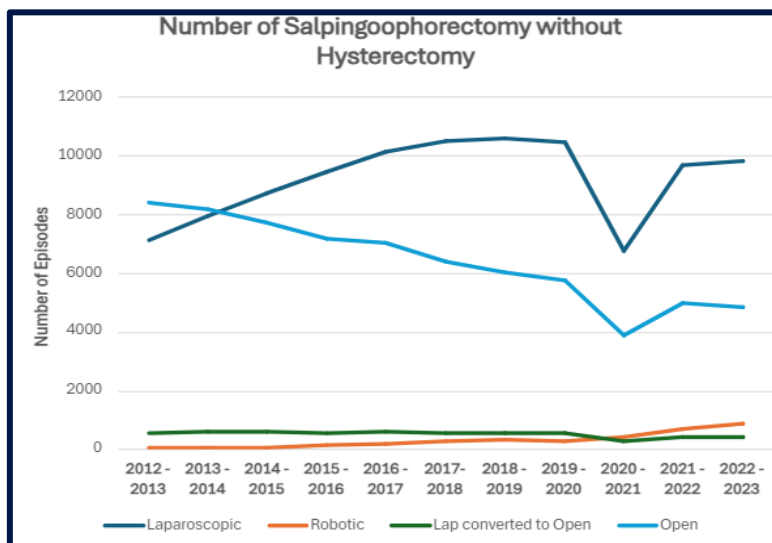


Figure 7. HES data for adnexal surgery without hysterectomy, 2012–2023.

Myomectomies

Myomectomies are a highly skilled procedure where preservation of the uterus to maintain reproductive potential is balanced against the high risk of blood loss. The procedure can be performed with open, laparoscopic and robotic-assisted techniques. Each method has distinct technical demands and considerations. At present, they are essential competencies for the Gynaecological Surgical Care, Management of Complex Non-malignant Disease and Robotic-Assisted Gynaecological Surgery SITMs.

These technically challenging procedures need to be undertaken by, or under the supervision of, highly skilled gynaecological surgeons. **This procedure seems to be performed nationally at a relatively stable rate, with an approximate 4:1 ratio for open versus laparoscopic approach. With approximately only 500 laparoscopic myomectomies occurring per year, they are an uncommon procedure that requires time to teach, learn and master.**

We need to ensure that the right candidates (those who will provide this service in their future careers) gain competency in this advanced technique, and exploring opportunities for cross-site collaboration may be beneficial in enhancing training access.

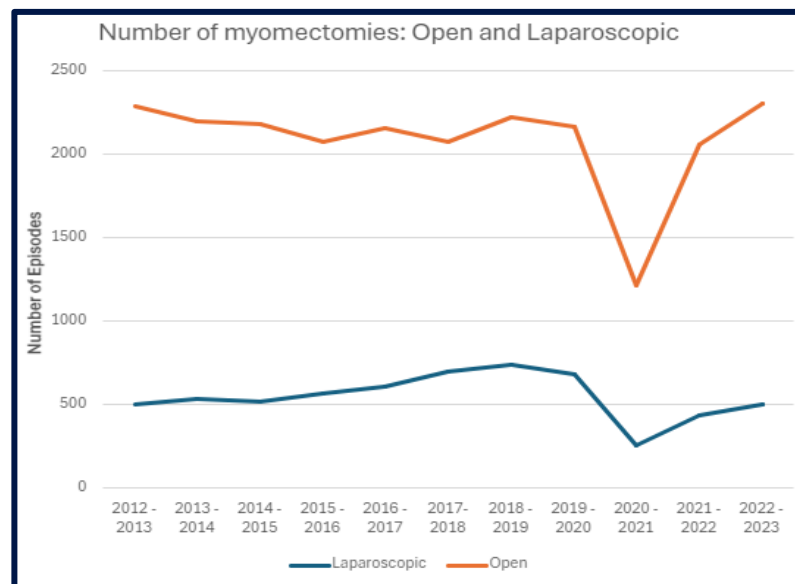


Figure 8. HES data for myomectomies, 2012–2023.

Caesarean births

Caesarean births are the first abdominal surgical procedure an O&G doctor will learn to perform independently, and the most frequently performed open abdominal operation. It is where O&G doctors will refine their surgical skills in handling tissue, utilising surgical instruments and knot tying. It is therefore vitally important that these skills meet a high surgical standard from the beginning, as they will form the basis of every O&G doctor's ongoing surgical development in the field.

The number of caesarean births being performed has increased by 26% over the past decade, from 167,876 in 2012–2013 to 211,667 in 2022–2023. As this number increases, so does the surgical complexity of many of these procedures:

- More women and pregnant people are having multiple repeat caesarean births, which is associated with increased risk of morbidly adherent placental conditions and intricate surgical challenges.
- Increasing numbers of women and people with a uterus are becoming pregnant with complex medical and surgical comorbidities, including obesity and those with previous abdominal surgery such as myomectomies or bowel resections.

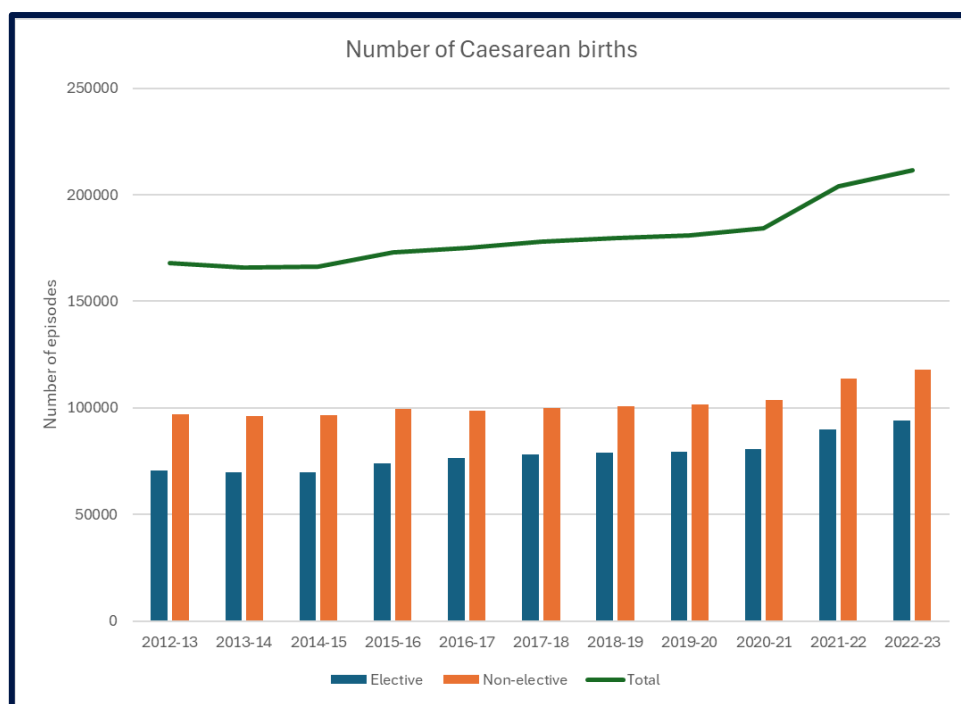


Figure 9. HES data for caesarean births, 2012–2023.

Caesarean hysterectomies

A caesarean hysterectomy is performed under extremely stressful circumstances and requires a high level of surgical skill and familiarity with pelvic anatomy. This intervention is typically indicated in cases of severe obstetric complications, such as uncontrolled haemorrhage due to placenta previa or placental accreta. It may also be necessary when there are significant maternal health risks or when rapid delivery is critical for both maternal and fetal survival.

The procedure requires meticulous dissection in the deep pelvis to ensure the safe removal of the uterus while managing life-threatening blood loss. At present, there are local and regional agreements regarding who performs a caesarean hysterectomy, with an *ad-hoc* reliance on the gynaecology team.

Thankfully, a caesarean hysterectomy is a relatively rare event, with the numbers remaining stable in 2012–2023.

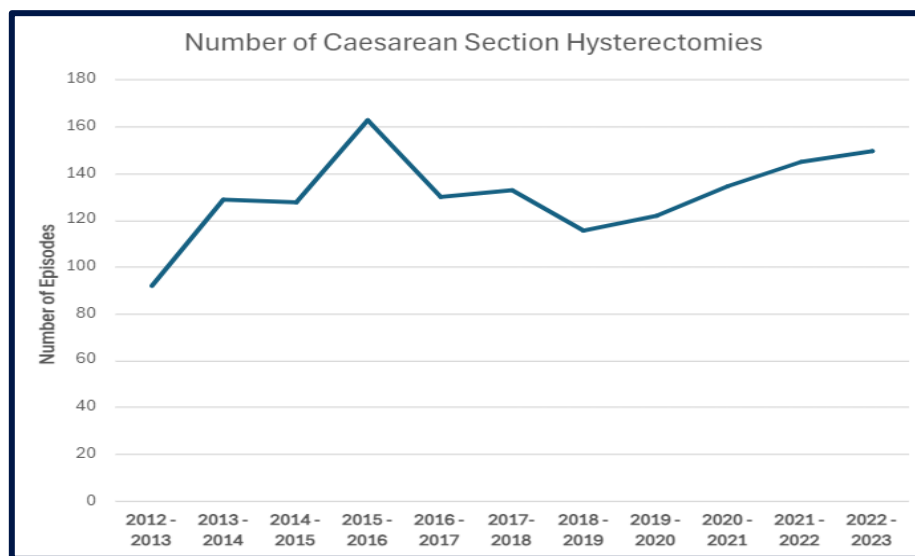


Figure 10. HES data for caesarean hysterectomies, 2012–2023.

What does this mean for training?

Hysterectomy

In the trainees' survey that was undertaken as part of this project, 71% of O&G residents felt that open hysterectomy should be included as a core curriculum sign-off and 51% felt that laparoscopic hysterectomy should also be a core curriculum skill.

However, the number of open hysterectomies performed in the UK has almost halved over the past 10 years, from 21,386 in 2012–2013 to 11,173 in 2022–2023. Further, the volume of laparoscopic hysterectomies has more than doubled in the past 10 years, from 4195 in 2012–2013 to 11,474 in 2022–2023. **The year 2022–2023 was the first year where more laparoscopic hysterectomies were performed than open hysterectomies.** This helps us to estimate the number of procedures available per doctor within the speciality.

Hysterectomy to O&G doctor ratios for 2022–2023

Cohort of doctors	Open hysterectomies (11,173 in 2022–2023)	Laparoscopic hysterectomies (11,474 in 2022–2023)
O&G NTN holders (2716)	4 per doctor per year	4 per doctor per year
ST5+ O&G NTN holders (1090)	10 per doctor per year	11 per doctor per year
O&G consultants practicing gynaecology (approximately 2400)	5 per consultant per year	5 per consultant per year
O&G consultants and ST5+ O&G NTN holders (approximately 3490)	3 per doctor per year	3 per doctor per year

In addition to these numbers, we must consider whether the complexity of the case matches the training needs of the doctor assigned to that operating list, and the other pressures of training in the clinical environment. It is therefore not plausible for hysterectomy to be a core curriculum requirement, as it is unachievable for all doctors to become competent based on the volume of procedures currently undertaken in England. In addition, by trying to spread this limited training resource among too many doctors, we risk a specialty-wide inability to achieve competence and provide safe patient care.

This does have implications for out-of-hours cover for complex operating, and many units are adapting to these shifting trends in ways that fit their local needs and workforce. In O&G, complex operating frequently occurs out of hours, and we need to move away from a structure where ‘phoning a friend’ is an accepted approach and implement more formalised on-call structures instead. Arrangements, such as those outlined in the RCOG statement on safe out-of-hours emergency surgery,⁴ ensure patients receive safe care and O&G consultants and specialists do not feel anxious about being expected to cope with these high-stress situations alone.



Vaginal operating

Vaginal operating has experienced the most significant decline in volume over the past decade: **13,122 vaginal hysterectomies were performed in 2012–2013 compared with just 6492 in 2022–2023**. This may be explained by more hysterectomies being performed laparoscopically; however, a recent Cochrane review recommended that the vaginal route to hysterectomy should be performed where possible for non-malignant disease, because of its advantages over laparoscopic and open procedures.¹¹

The volume of vaginal repairs has also dramatically reduced from 27,668 in 2012–2013 to just 12,482 in 2022–2023. This creates significant challenges for training our future urogynaecology workforce, as individual units may not have sufficient training volumes to ensure competency of residents. Therefore, we must explore training options in this area, to ensure that the workforce will be able to offer these services to women and people with a uterus in the future.

A root-cause analysis of changing operative trends in vaginal operating should also be considered: the reduction in operating volume seen in other areas of gynaecology is partially attributable to increases in medical management and outpatient procedures, but this is not necessarily true for urogynaecology. This suggests that these people are being underserved by the current system through lack of access and long wait times for procedures.

Adnexal surgery

The volume of laparoscopic adnexal surgery is rising, and indicates a need to ensure O&G doctors can access comprehensive training to continue to provide this service to women and people with a uterus. **There were 15,090 laparoscopic adnexal surgeries in 2012–2013 compared with 21,336 in 2022–2023. This equates to six procedures per resident per year, and this is without the need for consultants to maintain their own skills and other non-NTN holders also performing surgeries.**

This explains why O&G doctors are finding it challenging to develop or maintain their operative laparoscopic skills and supports the need for simulation training before operative exposure, to ensure that residents can gain the most educational benefit from their limited exposure to these procedures. This project also needs to explore trends in endometriosis surgery and how to best provide a workforce capable of providing this service to women and people with a uterus.

Complex obstetric operating

Between 2010 and 2018, one in five women and pregnant people gave birth by caesarean worldwide and, consequently, an ever-increasing number of women and pregnant people



are having multiple repeat caesarean births. These are potentially more complex operations, with adhesion formation, scar dehiscence and placental complications including placenta previa and placenta accreta spectrum.³ It is therefore critical that the O&G workforce is given appropriate training in this increasingly complex population. However, this comes at a time when exposure to open abdominal/pelvic surgery is also reducing, and the previous training system of relying on all O&G doctors having transferrable open surgical skills is no longer viable.³

Closing the gap

Implementation of a selection process for advanced surgical operating

We can see from the operating trends that training all O&G doctors in complex gynaecology operating is not feasible. We therefore need to explore a fair and transparent selection of doctors to undertake training in this area and maintain high clinical standards. There is a need to supply enough trained consultants and specialists to match patient demand. This requires a balance between supporting the career aspirations of as many doctors as possible while ensuring that training opportunities are not spread between so many doctors that none are able to achieve competency during their training time.

With the implementation of a structured simulation programme, it is predicted that each O&G doctor will be equipped with a stronger foundation of surgical skills on which to build. To implement a fair selection process for advanced surgical training, it is crucial that selection criteria are based on aptitude, competency, dedication and access to quality training.

The pillars of a selection process

- **Transparent criteria with fair opportunities:** Establish transparent criteria for selection, based on technical and non-technical skills. This could include surgical proficiency, commitment to continuous learning, leadership in clinical settings and feedback from mentors. In addition, ensure a system that guarantees O&G doctors, regardless of location or rotation, have equal access to the opportunity to apply and be considered.
- **Competency-based selection:** Given the decline in operating opportunities, the selection process should focus on demonstrated competencies and aptitude rather than the number of cases completed.
- **Use of simulation and mentored training:** Where operating opportunities are limited, simulation-based assessments can provide a reliable alternative for evaluating surgical skills. Selection should involve feedback from mentors and



observation of doctors over time. Continuous feedback and evaluation during earlier rotations can be used to select those most suited for advanced surgical training.

- **Balance workforce needs with training goals:** Given the limited surgical opportunities, focus should be placed on training a smaller number of highly skilled surgeons who can meet the increasing complexity of gynaecological cases. Regional gaps in surgical provision can be considered when selecting candidates, ensuring a balance between training needs and future workforce planning.
- **Emphasise quality of training:** The goal should be to develop a cohort of highly skilled, specialised surgeons. Rather than pushing more doctors through the system, focus on ensuring that those selected receive comprehensive, high-quality training. For selected candidates, a tailored surgical learning plan should be developed, ensuring they receive hands-on experience with complex cases, either through direct operating or well-supervised buddy operating.

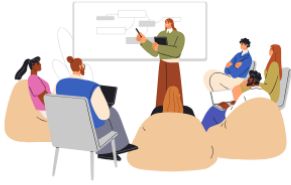




By adopting these strategies, the RCOG can ensure a fair, competency-focused selection process for surgical SITMs that prioritises quality training, ensuring the development of expert gynaecological surgeons despite the reduction in operating opportunities.

Career planning

Changes to training and selection will affect doctors currently progressing through the training programme. It is vitally important that doctors being trained are supported and encouraged to take ownership of their careers in the changing environment of operating practices, new innovations and new curriculum.

The first step to achieving this is through providing education and mentorship early on. Incorporating career planning at an early stage is crucial to help the current and future O&G workforce to develop a clear path early in their careers, which can guide them through complexities as they progress.

Strategies to incorporate career planning

	<p>Structured workshops and seminars Organise regular career development workshops focused on subspecialty options, leadership, research and academic pathways facilitated by senior educators or career advisors.</p>
	<p>Mentorship programmes Assign residents a mentor or supervisor to offer one-on-one guidance. Mentors can help residents identify their interests, set career goals and provide support in choosing clinical and academic pursuits. This provides continuity across training years when educational supervisors change.</p>
	<p>Dedicated career planning Include career planning in the ARCP process, allowing time to reflect on achievements and set future career objectives. A dedicated meeting with supervisors to regularly discuss career aspirations, aims or ideas can help align clinical training with long-term career aspirations.</p>
	<p>Exposure to subspecialties Offer opportunities for ST1/2 residents to experience different subspecialties through supernumerary sessions or by having 'taster' weeks, shadowing senior clinicians or attending specific clinics. This exposure can help them identify areas of interest early on.</p>
	<p>ePortfolios and logbooks Use eLogbooks and ePortfolios not only for tracking skills, but also for mapping career progress. Incorporating career reflection exercises and goal setting within these tools helps residents document their career aspirations and achievements.</p>



Complex obstetric operating

This is an area of O&G surgical practice that needs urgent attention and development to ensure that we produce a workforce capable of handling the changing nature of obstetric patients.

- Explore complex obstetric fellowships and training pathways to ensure we produce a cohort of O&G doctors able to meet the increasing surgical needs of obstetric patients.
- Build on the RCOG's previous work on 'Ensuring safe out-of-hours support for complex obstetrics and gynaecology surgery' to ensure that all O&G doctors feel adequately supported in caring for complex patients both in and out of hours.
- Develop educational resources that will enable O&G doctors to broaden or refresh their knowledge of rarer obstetric presentations, e.g. a video library of less common procedures such as caesarean hysterectomy.

Hospital management engagement

Hospital management plays a vital role in ensuring the availability of resources, staff and training opportunities. Management must prioritise the recruitment and retention of skilled doctors, while facilitating access to important advanced technology and equipment.

Additionally, hospital leadership must create an environment that supports continuous professional development, by providing protected time for training, mentorship and collaborative learning. By aligning operational priorities with patient care goals, hospital management ensures efficient service delivery and helps meet the growing demands of gynaecological healthcare. To secure hospital management's support for doctors dedicated time away from clinical activities for joint learning and training, it is important to develop a compelling case that demonstrates the value of this investment.

We recognise that although it will require multiple stakeholders, there is a need to strengthen relationships with hospital Trusts to promote the role of dedicated team training and how it can provide a long-term sustainable benefit for patient safety.



Phase 2 of the project will explore the following recommendations:

- Continue the review of operating trends to establish how we can maximise surgical opportunities for every O&G doctor.
- Establish an expert panel to review how a fair, transparent competency-based selection process can be implemented for advanced training.
- Develop strong progressive career support for each resident doctor from early in their career, with robust mentorship, supervision and resident-led input.
- Explore how to train and provide a workforce able to manage increasing obstetric surgical complexity.
- Create resources for hospital Trusts involving multiple stakeholders to clarify the role of dedicated team training and how it can provide a long-term sustainable benefit for patient safety.



Focus 2: Simulation and virtual learning

Defining the gap

In the UK, there are growing concerns regarding access to surgical training, and many residents experience difficulty in meeting surgical training competencies. According to a recent survey, only 50% of senior residents undertaking gynaecology operative ATSMs felt they were ready for independent practice, and 74% of residents disagreed that the programme produces doctors competent in general gynaecological surgery by the end of training.^{12,13} However, access to gynaecological surgical training is facing global scrutiny, with reports published by gynaecologists in nations such as Australia, New Zealand, Belgium, Republic of Ireland and Canada.^{14–16}

Simulation training has the potential to address training concerns.¹⁷ For decades, it has been the cornerstone of safe obstetric training with many aspects of maternity best practice engrained in simulation. With regards to surgical skills, there is a wide body of evidence across many surgical specialties highlighting the many benefits of simulation, including improved hand–eye coordination and psychomotor skills, better uptake, retention and maintenance of practical skills, and increased educator and learner confidence.¹⁸

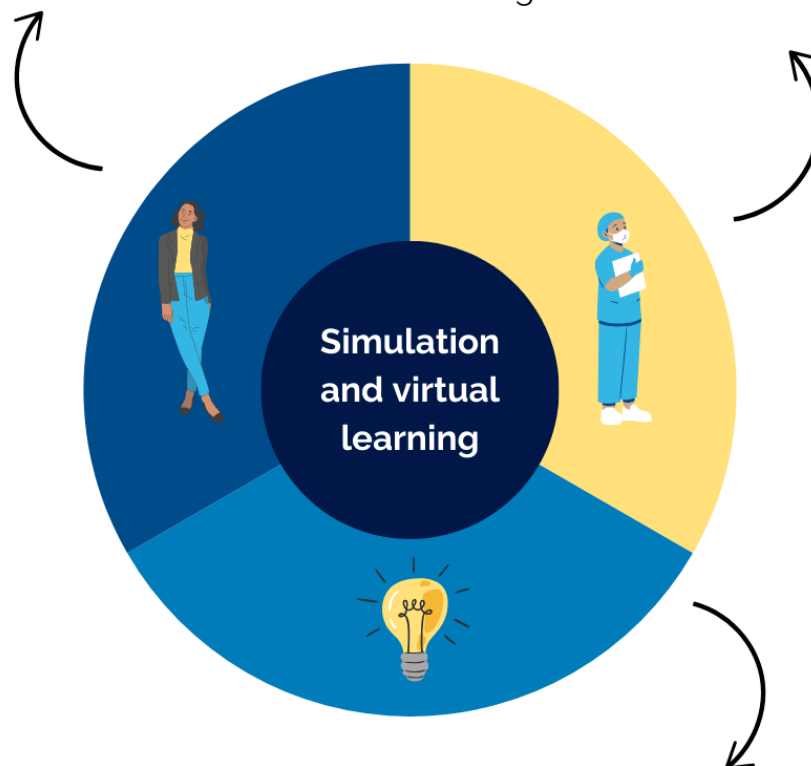
How does this chapter align with our aims?

Provide a competent, future-proofed workforce to safely care for women and people with a uterus

- Simulation training improves patient safety by providing a set standard of skills for operating practice.
- Simulation training supports our future surgeons in managing less frequently occurring scenarios and operative complications.

Enable O&G doctors to reach their full surgical potential

- Simulation training provides opportunities for O&G doctors to develop and gain feedback on their skills as they progress from novice to expert surgeons.
- Simulation training helps O&G doctors increase their confidence in their surgical skills before clinical exposure in high-stress situations.



Effective use of educational resources and learning opportunities

- Simulation takes O&G doctors further on the surgical learning curve in a safe, controlled environment, meaning that they gain more exposure and confidence in clinical training in theatre settings.

Analysing the gap

Simulation training in O&G: Our current position

TEF results demonstrated an increase in the percentage of UK O&G residents with access to a formal simulation programme, from 22% in 2019 to 38% in 2024. However, our aims are that every doctor has access to a programme and regional discrepancies are removed.

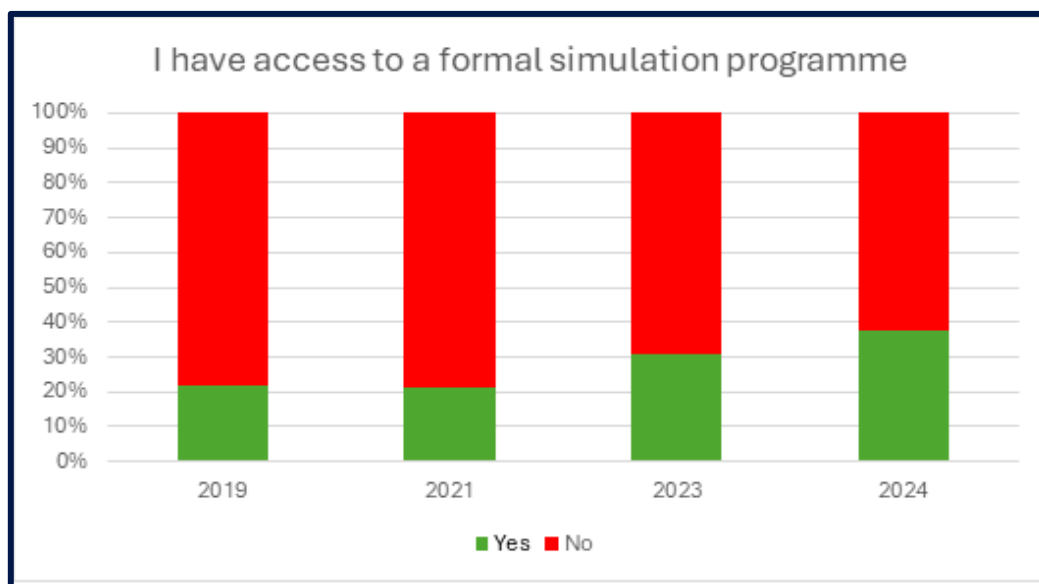


Figure 11. RCOG Trainee Evaluation Form results for simulation programme access, 2019–2024.

There has been a gradual increase in resident's access to simulation equipment, from 54% in 2019 to 66% in 2024. Again, our aim is that every resident has access to simulation equipment appropriate to their level of training and learning needs.

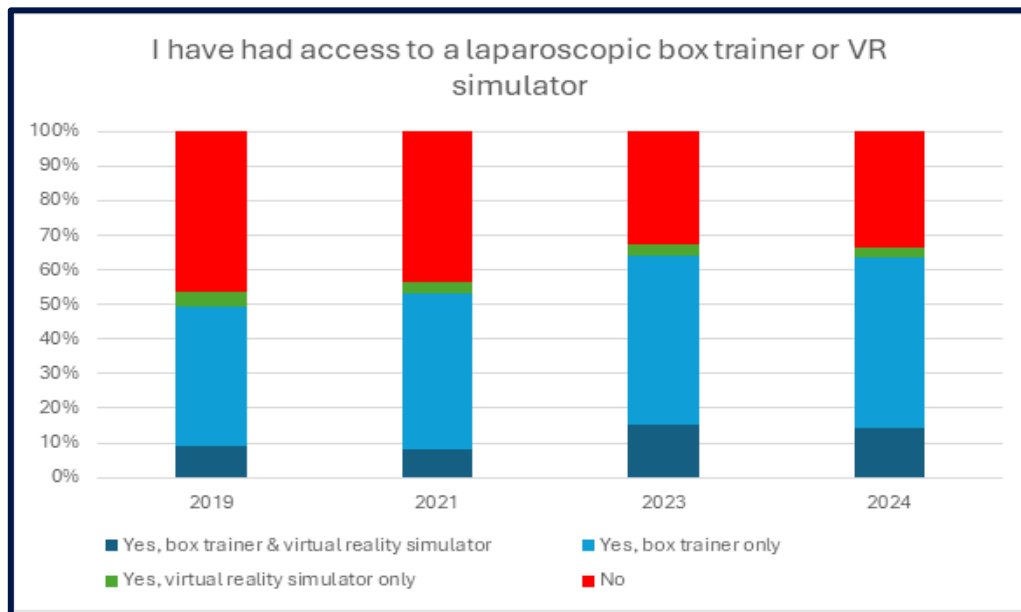


Figure 12. RCOG Trainee Evaluation Form results for access to simulation equipment, 2019–2024.

Trainer survey

Surgical skills training is provided at a regional level. Therefore, the O&G Heads of School from each Deanery were approached to complete a survey assessing current regional practices on simulation, obtaining responses from each region.

Key findings from our survey:



50% have a structured simulation programme



81% have a regional simulation lead



38% have a simulation fellow

Simulation training

The provision of simulation training varies widely throughout the regions (Figure 13), with the vast majority provided through locally organised regional training days or Deanery-specific simulation courses.



Figure 13. Trainer survey 2024, provision of simulation training.

In 2021, the RCOG published the ‘Training in Gynaecological Surgery Recovery Plan’, which supplied recommendations to overcome the effect of the COVID-19 pandemic on delivering high-quality gynaecological surgical training in the UK.¹⁹ One of the recommendations was the creation of ‘simulation hubs’ to support hands-on training.

Key findings from our survey:

- 45% of Heads of School reported that their region had established a hub
- 50% of regions reported establishing their own structured simulation programme
- 81% of regions had a nominated simulation consultant lead
- 38% of regions having a simulation fellow or resident
- 53% of regions had purchased simulation equipment through the four statutory education bodies (Health Education England (HEE), NHS Education Scotland (NES), Health Education and Improvement Wales (HEIW) and the Northern Ireland Medical and Dental Training Agency (NIMDTA)).

Access to simulation equipment

Our survey data supports the recent TEF findings that access to simulation equipment is variable across regions.

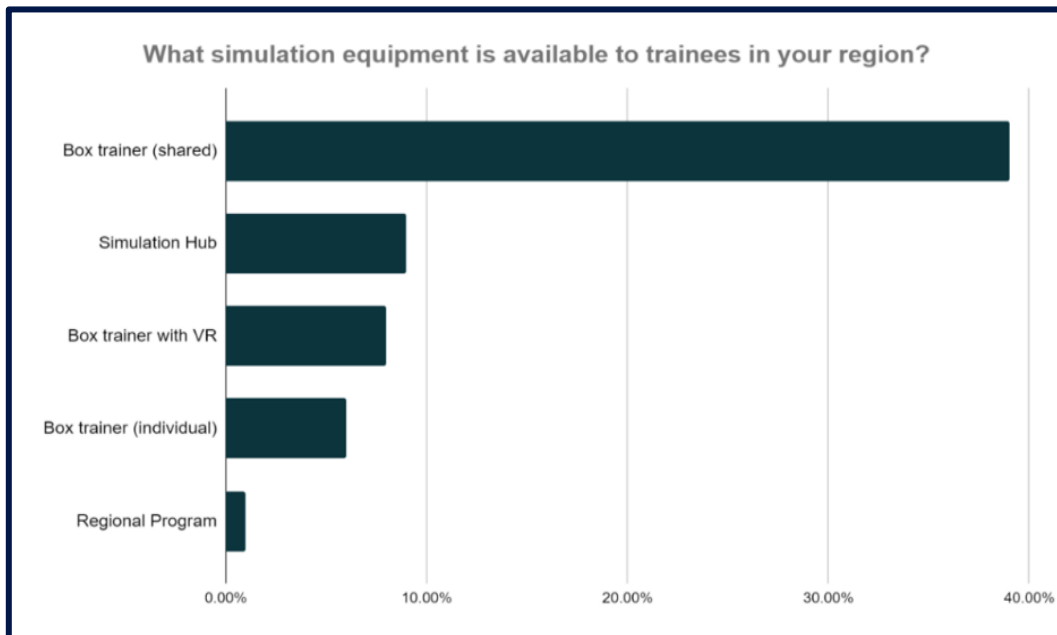


Figure 14. Trainer survey 2024, access to simulation equipment.

To support the implementation of simulation training, another suggestion from the ‘Training in Gynaecological Surgery Recovery Plan’ was that regions should consider top-slicing the ST1 and ST2 study leave budget to support each O&G resident owning a laparoscopic box simulator from the beginning of the training programme.

From our survey, 52% of Heads of School felt that their region would be able to provide every ST1 with a laparoscopic box trainer via the study budget, with 48% reporting that they would not. The perceived barriers to completing this recommendation included lack of funding and concerns over levels of engagement with the equipment. For those resident doctors without a national training number, similar enquiries could be made as to using Trust-funded study budget for the purchase of individual simulation equipment.

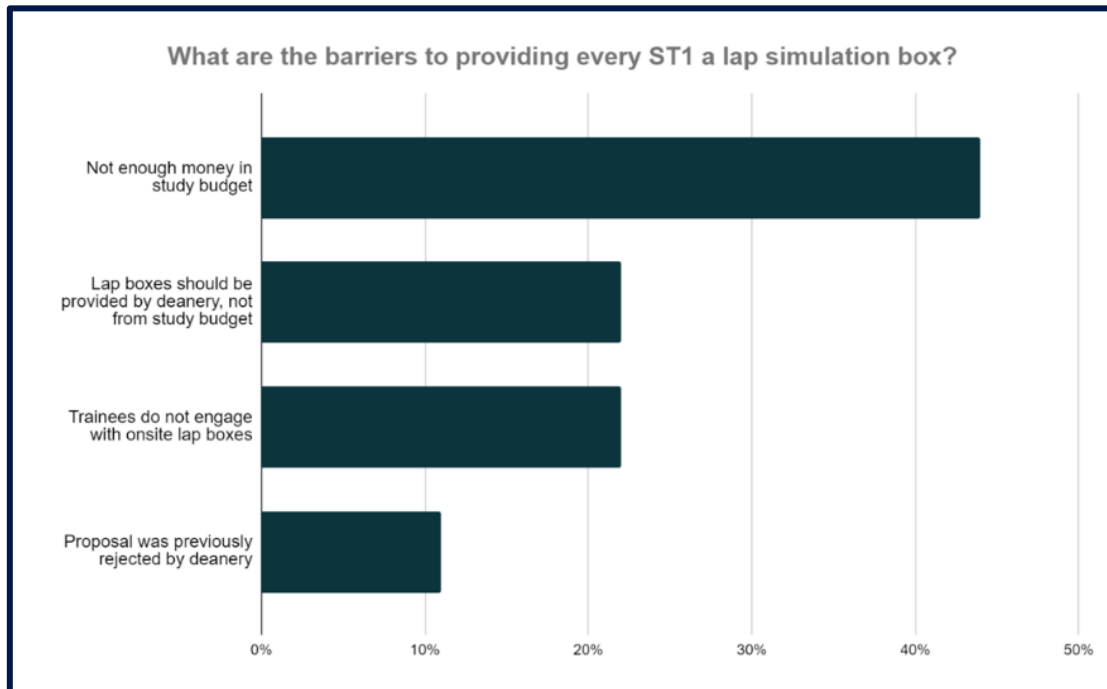


Figure 15. Trainer survey 2024, barriers to providing individual simulation equipment.

The majority of trainers felt that simulation equipment is available to doctors to use on a daily basis (Figure 16), with 57% of respondents agreeing or strongly agreeing that doctors have ease of access to simulation equipment.

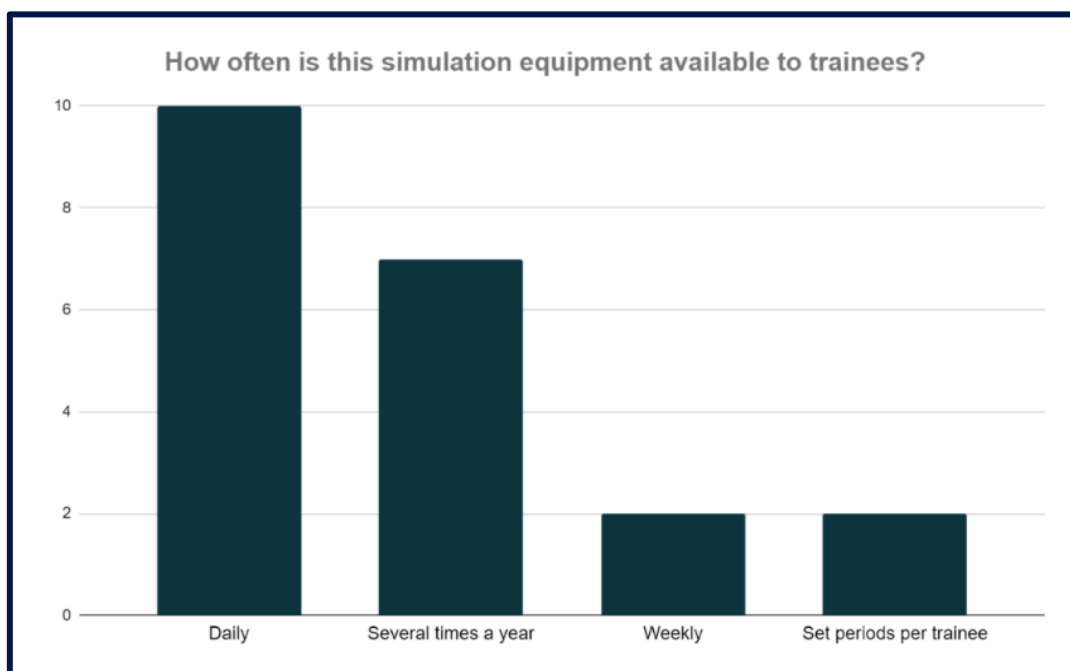


Figure 16. Trainer survey 2024, ease of access of simulation equipment.

However, the majority of responses acknowledged that simulation equipment is utilised 'several times per year' (Figure 17).

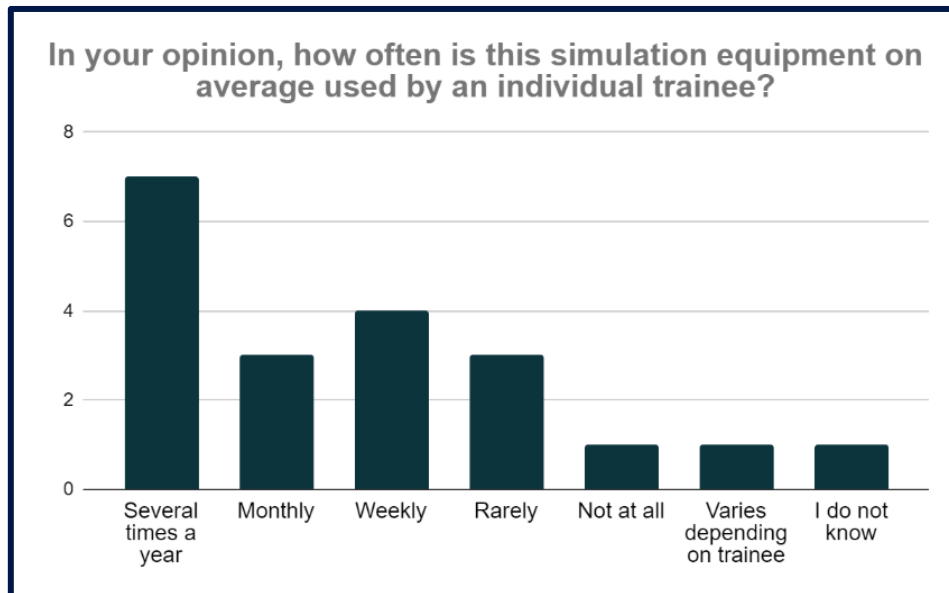
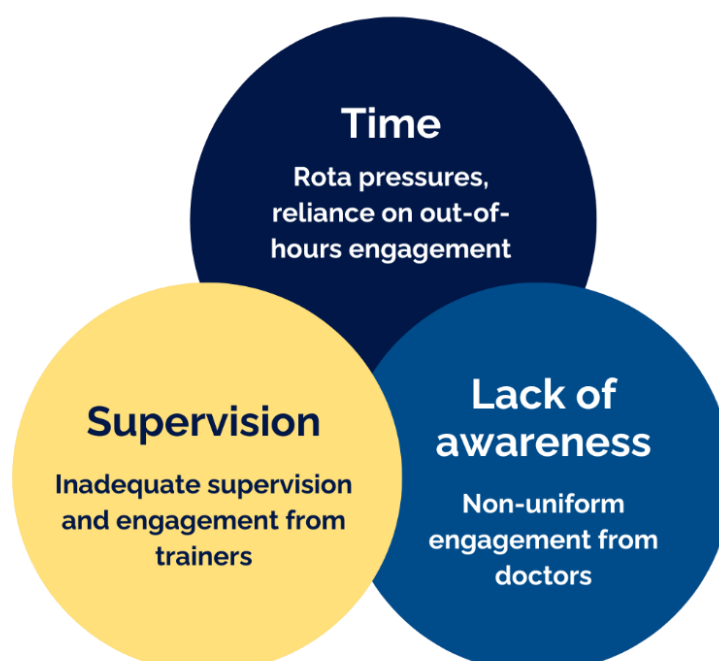


Figure 17. Trainer survey 2024, frequency of use of simulation equipment.

The perceived barriers to doctors accessing simulation training equipment as reported by the Heads of School can be summarised into three overall themes:



Trainee survey

A companion survey was disseminated via the National Trainees Committee to capture residents' experiences of simulation training. Eighty-five responses were obtained. It aligned with the trainers' survey in many ways, with most respondents agreeing that they access simulation equipment 'several times per year', and a consensus that training is mainly provided on regional teaching days (RTDs) (43%) and on an *ad-hoc* basis (43%). A total of 53% of respondents replied that they had never had feedback from a senior when they were using simulation equipment, 40% received supervision at RTDs and 7% during *ad-hoc* sessions.

When asked when they are expected to access simulation equipment, the response showed that:



47% stated in their own time



34% stated in both their own time and working hours



17% stated they do not have access



2% stated in working hours

When equipment is available, the barriers to using it were explored:

- 31% stated 'other': expanded in comments to include 'rota gaps, lack of willingness of trainers to supervise, no dedicated time for trainees or trainers, service provision towards obstetrics'
- 25% stated geographical location of equipment as a barrier
- 17% were unable to access the equipment in hours

- 16% were unable to access the equipment out of hours
- 11% gave an administrative reason (e.g. password access).

Discrepancy of opinion between the two groups regarding the 'trainee' or resident experience can be highlighted by the following figures.

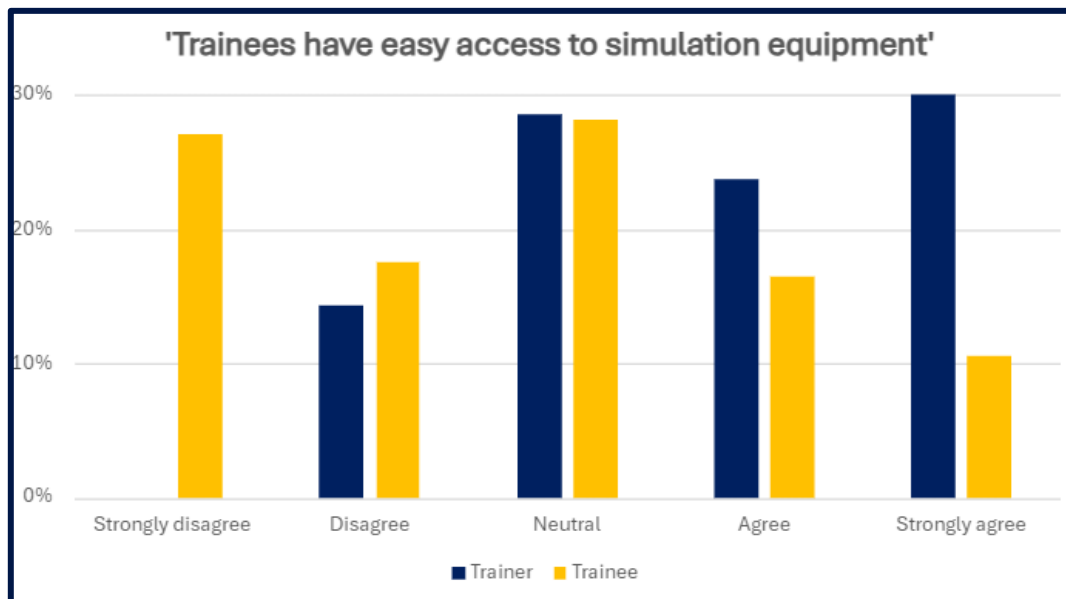


Figure 18. Trainee survey 2024, access to simulation equipment.

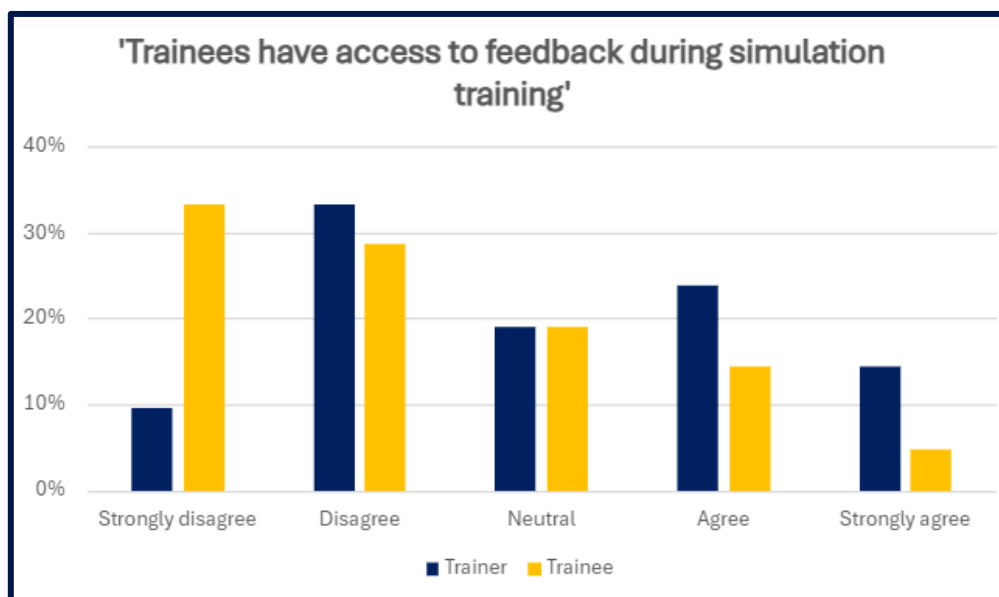


Figure 19. Trainee survey 2024, access to feedback during simulation training.



What does this mean for training?

Simulation has become a vital tool for surgical skills acquisition, providing a safe, controlled environment where doctors can practise procedures without risking patient safety.²⁰

What are the positives?

1. **Improved skill acquisition and retention:** Studies show that simulation-based training improves technical skills in a variety of surgical procedures. It offers repeated practice, which leads to skill acquisition and retention.^{20–23} For example, repeated laparoscopic simulation significantly enhances both the precision and efficiency of surgical skills compared with traditional methods.
2. **Reduction in learning curve:** Simulations help reduce the steep learning curve associated with complex procedures.²⁴ Virtual reality simulators have proven to shorten the time taken by trainees to achieve competence in skills such as laparoscopic surgery and suturing.^{25,26} Research shows that doctors who use simulators perform better and faster in real operating environments.²⁷
3. **Improved confidence and decision-making:** Simulation allows for repeated practice of not just technical skills, but also clinical decision-making. For example, emergency scenarios (e.g. obstetric emergencies) can be replicated in high-fidelity simulations, helping doctors gain confidence in managing high-pressure situations.²⁸
4. **Transferability to theatre settings:** There is evidence that skills learned in simulation directly transfer to the operating theatre. For example, in laparoscopic surgery, doctors who had undergone simulation-based training performed better in live surgeries compared with those who trained conventionally, with fewer errors and greater efficiency.^{6,29–32}
5. **Improved patient safety:** Effective simulation-based interventions can enhance attainment of safety critical skills and behaviours in staff.³³
6. **Lifelong learning:** Simulation offers unique ways to develop and provide evidence of new skill attainment alongside specific skill refreshment.
7. **Objective assessments:** Simulation allows for objective assessments of competency through tools such as OSATS (Objective Structured Assessment of Technical Skills). This makes it easier to standardise training and ensure that doctors meet specific proficiency levels before performing real surgeries.³⁰

In conclusion, simulation has become a cornerstone of modern surgical education, significantly enhancing technical skill development, confidence and patient safety by providing a structured, risk-free learning environment.

What are the challenges?

There are several challenges associated with the effective implementation of surgical simulation in O&G.

1. **Resource limitations:** NHS Trusts face budgetary constraints, which can limit investment in high-quality and usually high-cost simulation tools and training



programmes. Furthermore, once simulation programmes are established, maintaining and expanding them can be challenging without long-term funding and governing body support (e.g. NHS England). Programmes may be reliant on short-term grants, making it difficult to scale simulation efforts or sustain them over time. Lack of consistent funding for simulation-based training programmes creates disparities between training centres, so that scaling simulation programmes across all O&G training centres is another challenge. Variations in the adoption of technology and infrastructure across hospitals create inconsistencies in the availability and quality of simulation training.³⁴

2. **Systemic integration of simulation:** The absence of standardised, formalised simulation training across regions means that opportunities for doctors can vary significantly. Although simulation is well-established for certain procedures, there is a lack of comprehensive simulation modules for all O&G surgical skills, which means that some areas of training are still underserved.
3. **New technology-related challenges:** The use of complex simulators requires trainers to be proficient not only in surgical techniques, but also in operating simulation equipment. There is often insufficient training for educators on how to use simulation tools effectively. Although the high cost of advanced surgical simulators, such as those for robotic surgery, remains a significant barrier, the required maintenance to ensure it functions properly is a significant financial burden. This involves ongoing investment in equipment updates, technical support and repairs. Furthermore, some simulation tools are not fully capable of replicating the real-life complexity of O&G procedures and may not accurately reproduce the tactile feedback of tissue handling.
4. **Cultural and perception barriers:** There is still a cultural divide between traditional apprenticeship-based surgical training and simulation-based methods. Some clinicians may perceive simulation as less valuable than real-life experience, which can hinder its adoption. Experienced surgeons, particularly those who trained under the historical and traditional 'see one, do one, teach one' model, may be less enthusiastic about embracing simulation, potentially affecting the enthusiasm of their residents.
5. **Assessment and feedback challenges:** Although simulation provides a risk-free environment to practise surgical skills, its effectiveness can be diminished without structured and meaningful feedback. Trainers need clear guidelines on how to assess performance during simulation sessions and how to provide actionable feedback to improve skills. Trainers may not receive sufficient mentorship on how to integrate simulation into their teaching, or may not have time to engage in regular simulation-based mentoring for residents. Without a strong mentorship culture, the full potential of simulation-based training may not be realised.
6. **Logistical challenges:** Scheduling simulation sessions can be challenging, given the competing demands of clinical work. Coordinating times when both educators and



learners are available, particularly in departments facing staffing shortages, can make simulation difficult to implement consistently. Simulation sessions often require dedicated trainers to supervise and provide feedback. However, in departments with workforce shortages, it can be difficult to allocate staff for these roles.

Learning from others

American College of Obstetricians and Gynaecologists (ACOG)

In 2008, the ACOG formed a Simulation Working Group with the aim of establishing simulation as a pillar in education for women's health.³⁵ They recognised early the need for collaboration, advocacy and research in simulation to develop educational resources and opportunities for multidisciplinary O&G simulation training. Their objectives were:

- To develop standardised curricula available to all residency programmes.
- To develop standardised teaching and evaluation methods practiced and validated by Working Group members, to ensure the efficacy of simulations education.
- To provide validation of simulations-based education (as a useful teaching strategy) for developing and improving surgical skills, clinical skills and behavioural skills, with a focus on patient safety and the performance of high-quality surgical procedures.

Their Surgical Skills Task Force went on to develop a standardised surgical skills curriculum to be used by their residents in training. There are 25 modules within the curriculum, with each module containing:

- The objective, description and assessment of the module
- A description of the simulation
- The description of the surgical procedure
- A quiz which must be passed to proceed to evaluation by a faculty member
- An evaluation form to be downloaded and printed by the learner.

These modules can be accessed by ACOG members and detail instructions for trainers and residents to assemble their own simulations for surgical procedures such as cerclage, vaginal hysterectomy and laparoscopic procedures. This enables both trainers and residents to follow a structured and educationally reviewed learning experience, and minimises the set-up time required by trainers.

The Royal College of Surgeons of England (RCS)

In the RCOG 2021 document 'Training in Gynaecological Surgery Recovery Plan',¹⁹ a proposed regional suggestion was to promote collaborative working with the School of Surgery to ensure efficient use of equipment and multidisciplinary training. In our Heads of



School survey, only 25% of regions reported working with their colleagues in the School of Surgery.

The RCS of England and Edinburgh have recognised that it is crucial to integrate simulation training and practice. In October 2015, the RCS published 'Improving Surgical Training: Proposal for a Pilot Surgical Training Programme',³⁶ which included a list of recommendations to address the problems with surgical training at the time. Although some issues were speciality specific, many of the points highlighted showed a significant overlap with the current challenges facing O&G residents, including:

- Resident dissatisfaction
- Service provision versus training
- Rotas and shift working
- EWTD
- Limited training opportunities
- Limited surgical experience
- Loss of the 'surgical team' and the mentor–mentee relationship.

Recommendation 14 of the RCS report was that '*Simulation should be embedded and enhanced within the surgical curricula and there should be sufficient resource to ensure availability for all trainees*'. It recognised that integrating simulation into a surgical curriculum provides solutions by:

- Improving patient safety
- Shortening the learning curve
- Opportunities to acquire, develop and improve skills in a non-threatening way.

Other virtual learning opportunities

This chapter so far has focused on simulation training in addition to hands-on surgical training. However, there are other adjuncts that should also be explored, including an RCOG surgical video library and virtual reality.

Surgical video libraries

Currently, it is possible for resident doctors to access surgical videos through several routes, including those freely available online and those provided through membership of surgical societies. However, it is not financially viable to ask every resident doctor to become a member of each surgical society to gain access to their video library when, for example, as primarily an obstetric resident they may only need access to simple operative laparoscopic videos and may be required to spend their money on an ultrasound video library instead. This leads to resident doctors accessing freely available videos online, which are unlikely to have been through a robust quality assurance process and could demonstrate techniques that are out of date or not in alignment with current best practice.



Therefore, an RCOG surgical video library could support surgical training in O&G by:

- **Providing a standardised learning resource:** Videos should pass a quality assurance process, ensuring resident doctors are exposed to optimal surgical techniques. The library should be uniform with consistent access to high-quality, standardised procedures, helping resident doctors learn routine techniques and protocols.
- **Visual and practical learning:** Watching detailed, step-by-step procedures helps learners grasp complex surgical steps better than text-based resources or verbal explanations. In addition, seeing live surgeries in the context of anatomy can deepen anatomical understanding in a practical setting and reinforce anatomical knowledge.
- **Preoperative preparation:** Resident doctors can watch relevant videos before assisting in or performing surgeries, boosting confidence and preparedness. Videos can provide exposure to rare procedures and uncommon surgeries that resident doctors may not encounter frequently during their rotations.
- **Remote accessibility and flexible learning:** Videos can be accessed anywhere, enabling learning when best suits the resident doctor and accommodating learners in remote areas.
- **Innovation and research:** A library can showcase innovative techniques and emerging technologies in O&G surgery, keeping resident doctors updated. Regarding cases or procedures, videos can form the basis for discussions on clinical decision-making, ethics and management of complications.
- **Reduction in patient risk:** Watching surgeries reduces the learning curve safely, minimising risks during actual patient care. This extends to error recognition as videos can highlight common mistakes, reducing risk of complications.
- **Broadening the scope of training:** Incorporating videos from international experts can expose learners to diverse surgical techniques and cultural perspectives in patient care. For our more experienced surgeons, they can use the library for continuous professional development and refreshing their skills.

Virtual reality

Virtual reality refers to a simulated experience created using computer technology that immerses users in a digitally constructed, three-dimensional environment. Through the use of specialised devices such as headsets, gloves or controllers, users can interact with and navigate this environment as if they were physically present.

Virtual reality platforms can be utilised to provide immersive training for surgical procedures and as interactive case studies for scenarios such as emergency surgical complications and their management. In addition, 3D virtual anatomical models can be used by residents to



develop their surgical anatomy and provide step-by-step training when learning the basics of surgical procedures. There are clearly opportunities to develop and implement these educational resources for O&G doctors.

Closing the gap

Alignment of simulation training with the O&G core curriculum

- **Early introduction to the curriculum:** Simulation training should be integrated into the core O&G curriculum from the start of training and used progressively, from basic to advanced surgical skills.
- **Structured learning pathways:** Structured simulation learning pathways should be developed that outline expected competencies in alignment with the RCOG Training Matrix, to enable residents to build on skills systematically.
- **Regular repeated practice:** To improve skill retention, simulations should be scheduled regularly, allowing repeated practice and feedback on key procedures. Frequent simulation exercises can improve the transition from novice to competent surgeon. These opportunities should be provided at a Deanery level through incorporation into RTDs or stand-alone courses.
- **Mandatory simulation-based assessments:** Make certain simulation-based assessments mandatory to ensure a minimum competency level and reduce risks to patients. Mandatory exercises should be validated and performed at set time points as a requirement for progression.
- **Focus on realistic scenarios:** Simulation should be used not just for technical skills, but also for managing clinical decision-making in high-stakes environments. Incorporating real-world complications, such as management of visceral or vascular injury, would increase readiness for real-world clinical challenges.

Potential solutions

Embedding simulation OSATs in the core curriculum

OSATs are a workplace-based assessment tool used in O&G training. OSATs are validated assessment tools to assess technical competency in a particular technique, and they are required throughout training until independent practice is achieved. Simulation OSATs could provide a solid foundation to improve surgical training by:

- Offering a structured and standardised method to evaluate performance in a safe environment.
- Allowing precise assessment of skills with structured feedback, enabling surgeons to refine their techniques.

- Help doctors reach higher competency levels before moving into real clinical settings.

When surveyed, 58% of residents felt that simulation OSATS would increase surgical skill acquisition in the core curriculum procedures, with 32% replying that simulation OSATs would help and 10% replying that they would not.

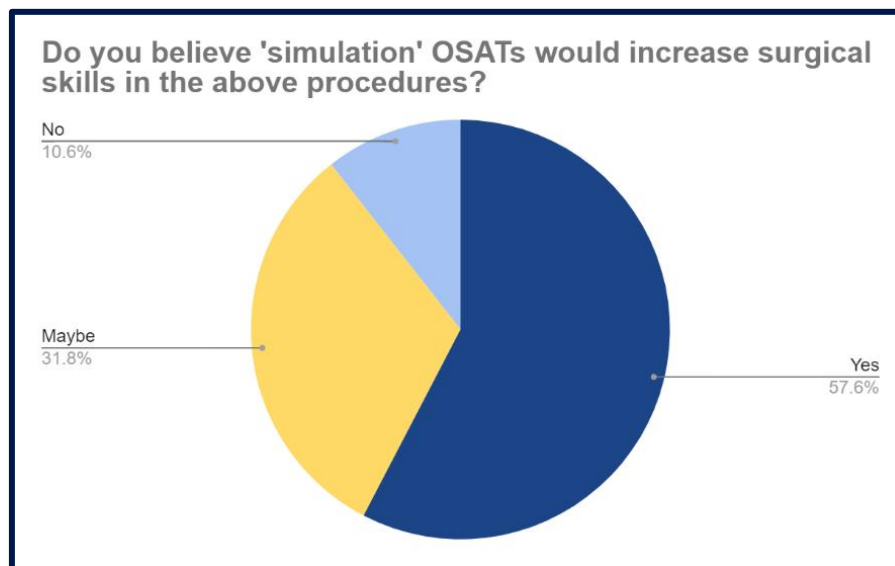


Figure 20. Trainee survey 2024, simulation-based OSATS.

Therefore, the role of simulation-based OSATs in obtaining surgical skills should be explored, especially in the face of reducing surgical numbers.

Expansion of surgical simulation training

To embed simulation as a cornerstone of O&G surgical training, it must be ensured that there is equity and equality in access to simulation training. Steps to ensure this include:

- **Review of access to simulation equipment:** Simulation equipment should be easily available and situated within the clinical environment, available out of hours and doctors should have access to any keys or codes required.
- **Simulation leads and simulation fellows as core school board faculty:** Simulation leads and fellows should be considered core members of local school boards to enable local development of simulation practices that fit the learning needs of residents in their regions. Both roles should be given protected time within their job plans to enable design, development and delivery of simulation in the region.
- **Standardised simulation guidelines:** The continued development of the national toolkit for simulation training would increase consistency across all training centres



in the UK.³⁷ This would cover the type of simulations, frequency, assessment methods and required competencies.

- **Collaborative networks:** Increase utilisation of regional simulation hubs where multiple hospitals share resources across specialties. This would spread the costs of high-end equipment and allow for more frequent and standardised simulation sessions.
- **Ring-fenced budgets:** Adequate and sustained funding should be allocated to maintain simulation facilities, update equipment and cover staffing for training sessions. A lack of consistent funding has often been a barrier to developing high-quality simulation programmes.
- **Develop partnerships:** Engage with industry partners to co-develop simulation platforms and secure additional funding. These partnerships could ensure that simulation equipment is designed with O&G specific learning needs in mind.
- **Protected time:** Residents should be supported in utilising their self-development time and study leave for simulation training if this is part of their current personal development plan.
- **Education exception reporting for missed simulation opportunities:** Doctors in training should be encouraged to complete education exception reports for missed simulation training, such as being unable to attend regional simulation teaching days and having self-development time with planned simulation training cancelled due to service provision.

Development of an RCOG Simulation Working Group

To effectively implement and review these recommendations, the RCOG should set up a simulation working group with key stakeholder members. This group, consisting of a variety of key stakeholders in O&G, could enhance surgical skills training by developing the following areas:

- **Programme development and review of current courses:** Development of a standardised programme that incorporates best practices in simulation training, ensuring a comprehensive and evidence-based approach. This could involve a collaborative approach with the faculty of RCOG courses to ensure that simulation is appropriately integrated and aligns with candidates learning needs.
- **Quality assurance and maintenance:** Establishing benchmarks and evaluation criteria for simulation programmes can help maintain high standards across various institutions and ensure consistency in training quality. To ensure a high standard is maintained, the group can advocate for funding and resources to support the development and expansion of simulation training initiatives, ensuring that institutions have the necessary infrastructure.
- **Resource sharing, collaboration and networking:** The Working Group can facilitate the sharing of simulation resources, including training materials, scenarios and best practices among different training centres, to promote collaboration and reduce duplication of efforts. Furthermore, the group can facilitate connections between



institutions, educators and learners to encourage knowledge sharing, mentorship and collaborative learning opportunities.

- **Training for trainers:** Developing training programmes for educators and trainers on effective simulation techniques can enhance the quality of instruction and mentorship provided to residents. Offering ongoing training opportunities for established practitioners can help them stay updated on the latest techniques and practices in simulation training, fostering a culture of lifelong learning.
- **Research and evidence-based practice:** The group can direct research to evaluate the effectiveness of simulation training and develop evidence-based guidelines that inform training practices and curriculum design.³⁸
- **Innovation and technology integration:** By exploring and incorporating modern technologies, such as digital data collection during robotic surgeries, the Working Group can enhance the effectiveness and applications of simulation training.
- **Feedback mechanisms:** Implementing structured feedback systems, including through the annual TEF, can help continuous assessment, allowing for ongoing improvement of simulation training programmes.

Overall, an RCOG Simulation Working Group can play a crucial role in enhancing the quality and effectiveness of surgical skills training through collaboration, innovation and establishment of best practices in simulation education.

Phase 2 of the project will explore the following recommendations:

- Development of a structured simulation programme that aligns with the O&G core curriculum to develop endoscopic and open skills with consideration for specific mandatory elements.
- Set up of an RCOG Simulation Working Group to oversee and drive forward the integration of simulation within O&G training.
- Provision of ring-fenced budgets to ensure the sustainability of simulation in O&G surgical skills training and enable local educators to meet standards set in national guidelines.
- Explore how innovative technologies can be utilised to develop an RCOG video library.
- Develop systems for collaborative networks to allow sharing of resources, cross-Deanery working and foster creative design of simulation training.
- Engage with industry to ensure simulation equipment is developed with O&G training needs in mind.



Focus 3: Reprioritising surgical training

Defining the gap

Reprioritising surgical skills training in O&G is essential to address the evolving demands of modern healthcare and ensure the future workforce is equipped with the necessary skills.

In gynaecology, surgical techniques are ever changing, and we must adapt accordingly to train competent, confident surgeons. System-wide issues including the national crisis in gynaecology have also left staff with little time to receive or provide training, creating a critical issue in how the NHS will deliver high-quality gynaecology care now and in the future. Rectifying these deficits should be a priority.

We believe the focus should be shifted to earlier career development of surgical skills, so that O&G doctors can successfully train in the competency-based model that emphasises early exposure to, and advancement of, surgical techniques. This reprioritisation ensures that the next generation of gynaecologists can adapt to emerging healthcare technologies, enhance patient outcomes and provide safe, effective care in an increasingly complex clinical environment.

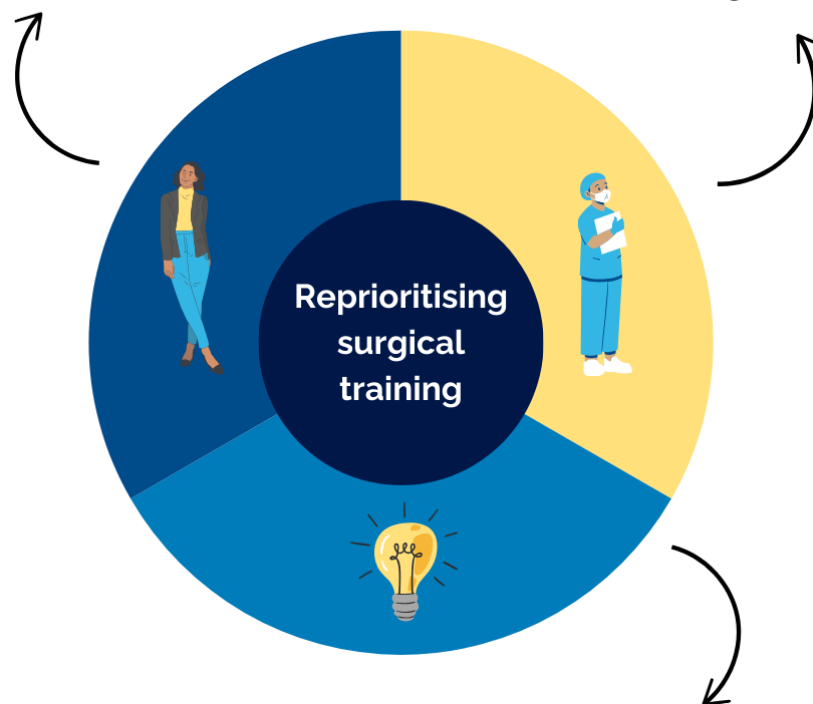
How does this chapter align with our aims?

Provide a competent, future-proofed workforce to safely care for women and people with a uterus

- Introducing doctors to surgical skills early in their careers will better prepare them for the evolving demands of the field, improving patient outcomes and workforce readiness.
- Recognise changes in operating trends and reflect this in how we train our doctors, so that we develop a workforce equipped for the needs of women and people with a uterus.

Enable O&G doctors to reach their full surgical potential

- Supporting doctors to develop their surgical skills in both gynaecology and obstetrics from the start of their careers provides them with the necessary time to become competent, confident surgeons.



Effective use of educational resources and learning opportunities

- Optimise learning opportunities to develop surgical skills throughout a doctor's early career development and beyond.
- Overcome barriers to doctors physically attending gynaecology training activities, reducing missed learning opportunities.



What are the challenges?

Training gynaecologists in the NHS is challenging for several reasons, including workforce shortages, limited surgical exposure and systemic issues within the NHS. Key factors include:

- **Rota gaps:** Rota gaps have resulted in doctors spending a larger proportion of their time working in unscheduled care and having reduced access to scheduled surgical procedures. Consequently, doctors face diminished opportunities for regular time in the operating theatre, leading to increased pressure to achieve competency within a shorter time. The lack of adequate staffing can also disrupt training continuity, making it challenging for doctors to gain the hands-on experience necessary for their professional development and confidence in independent practice.
- **Reduced working hours:** The EWTD has significantly affected surgical training in O&G in the UK by limiting the number of hours that doctors can work each week. While the directive aims to improve work–life balance and reduce fatigue among doctors, it has led to a reduction in the overall exposure doctors, especially aspiring surgeons, have to surgical procedures and clinical experiences. With shorter working hours, doctors may have fewer opportunities to participate in surgeries, leading to gaps in skill development and experience.¹⁷ Additionally, the decreased continuity of care and reduced staffing levels resulting from these restrictions can hinder the overall learning environment, making it more challenging for doctors to build relationships with supervisors and receive consistent feedback. As a result, although the EWTD promotes wellbeing, solutions are needed to maintain comprehensive surgical training in O&G.
- **Long waiting lists:** As the demand for surgery increases and resources become stretched, theatre capacity is often pushed to the limit, which can reduce the opportunities for doctors to participate in hands-on training. The focus on addressing waiting lists/times can lead to a more rushed training environment, where doctors may not receive adequate supervision or mentorship. Consequently, this can result in a skills gap and potential long-term impact on the quality of care provided once the doctor becomes a fully qualified practitioner.
- **Shift toward outpatient care:** The shift to outpatient care has reduced the number of traditional inpatient surgeries. This has led to gaps in training, as doctors have fewer opportunities to gain essential skills, develop confidence and receive mentorship from experienced surgeons. Additionally, the shift to outpatient care has reduced opportunities for comprehensive training especially many O&G doctors face consistent barriers in accessing outpatient settings because of rota requirements, which could result in gaps in the future workforce’s ability to provide these key services.
- **Patient complexity:** As patients often present with multiple comorbidities or specific complications, surgical procedures can become more complicated, requiring a higher level of expertise and decision-making. This complexity can limit opportunities for doctors to perform procedures independently, as they may rely more heavily on consultants and senior specialists for supervision and guidance. Additionally, the



focus on managing these complexities can reduce the time available for doctors to develop and refine their surgical skills, potentially delaying their overall competency development. This environment can lead to increased anxiety for O&G doctors and hinder their confidence in handling surgical cases independently.

- **Ongoing impact of COVID-19:** The COVID-19 pandemic severely affected elective procedures, including gynaecological surgeries, leading to reduced opportunities for residents to gain practical experience.¹² Many elective surgeries were postponed, meaning doctors had limited exposure to key procedures. Those doctors are now attempting to catch up on those missed training opportunities in their later years of training or as new consultants, but this then limits opportunities available for more junior colleagues, further compounding the problem.
- **Maternity crisis:** Recent years have been particularly challenging for maternity services, with several reports published on poor outcomes. Many of the recommendations from these reports are around safe staffing and increasing medical cover in obstetric areas. However, we are a joint workforce and to provide increased staffing to obstetrics inevitably reduces cover for gynaecology services, which then reduces doctors' exposure to gynaecology training opportunities.

How are surgical skills developed?

Surgical skills development follows a recognised pathway of key steps, and the challenges described above affect learners at various points along this pathway.

Stages of surgical skill acquisition		Challenges
Knowledge acquisition	<ul style="list-style-type: none">• Theoretical learning: Understand anatomy, physiology and the principles of surgery through textbooks, lectures and online resources.• Surgical techniques: Learn specific techniques and procedures through videos, tutorials and discussions.	O&G doctors are lacking in comprehensive access to online resources that have been quality approved to support development of their surgical skills or as a refresher for skills maintenance.



Observation	<ul style="list-style-type: none">• Shadowing: Observe experienced surgeons in the operating room to understand the workflow, decision-making and techniques used during surgeries.• Case discussions: Participate in pre- and postoperative discussions to gain insights into surgical planning and patient care.	Rota gaps and reduced working hours have limited the surgical exposure of O&G doctors to shadowing in theatre, and high workloads have limited the time for case discussions and development of mentorship relationships.
Simulated practice	<ul style="list-style-type: none">• Simulation labs: Use high-fidelity mannequins or virtual reality simulators to practice surgical procedures without patient risk.• Skills workshops: Attend hands-on workshops focused on specific techniques, such as suturing, laparoscopic skills and open surgeries.	Lack of a ring-fenced budget has led to a postcode lottery of simulation equipment and training available across the UK.
Hands-on training	<ul style="list-style-type: none">• Training: Engage in supervised surgical training during training years, performing procedures under the guidance of experienced surgeons.• Gradual responsibility: Start with simpler tasks (e.g. suturing, assisting) and gradually take on more complex procedures as skills improve.	Consistent rota gaps have led to a reduction in hands-on training and frequency of theatre attendance, meaning many doctors must start from square one each time, resulting in lack of confidence to take on responsibility for surgical tasks.
Feedback and reflection	<ul style="list-style-type: none">• Mentorship: Receive constructive feedback from mentors and peers to refine techniques and decision-making.• Self-assessment: Reflect on personal performance after surgeries to identify strengths and areas for improvement.	Rota gaps and changes to working hours have negatively affected the ability of educators and learners to develop meaningful mentorship relationships crucial to surgical skills acquisition.



<p>Independent practice</p>	<ul style="list-style-type: none"> • Solo surgeries: Begin performing surgeries independently once sufficiently skilled, while still being monitored by experienced surgeons. • Continuous improvement: Embrace lifelong learning by seeking further training and opportunities to practice advanced techniques. 	<p>Shifting toward outpatient care and increasing complexity of gynaecology patients has reduced the opportunities for solo surgeries and practice of advanced operating.</p>
<p>Evaluation and certification</p>	<ul style="list-style-type: none"> • Competency assessments: Undergo formal evaluations to demonstrate proficiency in specific skills or procedures. 	<p>Reduced time in theatre and increasing complexity of theatre cases has reduced opportunities to develop surgical skills in appropriately selected patient cases and subsequent opportunities for formal evaluation.</p>
<p>Continuing professional development</p>	<ul style="list-style-type: none"> • Ongoing learning: Participate in activities, such as workshops, courses and conferences, to keep skills current and learn about new advances in the field. 	<p>Regional differences in study budget provision have resulted in a postcode lottery of access to surgical skills development activities.</p>

Analysing the gap

TEF 2019–2024

Basic procedural skills

Basic procedural skills in gynaecology are required for completion of stage 1 training in the RCOG Curriculum 2024, and include operations such as surgical management of miscarriage and incision/drainage of a Bartholin’s abscess. These types of procedures allow residents to develop surgical skills such as handling of instruments, basic suturing and knot tying, as well as non-technical elements of theatre practice such as communication and leadership.

There has been a significant decline in basic procedural skills development and maintenance across ST1–6 levels to less than those seen before the COVID-19 pandemic.³⁹ **At present, only 40% of ST1 doctors feel they have the opportunity to develop their foundational gynaecology surgical skills, which delays surgical skills acquisition to later training years when it is challenging to make up for missed training opportunities.**

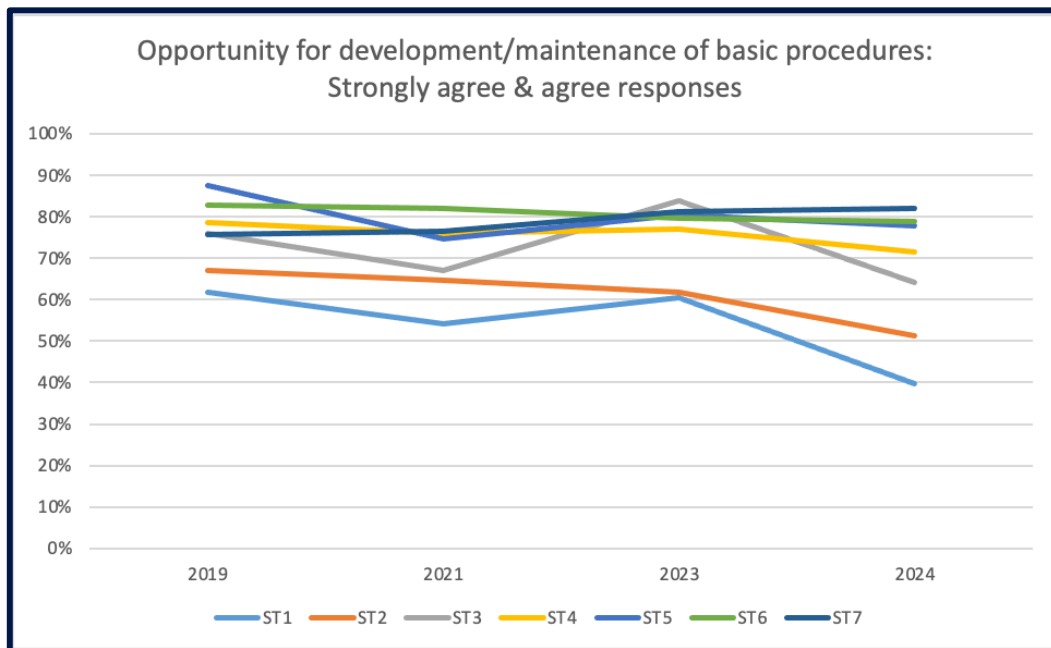


Figure 21. Trainee Evaluation Form results for basic procedural skills, 2019–2024.

Intermediate procedural skills

Intermediate gynaecological surgical procedures are required for completion of stage 2 training in the RCOG Curriculum 2024, and include diagnostic and simple operative laparoscopy and hysteroscopy. Doctors are required to demonstrate competence in these procedures at levels ST4–5, and this enables them to develop their basic endoscopic surgical skills such as hand–eye coordination, handling of tissue with laparoscopic instruments and familiarity with electrocautery.

Only a low percentage of ST3 and ST5 doctors feel they have opportunity to develop these skills (37% and 53%, respectively), resulting in missed opportunities for hands-on training and mentorship from senior colleagues.³⁹

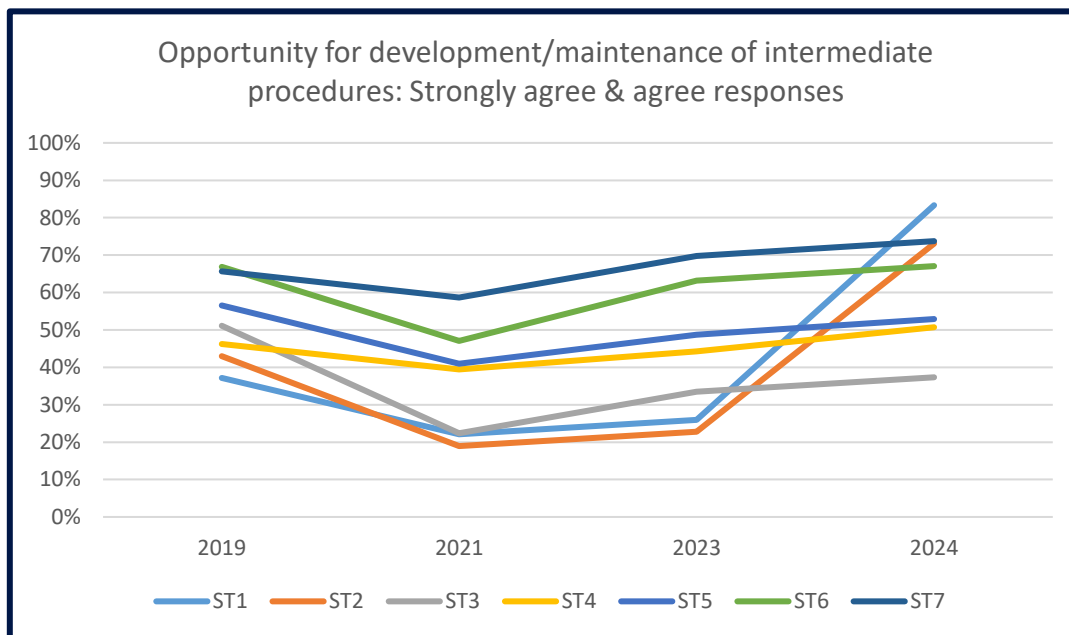


Figure 22. Trainee Evaluation Form results for intermediate procedural skills, 2019–2024 (question format was altered in 2024 to yes/no responses for ST1/2, explaining the higher rates seen in this year).

Advanced procedural skills

Advanced procedures are required for completion of stage 3 training in the RCOG Curriculum 2024, and include operative laparoscopy and open gynaecology operating. O&G residents are required to demonstrate competence in cystectomy (open/laparoscopic) and surgical management of ectopic pregnancy by ST7.¹ These procedures are key to providing a surgically competent consultant workforce able to manage both in and out of hours gynaecology operating.

It is very concerning that fewer than 50% of ST6–7 doctors feel they have adequate opportunity to develop these surgical skills.³⁹ This reduces the opportunity for senior residents to receive mentorship and perform solo surgeries with reducing supervision before their independent practice as consultants. These are key confidence-building surgical experiences for doctors, and limited access to them during training results in increased anxiety, burnout and a reluctance to train others.

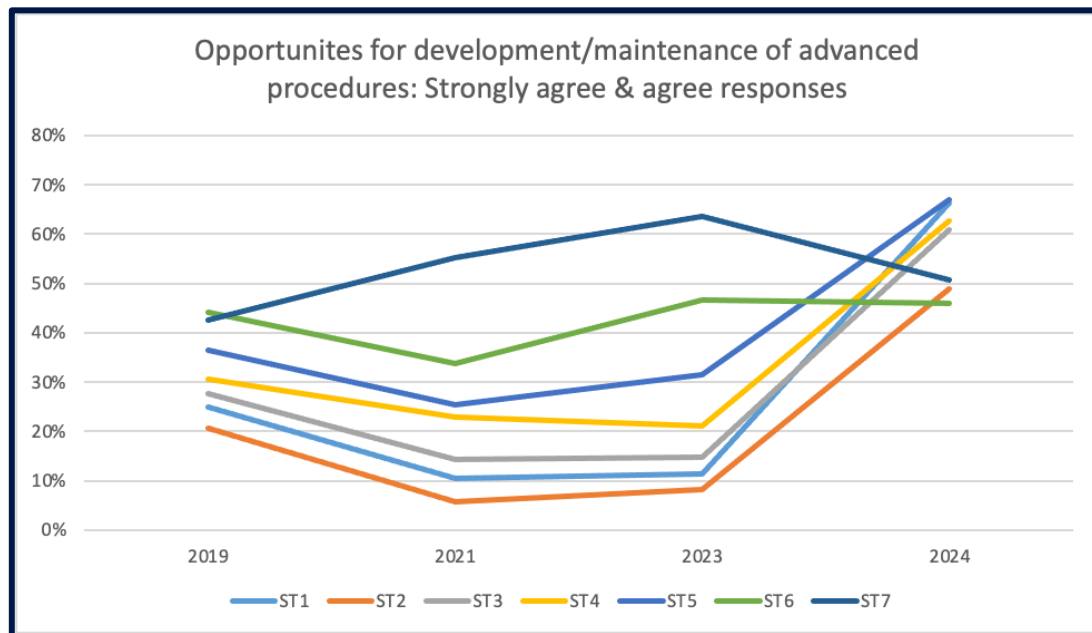


Figure 23. Trainee Evaluation Form results for advanced procedural skills, 2019–2024 (question format was altered in 2024 to yes/no responses for ST1–5, explaining the higher rates seen in this year).

Emergency procedural skills

Emergency procedures include surgical management of miscarriage, diagnostic laparoscopy and surgical management of ectopic pregnancy. These surgical procedures also form part of elective gynaecology operating, but exposure to emergency operating is key in developing decision-making skills, adapting to changing clinical scenarios and leadership in challenging situations. There is a recovering trend in residents' exposure to emergency operating following the COVID-19 pandemic; however, overall, the proportion of O&G residents who are content with their surgical exposure to emergency procedures remains low (41–71% in 2024).³⁹

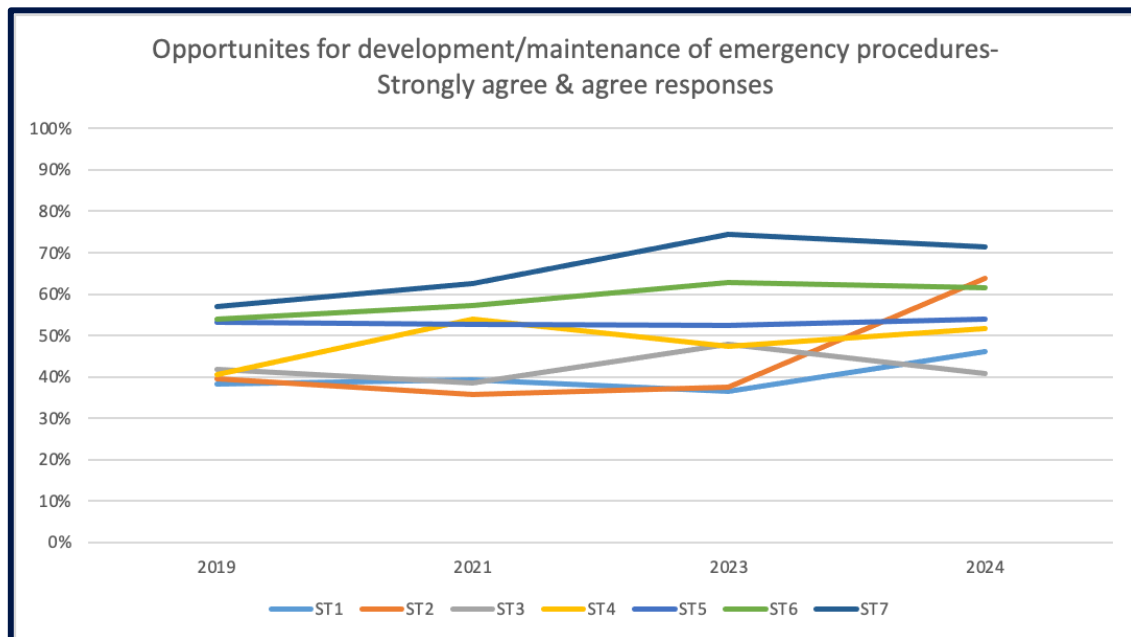


Figure 24. Trainee Evaluation Form results for emergency procedural skills, 2019–2024.

Outpatient procedural skills

Outpatient procedures, such as diagnostic/operative hysteroscopy, were the worst scoring area of gynaecology operating by residents, with most training grades rating their exposure at less than it was before the COVID-19 pandemic. Shadowing, hands-on training, mentorship and solo practice are equally as important in outpatient and inpatient settings. **Less than 50% of ST1–6 doctors feel they have adequate opportunities to develop these skills.**³⁹

Patient experience during outpatient hysteroscopy has featured recently in mainstream news outlets, and changes in practice have been supported through the publication of the new RCOG green top guideline on outpatient hysteroscopy.⁴⁰ It is therefore imperative to provide doctors with opportunities for training in this area, in order to provide appropriate care for patients.

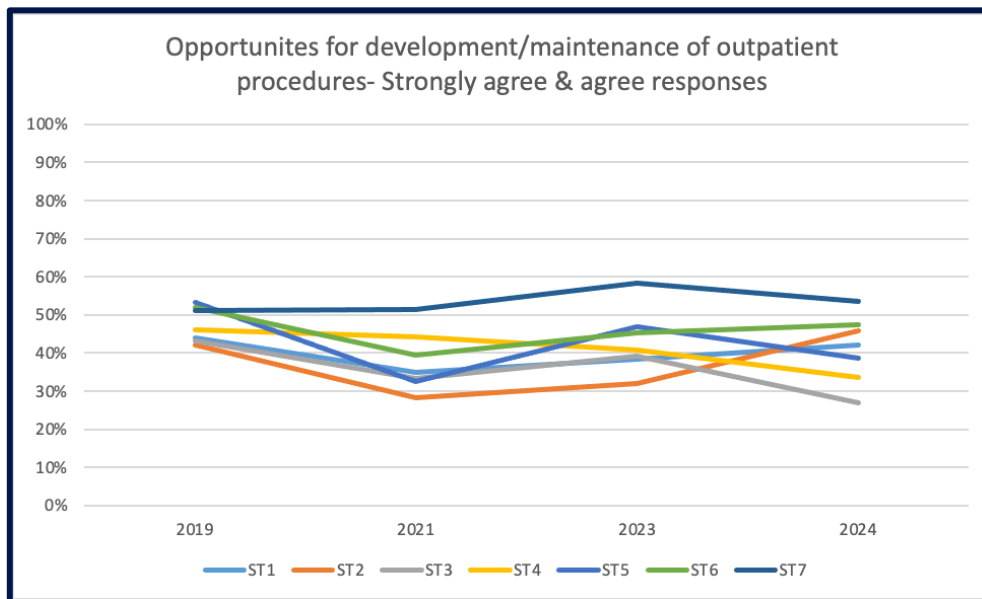


Figure 25. Trainee Evaluation Form results for outpatient procedural skills, 2019–2024.

Rota gaps

Over 50% of ST3 and above doctors face gaps in staffing, and this inevitably means a higher proportion of their time is spent on service provision activities, with surgical training opportunities subsequently reduced.³⁹ These percentages have remained relatively stable between 2019 and 2024, meaning that most residents will now have spent the majority, if not all, of their training affected by rota gaps and the associated consequences on continuity of training, access to hands-on training and impact on resident wellbeing.

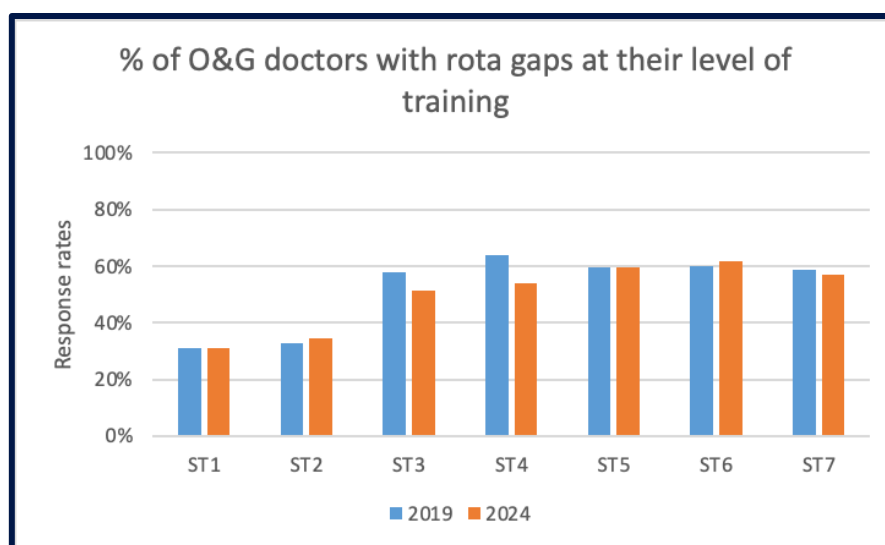


Figure 26. Trainee Evaluation Form results for rota gaps, 2019–2024.

Rest days

The TEF results found that **50% of doctors came in on their rest days to complete training in 2024, compared with 37% in 2023 and 54% in 2021.**³⁹ This is likely a reflection of the high proportion of service provision currently required and the challenge to obtain competencies within working hours.

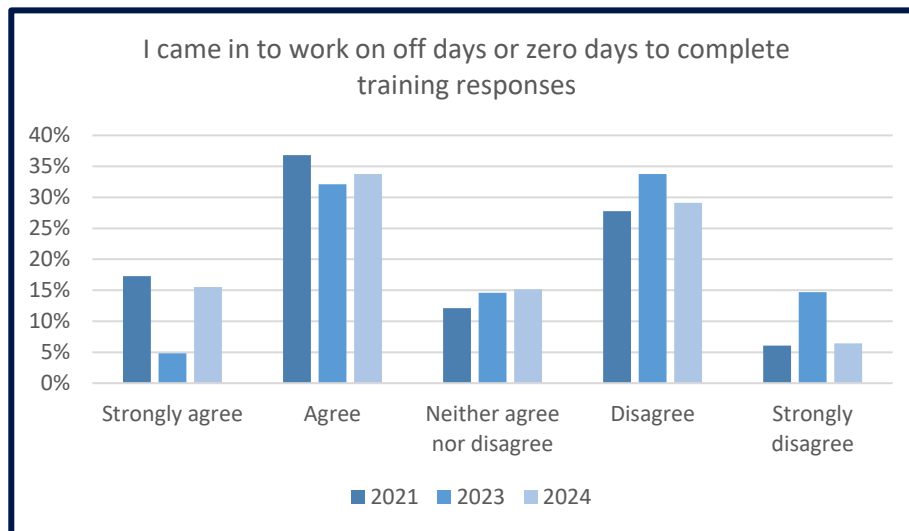


Figure 27. Trainee Evaluation Form results for rest days, 2019–2024.

Less than full-time working

There has been a steady decline in residents working full time, from 78% in 2019 to 61% in 2024.³⁹ The majority are 80% less than full-time (LTFT) training whilst a relatively stable 10% chose to train at 60% LTFT. Decisions to train LTFT are individual and are taken for a wide range of reasons. However, with over 50% of residents coming in on their rest days, this may be playing a part in some residents' decisions to go LTFT in order to maintain work–life balance.

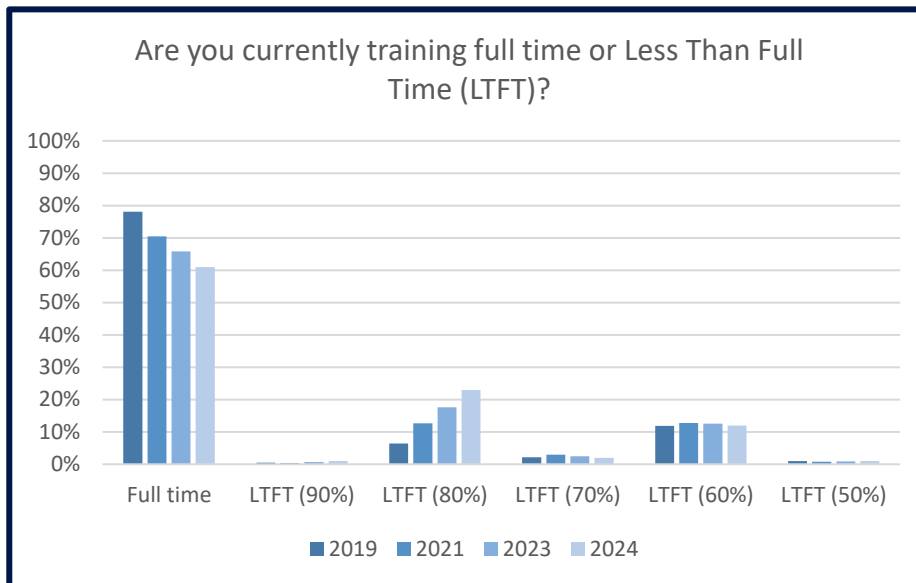
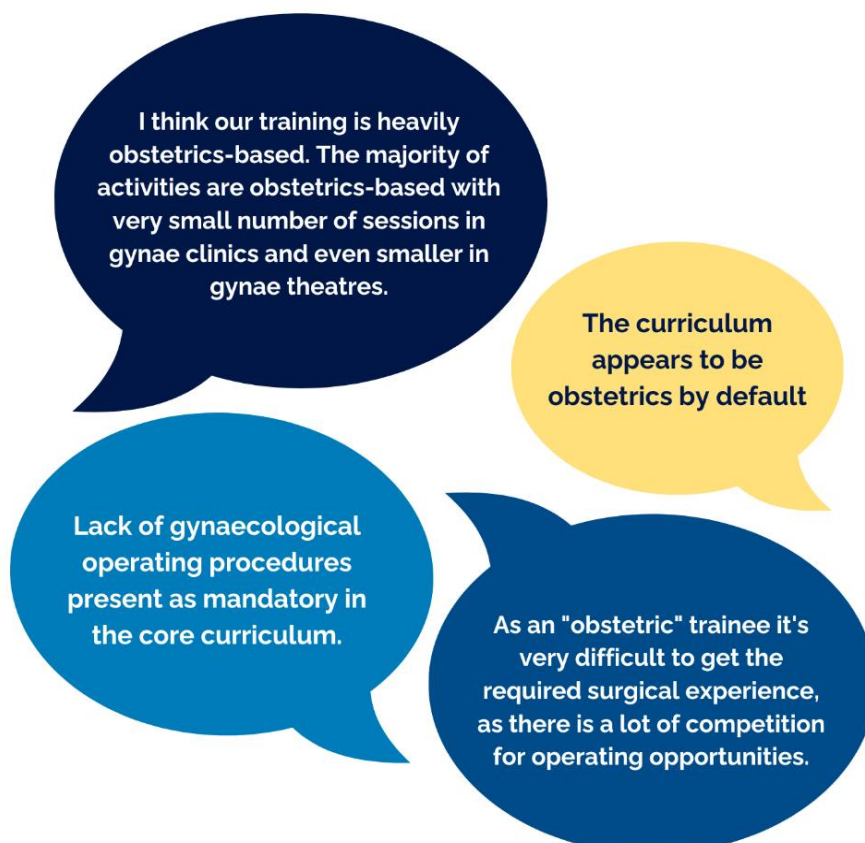


Figure 28. Trainee Evaluation Form results for LTFT training, 2019–2024.

O&G Trainee Surgical Skills Survey 2024

What are the main barriers to surgical training in your region?



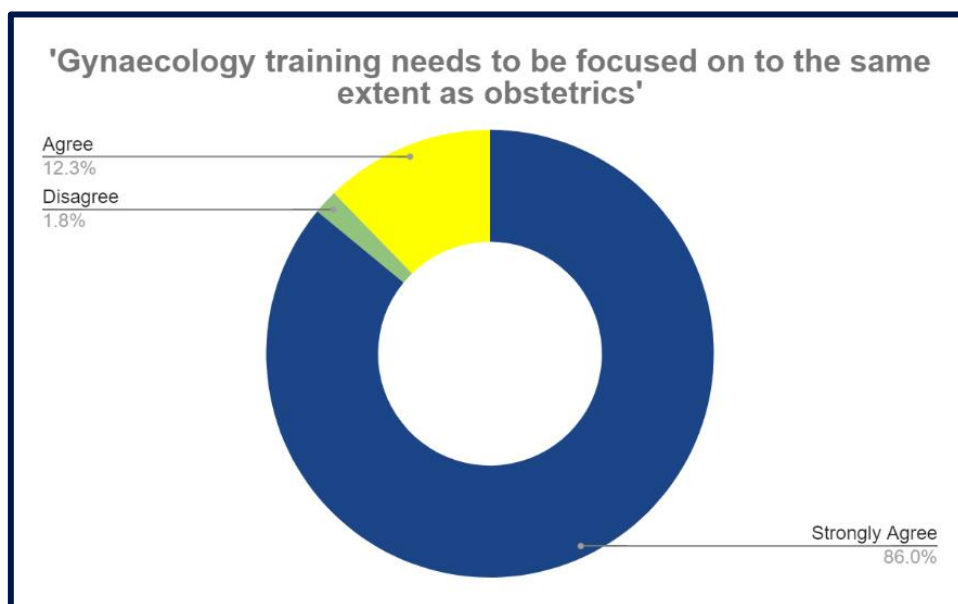


Figure 29. Trainee survey 2024.

As mentioned, when asked what procedures should be mandatory in the core curriculum, the responses were:

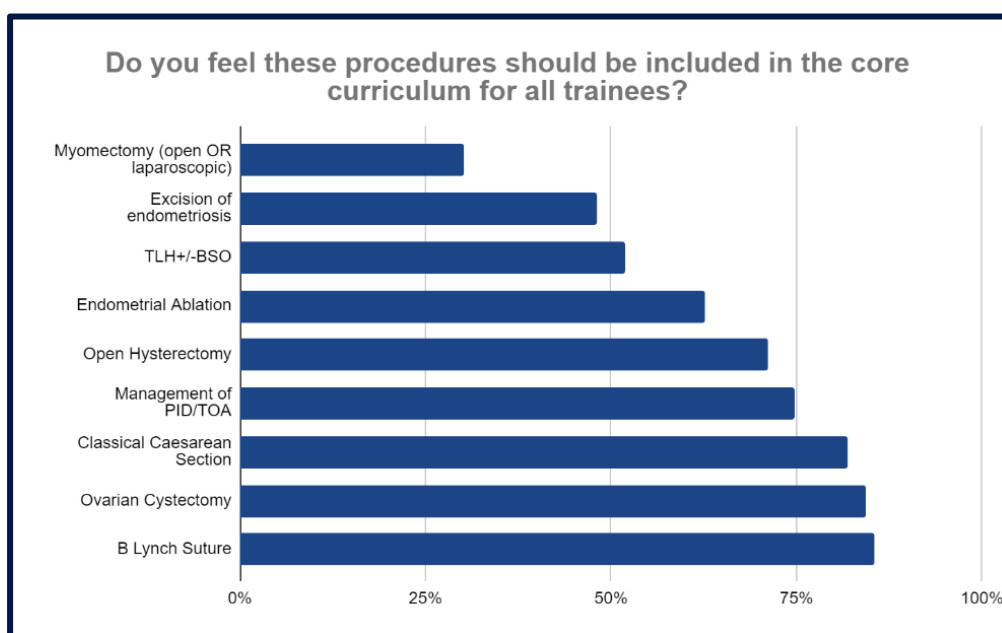
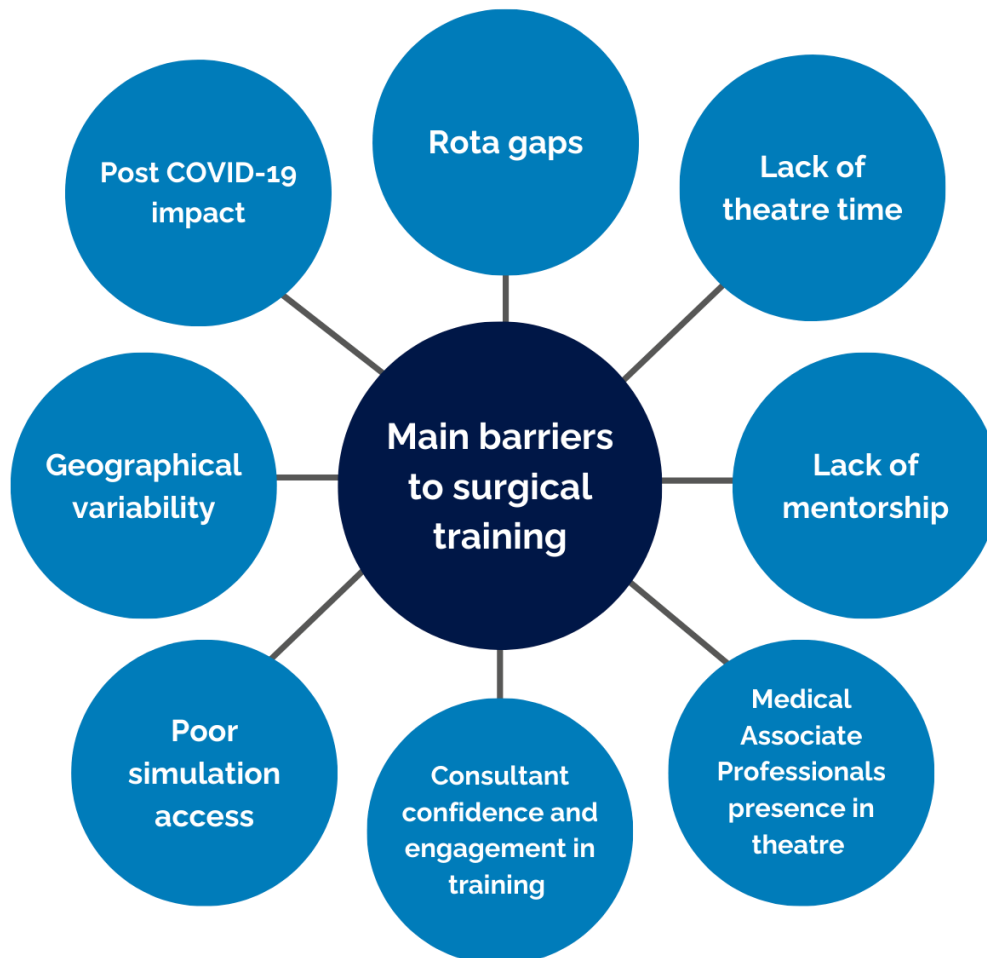


Figure 30. Trainee survey 2024.

The main barriers to gynaecological surgical training, as identified by residents are:



These barriers reflect a need for improved scheduling, resource allocation and trainer engagement to improve surgical training opportunities.

Trainer survey

A survey was also sent to each Head of School in each region. To improve gynaecological surgical training, the Heads of School suggested addressing the following issues as a priority:

1. **Increased funding:** Trainers require financial support for resources and their time, especially if training is done outside of regular hours.
2. **Consistent theatre time is essential:** Heads of School felt that consistent access to operating theatres is essential, with a push for more allocated time for gynaecological procedures dependent on that doctor's needs.
3. **Support development of flexible rotas:** Promoting flexibility of rotas would allow doctors to attend suitable education opportunities and allow for adult learning.



4. **More ambitious curriculum goals:** Heads of School advocate for earlier competency in basic and intermediate laparoscopic skills to be incorporated into the core curriculum.
5. **Dedicated training time:** A minimum of 4 hours of surgical training every 2 weeks, even during night shifts or long days, was proposed. This can be supported by allocating two doctors with different educational needs to lists.
6. **Access to equitable simulation equipment:** Providing simulation boxes for all residents alongside regional hubs is essential to address the gaps in unit-led training.
7. **Improved trainer engagement:** Suggestions included attaching residents to specific consultants to obtain consistent and quality training experiences. Exploring reintroduction of the team-based structure is felt to be needed.
8. **Addressing staff shortages:** Filling staffing gaps will help streamline training and improve simulation access.

These suggestions reflect the need for better resource allocation, structured scheduling and enhanced access to both simulation and operating theatre training.

What does this mean for training?

Training opportunities in the independent sector for NHS-funded patients

Health Education England (HEE) have produced guidance on the placement of doctors in the independent sector caring for NHS patients and on the extension of in-service training to this area of practice.⁴¹ This report provides comprehensive guidelines for the placement of postgraduate medical trainees in independent sector hospitals in the UK. HEE recognised that the ethos of the NHS is to support education and training while also ensuring patient safety and service delivery is not compromised. Independent sector use comes with associated administrative and logistical challenges that need to be reviewed to assess whether better utilisation of these learning environments can make significant differences to the training of O&G doctors. This project will therefore explore developing partnerships for specific areas of gynaecology operating, such as abortion services, fertility and urogynaecology operating.

As reported in March 2024, one in ten of all planned NHS operations are occurring in a private hospital, which is a 50% increase on pre-pandemic levels.⁴² During the COVID-19 pandemic, the NHS bought capacity and support from independent healthcare sector providers, and agreed principles included the enablement of doctors to continue their surgical training at these alternative sites. With an expected 10% of the NHS workload to occur in the private sector, it should be clarified what this means for the pursuit of surgical skills for O&G doctors. Of note, the same question must be asked of high-output 'Waiting List Initiative' theatre sessions.

The potential benefits of integrating training opportunities in the independent sector include:



- **Increased surgical exposure:** At a time when doctors are struggling to access surgical training, use of independent sector lists could increase hands-on training and access to surgical mentorship.
- **Protected training time:** Independent sector sites are often away from emergency service elements of O&G work environments. This allows both the mentee and mentor to better focus on surgical training without the distractions in NHS services. It also provides more time for feedback and postoperative reflective case-based discussions.
- **Patient selection:** Independent sector cases are often less medically and surgically complex, and relocation of these cases from NHS sites has reduced the number of appropriate training cases for O&G doctors.
- **Case load selection:** There is an opportunity to tailor lists to mentee learning needs; for example, by placing several of the same procedure on to one list, the doctor can build on skills developed within each case and enhance their learning progression.

However, the challenges must also be considered:

- **Integration with NHS training:** Releasing and coordinating doctors working between NHS and independent sector sites can be complex and requires additional workforce planning.
- **Quality assurance:** Ensure that the training provided in the independent sector meets the same quality standards as NHS training.
- **Access and equity:** Not all doctors may have equal access to independent sector training opportunities, potentially creating disparities in training experiences.
- **Fragmentation of training:** Reliance on multiple training settings can lead to fragmentation, making it harder for doctors to achieve a cohesive and comprehensive learning experience.
- **Regulatory and compliance issues:** Navigating the regulatory frameworks governing training and practice in both sectors can be complex, requiring careful management and oversight.

Addressing these challenges requires collaboration between NHS and independent providers, clear communication and a commitment to maintaining high training standards across all settings.

Application to gynaecology: Abortion services

In large parts of the UK, there were no residents undertaking the abortion care ATSM, which equips doctors with the skills to provide both medical and surgical options for termination of pregnancy for women potentially up to 24 weeks pregnant. Without doctors who have these skills, the option of later surgical termination of pregnancy, is limited to women and pregnant people who are well enough and are prepared to travel to independent sector providers, which limits reproductive choice.

Since 1981, the proportion of abortions performed in the independent sector has steadily increased, while the number conducted in NHS hospitals and privately funded abortions has decreased.⁴³ In 2021, 21% of abortions were conducted in NHS hospitals, while 77% took place in approved independent sector clinics under NHS contracts, maintaining the same rate as in 2020.⁴³ This means that 99% of all abortions were NHS-funded, with the remaining 1% being privately funded.

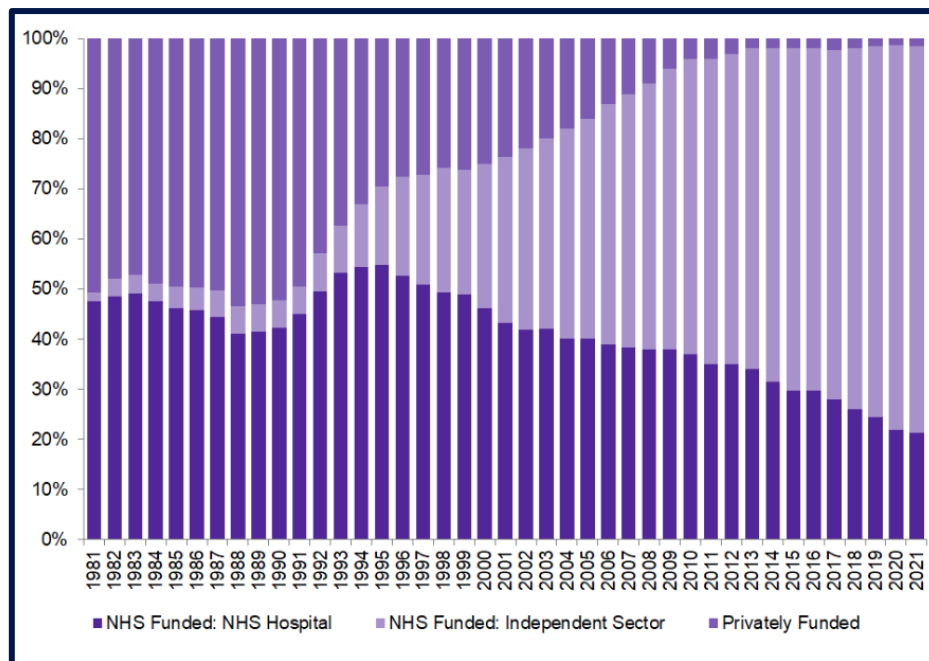


Figure 31. Percentage of abortions by purchaser/provider, Department of Health and Social Care abortion statistics.

While the Abortion Care ATSM has been replaced by the Safe Practice in Abortion Care SITM, the fundamental difficulty of accessing non-NHS procedures will continue. A potential solution to increase the uptake of the SITM would be to establish local, regional and national agreements for O&G doctors to access the required surgical skills, such as performing termination with manual vacuum aspiration, electric vacuum aspiration and dilation and evacuation at 13+6 or more weeks pregnant in the independent sector.

Closing the gap

Investment in innovative technology

Innovative technology has the potential to support training and significantly reduce the administrative burden on resident doctors, allowing them to focus more on clinical duties, including attending theatres for surgical training. Utilising AI can also help reduce the administrative burden. For example, AI-generated rotas could improve workforce



management, enhance efficiency and reduce gaps in staffing. Furthermore, AI-generated documentation such as discharge summaries could significantly enhance O&G surgical training by offering several benefits to residents, healthcare teams and the overall training process. These simple steps could also tackle burnout rates and improve job satisfaction.

Helping to reprioritise training in clinical settings

There are many conflicting demands placed on residents and trainers in clinical environments, which often results in training being deprioritised. Reforms are required to improve working environments and help to reduce the physical and cognitive demands on O&G doctors, but this is beyond the scope of this report. This section outlines strategies to help support clinicians in prioritising training when there are conflicting demands on their time and focus.

Earlier focus on gynaecological skill development

The 2024–2025 RCOG Matrix of Progression states that the philosophy of the curriculum is that quality of evidence is more important than quantity, which moves away from absolute numbers of workplace-based assessments (WBAs) and the ‘tick box’ approach. At present, gynaecology surgical skill OSATs are not required until ST4. This means both doctors and trainers are not prioritising acquisition of these essential skills until later in the training programme, and other more obstetric-based skills are focused on in the earlier years of training. With the increasing challenges in gynaecology surgical training, doctors no longer have sufficient development time to become competent surgeons.

We would therefore like to explore how the training matrix could be adapted to support prioritisation of gynaecology surgical skills throughout the 7 years of O&G training. This could include adding simulated OSATs for endoscopic skills into stage 1 of training and review of later gynaecology surgical OSATs, to ensure that we are providing a workforce trained in the skills required for managing the needs of women and people with a uterus. In summary, moving gynaecology OSATS to earlier in RCOG training would not only enhance skill acquisition and clinical outcomes, but also align with competency-based training models, improve patient safety and address the evolving needs of healthcare services. Early exposure to gynaecological OSATS would aid doctors in developing their confidence and competence in meeting the challenges of modern gynaecology.

Increased adaptability in training

Cross-unit working

Certain gynaecology procedures are being performed less frequently, and cross-unit working may be required if doctors are to access appropriate case numbers to achieve competency. This practice is already happening in some regions, but there are significant barriers that make it a logistically challenging process which could be simplified. Conversely,



in other areas of O&G, there are procedures that have moved from rare to more frequent occurrences, and may require the same approach.

By fostering a culture of collaboration and resource sharing among units, cross-unit working can significantly improve the quality and breadth of surgical skills training in O&G, leading to better-prepared and more competent practitioners. Cross-unit working will not be a necessity for all areas of O&G surgery, as many centres will be able to provide an adequate breadth of training without the additional impact of travel, administration requirements and time taken to build mentee–mentor relationships. However, for specific gynaecology specialities such as urogynaecology and placenta accreta spectrum, cross-unit working would enable doctors to gain increased surgical competency within their working hours (i.e. not having to use their rest days to attend other hospitals) and with a formalised approach to providing surgical mentorship.

Less frequent rotations

Adaptability is key in helping doctors to gain the experience they need to develop as future surgeons. Consideration should be given to allowing senior O&G residents to request less frequent rotation if they feel it will support their surgical skills development. This should be taken into consideration alongside the needs of other doctors in the region and the workforce needs of the individual Trusts.

Less frequent rotations could enhance training for O&G doctors by promoting a deeper learning of surgical skills, especially if attached to a consistent supervisor. This can allow a personalised mentorship to address that doctor's needs and allow them to focus on continuous improvement. By staying longer in one unit, doctors can become more familiar with the unit's workflow rather than having to constantly readjust to new environments and expectations. This can enable the doctor to become more confident in their role, with less transition stress. On an educational level, this can also provide time for doctors to engage in research or quality improvement initiatives within their unit, enhancing their educational experience and contributing to the unit's development.

Overall, less frequent rotations can create a more stable and supportive learning environment, allowing O&G doctors to develop their surgical skills more effectively and confidently. Just as many regions now support residents staying in the same unit to support their transition from ST2 to ST3 as a new junior registrar, the same consideration should be given to senior registrars to give them increased opportunity to transition to independent surgeons.



Potential solutions

Pre-theatre checklist additions

To improve educational opportunities in the operating theatre, the pre-theatre surgical safety checklist could be enhanced with specific elements that foster learning and facilitate teaching in real-time.

Additions to the World Health Organization Checklist:

- Identifying teaching objectives pre-surgery
- Assigning resident roles and responsibilities
- Brief discussions on anatomy and surgical techniques
- Structured feedback and debriefing post-surgery
- Promoting the use of formal competency assessments like OSATS
- Encouraging self-reflection and documentation of learning by residents
- Integrating team-based learning opportunities.

These additions would not only enhance the educational experience, but also foster a culture of continuous learning and reflective practice in the operating theatre.

Re-introduction of surgical logbooks

The project would like to review whether incorporating a mandatory surgical logbook into the RCOG curriculum will help improve the quality of surgical training and provide a standardised national benchmark for the training programme. **In the O&G trainee survey, 59.5% of trainees reported they kept a surgical logbook, with 70.6% believing that a logbook should be mandatory requirement in O&G.**

Surgical logbooks are a valuable tool for improving surgical skills training in O&G, as they provide a structured way to track and document the procedures that residents perform. By keeping detailed records of surgeries, doctors can monitor their progress, identify areas that require more practice and ensure they meet the required competencies.⁴⁴ Logbooks also allow educators to assess a doctor's experience level, offer targeted feedback and ensure they receive adequate hands-on training. Additionally, logbooks promote accountability and help standardise training, leading to better skills development and improved patient safety.^{45,46} To support the introduction of surgical logbooks into the O&G training programme, the RCOG should consider further development of an online eLogbook integrated with the existing ePortfolio platform.

Increased utilisation of educational exception reporting

The British Medical Association (BMA) introduced exception reporting as a formal mechanism for doctors in the NHS to report when their working conditions do not align with



their agreed work schedules or contracts. This reporting system is designed to protect doctors' rights and ensure safe working conditions. Areas covered by an exception report are:

- **Hours worked:** When a doctor is asked to work beyond their contracted hours or outside their rota.
- **Rest periods:** When rest breaks are missed or insufficient.
- **Training opportunities:** When educational or training activities are missed due to excessive service demands.
- **Support:** When there is insufficient clinical supervision or necessary support.

This system is vital to maintain a balance between service provision, education, and the health and wellbeing of resident doctors in the NHS. However, it is well-recognised that they are underutilised throughout all medical and surgical specialities, with 83% of FY1 doctors indicating they had worked additional hours but only 35% submitting an exception report. In the same study, 42% reported they had been subjected to or witnessed negative attitudes from seniors surrounding exception reports.⁴⁷

From reviewing the published guardian of safe working statistics, O&G consistently does not contribute significantly to a hospital's exception reporting workload. It is also recognised that the highest percentage of exception reports are generated by foundation year doctors, with a decline in engagement with the process as the doctor becomes more senior. Therefore, through either the promotion of the standardised BMA exception reporting platform or through an innovative RCOG specific 'education' exception report, the loss of opportunities of RCOG residents must be better recognised as they advance through training.

The benefits of education exception reporting include:

- Highlighting missed surgical opportunities
- Improving rota design for surgical training
- Ensuring educational contracts are met
- Fostering NHS Trust and NHS England, Wales, Scotland and Health and Social Care of Northern Ireland accountability.

Increasing the use of education exception reporting can enhance its effectiveness and impact, ultimately leading to improved training experiences for doctors.



Phase 2 of the project will explore the following recommendations:

- Explore how innovative technologies can be utilised to minimise administrative burdens on residents and trainers so that time can be better spent on surgical training.
- Develop pilot projects of AI use to demonstrate its effectiveness and share learning across the UK.
- Review the training matrix and develop adjuncts for residents to develop and fortify their surgical skills.
- Develop resources and feedback mechanisms that help trainers prioritise training in challenging clinical environments.
- Explore how increasing adaptability in training could enhance surgical skills acquisition in specific areas of gynaecology operating or for specific learning needs of doctors.
- Explore how the independent sector can support training in general, and especially for difficult to obtain skills in the public sector.



Focus 4: Lifelong learning

Defining the gap

The transition from supervised practice as a resident to autonomous practice as a consultant or specialist presents a challenging time for any doctor, particularly in the development and maintenance of advanced surgical skills.

New consultants and specialists often face the challenge of continuing their skills acquisition in an environment where surgical opportunities may be limited by clinical responsibilities, rota pressures and increasing patient demands. Additionally, maintaining core surgical skills for safe on-call provision can prove a challenge to those further along in their senior career. Extended surgical skills development is essential for performing complex gynaecological procedures and providing high-quality patient care. Mentorship plays a crucial role in bridging this gap, offering guidance, feedback and the opportunity to refine skills. Additionally, structured ongoing skills training is essential to maintain proficiency in advanced surgical techniques.

In this chapter, we will explore how extended support through mentorship, structured skill-building opportunities, post CCT/CESR experience and a strong focus on professional development ensures that new consultants grow into confident, competent specialists. By fostering a culture of continuous learning, we can enhance surgical excellence and patient outcomes across gynaecological specialties.

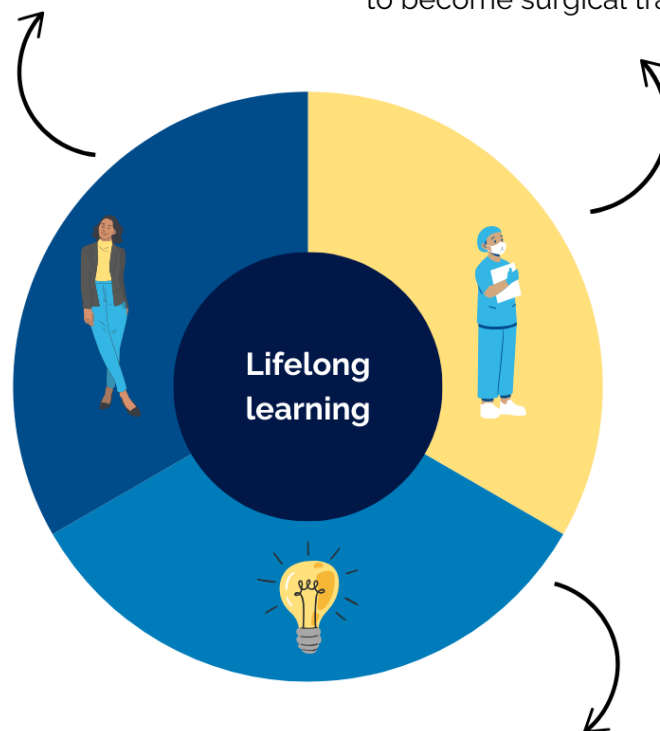
How does this chapter align with our aims?

Provide a competent, future-proofed workforce to safely care for women and people with a uterus

- Enabling new consultants and specialists to build on their core surgical skills early in their careers can better prepare them for the demands of lifelong skills development as a clinical practitioner and trainer, improving patient outcomes and workforce readiness.

Enable O&G doctors to reach their full surgical potential

- Support new consultants and specialists to continue developing their surgical education through additional support, mentorship and opportunities to gain increased exposure.
- Recognise that targeted support for new consultants and specialists will fortify their strengths and confidence to enable them to become surgical trainers.



Effective use of educational resources and learning opportunities

- Optimise learning opportunities for new consultants and specialists by utilising simulation.
- Fostering surgical mentorship and fellowships post specialist registration (post CCT/CESR) to enable their continued professional development.



Analysing the gap

British Society of Gynaecological Endoscopy Survey and Trainer Survey

When asked about the challenges facing new consultants, 100% of Heads of School felt that this group should have access to ongoing simulation training. Furthermore, the British Society of Gynaecological Endoscopy (BSGE) undertook a survey of their consultant members in 2021 which highlighted that training is a lifelong process.⁴⁸

The BSGE surveyed consultants about their involvement in gynaecological surgery, specifically how many gynaecology theatre sessions they conducted per week. The results showed that **54% of consultants performed one theatre session weekly, typically lasting 4 hours. A quarter of consultants reported doing less than one session per week.**⁴⁸ However, it should be noted that this survey was conducted by the BSGE, which may be biased in that their membership includes gynaecology-focused consultants, and therefore those with more obstetric-focused job plans may not be included in the responses.

When comparing consultants within 5 years of CCT to those beyond this stage, they observed an increasing trend in surgical activity as consultants became more experienced. **Newer consultants, who were more likely to be on obstetrics on-call duty, had fewer operating opportunities, with 76% doing one session or less per week. Furthermore, 82% of these new consultants expressed a desire for more operating time.**

In contrast, senior consultants tended to perform more surgical procedures and were less involved in obstetrics. They were often sought after for complex gynaecological surgeries. Specialist gynaecologists, particularly those specialising in advanced laparoscopic techniques or members of the BSGE, frequently handled more intricate cases and exhibited greater surgical confidence, both as operators and trainers. These advanced laparoscopic surgeons were significantly more likely to manage complex cases and operate more often than general gynaecologists, who typically focused on less complex procedures. Those performing more complex surgeries also demonstrated higher confidence in navigating pelvic anatomy.

Closing the gap

In this section, we discuss potential solutions such as post specialist registration (post CCT/CESR) fellowships to enhance specific, specialised surgical skills acquisition and ongoing support. It is important to recognise the difference in post specialist surgical needs, which includes those who need to maintain their core surgical skills for safe on-call provision and those who need to continue developing their surgical skills for managing complex cases such as endometriosis and oncology operating.



Post specialisation fellowships

Consideration should be given to expanding the number of post specialist registration (post CCT/CESR) fellowships, which could significantly improve surgical skills training in O&G by offering advanced, focused and high-quality training that enhances clinical expertise in specialised areas of O&G. The aim of these fellowships should be helping our workforce to gain highly specialised skills in specific areas of O&G operating, and then bring those newly developed skills into their subsequent consultant and specialist jobs. For example, a fellowship in a robotic surgery centre could support developing that service in their future Trust and promote education of the next generation.

The key ways in which post specialist registration fellowships could contribute to improving surgical skills training are:

1. Advanced and specialised surgical training

- **Focused expertise:** Fellowships allow new post specialisation O&G doctors to gain in-depth experience in a specific area of surgery, such as gynaecological oncology, urogynaecology or minimal access surgery. This targeted, advanced training provides an opportunity to master complex surgical techniques that may not have been fully covered during standard training.
- **Exposure to complex cases:** Fellowships offer exposure to a broader range of complex and rare surgical cases, which is essential for building confidence and expertise in high-stakes, challenging procedures. This hands-on experience enhances doctors' decision-making, technical skills and ability to manage complications effectively and independently.
- **Extended training period:** The extra time in a fellowship allows doctors to refine their skills without the pressure of meeting core curriculum milestones. This enables more concentrated surgical training and better preparation for independent practice.

2. Enhanced supervision and mentorship

- **Tailored supervision:** Fellows benefit from close supervision by senior experienced clinicians who are experts in their field. This one-on-one or small-group mentorship provides personalised feedback, fostering a deeper understanding of advanced surgical techniques and enhancing learning outcomes.
- **Mentorship for independent practice:** The mentorship during a fellowship often focuses on preparing the fellow for independent practice, with an emphasis on honing decision-making skills, managing surgical teams and handling complex surgical cases autonomously.

3. Flexibility in career development

- **Customisable learning pathways:** Fellowships offer flexibility in career development, allowing tailoring of their time to meet their career goals and the needs of their local healthcare system. Whether a doctor aims to specialise in a particular surgical technique or subspecialty, this time can provide a platform for career progression and skill refinement.



- **Improved job satisfaction and retention:** By offering the opportunity for continuous learning and skill development, our consultants and specialists are more likely to feel competent and fulfilled, experience greater job satisfaction and hopefully improve retention rates of O&G educators within the NHS.

However, post specialisation fellowships can also face several challenges to implementation:

1. Systemic constraints

- **Limited availability of fellowship positions:** There are a limited number of fellowship positions available in O&G due to funding issues, making it difficult to access advanced surgical training.
- **Resource constraints and competing priorities:** Because of ongoing resource limitations within the NHS, many hospital Trusts prioritise service provision over training opportunities. These fellowships could cover gaps in service delivery, reducing the amount of time they can dedicate to advanced surgical training. Additionally, the ongoing pressures in maternity and other acute care services can divert attention away from providing the dedicated mentorship and supervision that Fellows require for skill development.

2. Lack of structured and standardisation

- **Institutional and regional variation:** Although post specialisation fellowships are designed to provide advanced training, the structure and quality of these fellowships can vary significantly between institutions and regions.
- **Lack of a structured pathway for skill acquisition:** Fellowships may not have a clear curriculum or structured pathway for skill acquisition, leaving Fellows to rely on the availability of senior consultants or *ad-hoc* training opportunities. This lack of standardisation can result in inconsistent training experiences, with some Fellows gaining more hands-on surgical experience than others.

3. Effects on other O&G doctors

- **Reduced exposure:** Increasing numbers of fellowships in certain areas of gynaecology operating have meant that core O&G residents are not assigned to gynaecology theatre lists as the number of required assistants is reduced. This minimises their ability to observe and obtain hands-on training and surgical mentorship in these areas of gynaecology operating.
- **Promotes subspecialisation of a general specialty:** Implementation of post specialisation fellowships can imply that essential non-malignant gynaecological operating is a subspecialist field.

An additional exciting potential route to consider would be the creation of fixed-term, focused and mentored new consultant or specialist posts to be offered by Trusts. These roles could be offered instead of the traditional 12-month 'locum' consultant jobs before a substantive role is offered. The potential to support a doctor's acclimatisation to a senior role is vast, and may lead to mutually beneficial balanced job plan for both the new consultant or specialist and the Trust.



Formal support systems

Supporting new consultants and specialists in developing their surgical skills is crucial for their progression and ensuring high-quality patient care. There are several ways this can not only support new consultants and specialists holistically, but also develop their surgical experience.

Structured mentorship and peer support

Strategies to aid this include:

- **Mentorship programmes:** Establish structured mentorship programmes pairing new consultants with senior consultants or specialists. This allows new consultants to gain insights, ask questions and receive feedback on their surgical techniques.

Case example: South-West Population and Public Health Academy

An example of excellence is the South-West Population and Public Health Academy support provided to first year consultants in public health. In 2023, they recognised that new consultants often reported that they found it difficult to know what they should be aware of in their first year and agreed to provide structured support in the form of a two-year programme consisting of three workshops per year. The key components of the support program are as follows:

- **Two-year structured programme:** A programme consisting of three workshops per year, featuring support from senior public health consultants and guest speakers (e.g. HR professionals).
- **Informal mentoring:** New consultants will receive informal mentoring from experienced public health consultants facilitated by specialty tutors for a limited time.
- **Evaluation of support:** Both formal and informal support mechanisms will be evaluated, with resources for further assistance provided. Mentors from the workshop provide informal support for a year with self-directed learning sets. Peer support networks may be established, allowing new consultants to collaborate and maintain ownership of their professional development.

This model of ongoing targeted support should be explored for new O&G consultants.



- **Buddy operating:** Buddy operating is when new and senior consultants or specialists operate together on cases of varying complexity to support the maintenance and development of the surgical skills of the newer colleague. This promotes shared learning, builds confidence and accelerates the acquisition of advanced surgical skills.

Case example: Benefits of buddy operating in gynaecological oncology

As evidenced by McMullan et al,⁴⁹ buddy operating can be easily introduced to gynaecology operating to both the benefit of the team and the patient. The paper highlighted that buddy operating:

- Shortens the learning curve for complex surgeries, which is useful for surgeries that are rare or technically challenging.
- Enhances decision-making during surgeries, as the combination of two experts' skills leads to more informed decisions, which can improve surgical outcomes, especially in ambiguous or complex cases.
- Improves surgical efficiency, reducing overall operating time by up to 30%, which also reduces the patient's stress response and aids faster recovery.
- Provides better outcomes for patients, including lower blood loss during surgeries (particularly in laparoscopic procedures, where a 41.4% reduction in haemoglobin drop was observed) and reduced perioperative complications.
- Increases surgeon confidence, as they experience reduced cognitive load and fatigue, particularly in long, complicated surgeries, which in turn leads to more confident decision-making and execution, benefiting both the surgical team and patients.
- Speeds up patient recovery by significantly reducing the length of hospital stay, showing a 56% reduction in length of stay from 2004 to 2014 after buddy operating became standard practice.
- Has support from professional bodies such as the RCS, and it was widely endorsed throughout the COVID-19 pandemic to reduce surgeon fatigue and improve outcomes in long surgeries.
- Allows for regular structured feedback sessions where new consultants can discuss their performance, challenges and improvements with senior colleagues or supervisors.

The effect of buddy operating on residents assigned to the theatre list must be considered to ensure this does not reduce the opportunities of others. It is unlikely that if a new



consultant or specialist is independently operating on a complex case, they will have the capacity to also train, and therefore the addition of a senior 'buddy' operator could also facilitate training of residents within theatre. Rota coordinators should therefore not reduce the number of residents allocated to theatre for buddy operating lists as these remain essential training opportunities.

Protected and individualised operating

Our consultant and specialist body are a varied group with different ambitions and a wide range of development needs. This must be appreciated to improve the development of surgical skills in O&G.

Strategies to aid this include:

- **Minimum protected theatre time:** There should be recognition of the difference between those needing to maintain their core surgical skills for safe on-call provision and those providing complex gynaecology surgery services. It should be recognised that those consultants and specialists providing these services will require increased operating time to maintain and continue development of more complex operating, and this should be reflected in the minimum expected theatre time outlined in national guidance.
- **Protected training time for senior clinicians:** Explore recommendations for increasing access to buddy operating, including allocating senior consultants and specialists protected time to support new colleagues in theatre. This should be a recognised role with protected allocated time. This could involve utilising innovative AI technology to help design rotas that allow for this increased adaptability.

Access to simulation training

With the implementation of new surgical techniques, consultants and specialists must be able to learn safely. Therefore, surgical simulation training must be encouraged in this group, so they can practice complex procedures in a risk-free environment. This is especially useful for developing confidence and skills before performing new techniques on real patients.

Strategies to aid this include:

- **Develop specific frameworks and courses:** Learning needs for our consultant and specialist body must be addressed especially regarding the implementation of new surgical technologies that incorporate simulation practice to develop and refine surgical skills.⁵⁰ This is similar to the process of training in robotic surgery, and could be adapted for other areas of continuing gynaecology surgical skills acquisition.



Focused complex surgical skills investment

New gynaecology consultants and specialists must be better supported in gaining the necessary and essential surgical skills required to maintain the speciality. Investment at the start of their more senior career will build confidence and job satisfaction, and allow them to excel in their roles as future leaders in the field.

Strategies to aid this include:

- **Effective use of resources:** Not all operating gynaecologists will choose to perform complex procedures, and therefore the investment of ongoing training opportunities in complex gynaecology operating should be directed to the group of consultants and specialists that provide this service. However, this should not be detrimental to the maintenance of core surgical skills of others.
- **Tailored careers:** As the number of theatre lists reduce due to changing operative trends, consultants and specialists should be supported in tailoring their careers toward their areas of specialist interest. This should include supporting those who would choose not to perform complex operations and instead concentrate on other areas such as specialist services, high-level scanning and developing outpatient services. However, the resultant effects on on-call competencies would then need to carefully be considered on an individual case basis, and collaborations between Trusts may need to be considered.

Consultant and specialist job planning

Current supporting professional activities (SPA) provision is inadequate to cover the increasing demands placed on consultants and specialists, including administrative tasks, managing governance procedures and emergency covering of service provision. This has led to medical education and training being deprioritised, with resultant effects on trainers' capacity to deliver surgical skills training. Certain education roles are associated with recommendations for increased SPA time, but these are experiencing the same challenges. Without addressing the challenges in job planning for consultants and specialists, it will be difficult to implement any potential solutions or interventions recommended by this review.

Strategies to aid this include:

- **Job plans aligned with surgical training:** Tailored roles to promote the development and/or acquisition of surgical skills that include training time within senior consultant and specialist jobs plans to support buddy operating and delivery of simulation training.
- **Separate standard SPA time:** Consultants and specialists should be aided in applying for specific additional SPA to support delivery of training that is clearly separate from clinical SPA time. Clear delineation of this time ensures that training is prioritised



alongside clinical duties, and can halt the culture of expecting training to occur on a doctor's rest time.

- **Additional study leave:** Consultants and specialists should be expected to facilitate a training day every 6–8 weeks, with clinical activities reduced to support this. They should be supported to utilise study leave and apply for additional leave to support unit-led, regional or national training courses. Their educational activity should be viewed as equally important whether it occurs in theatre or in a simulated environment.
- **Collaboration with others:** Consultants and specialists should also be supported in utilising additional study leave to attend other Trusts to disseminate surgical skills and proctorship in rarer gynaecology operating skills in their region and beyond.

Phase 2 of the project will explore the following recommendations:

- Expansion of post specialisation fellowships in specific, specialised areas of O&G surgery to enable doctors to bring that desirable skill set into their new role.
- Review established buddy operating programmes throughout O&G and produce best practice guidance.
- Develop pilot projects of early support and surgical mentorships for new consultants and specialists.
- Explore how simulation can be incorporated into the new consultant and specialist experience to continue to build on their surgical foundational skills.
- Provide clear guidance on how these recommendations fit into job plans while recognising the need for funded and protected time for training.



Focus 5: Investing in the educators

Defining the gap

Investing in gynaecology surgical trainers and mentors is vital for the development of highly skilled, confident, and competent surgeons in the field. As surgical techniques in gynaecology evolve, particularly with the rise of minimally invasive procedures like laparoscopy and robotic surgery, there is a growing need for residents to receive hands-on guidance from experienced professionals.

Skilled mentors not only provide essential technical training but also play a crucial role in shaping the decision-making, leadership, and patient-centred approach required for modern surgical practice. It is crucial that financial investment for surgical trainers is secured, as well-trained surgeons perform operations more efficiently, reducing complication rates, hospital stays, and readmission rates.

Additionally, the RCOG report *Waiting for a way forward* identifies the need for dedicated, incentivised time for trainers as part of the elective recovery plan to recognise the importance of training the future workforce.⁹

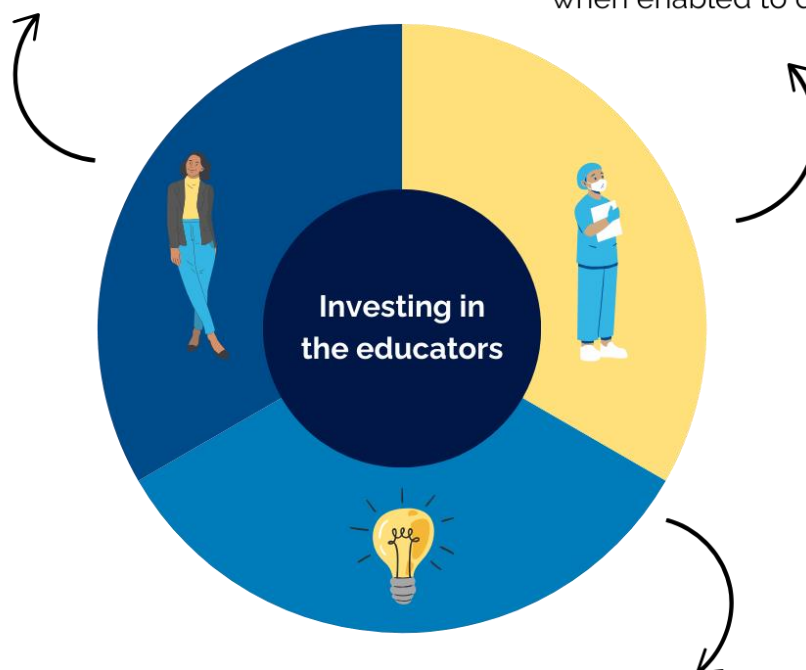
How does this chapter align with our aims?

Provide a competent, future-proofed workforce to safely care for women and people with a uterus

- We need to encourage and develop the next generation of surgical mentors to maintain surgical standards and keep up with changing surgical techniques and technologies.
- Supporting surgical trainers today provides role models for our surgical mentors of the future.

Enable O&G doctors to reach their full surgical potential

- Supporting our trainers to deliver to their full potential as surgical mentors.
- Many trainers gain job satisfaction from their role in developing others when enabled to do it well.



Effective use of educational resources and learning opportunities

- Our O&G trainers are our greatest asset and their surgical experience is our best educational resource.
- Our trainers provide almost all of our learning opportunities, so supporting their capacity to achieve this will allow them to deliver training to their own high standards.



What are the challenges?

1. Lack of time and resources

- **Time pressures:** O&G consultants and specialists work in high-pressure environments with demanding schedules. With growing clinical responsibilities, many find it difficult to dedicate adequate time to teaching and mentoring resident doctors.
- **Administrative burden:** The additional non-clinical workload, including paperwork, audit requirements and rota management, further reduces the time that can be allocated to teaching.

2. Burnout and workforce shortages

- **Burnout:** High levels of burnout among O&G trainers due to workforce shortages and increasing patient demand make it harder for them to engage effectively in teaching. Fatigue and stress reduce their ability to focus on educational responsibilities.^{51,52}
- **Impact on mentoring:** Burnout also affects mentoring relationships, leading to decreased availability and less frequent feedback, which are crucial for resident doctor development.

3. Challenges with evolving medical knowledge

- **Rapid advances:** The field of gynaecology is evolving rapidly with modern technologies and minimally invasive techniques, such as robotic surgery. Trainers need to stay up to date, not only with clinical skills but also with the most effective ways to teach these skills to the next generation of doctors.
- **Consultant learning curves:** The introduction of innovative technologies also means that consultants and specialists need time to learn new surgical skills themselves, which removes opportunities for residents to have hands-on skills development time and surgical mentorship.
- **Adapting to new teaching methods:** Many consultants and specialists were trained in more traditional methods, and may require support to adapt to newer, simulation-based or competency-focused training systems that are now common in medical education.

4. Limited access to simulation and educational resources

- **Inconsistent access to training tools:** The availability of high-quality simulation tools for training varies by region and hospital, creating disparities in teaching opportunities. Trainers in under-resourced hospitals may not have the same access to cutting-edge teaching technologies.
- **Resource constraints:** Educational resources are often limited in budget-constrained NHS Trusts, meaning less investment in teacher development programmes for O&G trainers.

5. Assessment and feedback challenges

- Evaluating teaching effectiveness:** It can be difficult for consultants and specialists to assess their own teaching effectiveness and get constructive feedback on their educational approach. Residents may be reluctant to give feedback, and structured evaluation systems for teachers are not always in place.

In conclusion, supporting O&G educators or trainers, namely our consultant and specialist colleagues, to train residents is a multifaceted challenge due to time constraints, insufficient formal educational training, burnout, evolving medical knowledge and inconsistent access to resources.

Analysing the gap

When surveyed, **90.5% of O&G trainers reported no time allocated in their job plans to support simulation training**, which is a significant barrier to high-quality, sustainable simulation training. When questioned, respondents felt that without addressing the deficiencies in job planning regarding training, all potential solutions will likely fail.



Figure 32. RCOG trainer survey 2024.



Closing the gap

Protected time for trainers

Protected time for trainers to teach O&G surgical skills is essential to ensure high-quality training, patient safety and effective learning outcomes. Here are the main reasons why protected time is necessary:

1. Ensuring high-quality teaching:

- **Focused attention:** Surgical skills teaching requires concentrated effort and focus, both from the educator and learner. Protected time allows trainers to dedicate themselves fully to teaching without the distraction of competing clinical duties or time pressures.
- **Detailed feedback:** Teaching complex surgical skills involves more than just demonstrating procedures; it requires observing the learner, offering constructive feedback and providing hands-on guidance. Protected time ensures that trainers can deliver meaningful, reflective feedback without rushing through the process.

2. Maintaining patient safety:

- **Supervised learning:** In surgical settings, patient safety is paramount. Trainers need sufficient time to supervise residents closely, ensuring that procedures are performed correctly and safely. Without protected time, trainers may not be able to give their full attention, potentially compromising learning and patient outcomes.

3. Avoiding trainer burnout:

- **Balanced workload:** Without protected time, trainers often must balance their teaching responsibilities with a heavy clinical workload. This can lead to stress, fatigue and burnout, diminishing the quality of training they provide. Protected time ensures that trainers have the mental and physical bandwidth to teach effectively.
- **Sustaining motivation:** When trainers are given time specifically for teaching, it signals institutional recognition of the importance of education, which can increase their motivation and job satisfaction.

4. Promoting professional development:

- **Trainer development:** To be effective educators, trainers need time to refine their own teaching skills, stay updated on new surgical techniques and engage in continuous professional development. Protected time allows trainers to participate in 'Train the Trainer' programmes and stay current with the latest advances in surgical education.
- **Research and innovation in teaching:** Trainers who have protected time can also contribute to improving surgical education by engaging in research, developing innovative teaching methods and attending educational workshops.



5. Improving learner outcomes:

- **Structured learning:** Protected time allows trainers to plan and deliver structured learning experiences, ensuring that residents receive consistent teaching. This is crucial in O&G, where residents must master a wide range of surgical skills.
- **Individualised learning:** Surgical skills development often requires one-on-one or small-group teaching. Protected time allows trainers to tailor their teaching to the specific needs and learning styles of individual learner, providing more personalised instruction and improving overall learning outcomes.
- **Accountability and evaluation:** Protected teaching time also enables trainers to document a resident's progress, complete necessary assessments and provide written feedback, which are essential for evaluating their competencies and advancement through their training programme.

In summary, protected time allows trainers to provide the high-quality, safe and structured teaching necessary for developing the surgical skills of O&G doctors. It ensures a balanced workload, reduces the risk of burnout and promotes a culture of excellence in both education and patient care.

RCOG accredited educator status

The development of formal recognition status for educators in O&G in the UK would significantly improve surgical skills training by elevating the standards of teaching, fostering accountability and promoting continuous professional development. Here are the key ways formal recognition of educators would enhance surgical skills training:

1. Attracting and retaining talented educators:

- **Professional recognition:** Formal recognition of the educational contributions of trainers, institutions and the wider medical community could be established by the RCOG, based on resident feedback. This would increase the prestige associated with becoming an O&G educator and encourage more clinicians to pursue and excel in teaching roles.
- **Career pathway for educators:** Formal recognition would help establish a clear career pathway for educators, making educational roles in O&G more attractive to clinicians. This would increase the pool of highly skilled educators who are committed to teaching and mentoring, rather than viewing it as a secondary or additional duty to clinical practice.
- **Protected time:** Recognised educator status would demonstrate an ongoing commitment to teaching delivery with continued professional development and should therefore come with a recommendation for programmed activities (PA) allocation when job planning. Those educators driving innovative education strategies, such as simulation or exam support, may not necessarily hold an assigned role with education PA allocation, and therefore there needs to be an alternative pathway to recognising and supporting their contribution to the profession.



2. Raising the quality and consistency of training:

- **Standardised teaching practices:** Formal recognition status would establish clear, standardised criteria for O&G educators, ensuring that trainers meet a minimum level of competence in both clinical and educational skills. This consistency would improve the quality of surgical training and ensure residents receive uniform instruction, no matter where they train. This, in turn, enhances patient safety.
- **Evidence-based teaching methods:** Recognised educators would be expected to utilise evidence-based teaching methods that are aligned with best practices in medical education.

3. Promoting CPD:

- **Ongoing learning for educators:** Formal recognition would likely include requirements for educators to engage in CPD. This would ensure that trainers stay up to date with the latest surgical techniques, advances in O&G practice and innovations in educational theory, which would directly benefit residents by improving the relevance and effectiveness of their training.
- **Regular revalidation:** Similar to medical revalidation, formally recognised educators might be subject to periodic reassessment of their educational skills. This would encourage educators to remain actively engaged in improving their teaching methods and adapting to new developments in O&G surgery.

4. Supporting innovation in surgical skills training:

- **Funding and resources for educational leaders:** Formal recognition would help educators access resources such as educational leadership grants, funding for simulation technology and professional development courses. This would encourage innovation in surgical training methods, including the adoption of simulation, virtual reality and other advanced teaching tools to enhance surgical skills education.
- **Facilitating research in surgical education:** Recognised educators would be well-positioned to lead or contribute to research on surgical education, helping to identify the most effective ways to teach O&G surgical skills.

5. Facilitating collaboration and best practice sharing:

- **Creating a community of educators:** Formal recognition would likely encourage collaboration among O&G educators, leading to the sharing of best practices and educational innovations across different institutions.
- **Improving national standards:** As recognised educators collaborate, they could contribute to updating and refining national training standards, ensuring that O&G surgical training remains aligned with the latest developments in both medical education and clinical practice.

The development of formal recognition status for O&G educators would elevate the standards of surgical skills training by ensuring that educators are highly skilled,



continuously developing and fully committed to delivering high-quality, evidence-based education.

Structured professional development for O&G educators

Courses and resources to enhance surgical skills training require careful integration of both educational theory and practical surgical expertise. Below are key recommendations for such adaptation:

1. Faculty development for surgical educators:

- **Training on teaching using simulation:** Offer courses on how to deliver effective surgical training using simulation, from delivery of standard laparoscopic skills to setting up high-fidelity simulations for rare but critical surgical scenarios.
- **Surgical skills sessions:** Incorporate dedicated modules on teaching surgical skills, focusing on common O&G surgeries (e.g. caesarean births, laparoscopic procedures, hysteroscopy). The modules should cover the specific techniques and procedures that trainers need to teach, and could be incorporated into existing courses and/or developed as additional days for selected attendees.

2. Resources covering the breadth of surgical teaching pedagogy:

- **Theatre-based teaching techniques:** Equip trainers with techniques to effectively teach in the operating theatre environment, which includes strategies to supervise while maintaining patient safety and achieving optimal outcomes.
- **Hands-on learning:** Emphasise hands-on, scaffolded teaching, where trainers gradually give residents more autonomy while offering close supervision and feedback.
- **Feedback and assessment in surgery:** Trainers need to understand how to give constructive, real-time feedback on surgical performance, as well as assess surgical competence objectively, using workplace-based assessments (e.g. OSATS).
- **Video-based learning and reflective practice:** Integrate video recording of surgical procedures with subsequent reflective sessions, where trainers learn how to use videos to teach critical techniques, identify errors and improve surgical practices.
- **Augmented reality and virtual training tools:** Encourage the adoption of cutting-edge technologies like augmented reality and virtual simulators to enhance surgical skills training in a classroom environment before clinical application.
- **Teaching of technical and non-technical skills:** In addition to the technical aspects of surgery, trainers should learn to instruct on non-technical skills (e.g. communication, decision-making, team working) that are essential in a surgical setting.
- **Stress management:** Train educators to address the psychological pressures that residents may face in surgical environments and how to provide support.



3. Supporting continued professional development:

- **Observation of surgical teaching:** Provide access to peer observation, where surgical trainers are observed in theatre settings by a colleague with medical education experience and provided with feedback, fostering a culture of continuous improvement. This process could most readily be provided by requesting feedback from anaesthesia colleagues already rostered to that theatre, and could be structured through utilisation of a training theatre checklist.
- **Mentorship in surgical education:** Trainers should also receive mentorship and ongoing development in teaching techniques, allowing them to stay updated on new surgical methods and educational strategies.

4. Resource development and sharing:

- **Innovative resources:** One of the major challenges to trainers is lack of time, therefore the development of innovative educational resources that allow trainers to learn or revise training concepts in frequent, short intervals would help increase the quality of training across the O&G workforce. This could include video updates or podcasts.
- **Sharing of resources:** Easy-to-access training resources would also minimise the time taken in initial planning of teaching by trainers, which could be used more effectively in delivery of training. This could include online access to preconstructed simulated scenarios, didactic lectures or video libraries.

By implementing these strategies, we can more effectively prepare trainers to teach both surgical and non-surgical skills, ensuring a comprehensive educational experience for residents.

Educational leadership grants

Educational leadership grants could play a significant role in improving O&G surgical skills training by providing resources and opportunities to develop innovative teaching approaches, enhance trainer capabilities and create better educational environments.

These grants could impact O&G surgical training by:

1. Supporting research and development in surgical education:

- **Educational research:** Education is a chronically underfunded area of medical research. Grants could therefore provide much needed funding and direct researchers into preidentified areas of medical education that need active attention, such as research into the most effective methods for teaching surgical skills. This could include studying the impact of different teaching styles, simulation techniques or feedback mechanisms on resident performance and learning outcomes. The insights gained could lead to data-driven improvements in surgical education.



- **Pilot programmes for innovative teaching models:** Educational leadership grants could fund pilot programmes that test new approaches to teaching surgical skills, such as team-based learning, interprofessional education or longitudinal mentorship models. Successful pilots could be expanded or adopted on a national scale.
- **Development of advanced simulation tools:** Educational leadership grants could be used to fund the creation of surgical simulators that replicate complex O&G procedures. These tools provide a safe, controlled environment for residents to practice skills repeatedly, improving their competency before performing procedures on actual patients.

2. Expanding access to training opportunities:

- **Widening participation in rural and underserved areas:** In some regions, especially in rural or underserved areas, access to specialised surgical training can be limited. Grants could help establish satellite training centres or mobile simulation units, ensuring that all residents have access to high-quality O&G surgical skills training, regardless of location.

Educational leadership grants could significantly improve O&G surgical skills training by promoting innovation, expanding access to training and driving research and curriculum development. By investing in these areas, grants would enhance both the quality of surgical education and outcomes for resident doctors and patients alike.



Phase 2 of the project will explore the following recommendations:

- Explore processes for allocating protected time to trainers and how this can be made more accessible to our educators.
- Formal recognition of educational success through RCOG-accredited educator status with recommendations on protected time for these trainers.
- Review of medical education courses and resources to include the full breath of surgical skills teaching strategies, including innovative strategies such as simulation and video feedback for surgical skills.
- Develop resources for trainers that allow for quick acquisition of training concepts at frequent intervals such as online products, e.g. podcasts and videos.
- Explore funding for educational leadership grants to ensure ongoing research in O&G education so that training delivered is both evidence-based and cost-effective.

Conclusion

To quote a resident doctor who responded to the Trainee Survey:

The first step in solving a problem is always **the realisation that a problem exists**

It is well-recognised that gynaecology training in the UK requires attention. By establishing it as a presidential priority, now is the time to establish robust and innovative training methodologies in alignment with the evolving landscape of surgical O&G. Our surgical practices have changed and our training needs to change too.

The traditional method of 'see one, do one, teach one' does not work in our new environment. Neither does attempting to train all O&G doctors to perform every surgical procedure as this results in significant training dilution and makes it impossible for anyone to achieve true competency. Instead, we need to develop a transparent selection process to train the required number of doctors to deliver the advanced gynaecological surgery of the future. We also recognise that surgical simulation is not the answer to all of our problems and we need to address the bigger picture of access to surgery, prioritisation of gynaecology and supporting our educators and trainers.

The creation of the surgical skills project represents a critical step toward addressing O&G doctors' unmet training needs. As the field continues to transform due to technological advances, shifting clinical practices and changing workforce demands, the need for an adaptive and robust training framework, which utilises cutting edge platforms such as AI, has never been more urgent. This report provides a comprehensive assessment of the current state of surgical education, identifying unmet needs while analysing the underlying causes of gaps in training.

A collaborative approach is essential to the project group. Involving stakeholders from various sectors, including surgical trainers, policy makers and industry partners, who have long been calling for surgical reform, demonstrates a commitment to fostering a competent and adaptable workforce. This multifaceted strategy allows for a broader perspective on the challenges facing surgical education, as well as the development of targeted solutions that are both practical and innovative. By engaging with diverse voices, the project is enhancing



the relevancy of the training programme as well as ensuring that it meets the specific needs of both healthcare providers and patients.

As we move into the next phases of the project, the insights and recommendations outlined in this report will serve as a solid foundation for enhancing surgical training programmes. They are aimed at refining the educational curriculum, optimising resource allocation and incorporating new technologies that can improve training outcomes. By systematically addressing the gaps identified in the interim report, the O&G community can take significant strides toward creating a training environment that fosters excellence for every current and future doctor in O&G.

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