



The University of Manchester

Evaluating the Wider Impacts of Changes to UK Medical Education in Response to the COVID-19 Pandemic

Final Report

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Executive Summary

Background

The project set out to evaluate the impact of changes introduced in 2020 to enable doctors in training to safely progress amidst the disruption to clinical practice caused by the COVID-19 pandemic.

The changes were in three broad areas: those allowing trainees to progress without meeting all the requirements of the standard curriculum; those relating to the format of Royal College exams and those around the processes of annual review of competency progression (ARCP), including the format of delivery and new COVID-19-related, 'no-fault', ARCP outcomes.

The project addressed three specific research questions:

- RQ1: What were the positive, negative or neutral **impacts of the changes** that were put in place?
- RQ2: What are stakeholders' views on which elements should be retained, removed, or altered in the **'post pandemic' context**?
- RQ3: What **lessons can be learned** from the process of putting the changes in place, that could inform the future response to another significant exogenous event like the pandemic?

Methods

The project involved three elements to address the research questions:

1. A **rapid review** of published evidence to establish what has been found regarding the impact of the COVID-19 pandemic on medical education and training in the UK.
2. **Analysis of secondary data** held by the GMC to establish how ARCP outcomes and exam results varied over the pandemic period.
3. **Qualitative data collection** involving 238 trainee, trainer and leadership stakeholders across 24 focus groups, and 27 individual interviews, to establish views on the impact of changes and their use in a future force majeure.

Results

A rapid review of the literature found little evidence, to date, examining the changes to educational requirements. Studies have focused on the wider effects of the pandemic on teaching and learning, trainee progression and career development, and the importance of effective supervision and support. There is a paucity of data from trainer and organisational perspectives.

Analysis of secondary data found that the use of the new outcomes 10.1 and 10.2 declined rapidly in 2021 and 2022, suggesting that while they served a useful function during the peak of the pandemic in 2020, they have in the context of COVID-19, perhaps, served their purpose for most trainees. There is evidence that differences in successful outcomes between some demographic groups (based on gender, ethnicity, place of primary medical qualification, and less than full time working) were reduced in 2020, but that differences subsequently reasserted themselves. The reduction in differential attainment appeared to be due to a decrease in successful outcomes overall, rather than necessarily a mitigation provided by changes to systems.

In contrast, exam data showed no change in differential attainment during the pandemic period, with demographic effects remaining constant. There was however an overall increase in the likelihood of passing

an exam in 2021. This could be due to a longer lead time for trainees, arising from the disruption to exam diets in 2020, allowing them to better prepare.

Qualitative data identified a number of key learning points in each of the areas of change.

Curricula

Positive impacts of curricula derogations included perceptions of more holistic and compassionate, adaptive approaches to training, with many instances of flexible and innovative learning and working. Negative impacts included additional supervisor responsibilities, at a time when trainers often had less capacity to provide support. Some trainees (particularly in craft specialties) felt pressure to maintain procedural experience, while those shielding frequently lacked guidance on how to gain capabilities. In the post pandemic context, stakeholder views on curricula derogations varied between removal and retention of different components. Some felt benefits were being retained in new curricula (such as internal medicine training and the new paediatrics curriculum) which were still being developed and refined during the pandemic period, and that these meant curricula would be more resilient in the face of future events. Remote teaching had benefits for flexibility, but overall the feeling was that a hybrid approach may be better in the future, with face-to-face sessions providing better opportunities for practical skills and to promote peer networking.

Key learning for future events focused on the practical challenges of changing curricula. Ready access to remote technology, robust supporting infrastructure and a collaborative approach from staff are essential. Further considerations are trainers' workload and ways of minimising inconsistencies in trainee supervision and support. The support required by trainers from organisations, in order to appropriately support trainees, should be recognised.

Exams

Positive impacts of changes to exams included the provision of online options that were rigorous, largely efficient and which improved aspects of accessibility. Negative impacts included a significant disruption to progression caused by loss of exam diets, technical challenges associated with online formats and a potential loss of authenticity of clinical scenarios in practical exams. There were also a number of issues specific to the Royal College of General Practice Recorded Clinical Assessment practical exam. Many stakeholders wished for online exams to be maintained, particularly for knowledge-based exams.

Key learning for future events focused on the importance of clear and timely communication around exam changes, alongside a need to improve the consistency of experience, and minimise technical difficulties and risk of cheating. Stakeholders identified risks to workforce planning from loss of exam diets affecting progression and from a perceived greater risk of failure when preparation is disrupted. Evaluation of the rollout and implementation of the new Simulated Consultation Assessment exam for GP trainees was encouraged.

ARCP Processes

Positive impacts of ARCP process changes included greater efficiency associated with online panels, whilst maintaining functionality. Negative impacts were few, but included reduced opportunities for panel networking and, therefore, for some aspects of supervisor training. Some stakeholders also felt that lack of lay and external representation on panels affected rigour and fairness of the process. Trainees value feedback on their ARCP but reported processes for this were highly variable. Online panel formats have been mostly retained, but a reduced panel composition has been removed.

Key learning for future events centred on the importance of clear guidance to support consistency within ARCP processes. Feedback formats that are responsive to trainee’ circumstances and preferences are needed.

ARCP outcomes

Positive impacts of the COVID-19 ARCP ‘no-fault’ outcomes included perceptions of pragmatism and utility to maintain progression. Negative impacts included variability in how outcomes were applied, difficulties in decision making for shielding trainees, and unintended consequences of the use of ‘no-fault’ terminology. Halting training progression had personal consequences for individual trainees and has implications for longer-term workforce planning. Many stakeholders felt that it was the right time to remove the derogated ARCP outcomes, but also noted an ongoing impact of COVID-19 recovery on training, and a risk of removal of the no-fault outcomes for some individuals, such as those in craft specialties and trainees differentially impacted by the pandemic (e.g., shielding trainees). There was broad agreement that derogated outcomes should be kept in reserve in the event of future disruption.

Key learning for future events related to the importance of consistent application of derogated outcomes, supported by timely, clear communication strategies.

Conclusions and implications

Through multiple methods, including the views of a large number of stakeholders, we have reported the multifaceted impacts of the changes made to curricula, exams, ARCP processes and ARCP outcomes.

The overall message is that the changes were welcomed, and were well-adapted to the pandemic context, enabling flexibility and compassion in education and training at a time of considerable stress. They demonstrated that innovation and adaptation can happen, at pace, with the benefit of collaborative and creative decision-making by educational leaders and support from organisations and trainers. However, stakeholders’ experiences of the changes were variable, often influenced by accessibility and functionality of IT infrastructure. Further, the additional pressures and workload involved with educational leadership and delivery should not be underestimated.

Secondary data suggest some aspects of differential attainment in ARCP between demographic groups reduced during the pandemic. However, this was due to previously more successful groups having a greater drop in likelihood of success, and it is unclear whether this is a consequence of pandemic-related disruption, or of the changes to curricula and ARCP. However, qualitative data suggested that some trainee groups may have been differentially affected and a dedicated and expansive equality impact assessment of both the COVID-19 disruption and the changes to education and training is needed to better examine this issue.

The qualitative findings identified several cross-cutting priorities for changes to education and training in the event of future force majeure disruption. These included having **Consistency** of educational processes, and **Communication** that is clear and timely, with information technology infrastructure in place for organisations and users. Further, our data identified the considerable impact of working through a pandemic on the well-being of staff, emphasising that attention to the **Care** of, and for, trainees and trainers will be an important element of any strategic response to future crises.

There were also a number of wider implications for medical education arising from the COVID-19 pandemic itself, and associated changes, which may benefit from further examination. In the short term, stakeholders identified risks to the training progression of certain groups, which may need ongoing solutions tailored to individual trainees and specialty areas. More widely, there was also suggestion that the more narrowed scope

of practice, and growth of remote approaches to care provision through COVID-19 may have impacted on the capabilities of the future workforce.

In the longer term, there were also risks identified for workforce planning. These were linked to disruption of process through the pandemic, for example where loss of opportunities to take professional examinations prevented or slowed progression, but also more widely through the impact on individual trainees' career plans, such as a desire for out-of-programme experience. The legacy of COVID-19 on the sustainability of the medical workforce, and the consequences for education and training, will require ongoing, longitudinal research.

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List of Abbreviations

ARCP (Annual Review of Competency Progression)

CCT (Certificate of Completion of Training)

CPP (Critical Progression Point)

FRCS (Fellowship of the Royal College of Surgeons)

HST (Higher Specialty Training)

LTFT (Less Than Full Time)

MCQs (Multiple Choice Questions)

MRCGP (Membership of the Royal College of General Practitioners)

MRCGP AKT (Membership of the Royal College of General Practitioners Applied Knowledge Test)

MRCGP CSA (Membership of the Royal College of General Practitioners Clinical Skills Assessment)

MRCGP RCA (Membership of the Royal College of General Practitioners Recorded Clinical Assessment)

MRCP PACES (Membership of the Royal College of Physicians Practical Assessment of Clinical Examination Skills)

MRCP(UK) (Membership of the Royal College of Physicians (exam))

MRCPCH AKP (Membership of the Royal College of Paediatrics and Child Health Applied Knowledge in Practice)

OPCAT (Outpatient Care Assessment Tool)

OSCE (Objective Structured Clinical Exam)

PYA (Penultimate Year Assessment)

RCGP (Royal College of GPs)

RCPCH Royal College of Paediatrics and Child Health (RCPCH)

SEB (Statutory Education Bodies)

SLEs (Supervised Learning Events)

SOE (Structured Oral Exam)

ST (Specialty Training)

TPD (Training Programme Director)

WPBA (Workplace Based Assessment)

1 Introduction

As the potential impact of the COVID-19 pandemic became apparent early in 2020, it was clear that changes would be necessary to allow doctors in training to safely progress despite disruption to their clinical experience. Halting progression would have had major consequences for individual doctors and for service delivery, and so novel approaches were necessary to mitigate challenges to the education and training system.

From March 2020, the General Medical Council (GMC), Royal Colleges and faculties, and UK Statutory Education Bodies (SEBs) developed several changes to processes for assessment and progression. These fell into four groups.

Curricula derogations allowed trainees to progress without achieving all the requirements of the normal curriculum. These included, for most specialties, changes in the evidence required to demonstrate experience and competence. For some, requirements in relation to particular activities were suspended entirely (for example, quality improvement projects), to reflect the impact on clinical work. College examinations were also cancelled in the early stages of pandemic, and so requirements that exams were passed were suspended for progression through some stages of training (for example the requirement that the MRCP(UK) Part 1 exam be taken before the end of the second year of internal medicine training¹). However, the requirements and outcomes for completion of training were not changed.

Changes to exam formats and processes allowed exams to be taken remotely, or with reduced contact between trainees, patients, and examiners. These changes primarily involved a move to online delivery for knowledge tests. Adaptations were facilitated by third-party providers offering remote supervision or proctoring. Practical clinical examinations changed in several ways, including the use of simulated and online consultations. For example, the Royal College of General Practitioners (RCGP) moved to more videoed consultations in the Recorded Consultation Assessment (RCA), replacing the Clinical Skills Assessment (CSA). The Royal College of Paediatrics and Child Health (RCPCH) practical exam involved a verbal account of what the doctor would do, rather than direct patient examination, and the Royal College of Ophthalmology refraction examination was conducted on model eyes, rather than with patients. A summary of changes to some clinical and oral exams is included in table 1. More examples are included in Appendix A of this report.

Table 1. Examples of changes to practical and oral exams by some Royal Colleges and Faculties

Specialty	Component	Change during COVID-19
Intensive care medicine	Final FFICM OSCE (objective structured clinical exam)	Spring OSCE 2020 cancelled, then remote delivered by video.
	Final FFICM SOE (Structured Oral Exam)	Spring SOE 2020 cancelled, then remote delivered by video.
Occupational medicine	MFOM Part 2 OSPE Clinical stations	Online, remote delivery.
Public Health Medicine	MFPH OSPHE	Online, remote delivery.
Community sexual and reproductive health	MFSRH Part 2 OSCE	Cancelled June 2020, candidates given opportunity to defer to 2021. Subsequent move to online, remote delivery.
Core surgical training	MRCs Part B	Cancelled Spring 2020. Resumed October 2020 with amendments – total number of stations was decreased to 13, use of real patients in the clinical examination stations was prohibited, and the employment of actors as simulated patients was limited. February 2021 MRCs Part B was cancelled as the UK entered the second wave of the pandemic.
CMT / Internal medicine	MRCP Part 2 PACES	Cancelled Spring 2020. Resumed September 2020. Hybrid. Examiners assessed two stations remotely using simulated patients, and the remaining three stations used clinical screening and non-pharmaceutical interventions.
General practice	WPBA (counted towards MRCGP)	Adjustments to required WPBA permitted to account for COVID-19 context - in cases where the number of specific assessments have not been achieved, an ARCP panel was able to deliver a global judgment based on a holistic view of evidence over the three-year programme.
	Clinical Skills Assessment	Cancelled Spring 2020. Then became Recorded Consultation Assessment (RCA).
Anaesthetics	Final Structured Oral Exam 1 Part A	Online, remote delivery by video.
	Final Structured Oral Exam 1 Part B	Online, remote delivery by video.
	Final Structured Oral Exam 2	Online, remote delivery by video.
	Primary OSCE	Online, remote delivery by video.
	Primary Structured Oral Exam (SOE)	Online, remote delivery by video.
Histopathology	Histopathology Stage A / Year 1 Assessment OSPE	Deferred spring 2020 to autumn 2020, then online, remote delivery.
	Histopathology Part 1	Deferred spring 2020 to autumn 2020, then online, remote delivery.

Changes to the format and composition of ARCP panels primarily included a move to online panels, but there was also relaxation of requirements that panels include external and lay panel members, although they could be included if available.² The provision of feedback to trainees following ARCP, where offered, also moved to online rather than in-person meetings.

Finally, additional outcomes for the annual review of competence progression (ARCP) were introduced. These new outcomes (10.1 and 10.2) reflected the impact of COVID-19 on training opportunities, recognising that ‘acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption’.³ Outcome 10.1 allowed immediate progression (analogous to outcome 2), while 10.2 indicated further training time was required (analogous to outcome 3). Outcome 10.2 was specifically available for trainees at ‘critical progression points’, such as progression from core to higher specialty training, where there was no curricula derogation in place to allow progression. At a critical progression point where a derogation was in place, an outcome 10.1 could be awarded. An outcome 10.2 could also be awarded at the final ARCP for

Certificate of Completion of Training (CCT). Notably, outcomes 10.1 and 10.2 were explicitly referred to as ‘no fault’ outcomes from the outset.⁴

Table 2 includes the descriptors of all outcomes available from 2020 as defined by the Gold Guide (8th Edition) in March 2020,⁵ with outcomes 10.1 and 10.2 defined in April 2020.³ Advice issued by Health Education England (now NHS England Workforce Training and Education) in November 2020 clarified an aim to minimise the number of Outcome 5s, to reduce workload for trainees and panels.²

Outcomes 10.1 and 10.2 have been retained in the Gold Guide (9th edition)⁶ to provide outcomes in response to ‘force majeure’, but this follows direction from the statutory education bodies. Their use in relation to COVID-19 disruption is planned to be deprecated from the end of September 2023.

Table 2. ARCP outcomes available from April 2020

Outcome 1 Outcome 7.1*	Satisfactory progress – Achieving progress and the development of competences/capabilities at the expected rate. Satisfactory progress in or completion of the post.
Outcome 2 Outcome 7.2*	Development of specific competences/capabilities required – Additional training time not required. Development of specific competences/capabilities required – Additional training time not required.
Outcome 3 Outcome 7.3*	Insufficient progress – Additional training time required. Inadequate progress by the trainee.
Outcome 4	Released from training programme – With or without specified competences/capabilities.
Outcome 5 Outcome 7.4*	Incomplete evidence presented – Additional training time may be required. Incomplete evidence presented.
Outcome 6	Gained all required competences/capabilities – Will be recommended as having completed the training programme (foundation, core, or specialty).
Outcome 8	Out of programme for clinical experience, research, or a career break (OOPE/OOPR/OOPC).
Outcome 10.1:	Progress is satisfactory but the acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is not at a critical progression point in their programme and can progress to the next stage of their training. Any additional training time will be reviewed at the next ARCP.
Outcome 10.2	Progress is satisfactory but the acquisition of competencies/capabilities by the trainee has been delayed by COVID-19 disruption. The trainee is at a critical progression point in their programme and additional training time is required.

*Outcomes 7.x are for those in fixed-term training posts such as ‘locum approved for training’ (LAT) posts – not in recognised training programmes, but whose experience can contribute towards training experience.

Sources: *Gold Guide (8th Edition)*,⁵ *Supporting the COVID-19 Response: Enabling Progression at ARCP*³

1.1 Aims and research questions

The project aimed to evaluate the impact of the changes outlined above, addressing three specific research questions:

- RQ1: What were the positive, negative or neutral impacts of the changes that were put in place?
- RQ2: What are stakeholders’ views on which elements should be retained, removed, or altered in the ‘post pandemic’ context?
- RQ3: What lessons can be learned from the process of putting the changes in place, that could inform the future response to another significant exogenous event like the pandemic?

RQ1 aims to evaluate the impact of changes retrospectively and identify any learning points to understand how the changes affected trainees, trainers and the wider education and training system. This cannot necessarily be isolated from the wider impact of the pandemic itself, but the focus is on the changes, not the wider context.

RQ2 and RQ3 are prospective, considering how learning from the period 2020-23 can be applied in future. RQ2 considers the short to medium term, and the implications of removing the remaining changes in September 2023 as planned, or if there may be benefit from retaining them or some parts further. RQ3 takes a longer view, considering how the COVID-19 experience may inform responses to similarly disruptive future exogenous events.

1.2 Methods

The project involved three elements to address the research questions.

1. A **rapid review** of published evidence to establish what has been found regarding the impact of COVID-19 on medical education and training, including any evidence relating to curricula derogations and other changes.
2. **Analysis of secondary data** held by the GMC, to establish variability of ARCP outcomes and exam results from 2017 to 2022.
3. **Qualitative data collection** through focus groups and interviews with stakeholders, to establish their views on the impact of changes. Participants included trainees and faculty from a range of specialties across the four nations of the UK. Full details of the sample are provided in section 4.

Full details of methods, and statistical analysis, are provided in the separate technical annex. The remainder of this report focuses on findings and implications.

2 Rapid review of evidence

A rapid review of peer-reviewed and grey literature considered three questions. These addressed the wider impact of the pandemic, rather than the specific changes we are considering, as a preliminary search found very few specific references to those changes.

1. What literature has examined the impact of the COVID-19 pandemic on UK postgraduate medical education?
2. What does this literature indicate about the impact of COVID-19 on training progression and outcomes?
3. What does this literature report about the experiences and perceptions of stakeholders (including trainees, supervisors, organisational leaders, employers) regarding this impact?

A search of three databases identified 21 papers which met inclusion criteria for relevance (full details of the search and inclusion criteria are provided in the technical annex). These described mostly small-scale, descriptive studies, in single specialties or geographical areas. Where studies had national reach, they were quantitative surveys with few qualitative insights. Mostly, studies focused on the wider impact of COVID-19 on education and training, rather than the impact of specific changes.

Review of these papers identified four themes, which are summarised below:

1. Changes in teaching and learning
2. Impact on trainee progression
3. Impact on career aspirations
4. Supervision and support

2.1 Changes in teaching and learning

Firstly, several papers described significant changes to teaching and learning during the pandemic – both within clinical environments, and within formal programmes of teaching.

Within work-based clinical learning environments, the changes in clinical work brought about by the pandemic had a significant, negative impact on the availability of learning opportunities.⁷⁻¹⁴ These were reported across specialties, although some, surgical specialties in particular,^{12, 14, 15-18} were represented more than others. Of particular concern were the loss of elective surgery lists,^{12,14,15-18} and face-to-face clinic appointments.^{16,19,20}

Rotations were disrupted, affecting trainees' experience within and between specialties. Acute demands on COVID-19 wards, and covering staff sickness, led to redeployment (which could be voluntary or mandatory) outside of their specialties for some trainees across training grades.^{10, 11, 13-15, 21-24} For many foundation programme trainees, planned rotations to new specialties in 2020 were cancelled.^{21, 25} Some trainees were required to shield for their own health, which most often involved working from home,^{10,11,20} limiting their clinical experience. However, telephone and video consultations became more common,⁸ perhaps mitigating this risk.

One reported exception was in public health, where trainees reported a gain in work-based learning opportunities, through managing responses to the pandemic.¹⁹

Within formal teaching, one of the main changes reported was a shift towards virtual or online teaching,^{7-10,12,15,16,20,23,24} with both advantages and disadvantages reported. In some cases, online teaching allowed greater flexibility and accessibility, enabling more trainees to participate in educational activities.^{8,12,23,24} For others, online teaching could be challenging – some trainees struggled to engage with online material (sometimes due to technical issues) and felt isolated from peers and seniors.⁹⁻¹¹ In addition to online teaching, the use of social media for teaching by trainees has also become more widespread.¹¹ Social media platforms such as Twitter (now renamed to X) are reported as useful in terms of sharing educational resources and connecting with a community of medical practitioner peers.^{11,20}

While not directly related to derogations or other changes, these findings illustrate the changing learning experience available to trainees, from which consequences for their learning can be inferred.

2.2 Impact on trainee progression

A second theme reflects descriptions of the impact of changes to teaching and learning on trainee progression. Here, some papers did explicitly address the introduction of the ARCP outcomes 10.1 and 10.2.

More 10.1 outcomes than 10.2 were reported,^{12,26} and it was more common for a higher stage trainee to be awarded a no fault outcome than a core trainee.²⁶ Outcome 6 awards remained unchanged, with a reduction in outcome 2s, 3s, and 5s awarded,²⁶ although another paper reported fewer trainees obtaining their CCT.⁷ Cancellation of exams was cited as a reason for delaying CCT.^{7,12,24} Studies identified anxiety about meeting ARCP requirements given reduced exposure to some conditions, and reduced opportunities for supervised learning events.^{11,14,24} There was evidence reported of reduced accreditation in key procedures within gastroenterology.⁷ Shielding trainees appreciated the availability of out of programme pauses (introduced in Gold Guide 8th edition²⁰).

Some trainees experienced delays in progression following a 10.2 outcome, and the risk of long-term impact on their careers was raised.^{11,22} Interestingly however, some trainees expressed preferences, particularly early in the pandemic, for extensions to their training.^{12,14-16,27} However, most wished for this to be a voluntary option later in their training, rather than adding time at their current stage, and felt they had enough experience to progress currently.^{9,17,23} Few were aware of the eligibility criteria for extensions. One study noted that trainees did not gain enough exposure to sub-specialties during COVID-19 and would prefer to repeat sub-specialties completed during the height of the pandemic later in training.²³

The cancellation of study days was also a major challenge for trainees, with a perceived loss of valuable training opportunities, with potential impact on the development of skills and knowledge necessary for career progression.^{7,12,24}

2.3 Impact on career development

The pandemic also had an impact more broadly on the career development of trainees. An interesting effect is that on career aspirations – some trainees were concerned that the reduced access to teaching and learning opportunities would negatively affect their achieving their aspirations,⁷ and there were also reports of uncertainty about career decisions, due to trainees missing rotations they had selected to inform those

decisions.^{21,23} Limitations on experience imposed by shielding also raised concerns about career development for these trainees.²⁰ Reduced opportunities outside clinical work, such as research, were also identified as potentially limiting career opportunities.^{7,21}

Some trainees indicated a change in career goals because of the pandemic. Some reported wanting to take a career break, and/or work abroad following the pandemic, for reasons including the personal toll of the pandemic, or wanting to develop additional core experience.²⁷ Foundation trainees who did not rotate in 2020 reported that they came to favour the specialty they had spent longest within – the continuity they experienced positively influenced their view of that specialty as a career, but there were concerns about working as a specialty trainee in an area in which they had no foundation programme experience.²¹ Some trainees redeployed to intensive care reported such a positive experience that they wished to continue training in that specialty.¹⁸

Despite challenges, the pandemic provided some opportunities for skill development. Some trainees, particularly those who were redeployed, had the opportunity to develop new procedural skills (e.g., line insertion) and knowledge (e.g., ventilator management), as well as enhanced communication skills (e.g., breaking bad news).¹⁸ Trainees in one study reported opportunities to develop management and leadership through online courses, but also through involvement in managing the pandemic response.¹¹ There were also increased opportunities for reflection on practice.¹¹ Public health trainees were able to get a good sense of the working life of a consultant, though their prioritisation of contributing to the COVID-19 response reduced acquisition of formal learning outcomes.¹⁹

2.4 Supervision and support

Support from supervisors, teams and the wider organisation, was identified as important in several studies. Remaining within one clinical team provided continuity of support for some trainees,²¹ and some trainees reported their relationships with supervisors could also provide continuity,^{23,9} with regular virtual meetings and email support being valuable,²¹ however others found that their supervisors were not always able to provide the support they needed, due to increased consultant clinical workloads.^{14,17} The lack of opportunities for in-person feedback with seniors and supervisors was concerning for some trainees.¹⁰

Concerningly, trainees reported a lack of organisational support, manifested through the lack of personal protective equipment (PPE),¹¹ increased workload,¹¹ low vaccine uptake in some trusts,²⁰ and a failure for some work environments to adhere to necessary infection control measures.²⁰

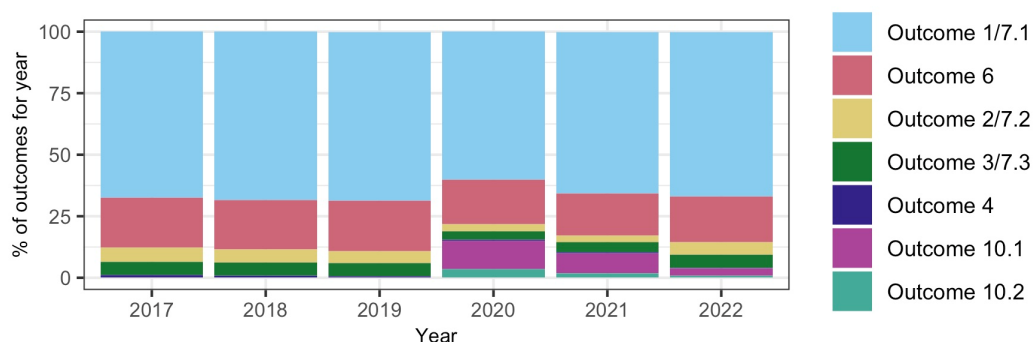
There was also uncertainty regarding the changes made to medical education, and desire for greater clarity from organisational leaders.^{14,22,25} One study indicated that trainees felt specialty recruitment and curriculum changes, additional to COVID-19 derogations, introduced further uncertainty and disruption.²⁷ Shielding trainees were asked by some trusts to use annual leave rather than shielding, which caused anxiety and concern.²⁰ The importance of preparation for redeployment¹⁰ and clear departmental guidance, such as working from home protocols,⁹ and guidance regarding activities for shielding trainees²⁰ were noted.

3 Analysis of secondary data: ARCP outcomes and exam results

Statistical analysis of ARCP and exam data between 2017 and 2022 considered whether any variation in outcomes could be associated with the introduction of curricular derogations and other COVID-19 changes. Full analysis is reported in the technical annex, but there are five main observations.

Firstly, there were clear decreases in the proportion of both successful (outcome 1, 6, 7.1), and developmental (outcome 2, 3, 7.2 or 7.3) ARCP outcomes with the introduction of outcomes 10.1 and 10.2 in 2020 (figure 1). Successful outcomes constituted 89% of all outcomes in 2019, and 78% of outcomes in 2020. Developmental outcomes constituted 10% and 6% of outcomes in those years. Proportions returned close to pre-pandemic levels (86%; 10% respectively) in 2022.

Figure 1. Proportions of ARCP outcomes 2017-2022

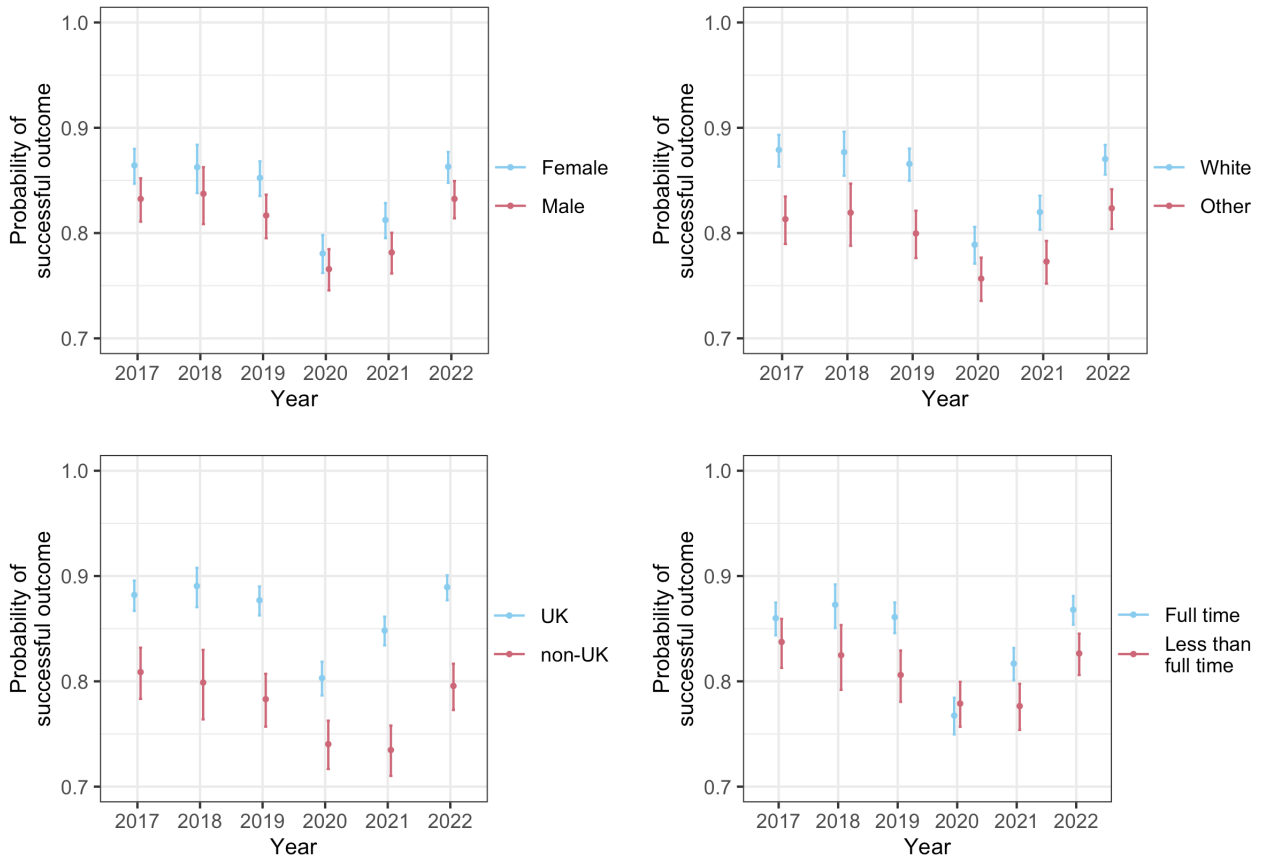


Secondly, and mirroring the above, the proportion of Outcomes 10.1 or 10.2 decreased rapidly – from 15% of all outcomes in 2020 to less than 4% in 2022. Eighty percent of those receiving 10.2 outcomes in 2020 and 2021 – requiring additional time and therefore potentially extending training – subsequently received successful outcomes, suggesting there was no longer-term impact on progression.

Thirdly, there is an indication that there was some convergence between the success rates of different demographic groups in 2020, but that these had diverged again by 2022. In particular, differences associated with gender, ethnic group and working less than full time were less than before the pandemic (figure 2 – note this reflects probabilities from statistical models, which account for the confounding effects of other variables). However, the probability of success of all groups decreased. The narrowing of differences is due to a greater decrease for those groups which had been more successful before the pandemic (male trainees, white trainees and full-time trainees).

The divergence after 2020 of UK and non-UK, and full-time and less than full-time (LTFT) trainees, appears to be related to a slower recovery to pre-pandemic levels for non-UK graduates and LTFT trainees, compared to UK-qualified and full-time trainees. The finding that, in 2021, non-UK graduates were more likely to get a COVID-19 outcome (10.1 or 10.2) than UK graduates gives some supports to this point, although this was not true of full-time and LTFT trainees.

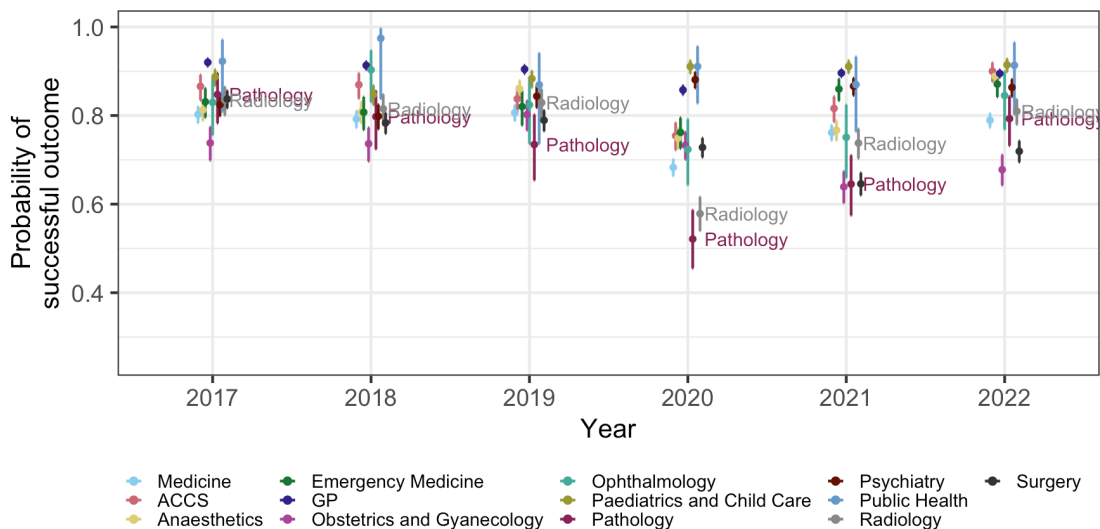
Figure 2. Probabilities of successful outcomes by gender, ethnic group, place of PMQ and working hours, 2017-2022



Probabilities are predicted probabilities from regression model, controlling for other predictor variables.

Fourthly, there was some variability between specialty groups, with the most notable pattern being a clear difference in the probabilities of pathology and radiology trainees getting successful outcomes in 2020 – being lower than other specialties (see figure 3). This was mirrored by a higher probability of an outcome 10.1 or 10.2 that year. In 2022 this separation of these two specialties difference was no longer apparent.

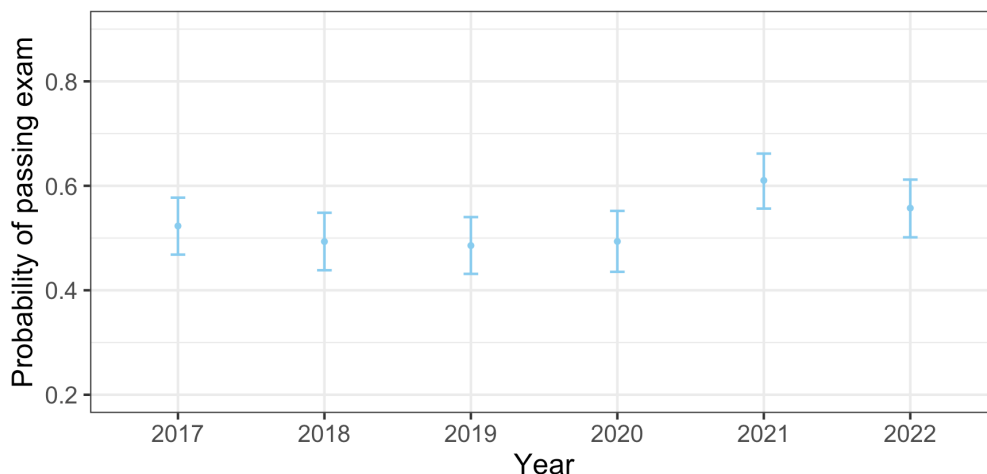
Figure 3. Probabilities of successful outcomes by specialty group, 2017-2022



Probabilities are predicted probabilities from regression model, controlling for other predictor variables.

Finally, considering the pass/fail figures of 110 exams (from those taken in Foundation Year 2 and the early stages of specialty training, to Specialty Certificate Examinations taken as exit exams in specialty training), there were apparent changes to exam pass rates over time. Figure 4 shows the probability of passing an exam, controlling for demographic variables and underlying variability between exams. This probability remained fairly constant at 0.5 from 2017 to 2020, but increased to 0.6 in 2021, dropping to 0.55 in 2022. Differential attainment between demographic groups, with white trainees being more likely to pass than others, and UK graduates more likely to pass than non-UK, did not vary with time.

Figure 4. Probabilities of exam passes, 2017-2022



Probabilities are predicted probabilities from regression model, controlling for other predictor variables.

3.1 Discussion of secondary data analysis

Analyses of ARCP outcome and exam pass data indicate an effect of the pandemic, as one might expect. The likelihood of both successful and developmental outcomes decreased similarly in 2020, with the introduction of COVID-19 outcomes. This suggests that those receiving COVID-19 outcomes were not just those who would previously have received a developmental outcome, but that *all* trainees were potentially affected by COVID-19 disruption. The COVID-19 outcomes may therefore be considered to have been effective in providing a safety net for those who would otherwise have progressed, while still providing support for those who would have received a developmental outcome.

The narrowing of some demographic differences (of gender, ethnicity and working less than full time) could indicate that changes to ARCP processes, and the availability of outcomes 10.1 and 10.2, somehow reduced underlying reasons for differential attainment at ARCP. However, as successful outcomes for both high- and low-probability groups reduced, with the convergence stemming from a greater drop in the successful outcomes of those who were previously more likely to be successful, this may suggest an artefact of the data such as a floor effect – a minimum likelihood of success that both groups are reaching. The effect of specialty, where the diagnostic specialties pathology and radiology had a lower probability of successful outcomes in 2020, may reflect the impact of COVID-19 on routine care and consequent availability of training experiences. That there was also a higher probability of outcomes 10.1 and 10.2 in these specialties supports this.

Exam results appear to show a lag in effects of the pandemic to 2021. Findings may reflect the impact of lockdown and the longer period of study and revision provided by the pandemic leading to increased passes (points made in the qualitative data). However, exams were disrupted in many ways, with some cancelled throughout 2020, and others with some diets cancelled and others changed (for example, while spring and

autumn diets across all exams in 2020 had 66% and 99% respectively of the numbers of candidates in 2019, the summer diet was available to just 14% of the 2019 numbers). On the return of full exam diets there was therefore a backlog, and there was some prioritisation of those for whom membership exams were more pressing, which may have distorted outcomes through a form of sampling bias.

Variability between England, Wales, Northern Ireland and Scotland was minor, and consistent before, during and after the pandemic period, suggesting that there was no differential effect of the pandemic, nor the changes, across the UK.

4 Qualitative analysis

In total, 238 participants (52% trainees, 48% faculty) took part in a total of 27 interviews and 24 focus groups or workshops. Table 3 summarises the groups represented, noting that many ‘leaders’ will also have experience of ‘trainer’ roles, often concurrently. Many trainer roles also involve local leadership, and so the distinction in many cases is about the scope and scale of their responsibilities, rather than role per se.

Table 3. Numbers of participants from different stakeholder groups

Trainees	120
Trainers (supervisors, Training Programme Directors)	78
Education leaders (Heads of School, Deans, representatives of Royal Colleges or Other relevant organisation)	33

Participants in all groups reflected different specialties and included a breadth of demographic characteristics across gender, ethnicity and disability. The four nations of the UK were represented, with contributors from SEBs and Foundation Schools from England, Wales, Northern Ireland and Scotland, while others, such as Royal College participants, had UK-wide perspectives. Quotes in the presentation of findings are labelled with stakeholder group (trainee, trainer, leader); specialty (or ‘mixed’, where trainees participated in focus groups with different specialty representatives; or leaders were cross-specialty in their remit); and UK nation (or ‘cross-nation’ where trainee representation was mixed, or leaders’ roles crossed nation remits).

A framework analysis approach was used to identify references to the benefits and risks perceived by participants around each of the four areas of change, the extent to which participants felt they should be retained or revised and views on their potential usefulness in response to future pandemic-scale events.

The following sections then present a summary of data viewed through this framework. Tables 4 to 7 within these sections summarise the benefits and risks of the different changes.

There were also many references to the wider context of the pandemic, which did not directly reflect experience of the changes. However, this context of education and practice during the pandemic will have shaped experience of the changes. These wider issues are therefore described at the end of this section to provide greater appreciation of how the changes formed just part of trainees’ experience during and since the pandemic.

Note that many participants used the term ‘derogations’ to refer to any changes to education and training in response to the pandemic, and not just curricular derogations. We have left this unchanged in quotes, so references to ‘ARCP derogations’ or ‘exam derogations’ should be read as referring to the changes to those processes.

4.1 Curricula derogations

Curricula derogations included changes to requirements for specific procedures (including the introduction of novel evidence of competency where exposure was reduced e.g., the Outpatient Care Assessment Tool

(OPCAT) within medicine), the numbers of procedures, workplace-based assessments (WPBAs) or supervised learning events (SLEs); requirements to complete life support training and some College exams in order to progress at different stages.

Table 4. Benefits and risks of curricular derogations and stakeholder views of future approach

Change	Benefit	Risk	Stakeholder views
Reduction in required numbers of assessments, reflections etc. for portfolio	Focused on essential competencies. Facilitated progression.	Variation in clarity of communication. Difficulties translating new guidelines to on-the-ground trainees and supervisors leading to uncertainty regarding requirements.	Mixed – many keen to move towards a more holistic competency-based approach to assessment where this isn't already the case.
Perceptions of support	Positive experiences of support where trainers were available, seen to be protecting training time, and were well-informed regarding derogations.	Negative experiences of support where trainers were unavailable, and unsure/unwilling to find out about trainee' requirements	Alter – address inconsistencies in the support provided by supervisors: focused support for supervisors regarding derogations; address workload pressures which contribute to lack of supervisor availability.
Disruptions to Training experiences	Necessary to facilitate service provision.	Differential impact on procedural/craft specialties leading to competence-excellence gap. Differential impact on shielding trainees (illness, disability, pregnancy).	Alter – improve access to clinical experiences where these are still limited; explore and address expectations around a competence-excellence gap; initiate equality impact assessment of derogations; enhance guidance for shielding trainees and improve infrastructure to future-proof training experience.
Remote teaching	Increased accessibility, flexibility and convenience. Facilitated teaching provision when restrictions meant face-to-face teaching could not be held.	Loss of peer connection. Less well-connected with faculty and so missed opportunities for pastoral support. Not optimal in terms of teaching/learning of practical skills.	Alter – retain aspects of remote teaching which worked well (external speaker sessions; lunchtime teaching) but provide some face-to-face sessions to encourage peer networking and support practical skills development.

4.1.1 Compassion and pragmatism in curricula changes

Trainees, trainers, and leaders viewed positively many of the changes made to curricula. Pragmatic changes which facilitated progression by focusing on essential competencies, rather than fixed targets, were seen as 'compassionate', acknowledging the disruption to trainees' professional and personal lives.

I felt it was quite a compassionate redesign of the curriculum, and I think it became more pragmatic in the sense that where you might [have needed] three real life in-person experiences to get signed off, you could [now] have two and a simulation for example.
(Trainee, Focus group 6, Mixed, England)

They felt that we were trying to be as flexible as we can. We got very positive feedback from the trainees' committees. (Leader, Interview 5, Mixed, Cross-nation)

A move to 'indicative numbers' of procedures and SLEs was generally felt to give a more holistic assessment of trainee competence. Innovation was evident in leader responses to facilitate trainee competency demonstration (e.g., in the creation of the OPCAT within medicine). Along with several benefits of changes, there were suggestions that this was a positive step forward in training processes, rather than simply being a tactical response to external challenge.

I think this is a good thing, there's been a transition away from getting very het up about numbers to everything being indicative...you had a much more holistic assessment of a trainee ...I actually think that that's [COVID-19] moved us faster on that trajectory. (Leader, Interview 8, Medicine, England)

Very few people were getting adequacy of outpatient experience. So, to offset that, we were always saying this is capability based, but it became increasingly apparent that a new SLE, which we called the OPCAT... we said to the GMC, we're putting this in place as a voluntary thing so that people have a way of showing their outpatients, their capability in practice, is being achieved. (Leader, Interview 5, Medicine, England)

Although such derogations were well-received in some specialties, there were more difficulties reported in procedural and/or craft specialties. In specialties where technical skills are core competencies (eg, general surgery, obstetrics and gynaecology, cardiology, gastroenterology etc.), cancelled elective surgery and procedure lists made obtaining adequate exposure challenging. For many of these trainees, numbers of procedures and cases were an ongoing concern, and there was a sense that they felt they still needed to work furiously, often in their own time, to make sure they achieved an appropriate level of exposure.

I think I worked twenty-eight days in a row at one period when I came back because that was my option to then keep in the game. (Trainee, Focus group 1, Surgery, England)

Noting how the reduction in elective surgery created a stressful situation for trainees, one trainer described a collaborative, supportive surgical training environment where trainees looked to share theatre opportunities, though this was an isolated description.

I think they sort of shared the work out between them and I think I'm very lucky in that my trainees, and my trainers, in particular the consultants... they're very switched on about training and so they would have trainees coming and doubling up and the trainees would be flexible about who would come and go to theatre lists. (Trainer, Interview 14, Surgery, England)

Even where curricula were shifting to competency-based approaches before COVID-19, trainers still discussed case numbers as a way to safeguard progression because it was perceived and expected that those numbers were necessary.

It used to be, you had to have 2000 operations in your logbook to CCT. That absolute number of 2000 has now gone... however... the majority of the TPD's... are still aiming for trainees to have between 1800 and 2000 numbers. (Trainer, Interview 14, Surgery, England)

One leader attributed this to a desire for excellence – ‘competence’ not being a sufficient target for highly motivated trainees.

It was about a competence excellence gap really. If you'd been aspiring to excellence, you were then being expected to make do with competence, which is an uncomfortable position to be in... It's a bit like if you were going to get an operation next week and a surgeon said to you 'I'm just good enough to do this operation. I'm not the greatest. Most surgeons out there are better than me, but I'm just good enough to do it'.

(Leader, Interview 1, Mixed, England)

However, opportunities to promote reflection on the new skills gained by working through the pandemic were appreciated by trainees. For example, an exemplar of good practice was noted in an RCPCH initiative – the ‘Service Experience’ developmental log – which was added to e-portfolio and provided a place for trainees to make notes on learning events during the pandemic. For instance, trainees identified learning from situations where children were presenting to hospitals later, and sicker. They recognised how they were developing new knowledge and skills directly due to COVID-19 (such as Paediatric Inflammatory Multisystem Syndrome (PIMS-Ts)) and through new forms of communication.

So things like having to adapt your communication because you're now wearing a mask and you're talking to a small child who normally you'd sort of pull faces and blow bubbles [at] and you can't do that. So how you adapt your communication style and things like that.

(Trainee, Focus Group 12, Paediatrics, Cross-nation).

Surgical training and COVID-19

An approach to enhance the surgical training experience was described for ear, nose and throat (ENT) surgery in one region. Teams invested in speakerphones so that trainers could listen in to consultations, and then discuss the case with the trainee. They held regular online journal clubs, encouraging trainees to review the literature and argue the case for, or against, a specific surgical question. Consultant trainers joined in with the sessions, which helped to maintain a sense of community amongst the group when ‘usual’ operating lists had been cancelled.

4.1.2 Communication about curricular derogations

Perceptions of communication surrounding the curricular derogations appeared to vary between specialties, although with Royal Colleges and Faculties, SEBs and local training programmes all providing routes of communication there were different levels at which variability could emerge. Some trainees though felt they did receive clear guidance, and others were left unsure of what was required. Feelings of uncertainty about how progression might be affected was referred to, particularly relating to communication in the early stages of the pandemic.

Decision aids regarding ARCP requirements were seen as helpful, but needed to be combined with clear messaging regarding their appropriate use. Communication around the current state of use of COVID-19-specific decision aids was not always clear nor timely, and led to some trainees experiencing issues at ARCP.

It nearly broke me... it wasn't clear what would happen if you didn't get all things signed off... when you clicked on the link, the original decision aid was there too.... it didn't say which procedures they wouldn't mind you not getting signed off.

(Trainee, Focus group 20, Medicine, Cross-nation)

While curricular derogations were also seen as acknowledging trainees' knowledge and experience gained through the pandemic, even if this experience was outside of their specialty, some trainees struggled to make the case as to how their COVID-19 experiences were applicable to their training programme (e.g., in the case of redeployed trainees). Further guidance and examples of how this could be done would have been appreciated, especially given the more narrowed scope of clinical practice.

Why wouldn't you allow someone to progress? They've had six months of medicine and managing COVID-19 patients, and it's only COVID-19 patients so they haven't got all the competencies in respiratory and gastroenterology and everything else but they've been through a really difficult time and they've learnt a lot more and they're probably a lot more mature as a physician, so they have slightly less skills but more knowledge and attitude, so why shouldn't we let them progress?

(Leader, Interview 10, Mixed, England)

One trainee highlighted that the impact on training could be underestimated if there was ostensibly little disruption, such as through redeployment. This tension was also noted within the Foundation Programme – whilst the programme is a generic scheme, there was also a significant impact from the reduced breadth of exposure and usual training opportunities (e.g., to take taster weeks and teaching).

I get a bit frustrated when people assume because you weren't redeployed, your training wasn't affected... that definitely wasn't the case.

(Trainee, Focus group 20, Medicine, Cross-nation)

There were fewer educational opportunities... teaching... taster weeks... all the extra bits that go into making you rounded... [and] a reduction in breadth of what [we] were exposed to

(Trainee, Focus group 21, Mixed, Cross-nation)

Trainers were an important channel of communication. In many cases, they were well-informed regarding curricular derogations, and were available to meet and discuss the changes or support needs of their trainees. Trainers were also a conduit of influence and advocacy to protect trainees.

Our TPD was our advocate in... our little war or my department's war...to not be redeployed...she was really good in supporting us and advocating for us in that way...she came to see us, speak to us most weeks face to face...which was really appreciated.

(Trainee, Focus group 13, Mixed, Cross-nation)

However, trainers were not always easy to access, or available for supervision. Clinical pressure on trainers and leaders themselves meant some trainees struggled to contact their supervisors for support. As well as clinical workloads increasing in many specialties, supervisors were now tasked with making competency decisions about trainees' practice. Some trainers felt poorly prepared for this, and there were examples of supervisors being asked to do this without having had a close working relationship with their trainee due to the nature of their clinical practice, or changes arising because of COVID-19.

We were asked to sign off their clinical examination procedures and you often could not, say 'I'm sorry, I haven't seen them examine a hip joint or a knee joint' and we might have had to... to crunch the gears and do rapid direct assessment.

(Trainer, Focus group 10, GP, England)

4.1.3 Individual variability

The impact of disruptions to training was more prominent for trainees who were shielding, for reasons such as chronic illness, immunosuppression, disability, or pregnancy. Trainers found it difficult to keep pace with guidelines regarding pregnancy and shielding trainees, to know which tasks could be allocated to them, and how these tasks would align with the curricula outcomes they needed to evidence. Activities, then, were often trainee-led.

The biggest issue... was as time went on, particularly, people shielding, and what counted as training. You know, if they were putting stuff in the portfolio, but not seeing patients face to face, what counted, what didn't.

(Leader, Interview 2, Mixed, Northern Ireland)

I was non-clinical, I could have to be honest, just gone into work, sat there all day, and done nothing. And nobody really would've known or checked up on me... I took on QI projects and responsibility for teaching, helped out with non-clinical tasks... it was definitely an individual onus... There was no guidance or learning objectives or anything like that. It was very much self-directed.

(Trainee, Focus group 5, Pregnant during COVID-19, Medicine, Wales)

Infrastructure, such as access to appropriate IT equipment for remote working, was poor in some specialties and geographies, and was a barrier to engagement. There was a description that the quality of experiences during COVID-19 was a 'postcode lottery' and that this exacerbated a broader problem of education and training within the UK.

We know there's a postcode lottery... that's simply not acceptable... processes aren't fair and matched across the board. [COVID-19] magnified the stress and the disparity during the pandemic when everything was more stretched.

(Trainee, Focus group 21, Mixed, Cross-nation)

Given these issues, shielding trainees sometimes felt pressure – perhaps implicit rather than explicitly stated – to work in ways that were high risk for them. This reflected a culture of presenteeism, and a need to be 'visible' for training experience to be recognised, as well as a perceived need to maintain practical experience.

After about twelve weeks, either rightly or wrongly I kind of, strong armed the department to let me go back in and operate. Which in hindsight probably wasn't the safest thing to do, but I felt like it was my only option.

(Trainee, Focus group 1, Shielding, Surgery, Cross-nation)

One trainer commented on the 'guilt' they felt a shielding trainee carried, working beyond the hours of those who were working in direct clinical care.

He worked the hardest out of all the trainees... he actually worked harder than the trainees who were coming to the hospital and then disappearing off. He still carried that guilt with him for a long time. (Trainer, Interview 14, Surgery, England)

4.1.4 The context of derogations: Adaptation to remote learning

Several interviews and focus groups discussed the impact of remote teaching and learning, which were felt to have transformed the delivery of postgraduate teaching. Maintaining the provision of teaching in this way provided a means of trainees retaining contact with their specialty while clinical work was disrupted.

In some areas, at some times, teaching had been cancelled entirely, and trainees felt they had missed out on key learning opportunities. Online teaching was perceived positively in terms of accessibility and flexibility, and especially for those who were geographically remote, or had childcare commitments. However, the challenges to provide effective online teaching were also recognised.

I also found that the training that was delivered by educationalists who were non-medical, where their sole job was teaching, was very good and had lots of interaction in areas where I thought that I would have none at all... I [delivered] one recently you just don't get any responses. And I think that's because we don't have the time or e-learning support to set things up properly. (Trainer, Focus group 15, Paediatrics, Cross-nation)

There was also a sense that opportunities for trainees to connect with one another had been lost in remote formats, along with contact points to offer pastoral support. Further, there was appreciation that some skills and topics (e.g., practical skills) are best taught in-person.

We often forget, teaching is more than just teaching. It's that peer support. It's the conversations with people that are in the same boat as you one way or another. And I think, yes, I was lucky to still have some protected time, but at the same time, I'm not sure it fulfilled all of what I actually really needed from it at that time of the pandemic. (Trainee, Focus group 8, Mixed, Cross-nation)

For trainees new to the UK or the NHS, the lack of peer connection was felt to be particularly prominent. One participant described the isolation of a friend who had moved to the UK shortly before the pandemic.

I remember her saying 'you never meet anyone, you're not meeting anyone from work who wasn't just the person you were directly working with', whereas previously you might meet, there would be forty core trainees a week going for teaching. (Trainee, Interview 6, Psychiatry, England)

Across most specialties and in most areas, a hybrid approach has now been adopted, blending face-to-face and virtual delivery to maximise benefits in terms of flexibility, but also providing a space for trainees to share experiences and form connections with faculty and peers.

Shielding Trainees

Trainees who were shielding through the pandemic experienced a range of emotions. Some expressed guilt about not being part of the team and contributing to the patient-facing work and on-call rota. Many were anxious about training progression. For a surgical trainee, even though they were carrying out a host of desk-based activities, a lack of hands-on experience meant that they still were mostly likely to receive an outcome 10.2. They could feel isolated: whilst remote access could mitigate against this, it meant that trainees (and trainers) had to proactively engage with 'new' technology.

So if someone was frequently meeting... And now you can use the term meeting as a virtual term, then I think that they didn't struggle at all. There were others where maybe, yes, you're right, it's lonely, but in a way, they sort of added to their isolation by not necessarily [engaging with technology]... And it's difficult for people, isn't it. Some people found the move to virtual working very difficult.

(Leader, Interview 20, Wales)

4.1.5 Longer-term impact of derogations

Looking ahead, participants raised concerns about the possible long-term impact of the derogations – on trainee confidence, competence, and career decisions. General Practitioner trainers noted, for example, that the move to remote consultations during COVID-19 has meant that some trainees are less confident with face-to-face consultations in general, and specifically, consultations that require assessment and management of clinical complexity and multimorbidity. There were concerns that these trainees were already choosing careers in general practice which minimised their contact with complexity e.g., acute care role or roles within remote consultation companies. There may be some remedial intervention required to provide trainees with additional experience to compensate for that which they have lost.

what we now have now is, we actually have a workforce who were trained, during COVID-19, who actually... the comfortable thing for them is remote consulting... the uncomfortable thing for them is a patient sitting opposite them.

(Trainer, Focus group 10, GP, England)

Trainees... are saying they don't want to do visits, they don't want to do on call... they're happy doing telephone or urgent care without continuity... we have people coming out at the end of their training who have no intention of doing the full scope of general practice.

(Trainer, Focus group 19, GP, England)

Other participants described how the requirement of reducing the backlogs that have developed during the pandemic were challenges to the quality of education and training. For example, surgical and endoscopy lists delivered by trainees will be slower than those which do not involve trainees, and so Trusts may remove those lists in order to increase throughput and the reduction of waiting lists. This means that the training opportunities associated with those routine procedures are lost.

When you put a trainee into an operating list, it's gonna slow the operating list down, and instead of maybe getting four patients done, you might get three patients done in a day.

(Leader, Interview 3, Surgery, England)

Within general practice, the mental health impact of the COVID-19 pandemic means that more patients are presenting with complex mental health needs, which require time and continuity to adequately explore and treat problems, something that trainees found difficult and stressful in the context of a stretched, fragmented service.

I see a lot of newly trained doctors not wanting to go into the sort of role where you are following those [mental health] patients up and finding that very stressful and preferring to opt for locum jobs where you're there for a set space of time

(Trainer, Focus Group 22, GP, England)

There was concern in anaesthetics that derogations relating to exam requirements had led to a bottleneck at the transition to higher training. Removal of the need to gain MRCP(UK) part 1 to be eligible to apply meant that there were more trainees applying for ST3 than there were posts, and this was an ongoing problem.

Twice as many people were eligible for ST3 recruitment in 2021 because we've had this artificial barrier.

(Leader, Interview 17, Anaesthetics, Cross-nation)

In addition, there were reports of some trainees who progressed into Group 2 medical specialties without having passed the PACES clinical exam, who then struggled to pass this exam. Participants noted a lack of relevant patient exposure in the specialty to support exam preparation and expressed concern about the challenge of learning and working in a new area, whilst having to contend with the exam at the same time.

Summary

- Changes made to curricula during the COVID-19 pandemic were perceived as pragmatic and compassionate, often innovative (e.g., with the introduction of new tools like OPCAT in medicine), focusing on essential competencies, and facilitating progression for trainees amidst significant disruption.
- Communication surrounding curricula derogations varied across specialties, with some trainees experiencing confusion and having subsequent issues at ARCP. Clear messaging and decision aids were necessary for effective implementation.
- Trainers played a critical role in relation to supporting trainees during the pandemic. However, some trainers felt the expectation to make competency decisions about trainees, especially where close working relationships were not established because of COVID-19, was a significant burden.
- Views on remote teaching were mixed. Where remote teaching was implemented effectively, it was positively perceived and enhanced accessibility, especially for trainees in remote areas or with childcare responsibilities. However, there was a sense that relationship development was negatively influenced and so many areas are now adopting hybrid arrangements for teaching.
- Support was an issue for several trainees both pastorally and academically. There were increased relationship breakdowns in some specialties, and concerns about the long-term impact of the changing culture of training on trainee career choices.

4.2 Changes to College exams

All specialties require a number of examinations to be taken during training. Some are linked to critical progression points (such as from core to higher training, or as an exit exam to achieve CCT). The disruption of the pandemic meant that significant changes to exam timelines, and the process of administering postgraduate exams were necessary. This varied by exam, which are operated and delivered by different Royal Colleges and Faculties, and have usually have diets two or three times a year. In 2020, some exam diets were cancelled, and some had restricted numbers, meaning a backlog of candidates for some into 2021.

Table 5. Benefits and risks of changes to exams and stakeholder views of future approach.

Change	Benefit	Risk	Stakeholder views
Online exams	Increased accessibility and convenience, especially for geographically distant candidates. Reduced costs and travel-associated stress.	Technological difficulties and inconsistent exam experience. Lack of authenticity in assessing clinical skills. Lack of confidence for some trainees moving back into clinical practice. Potential for cheating.	Retain - online knowledge exams, but optimise to ensure a consistent exam experience (eg, technical difficulties) and mitigate any risks of cheating.
Cancelled exam-specific teaching	In some cases, necessary given clinical pressures, social distancing, pandemic restrictions etc.	Trainees felt underprepared for their exams; concerns regarding fewer trainees passing exams in some specialties leading to possible workforce issues.	Remove – Need for specialty-specific exam teaching in instances where this has not been reinstated. Technology enables teaching to be preserved in a future event.
Priority given to trainees at critical progression points to sit exams	Ensured continuity of progression for some trainees.	Created bottlenecks of trainees who couldn't sit their exams, leading to extensions and disruption in training.	No clear guidance from participants on best way forward, apart from need to consider workforce impacts and plan for managing bottlenecks
Introduction of GP RCA exam *	Created new learning opportunities.	Dominated trainees' clinical practice; caused stress. Could lead to differential attainment.	Remove – Will be removed and replaced with the Simulated Consultation Assessment (SCA). SCA will require careful evaluation once in place to ensure it is authentic, does not dominate clinical practice, and to explore/challenge differential attainment.

* Indicates the inclusion of a specific exam example, given the strength of feeling within our data regarding feedback on this exam.

4.2.1 Structure and timing of exams

There was a lot of uncertainty regarding what would happen to exams in the early stages of the pandemic. While cancellation of imminent exams was unavoidable, it became critical to find ways in which exams could be delivered as soon as possible, yet remaining secure and robust. Derogation of exam requirements was essential in these circumstances – trainees would otherwise have been prevented from progressing.

We knew that this would open the floodgates... I think we knew exactly what would happen, but we were very much caught between a rock and a hard place because if we didn't do it, then we wouldn't have anybody eligible to apply.

(Leader, Interview 17, Anaesthetics, Cross-nation)

Where exam availability was limited, trainees at critical progression points were prioritised to sit exams. This led to difficulties for many trainees (e.g., those who were not in training posts) and a bottleneck of trainees who all required the exam.

There was an added pressure for trainees to pass their exam first time (given the possibility of a reduced timeframe in which trainees were eligible to sit the exam). Many felt poorly prepared for their exams as most exam-specific teaching was cancelled, and they had less access to diverse patients and consultant teaching time.

At times at the worst of the pandemic, it was difficult to justify seeing a patient if you weren't directly involved in their care. So normally we'd prepare for PACES because someone would say to you, 'So and so has good signs. Go and see if they'll be happy for you to examine them,' but that was very difficult to justify, certainly at the worst of the pandemic. And when there were PPE shortages, you know, these things simply couldn't be done.
(Trainee, Focus group 13, Mixed, Cross-nation)

For trainees approaching CCT, for whom exams were a requirement to complete training, extensions to training were commonplace. We heard, however, accounts of significant longer-term impact, including some who had to suspend training, or even exit their programme without CCT because they did not pass the exam within the period of extension.

Senior trainees and getting their...examinations. There's been... over a year delay in some of them getting that and that is impacted them CCTing as well, so coming out the other end in paediatrics.
(Trainee, Focus group 4, Paediatrics, Cross-nation)

Exams and Progression

An illustration of the challenges in taking exams at this time was given in laboratory medicine.

In this scenario a trainee had been unable to take the exit exam due to a series of exam cancellations. Unfortunately, when finally able to take the exam, they failed.

As a result, the trainee stepped out of training to have additional time to prepare for, and pass the specialty exam (a period of Out Of Programme Experience [OOPE]). As the interviewee indicated, 'the clock still ticks, you don't get any additional time for these 10.2... even though they're no fault' (Leader, Interview 11, England).

Further, as the training post remained unfilled during the period of OOPE, this had implications at a service level. And, at a specialty level, a delay to CCT meant that fewer consultants were entering the trainer pool to support the trainee pipeline.

4.2.2 Delivery of exams

As College exams returned, knowledge-based exams largely moved to online delivery. This was seen as a positive by leaders and trainers, but some trainees described challenges with the technology and online proctoring.

We heard from a number of trainees about their negative experiences of technological difficulties, which often led to missing time or missing breaks during online examinations. Trainees felt that the responsibility

for the running of online exams was placed at their feet, particularly in relation to their home technology set up. Some trainees in more remote, rural areas were at greater risk from poor connectivity.

Making sure that the internet connection is good is really important. Struggled with that for my MRCP Part two. I lost about thirty minutes of the three-hour exam, which wasn't great. (Trainee, Focus group 6, LTFT, Mixed, England)

It was more if anything went wrong on the day, they put a lot of that on the, on the person sitting the exam now that this was just gonna be something they weren't gonna be able to do anything about. (Trainee, Focus group 11, Mixed, Northern Ireland)

Those who required additional exam time (eg, those with dyslexia), and pregnant trainees could be disproportionately negatively affected.

Because I'd been so delayed starting, I basically had like no gap in between part one and part two of the paper, both of which I think it was three hours... I was twenty odd weeks pregnant. I was in my third trimester. So I was basically stuck in a chair for six hours straight and I think I managed to quickly eat the slice of cold pizza from the fridge in between and then go into the second part of the questions 'cause they just condensed the whole thing... from a kind of ED&I [Equality, Diversity, and Inclusion] perspective, if you had any kind of disability or medical complication or anything, that whole process would've been really challenging. Luckily, I did pass, but it was a pretty traumatic experience all around. (Trainee, Focus group 5, Medicine, Wales)

While some clinical exams remained in-person (with appropriate COVID-19 mitigations), others were moved online with virtual consultations. Some participants expressed confusion, and anxiety, at the time about what form exams would take.

there was a lot of confusion around whether the exams, how they would be, would they be online, would they be in person, would we have to wear masks. Like what, what was going to happen. Even if it was just very clear, straightaway, "right, there's some sort of pandemic, you can't see other people, so the exams will definitely be online, we don't know how it's going to look online, we don't have a provider for an online exam yet, that needs to be procured, but it will definitely be online", to get rid of that anxiety. (Trainee, Interview 6, Psychiatry, England)

There was a sense that an online assessment format could lack authenticity for encounters that involved relationship-building with patients (e.g., in psychiatry), or focused on clinical examination skills.

there's something about psychiatry where, you know, in a mental state examination you will, you want to include something in that which reflects, what it's like to be in a room with that person, and that was really different, so that was a challenge... also it meant that you couldn't do certain things. Historically you'd always do one physical examination in the exam... obviously you can't do that online so that completely essentially went from the curriculum, even though they said it didn't. (Trainee, Interview 6, Psychiatry, England)

Several trainees admitted to lacking confidence when they had passed online clinical exams, as they moved back into face-to-face practice. Some trainers expressed concerns regarding the possibility of cheating in

online exams, though others maintained cheating was low risk. All stakeholders agreed that rigorous examination processes to ensure patient safety were critical.

I would say that I found the clinical exam probably made me feel like a bit of a fraud, so I did the first online clinical exam and passed it, but then I was like, 'did they just pass it cos they had to pass you?'. Because I had all these doubts around it... that probably affected my confidence going forward when I finished that exam.

(Trainee, Focus group 4, Mixed, Northern Ireland)

However, online delivery of exams also had a number of practical benefits. The avoidance of travel was welcome, especially for participants living in geographically disparate regions (e.g., Northern Ireland). They were more convenient, eliminated travel time and stress, and reduced trainee-incurred costs for the process.

... attendance at everything was, became much more efficient and economical and obviously good for the planet.

(Leader, Interview 4, Mixed, Northern Ireland)

4.2.3 General practice clinical exams

A new exam introduced by the RCGP was discussed in some depth by GP participants. The Recorded Consultation Assessment (RCA) was introduced in 2021 to provide an assessment based on remote consultations, but it was, notably, perceived mostly negatively by participants.

My most pressing comment, I think is that the exam situation was diabolical. I feel that the RCA was, I mean, God bless the examiners, I mean they had to come up with something but honestly, [the] RCA, it was awful.

(Trainer, Focus group 10, GP, England)

The RCA required 13 recorded consultations, and while there were some positive comments regarding the value of the RCA in creating learning opportunities through case discussions, trainees and trainers generally felt it dominated trainees' clinical practice, at the expense of other learning in primary care.

There was suggestion that it forced trainees to curate 'good' consultations, which limited the breadth and authenticity of their practice. Trainers were concerned that this affected wider clinical skill acquisition.

You have potentially four months to record those consultations before the submission date. So for four months, every day you turn up like it's an exam day. You have to think about who you might want to record. You have to plan. You feel like you're constantly on edge, but consultations take longer when you're recording them 'cause you're not allowed to use the computer in them in quite the same way you might normally, etcetera. And so the whole process is really stressful.

(Trainee, Focus group 8, GP, Cross-nation)

When you're not doing face to face consultations (for exams), you lose a hell of a lot. Especially when you're learning because you're not picking up the cues that you get to learn when you're face to face. And especially where there are language issues and cultural issues. So there's no doubt that that that was a huge negative.

(Leader, Interview 25, GP, Scotland)

The RCA was a significant source of stress and anxiety for trainees, and required much time and personal commitment from trainers to support trainees in the process. There was a common view that the exam preparation detracted from other aspects of training in general practice, eg, learning to manage uncertainty and multimorbidity, with implications for the future capabilities of GPs qualifying at this time.

...because of this recording... this new exam... I've had the trainers working weekends, evenings, because you have to listen to, I don't know, about fifty, seventy videos, to pick out the thirteen and you have to do this, in addition to your day job.

(Trainer, Focus group 10, GP, England)

...most trainers feel that RCA preparation gets in the way of teaching them the skills and to do the job.

(Trainer, Focus group 19, GP, England)

There were concerns regarding fairness of the RCA, particularly in reference to the ability to submit telephone consultations. Some trainees from minority ethnic groups had been advised to avoid submission of remote consultations for assessment due to strong perceptions of bias against candidates who 'sound brown'.

So, while we were preparing for our RCA, of the things that was told to us was well, this is the pass rate, it's white British... they tell you this clearly and they say please go for face-to-face assessments. They're not going to pass you if you are most like if you sound brown. I mean it wasn't said like directly, but it was heavily implied.

(Trainee, Focus group 17, GP, England)

The upcoming Simulated Consultation Assessment (SCA) was viewed as a necessary replacement for the RCA but was perceived with a degree of caution regarding its implementation and impact. Concerns were wide-ranging and seemed founded on the issues with the RCA. These ranged from risk of differential attainment to exam authenticity. Of particular note were comments regarding whether assessing trainees' use of video consultations was authentic, given that GPs' use of video as a method of consultation is variable, and reducing.

No GPs do video consults... we're now going to have to teach for this new exam... which currently is not done as we're pretty much back to face to face.

(Trainer, Focus group 19, GP, England)

4.2.4 Wider benefits of exam changes

There were instances of innovation and rapid progress in exam delivery, which faculty felt were an unintended benefit of the pandemic. Most agreed that, in the event of another major disruption to training, professional exams would be better prepared for running online. There were indications that online delivery would be the norm (particularly for knowledge-based tests, or written examinations) and will soon be extended to overseas delivery.

...obviously we're not going back, I think we did in six months what would have taken us normally years.

(Leader, Interview 9, Medicine, England)

I would anticipate that we would be able to move very quickly to online exams again if that ever became a requirement.

(Leader, Interview 17, Anaesthetics, Cross-nation)

However, some participants referred to instances of reverting to pre-pandemic exam formats, particularly in specialties where comments were made regarding the authenticity of practical exams.

Whilst there are potential benefits in reducing travel and so on, I certainly from a critical care angle, I couldn't recommend to the ongoing provision of exams online.
(Trainer, Focus group 16, Critical Care, England)

Summary

1. The significant changes and disruptions to College exams (cancellations, online exams etc) caused uncertainty, and stress for most trainees who were affected by these, with significant concern about potential bottlenecks from exam cancellations and extensions to training.
2. Trainees voiced increased pressure around exams due to potentially reduced timeframes in which to pass and felt less well prepared, due to lack of access to exam-specific teaching and breadth of patient encounters.
3. Communication about exam changes was mixed and varied across specialties. There was a preference amongst trainees for proactive communication and updates about changes from those responsible for exams.
4. There were some benefits of the changes, such as the convenience of online exams, and reduced travel-related stress and costs. There was also innovation in exam delivery, with many faculty agreeing that they would be better prepared for online exams in case of future disruptions.
5. However, there were reports of technology-related difficulties with online exams, with some participants describing issues with internet connectivity and software. Some trainees and trainers felt the authenticity of online clinical exams was lacking.

4.3 ARCP processes

ARCP processes, including requirements of the composition of panels, were changed to reflect the restrictions on in-person meetings, and the additional workload on clinicians. This meant panels were smaller and did not require an external member from a different region. Lay members were also not required.

Table 6. Benefits and risks of changes to ARCP processes and stakeholder views of future approach

Change	Benefit	Risk	Stakeholder views
Panel composition	'Leaner' panel supports sustainability of ARCP panels through period of disruption	Rigour of review; Fairness	Remove – Panels should have external and lay representation
Online panels	Enhanced convenience and flexibility; less travel required; enables recruitment of external members	Loss of social or networking opportunities Technical difficulties	Retain – The convenience and flexibility of online delivery outweigh the potential risks
Online feedback	Convenient and efficient; reduces logistical challenges and need for service cover	Potential loss of personal connection; variability of experience; difficulty in addressing complex issues virtually Creates difficulties for certain groups (eg., those with hearing difficulties or neurodiversity)	Alter – Retain the online delivery model, but offer the option for in-person meetings based on individual circumstances and preferences

4.3.1 Panel composition

There were some positive views from trainers on the reduced panel, but many more identified a risk from a small panel to the integrity of the process. Risks were around bias, and reduced confidence in the review process being both thorough and balanced.

I think if you have too few people on a panel, you get a less, a less balanced viewpoint, so you can get greater sway by a dominant personality or dominant training programme director. Whereas if they are diluted by more people, you're, you're more likely to get a fairer group. (Leader, Interview 22, Mixed, Scotland)

Some of the derogations which are still in place, like the ARCPs being done by a panel of two, I've also grave reservations about – in fact, I have no idea as we head into this new – into the new season for ARCPs, why that's still in place. ... I do see a significant number of people being recommended for CCT where a CCT, where an ARCP was done by two people from the same hospital, in the same specialty, and oh, what a surprise, they've also got a job that they have got advertised at the moment.

(Leader, Interview 5, Mixed, Cross-nation)

In particular, respondents felt a need for a lay representative and an external member on panels as they can provide an independent view, and ensure ‘*checks and balances*’ [Leader, Interview 22, Mixed, Scotland] are integral to the process. This was seen as being particularly important for trainees who might have protected characteristics or health needs. As a result, some areas sought to maintain lay representation or externality throughout the pandemic.

...we stuck to our guns and, and insisted on having a lay rep at everything we’ve done throughout COVID-19, more because we’ve always seen that as a safety net for anybody with any particular characteristics, needs, disabilities or whatever because they are very often the, actually yes, another layer of safety where they will say, they will notice things that we will blissfully not be aware of.

(Leader, Interview 4, Mixed, Northern Ireland).

Hence, whilst a ‘lean’ panel was ‘*fine for a short term of addressing an issue*’ [Leader, Interview 22, Mixed Scotland], there was general support to return to pre-COVID-19 panel size and constitution.

4.3.2 Panel Review Process

Trainers reported efforts made to ensure e-portfolio review was done consistently and rigorously. Indeed, one trainer group of GPs felt that the process hadn’t changed at all. Ways of standardising the process included having a member of the educational administrative team, who would be more familiar with the changing rules, at each panel, and sharing Chair’s guidance on giving outcomes across the different panels.

We have a member of our administration staff because they probably know the rules better than many of the ARCP chairs - not all, because some of the ARCP chairs will make sure they’ve read the rules really, really thoroughly. But when you’re dealing with 60 different specialties, that’s tricky to achieve. (Leader, Interview 1, Mixed, England)

However, Foundation doctors, who were new to the ARCP process, were less positive regarding the review process.

And I think when you were very new in the system, in particular in foundation, going through a hugely difficult time and with a lot of change very quickly within your early stages of training, it just, I think the ball was just dropped massively. I do remember as well certain elements of our portfolios just seem to be disregarded.

(Trainee, Focus group 17, Mixed, England)

Variability between regions in the review process, including the consideration of evidence and use of COVID-19 outcomes, was also raised as a risk. This will be described in more detail when we discuss ARCP outcomes. A threat to rigour of the process was also flagged by both trainees and faculty around removal of the Penultimate Year Assessment (PYA) in physician specialty training programmes. The PYA gave an external review of a trainee’s progress against the entirety of the relevant curriculum and was seen a valuable means of quality assuring ARCP panel decisions. It gave trainees personalised feedback on their outstanding training needs, well in advance of their final ARCP, and so reduced the risk of them not gaining their CCT.

We’re now finding that people are coming to their CCT where it’s proving far more difficult to assess whether they [have] truly got the breadth of the competencies, capabilities – depending on which curriculum they’re on at the moment – of whether they should be allowed to proceed to CCT. (Leader, Interview 5, Mixed, Cross-nation)

Whilst a 'Penultimate Year Review' is being introduced, there was a lack of clarity amongst trainee participants as to what this process would entail, and suggestion that the paper-based process would lack the advantages of the formality and externality of the PYA.

It was the one thing we actually really wanted. Trainees... we - we tried very hard... we asked to keep it and even though it was more work for us and you had to prepare a presentation and so on and so forth, it was difficult and it was stressful, but it was objective and it actually focused on your training as an individual.

(Trainee, Focus Group 13, Mixed, Cross-nation)

A COVID-19 self-assessment form was an optional document which trainees could submit to the panel, in which they could provide details of how their training may have been affected. This also prompted useful conversations with educational supervisors around the impact of COVID-19 on their training.

Good practice in ARCP: Wales Foundation School

The shift to an online format has enabled Wales Foundation School to introduce a virtual, centralised ARCP process, whereby panel members now review trainees who work in a different Health Board.

This approach is broadening faculty perspectives of trainees' progression across HEIW. The 'independent' review process can help encourage trainees prepare their portfolio carefully and supports rigour of panel review and decision-making.

Post ARCP feedback to individual trainees and further discussion are still held at a local level.

4.3.3 Online delivery

Online delivery of ARCPs was the most significant change to ARCP processes. This was generally viewed very positively. Described as '*marvellous*' by one Leader (*Interview 11, England*), it was broadly seen as being more convenient, reducing the need for travel in large geographical areas such as Wales and Scotland, and providing flexibility for others (for example, those with childcare responsibilities). It also made it easier to recruit external members, where areas chose to maintain an external presence, and gave an opportunity for supervisor training by allowing a greater number to observe panel processes.

The ARCP just going virtually was [a] massive improvement; meant that it was much more flexible rather than travelling sort of an hour down the motorway at rush hour to get to do them. And so, I've sort of enjoyed them more and felt that I could get more out of them.

(Trainer, Focus group 15, Paediatrics, Cross-nation)

Screen sharing enabled efficiency, yet still allowed robust, detailed discussions about trainees.

[Videoconferencing is] just a skill we've all had to learn. Yes, there's social aspects that are absolutely missing, but then actually being able to share the same screen, look at the same things properly and clearly together, rather than on a big screen in front of your own random pieces of paper.

(Leader, Interview 23, Mixed, Wales)

The loss of social aspects was noted by several participants, who reflected on how in-person panels gave trainers a valued opportunity to meet and network. However, some also recognised that there was a risk of

bias in the 'offline chats' (Leader, Interview 22, Scotland) about trainees. The online process reduced that risk.

It's just a bit sad because it's not meeting people face to face and having a cup of coffee together. So, from a social point of view, it's not as pleasant, but I, the process worked well and we're still doing it virtually now. (Trainer, Interview 14, Surgery, England)

I think actually we have to be careful that a lot of the peripheral stuff that happened at ARCP when you brought all the trainers together, they might all connect about something else, which could be seen as a positive. However, it could also be seen as perpetuating negativity, so there's risks around it. (Leader, Interview 22, Mixed, Scotland)

The consensus was that an online format for ARCP panels is here to stay for reasons of convenience and flexibility.

4.3.4 Feedback following ARCP

While trainees have never been required to attend ARCP panels, they do receive feedback on the outcome. Through the pandemic the approaches taken by panels on whether feedback was given, and how, seemed to be highly variable. In some areas, notice of a favourable outcome was given by email, with other outcomes triggering a specific discussion. Verbal feedback was provided online, and for some at least the convenience – of not having to take a day off work in order to attend for a 'two minute meeting' was welcome.

The departments are delighted that they're not having to cover a rota because it's ARCP day. (Leader, Interview 18, ICU, Cross-nation)

Many trainees viewed the opportunity to meet with the ARCP panel as being very important to the credibility of the ARCP process. Some saw it as a chance to have contact with senior educators in the region and form a more personal connection by sharing details of their training experience. It was a time for them to give their own feedback on the quality of the placement.

When this did not take place, trainees could feel isolated and the formative, individualised training support that an ARCP process can offer was undermined. Some – in surgical training- suggested that the panel meeting was needed to ensure the panel formed the 'right' impression of a more junior trainee, who may be less well known among the surgical trainer community.

The ARCP, so they all went completely remote, but you weren't even invited to contribute. ... but I think it was pretty much a universal change. And I think actually we then felt that we'd lost an opportunity to have a kind of discussion with those that were involved in our education, share kind of successes, challenges, aspirations for the future. And it very much became a, 'Here's your outcome.' And it made it feel even more tick boxy than you can already kind of feel that kind of ARCP process. (Trainee, Focus group 5, Medicine, Wales)

However, participants also noted that an online approach could disadvantage trainees with some disabilities, who may have difficulty accessing the information provided. One example of mitigation was described regarding a trainee who relies on lip-reading:

I do remember saying actually instead of the three of you sat in this room with this one camera, can you disperse into an office each so that everybody is a big face on a screen including the trainee, because they will need to see all your faces as you're speaking. They, they can't be looking into a room of three far away bodies.

(Leader, Interview 4, Mixed, Northern Ireland)

Moving out of the pandemic, some leaders indicated online feedback would continue, but others are reverting to in-person feedback, which may better support difficult or challenging conversations with trainees. A number of trainers and trainees indicated the importance of flexibility and giving trainee choice to the format of meetings.

It's better, I think, to get that from a local level, that you wouldn't want to be offering that sort of support I think on a virtual platform. I've never had anything go disastrously wrong, but there's always the first [time].

(Leader, Interview 23, Mixed, Wales)

Summary

- The transition to online ARCP delivery was generally seen as a positive change, offering more flexibility and convenience, reducing travel needs, and enabling wider input to panel processes. The format was also viewed as reducing risks of bias associated with in-person interactions. Online panels will be retained by many.
- However, the shift towards leaner panels (fewer members and not formally requiring external or lay members) raised some concerns. These changes were seen as a risk to the rigour and credibility of the ARCP process. There were fears that smaller panels might be more susceptible to bias or dominant personalities. Many participants wished to return to the pre-pandemic composition of panels and emphasised the value of external and lay panel members, particularly for advocating for the interests of trainees with protected characteristics or health needs.
- Steps to revisit feedback to trainees post-ARCP are needed to ensure this is meaningful and trainee-centred. Feedback following ARCPs varied widely in its delivery. For trainees, this feedback is an important part of the process, as it is an opportunity for them to interact with senior educators, share their experience, and receive support or encouragement. There were concerns that online feedback delivery might not work for all trainees, and suggestions that the format needed to be flexible and responsive to trainee needs.

4.4 ARCP outcomes

The introduction of the ARCP outcomes 10.1 and 10.2 provided ARCP panels with a means to reflect the disruption to training experience. A direct attribution to COVID-19 as the reason for not gaining experience, and the introduction of the phrase 'no-fault' distinguished these outcomes from the analogous outcomes 2 and 3.

Table 7. Benefits and risks of introduction of ARCP COVID-19 outcomes and stakeholder views of a future approach

Change	Benefit	Risk	Stakeholder views
Introduction of outcomes 10.1 and 10.2	Trainers perceived outcomes 10.1 and 10.2 as helpful and necessary, aiding progression during a difficult time. Using the derogated outcomes allowed maintenance of progression rates.	Messaging regarding 'no-fault' has meant outcomes 2 and 3 are now perceived as attributing blame to the trainee that receives them.	Remove from current practice but consider a way of recognising possible ongoing impact of COVID-19 on training in some specialties and on disproportionately impacted trainees. Retain in reserve in case of future disruption
Communication and guidance regarding derogated outcomes		Inconsistency in the application of ARCP outcomes across regions, specialties, and stages of training. Trainees received outcomes that did not align with their expectations, causing confusion and frustration.	Retain guidance for use in case of future disruptions, but with alterations to improve clarity of messaging regarding what trainees should expect, and to improve consistency of application by trainers (with particular focus on decision making for shielding trainees)

4.4.1 Variability in ARCP COVID-19 outcome use

Trainers generally felt outcomes 10.1 and 10.2 had been helpful and necessary, supporting progression in a time of great difficulty.

It was actually legislating for the fact that COVID-19 had come along and this trainee was totally on track, and they were progressing really well. But due to COVID-19, they were not in a position to actually have access to the training opportunities. So I think they were really important and excellent addition.

(Trainer, Interview 19, Mixed, Northern Ireland)

However, there was a belief that that the ARCP outcomes had not been used consistently – locally, between regions, and between specialties. The new outcomes were felt to be used less in the Foundation Programme, for example, than within later stages of postgraduate training (as supported by the secondary data).

People's interpretation was also varied, it should be said. And indeed, the ARCPs across the country are by no means consistent. (Leader, Interview 5, Mixed, Cross-nation)

We didn't have any outcome 10s. In other words, there was nobody, none of our foundation doctors in F1 or F2 that year or the year after in 2021 when it was still around, we didn't issue an outcome 10 to any of them.

(Leader, Interview 4, Mixed, Northern Ireland)

There was a sense that communication about the outcomes could have been more effective, particularly in the early stages of the pandemic. Some trainees referred to rumours that COVID-19 outcomes would not be applicable in their specialty – which was never the case. Lack of familiarity and clarity, especially for shielding trainees, around the COVID-19 outcomes added uncertainty and stress.

I think, the biggest issue for panels was, as time went on particularly, people shielding, and what counted as training. You know, if they were putting stuff in the portfolio, but not seeing patients face to face, what counted, what didn't, and just trying to be consistent.
(Leader, Interview 2, Mixed, Northern Ireland)

Some trainees received outcomes that did not align with their expectations or perceptions of their training through COVID-19. Perceived variability in how the outcomes were used caused confusion, anxiety, and frustration as trainees felt uncertain about how their training was being evaluated, and what criteria were being used to make judgments at ARCP.

My supervisor was very much by the letter and was like, 'No, you're gonna have a 10.1'... I like met all of my numbers and some of my colleagues really didn't, and I got all my feedback done... I got [a] 10.1 and everyone else managed to get an outcome 1 when they hadn't actually fulfilled their things... out of principle. I was vexed by this.
(Trainee, Focus group 6, Mixed, England)

I absolutely assumed I'd get a 10.1 or a 10.2. So I was really surprised to see that I was given an outcome 1, despite the fact that my logbook was less than half that... than it had been the six months prior to the pandemic. I think there were certainly variabilities within regions on which outcomes were delivered to trainees.
(Trainee, Focus group 1, Mixed, England)

There were examples of trainees requesting a 10.2 outcome in order to extend training, but also of trainees being concerned about the financial consequences of a 10.2, as it meant a delay in moving onto a more senior payscale.

Trainee and trainer views of the ongoing need for COVID-19 outcomes varied. Many trainers and leaders felt they had served their purpose.

I suspect they're not being used, which would be maybe not suggesting they're not useful, but if they're not being used, they may not be needed anymore, is what I'm thinking.
(Trainer, Interview 19, Mixed, Northern Ireland)

However, trainees (and some trainers) felt they should be retained to reflect the ongoing, and potentially long-term, impact of COVID-19 on training experience. Craft specialties, in particular, noted this impact.

It does have a knock-on effect over several years and I think that could still continue for maybe a few more years... effects of numbers of procedures and so forth, maybe not reaching pre pandemic levels. That may take several more years.
(Trainee, Focus group 11, Mixed, Northern Ireland)

We've half-jokingly talked about an outcome 10.3, of saying that this along the lines of, well, the pandemic's finished, but the legacy is continuing. Is there some way we could notify that this trainee needs an extension to their training...
(Leader, Interview 3, Surgery, England)

4.4.2 Perception of blame and fault

Trainees in receipt of the derogated outcomes were grateful that the pandemic, rather than their own performance or any personal failing, was the reason for not receiving a successful outcome. Some felt they

were a reassuring safety net, reducing the pressure of training and allowing them to focus on the significant professional and personal life changes at this time.

Certainly, people found having the ARCP derogations helpful with regards to relieving a degree of pressure and being able to focus on their altered work life as well as their altered social and home life. (Trainee, Focus group 12, Paediatrics, Cross-nation)

Trainers also felt that the messaging around the outcomes being 'no fault' aided acceptance of the outcomes, noting that trainees are highly motivated and may be unused to being 'unsuccessful'.

There's no doctor, doesn't want a satisfactory outcome, but they understood the value. They understood the need for that, and there was an acceptance of it. And I think that that messaging to get that out there was really important. (Leader, Interview 22, Mixed, Scotland)

However, several trainees indicated that despite the 'no fault' messaging surrounding the new outcomes, anything other than an outcome 1 was perceived negatively by seniors and may have consequences later in training.

I'm not entirely convinced there's any such thing as a no fault outcome. Because it's not just what's documented as how it's viewed by...[seniors]. (Trainee, Focus group 1, Surgery, England)

The outcomes were also helpful to trainers in interpreting what a trainee may require, although a risk was suggested that the COVID-19 outcomes could mask genuine performance concerns.

It at least opened up the thinking of trainers to the idea that a trainee may not be to blame for a certain circumstances, even though with the pandemic a trainee who for example, would have a hundred attendance and do everything they can and may not quite have a number of clinics or procedures. (Trainee, Focus group 11, Mixed, Northern Ireland)

I wonder sometimes whether that also meant that actually performance issues or concerns were not addressed because it was felt it was all due to COVID-19. (Trainer, Focus group 18, GP, England)

However, the introduction of new outcomes as 'no fault' inadvertently created a perception amongst some that the non-COVID-19 equivalents of outcomes 2 and 3 did imply 'fault'. There was concern this messaging may have adverse consequences in future.

The thing about the 10.1 and the 10.2 derogations, which were called no fault, derogations, is that when they were created they immediately created the impression that if they're no fault outcomes, then that must mean outcome 2 and outcome 3 were fault outcomes, despite the for the past 10 years, we've been telling people that outcome 2 and outcome 3 do not indicate fault. (Leader, Interview 1, Mixed, England)

There were concerns that this could allow the expression of bias or preference in ARCP processes, despite trainees having ostensibly similar portfolios.

There is that risk, isn't there, that anybody I felt a bit sorry for, I would give a 10.2 and anybody who I didn't like you got given an outcome 3, and how would anybody ever be able to explain the difference between them. (Leader, Interview 1, Mixed, England)

4.4.3 Impact on progression

Some trainees at critical progression points received outcome 10.2s which extended their training as a direct result of pandemic-related disruptions (e.g., cancelled rotations, reduced clinical activities, limitations in opportunities for relevant experience). Extensions to training were a source of concern, not only to trainees, but to trainers, who had to find additional capacity in their training programmes to accommodate extensions.

*The number of extensions, we had real problems finding placements for them... I've never known [a] training programme be so full...at one point, we didn't have anybody and I was just praying, nobody should get another extension.
(Trainer, Focus group 10, GP, England)*

Some trainees admitted to a lack of confidence after progressing with the award of a 10.1 outcome, especially in specialties which usually require procedural numbers e.g., craft specialties.

*It created some anxiety around the sense that, 'Well, if I... before COVID-19, if I needed that number to be able to progress, why should it be now that I don't need that number to progress in my ARCP? And will I be a less good ST4, 5, 6 or whatever compared to what I would've been had I got those requirements in the first place?'
(Trainee, Focus group 6, Mixed, England)*

In some specialties e.g., anaesthetics, progression rates improved with introduction of the derogated outcomes, and these rates of progression have been maintained. However, not all specialties could accommodate increases in progression rates, eg Intensive care medicine, a small specialty with limited training numbers and capacity.

*Basically led to a reduction in unsuccessful ARCP outcomes by 50%, which is a good thing. You know, nobody wants to see people failing their year of training... that continued to be the case. We wondered whether people would get through on a 10.1 one year and then actually be held up with an outcome 3 or an outcome 10.2 the next year. But actually we've been able over three years to maintain that that level of progression, that improved level of progression.
(Leader, Interview 17, Anaesthetics, Cross-nation)*

*We're a small programme I mean we've only got a thousand trainees across the whole four nations. And the intake from region to region varies dramatically. Some regions have only got a handful of numbers each year to recruit to.
(Leader, Interview 18, ICU, Cross-nation)*

Trainers noted that the derogated outcomes facilitated the provision of additional support for trainees. However, conversely, some trainees felt that, as the blame for non-progression was placed on COVID-19, they actually received less personal, developmental support following the award of an outcome 10.

if you receive a 10.1 or a 10.2, you may not get as much support as if you got an outcome two or a three. Whereby if you get a two or a three you may very well be referred into the system where you can either... access coaching or specific educational support. So, that we can get you back to an outcome one.

(Trainee, Focus group 1, Mixed, England)

Summary

- Largely, trainers and trainees perceived outcomes 10.1 and 10.2 positively, viewing them as necessary, both as a source of reassurance for trainees, and to maintain progression. However, many stakeholders believed that there was inconsistency in the application of the COVID-19 outcomes across regions, specialties, and stages of training.
- Some trainees received outcomes that did not align with their expectations, causing confusion, anxiety, and frustration. They expressed frustration with a lack of clarity and inconsistent communication regarding ARCP outcomes and requirements during the pandemic, which led to increased anxiety and difficulty in understanding what was expected of them in terms of progression.
- Most faculty noted a dwindling use of the derogated ARCP outcomes and believed it was time to remove them from practice. Most trainees agreed, though some, especially in craft areas or if disproportionately affected by COVID-19 as a result of shielding, expressed a desire for maintaining the outcomes to recognise the ongoing – and potentially long-lasting- backlog and disruptions associated with COVID-19 recovery.
- The use of the phrase ‘no fault’ received mixed reviews. Some trainees appreciated this as a form of acknowledgement of pandemic-related difficulties, whilst others noted that blame and stigma were still attached to the COVID-19 outcomes. Trainees and trainers both recognised unintended messaging regarding traditional outcomes 2 and 3 becoming viewed as ‘fault’ outcomes.
- The award of a COVID-19 outcome was seen by trainers as an opportunity for support, but trainees did not always feel support had been offered. The association of blame with COVID-19 rather than the individual may have inadvertently negatively influenced trainees’ access to support.

4.5 A wider context: Changing training culture, and changing trainees

Some of the changes outlined above indicate a change in the culture of training, including expectations of what training should involve, and how trainees should be treated. Changes were largely discussed as negative. There were several indications that this continues into the current post-pandemic period.

Several trainees told us that they had felt unsupported during the pandemic with supervisors not prepared to take on a broader role than would be usual.

My marriage broke down, and my supervisor... in retrospect I would say, my supervisor was just, he was basically useless.

(Trainee, Interview 6, Psychiatry, England)

However, as noted previously, supervisors were significantly challenged by heavy clinical workloads and often found it difficult to keep pace with rapidly evolving education and training guidance, and the wider trainee needs. This, perhaps, offers one explanation of reported issues with supervisory support.

We had a lot of relationship breakdowns between trainers and the trainees...I turned into a counsellor, mediator instead of an educationalist... I have reflected on it...one of the big elements was levels of stress and background anxiety all permeating out of COVID-19 and lack of contact and development of relationships.

(Trainer, Focus group 7, GP, England)

I still have a little bit of, I wouldn't go so far as to say post-traumatic stress disorder, but I do get, you know, there's still a lot of repercussion from that, but I remember it all as probably the busiest time of my life when there just wasn't enough hours in any day

(Leader, Interview 4, Mixed, Northern Ireland)

There was a feeling from some that the initial support for doctors had disappeared, at a societal and an organisational level. The trauma of working through the pandemic – for trainees and faculty – should not be minimised.

You went to work accepting that you might be one of the ones that died... apart from the claps on the street, there wasn't like a lot of acknowledgement that that's essentially what we did... and it's why people are so angry 'cos you went to work thinking you might die but you get paid less than a barista.

(Trainee, Focus group 13, Mixed, Cross-nation)

You know, just everyone died out there ... That's what a lot of these people lived through, you know, they were just on COVID-19 wards all day, every day, and everyone died. And then it's like, 'Right, get back on the ship. We've got lots of work to catch up on, people. There's a lot to do. Get working three times as hard as you were before'.

(Leader, Interview 11, Diagnostics, England)

Some of our participants made the connection between this feeling of abandonment, and ongoing strain in the workforce, including attrition and current industrial action among trainees.

...[those] who were FiYs or medical students and are now in the foundation programmes or early core training are much more angry. They feel abandoned... that's why you're seeing a lot of the febrile atmosphere at the moment with regards to industrial action, with regards to animosity towards colleges and training programmes more generally and the foundation programme... [they] have lost all the goodwill that they once had and are just angry.

(Trainee, Focus group 13, Mixed, Cross-nation)

I suppose the one thing that we never got, and this is globally, is a relax, and a pause after coping with COVID-19, and both as individuals and as organisations. So and obviously politically at the moment that's coming out through strikes and other aspects. [...] I think they're gonna feel like – the trainees – an unthanked generation for what they've done and what they've sacrificed in terms of their training.

(Leader, Interview 3, Surgery, England)

There were notable concerns (particularly amongst leaders) that, though the culture of training, and responsiveness to trainee needs, had changed positively during the pandemic, many programmes were trying to 'revert' to old ways of working without consideration of the learning gained during COVID-19.

I feel like the system is trying to snap back into place. It's trying to forget that everything's happened. In our Trust, we had doctors' messes set up during the- the pandemic and then they took away all of our doctors' messes in the Trust.

(Trainee, Focus group 13, Mixed, Cross-nation)

Other concerns regarding workforce planning revolved around trainees leaving clinical practice entirely, moving abroad, and choosing to go less than full time.

The problem when you have no power to change anything, when people don't listen is your only option is the nuclear button of leaving, isn't it?

(Trainee, Focus group 13, Mixed, Cross-nation)

Concerns were also raised regarding the disproportionate impact of the pandemic amongst trainees, particularly on international medical graduates, and less than full time trainees. An in-depth exploration of this impact was beyond the scope of this report, but this will require further, dedicated exploration, particularly given that comments regarding disproportionate impact were often connected to comments regarding the increasing negativity of training culture.

What we did was good, but it was not good enough...what I still haven't seen how we're going back and supporting those trainees who were impacted more than others, and what the plan is to address that. (Trainee, Focus Group 21, Mixed, Cross-nation)

5 Discussion

This project addressed three research questions:

RQ1: What were the positive, negative or neutral **impacts of the changes** that were put in place?

RQ2: What are stakeholders' views on which elements should be retained, removed, or altered in the **'post pandemic' context**?

RQ3: What **lessons can be learned** from the process of putting the changes in place, that could inform the future response to another significant exogenous event like the pandemic?

Key findings relevant to these areas, and to the wider context of education and training, are discussed below.

5.1 Impact of changes

The overall message of the findings is that the changes were largely successful in mitigating the most serious threats to education and training presented by the COVID-19 pandemic. In the face of imminent and serious challenge, a creative and effective educational response was achieved collaboratively, and at pace.

Changes were generally well received – by trainees, trainers and senior leaders. Indeed, curricula changes were seen as being pragmatic, but also compassionate, and helping to reduce pressures at a time of considerable stress.

The addition of new COVID-19-related ARCP outcomes provided a mechanism to ensure any gaps in experience were acknowledged, a change that was recognised and appreciated by our stakeholders. Analysis of secondary data suggests that they were used effectively through the pandemic, but by 2022 their use had largely waned. Changes to ARCP may have contributed to the convergence of demographic groups for whom there are normally different outcomes.

The relative consistency of exam results suggests that there was no detriment to the likelihood of passing professional exams through the pandemic period, despite the significant disruption.

5.2 Changes in the post-pandemic period

The data suggest that, for most participants, curricula derogations and other changes have served their purpose with regard to the COVID-19 pandemic. However, through our evaluation we have identified a number of implications for delivery and sustainability of the education and training system in the post-pandemic context.

5.2.1 Curricula

Competency-based curricula, where there is a move to 'indicative' rather than 'prescribed' numbers of cases, procedures or workplace-based assessments, offer resilience in the context of educational disruption. In the cases of some specialty curricula, this approach was in progress before the pandemic and there may be scope for a further review of those curricula, and whether changes could be positively transferred to other specialties to allow greater flexibility and more holistic assessment of trainees.

However, cultural training norms, especially within some craft specialties, around the nature of practice and expertise, cannot be dismissed. In some circumstances we heard that curricula derogations, which allow progress without having met all the 'usual' outcomes, run the risk of a generation of trainees lacking confidence as they progress through training and enter senior roles.

5.2.2 Exams

While many knowledge-based exams will continue online, practical exams are generally felt to be best-delivered in-person. For both exam types, there are issues of accessibility, which the pandemic experience can inform. Considerations, such as consistency of hardware and connectivity for online exams, and travel to national exam centres for practical exams, illustrate vulnerabilities in the system and risks for equity. Regional hubs may provide efficiency, accessibility and sustainability.

5.2.3 ARCP

A common note of tension amongst trainees was around the nature and level of their involvement in the ARCP process, and the purpose of the feedback session. For the most part trainees desired opportunity for greater dialogue regarding their training progression than was currently the case.

Where educational meetings, including ARCP panels, are kept online, ways of ensuring that social interaction and collegiality is supported could be explored. This may be particularly important in small specialties, where there is a limited professional network. There are risks of isolation for trainees and supervisors, both for their educational practice, and their wellbeing.

ARCP outcome data showed that use of outcomes 10.1 and 10.2 was minimal by 2022. Hence, whilst some participants felt strongly there was a need to acknowledge ongoing disruption to education and training through retention of the COVID-19 outcomes, such instances may be in the minority. Rather than retaining the 10.1 or 10.2 outcomes for specific cases, a more positive approach may be to look at the messaging around outcomes 2 and 3, and ensure that a 'no-fault' ethos is associated with all developmental outcomes.

5.3 Learning for a future force majeure event

Alongside the successes of the response to the COVID-19 pandemic, findings indicate ways in which the education and training system may be better prepared for future events. Some challenges may be avoidable, and others unavoidable, but open to mitigation with appropriate planning.

Clear and timely communication around educational requirements is key. For vulnerable groups, who may have restricted clinical access, this is particularly critical. In the event of needing to protect staff who are shielding, strategies to ensure staff know what they may expect, and how they may continue training in their altered roles will be important. Consistency of educational approach is also fundamental: trainee' guidance and use of decision aids appeared to vary to our stakeholders. It may be that contingency planning for future events can explore the ways by which guidance can be best managed and communicated to trainees, supervisors and other stakeholders.

We heard that in some cases, changes had downstream consequences. However, while these were foreseeable, they were also unavoidable in the need to manage the immediate crisis. Notably, the changes to exam requirements for progression within the Acute Care Common Stem (ACCS) training programme meant an increase in the number eligible to apply for anaesthetics training – but the alternative would have been no

progression within ACCS. Royal Colleges and other stakeholders may already be undertaking risk analysis of future curricular derogations, to allow such downstream risks to be identified and mitigation planned in advance. Potentially, any curricula changes could be considered in such terms – suitability for derogation, and risks arising – at the point of implementation.

For many exams, the technological infrastructure for delivery is now in place, and we heard that at least some Royal Colleges are building in an awareness of risk, should a large-scale crisis arise again, for the delivery of online exams outside of exam hall settings. There may be opportunities for Royal Colleges and Faculties to share learning and resources, to ensure the robustness of processes and systems against external challenges.

Barriers to the authenticity of some practical exams when moving online seem likely to persist, and continuing consideration of how these may be overcome is needed. However, as use of telemedicine grows in clinical practice, online practical exams may be closer to new models of care delivery.

The removal of mandatory external and lay members was felt by participants to be unnecessary, and even harmful to the rigour of the process. Planning for future challenges may wish to consider the risks and benefits of adopting this approach.

5.4 The wider context and doctors' wellbeing

Across our conversations it was clear that the ongoing impact of the pandemic on doctors should not be underestimated. The pandemic caused not just an acute shock to the medical profession, but may have identified fault lines in the system from which challenges continue to radiate. Some participants – trainees and faculty – made direct links between the experience of working through the pandemic in 2020-21, and unrest amongst medical staff in 2023. This was partly due to clinical repercussions – patient backlog causing service pressures – which were perceived as antagonistic to training. However, it was also political, and more widely societal, with the value of healthcare, and the medical profession, perceived as being forgotten after the plaudits of 2020. It was also notable that participants went beyond the pandemic to discuss impact of wider changes to training, such as those already underway in curricula reform in response to the 2014 Shape of Training review.²⁸ Indeed, some of the issues raised were located in a historical policy context dating back to Modernising Medical Careers changes of 2005.²⁹

In this context, there is a risk, as we heard from one trainee group, that the system may revert to pre-pandemic conditions, and lose some of the benefits from the 'compassionate' changes. A risk in the post-pandemic world is that doctors feel that the system does not 'care' for them.

5.5 Limitations of the study, and further work

This work relied on a convenience sample of people willing and able to take part in a relatively short timescale. This meant that we could not ensure representation of all demographics and experiences within the trainee and trainer populations. We worked hard to ensure representation from across protected characteristics (gender, ethnicity, disability), as well as the four nations within the UK. However, a formal equality impact assessment may be an appropriate direction for future work, to consider in detail how different groups may have been affected by changes to education and training through the pandemic.

Some of our findings went beyond our initial scope of evaluation. In particular, the link to issues of wellbeing, as an effect of working through intensive periods of the pandemic, and now pandemic recovery, without respite. The pandemic may not be the root cause of such issues, but findings suggest that it may have precipitated the greater expression of these problems. A number of participants spoke of their involvement in the research being cathartic, and an opportunity to reflect on their COVID-19 experience. The long-term impact of the pandemic on wellbeing of the workforce – importantly acknowledging the impact on senior clinicians as well as doctors in training – is a key consideration in the ongoing crisis around workforce retention and will require longitudinal research enquiry.

5.6 Conclusions

We have explored the impact of the changes introduced to support training progression through the COVID-19 pandemic. Our results indicate that while these were largely effective and well received, there were also some negative experiences that can inform planning for a response to a future similar event. The changes have largely served their purpose in relation to COVID-19, and their retirement in 2023 seems appropriate. However, some participants warned that this should not mean a reversion to the *status quo ante*. Rather, it reflects an opportunity to draw on learning that can benefit the education and training system.

The changes represented an effective, innovative and timely response to extraneous challenge. The strength of collaborative decision-making at a strategic level was apparent, and the value of working together with a common purpose. It seems intuitive that this should not be lost in the return to business as usual.

Despite the challenges faced, the pandemic fostered innovation and adaptability in educational processes. The insights gained, as outlined in this report, can serve as a valuable guide to support future developments through, and beyond, the post-COVID-19 era.

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Appendix A – Changes to Royal College and Faculty exams

Specialty	Qualification	Component	Change during COVID-19
Intensive care medicine	FFICM	Final FFICM MCQ	July 2020 MCQ cancelled, then shift to online, remote exam.
		Final FFICM OSCE	Spring OSCE 2020 cancelled, then remote delivered by video.
		Final FFICM SOE	Spring SOE 2020 cancelled, then remote delivered by video.
Occupational medicine	MFOM	MFOM Part 2 OSPE Clinical stations	Online, remote delivery.
		MFOM Part 1	May 2020 sitting deferred to November 2020. Online, remote delivery.
Public Health Medicine	Diploma of the Faculty of Public Health	DFPH Paper 1A	Online, remote delivery.
		DFPH Paper 1B	Online, remote delivery.
		DFPH Paper 2A	Online, remote delivery.
		DFPH Paper 2B	Online, remote delivery.
	MFPH	MFPH OSPHE	Online, remote delivery.
Pharmaceutical medicine	Diploma in Pharmaceutical Medicine	DPM Part 1	Online, remote delivery.
		DPM Part 2 SAQ	Online, remote delivery.
		DPM Part 2 Critical Appraisal Paper	Online, remote delivery.
Community sexual and reproductive health	MFSRH	MFSRH Part 1 MCQ	Cancelled April 2020, candidates given opportunity to defer to either October 2020 or April 2021. Subsequent move to online, remote delivery.
		MFSRH Part 2 Critical Reading Question paper	Cancelled June 2020, candidates given opportunity to defer to 2021. Subsequent move to online, remote delivery.
		MFSRH Part 2 Extend Matching paper	Cancelled June 2020, candidates given opportunity to defer to 2021. Subsequent move to online, remote delivery.
		MFSRH Part 2 OSCE	Cancelled June 2020, candidates given opportunity to defer to 2021. Subsequent move to online, remote delivery.
Core surgical training	MRCS (Member of Royal College of Surgeons – required within core training for surgical specialties)	MRCS Part A Paper 1	Cancelled Spring 2020. Online, remote delivery from September 2020.
		MRCS Part A Paper 2	Cancelled Spring 2020. Online, remote delivery from September 2020.

Specialty	Qualification	Component	Change during COVID-19
		MRCS Part B	Cancelled Spring 2020. Resumed October 2020 with amendments - total number of stations was decreased to 13, use of real patients in the clinical examination stations was prohibited, and the employment of actors as simulated patients was limited. February 2021 MRCS Part B was cancelled as the UK entered the second wave of the pandemic.
CMT / Internal medicine	MRCP (UK) (Member of the Royal College of Physicians – required within core training for most medical specialties)	MRCP Part 1 Paper 1	Cancelled Spring 2020. Resumed September 2020. Online delivery subsequently.
		MRCP Part 1 Paper 2	Cancelled Spring 2020. Resumed September 2020. Online delivery subsequently.
		MRCP Part 2 Written paper 1	Cancelled Spring 2020. Resumed September 2020. Online delivery subsequently.
		MRCP Part 2 Written paper 2	Cancelled Spring 2020. Resumed September 2020. Online delivery subsequently.
		MRCP Part 2 PACES	Cancelled Spring 2020. Resumed September 2020. Hybrid. Examiners assessed two stations remotely using simulated patients, and the remaining three stations used clinical screening and non-pharmaceutical interventions.
General practice	MRCGP (Member of the Royal College of General Practice – required for all GP trainees)	WPBA (counted towards MRCGP)	Adjustments to required WPBA permitted to account for COVID-19 context - in cases where the number of specific assessments have not been achieved, an ARCP panel was able to deliver a global judgment based on a holistic view of evidence over the three-year programme.
		Clinical Skills Assessment	Cancelled Spring 2020. Then became Recorded Consultation Assessment (RCA).
Anaesthetics	FRCA Final (Fellow of the Royal College of Anaesthetists – required [when])	Final written exam part one - constructed response	Online, remote delivery.
		Final written exam part two - MCQ	Online, remote delivery.
		Final Structured Oral Exam 1 Part A	Online, remote delivery by video.
		Final Structured Oral Exam 1 Part B	Online, remote delivery by video.
		Final Structured Oral Exam 2	Online, remote delivery by video.
	FRCA Primary	Primary OSCE	Online, remote delivery by video.
		Primary MCQ	Online, remote delivery.
		Primary Structured Oral Exam (SOE)	Online, remote delivery by video.
Histopathology	Histopathology Year 1 Assessment	Histopathology Stage A / Year 1 Assessment OSPE	Deferred spring 2020 to autumn 2020, then online, remote delivery.
	FRCPath (Histopathology)	Histopathology Part 1	Deferred spring 2020 to autumn 2020, then online, remote delivery.