RCPath TAC & Learning Team / ACP
- COVID-19 Training Impact Survey Report

Dr Matthew Clarke
Chair RCPath Trainees' Advisory Committee, ACP Trainee Communications Officer

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Pathology is a diagnostic specialty which encompasses 17 different subspecialties including histopathology, immunology, haematology, microbiology and chemical pathology. Pathology is linked to all medical and surgical specialties and is vital to provide a patient with an accurate diagnosis and ensure they receive the correct treatment. Around 70% of patients will have a pathologist involved in their care at some point in their journey. The specialties play a vital part in cancer diagnosis and characterisation, and have been central to the efforts against the COVID-19 pandemic helping the healthcare community to better understand the mechanisms of disease and assisting with the development of vaccines.

COVID-19 has had a huge impact on pathology departments, trainers and trainees. It has disrupted training and examination schedules for many across the pathology specialties. There is concern about the impact of this on the progression of trainees in all specialties through their training programmes, and also on their well-being.

There is a determination to restart and reboot training to address the significant issues that the pandemic has caused for trainees. So that we can help ensure that pathology trainees receive all the necessary support and resources to help them going forward, the RCPath Trainees' Advisory Committee, the ACP Trainee Members Group and the RCPath Learning Team produced a survey to assess the impact of the pandemic on training across the pathology trainee body.

With special thanks to Dr Caroline Russell (RCPath TAC Cytopathology Representative) who led the survey construction and development.

Results summary of the survey

- The survey was open for a period of 3 weeks
- Number of respondents = 252

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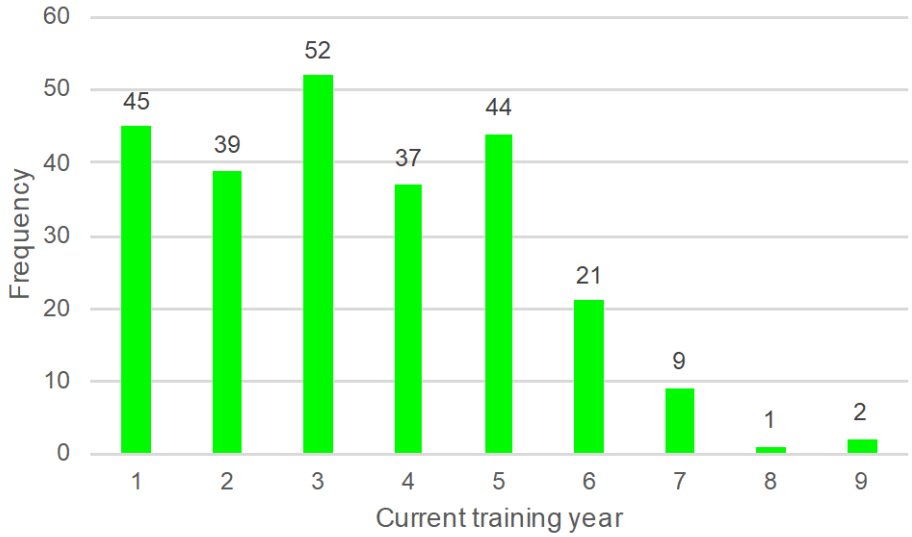
1. What is your current year of training?



- All stages of training were represented among the responses, with around half respondents being from years 1-3 and half from later stages of training

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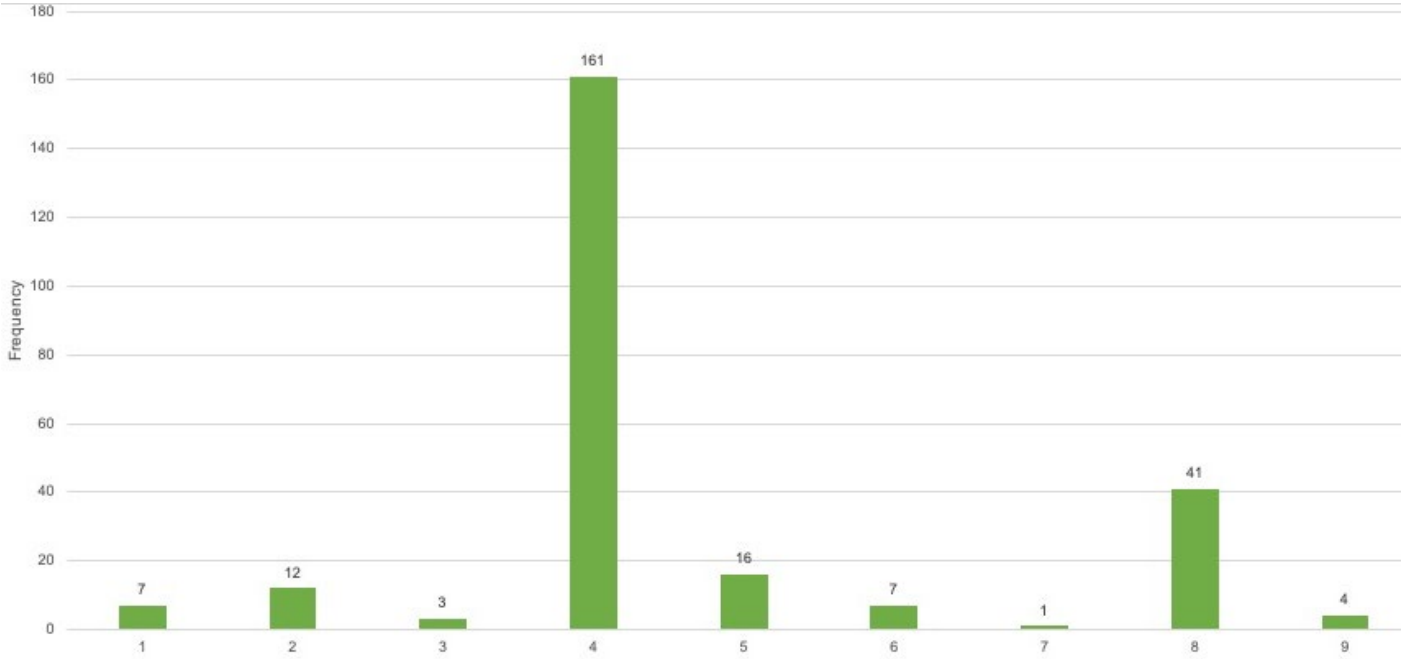
2. What is your specialty?



Key

1. Chemical Pathology
2. Chemical Pathology (Metabolic Medicine)
3. Clinical Biochemistry
4. Cellular Pathology (Histopathology, Diagnostic Neuropathology, Paediatric & Perinatal, Forensics)*
5. Haematology
6. Histocompatibility and Immunogenetics
7. Immunology
8. Infection specialties (Medical Microbiology, MM/ID/ MM/TM/ MV, MV/ID, MV/TM)**
9. Oral & Maxillofacial Pathology

*Histopathology (145), Diagnostic Neuropathology (5), Forensic Histopathology (5), Paediatric and Perinatal Pathology (6).
** Medical Microbiology (6), Medical Microbiology & ID (28), Medical Microbiology & TM (0), Medical Virology (1), Medical Virology & ID (6), Medical Virology & TM (0).

- The most frequent specialty of the respondents was Histopathology (54.75%, n=145/252) followed by Medical Microbiology & ID (11.11%, n=28/252)

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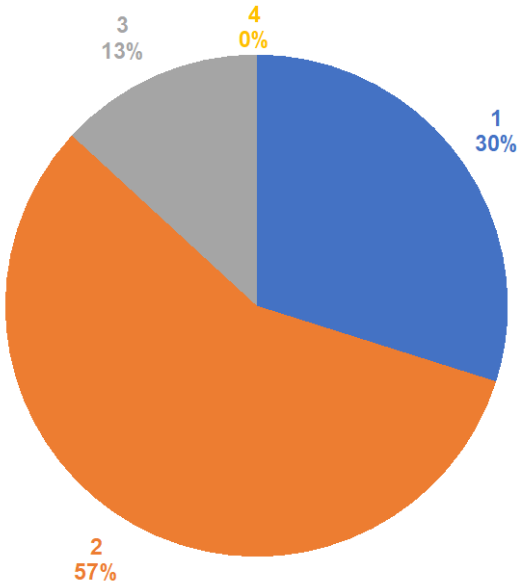
3. What is your stage of training?



Key

1. Pre-FRCPath Part 1
2. Pre-FRCPath Part 2
3. Post-FRCPath Part 2
4. Post-CCT

- Most respondents were Pre-Part 2 (56.97%, n=143/251) followed by Pre-Part 1 (29.88%, n=75/251). Pre-Part 1 = years 1-3, Pre-Part 2 = years 3-4.

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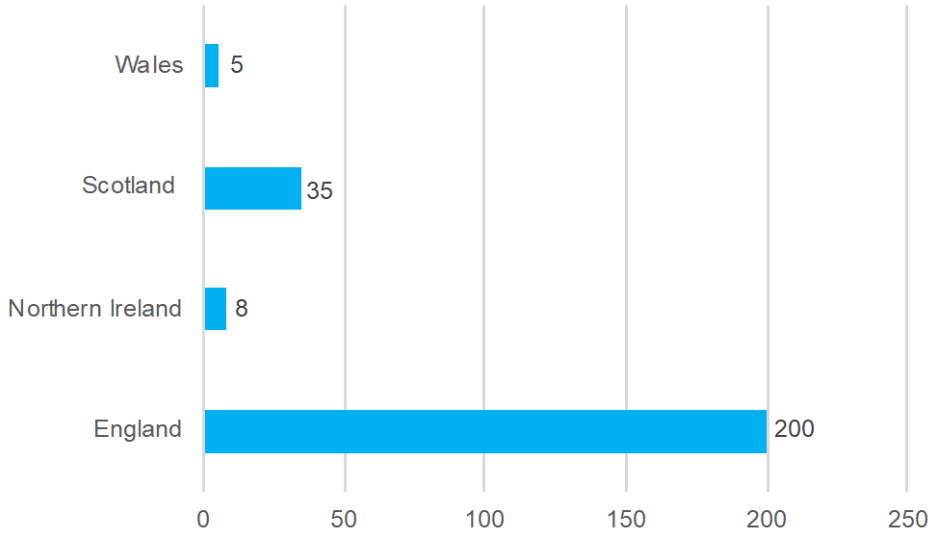
4. In which region are you based?



- The majority of the respondents were based in England (81%, n=200/248).
- 14% (n=35/248) were based in Scotland, 3% (n=8/248) in Northern Ireland and 2% (n=5/248) were in Wales.
- Within England, most respondents were from London (n=38), Yorkshire (n=34), East Midlands (n=21) and the West Midlands (n=21) deaneries.

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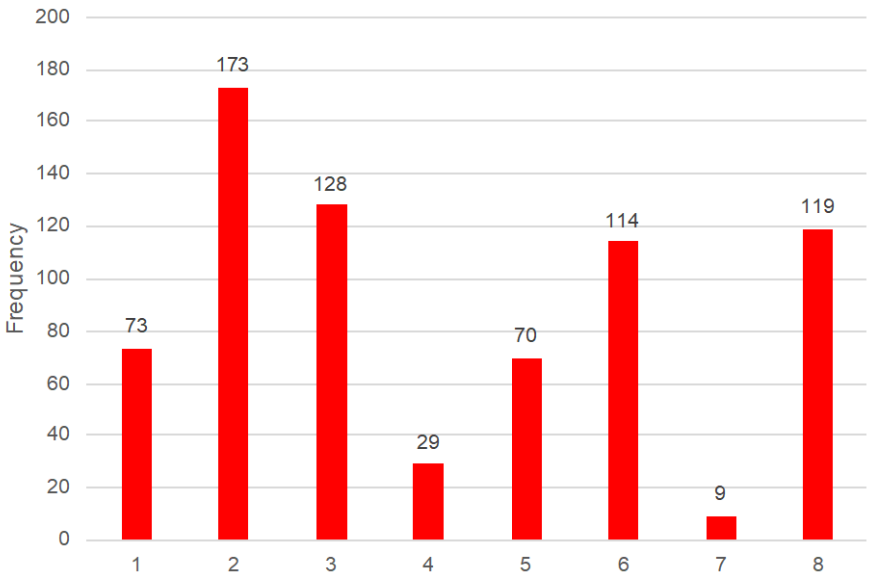
5. What impact has COVID-19 had on your training?



Key

1. Loss of training/time out through re-deployment (please specify in the comments box how long you were redeployed for and where)
2. Lower case numbers/less experience
3. Difficulties with supervision due to social distancing
4. Shielding/unable to go to work for health reasons (please specify the length of time you were unable to go to work in the comments box)
5. Time lost due to isolation/illness
6. Difficulties with teaching due to social distancing/travel restrictions
7. None
8. Other (please specify)

Common themes identified from the comments provided:

Health and well-being

- Pregnancy and difficulties with childcare / having to home-school during lockdowns
- Challenging personal circumstances – concern for families at home and abroad
- Significant concerns raised regarding the process of redeployment raising safety and well-being issues for trainees
- Needing to self-isolate / shielding
- Significant well-being issues – trainees feeling disillusioned let down, wanting to leave medicine but feel trapped, increased anxiety, loss of confidence

Training disruption

- Redeployment taking away training time
- Postponement of the exams
- Phone clinics resulted in lack of opportunity for assessment / asking questions
- Fewer teaching opportunities from seniors
- Multi-disciplinary team (MDT) meeting participation by trainees was limited
- Courses cancelled and now long waiting lists
- Consultants reporting from home and no facilities for digital pathology for trainees in departments
- Inability to get specialist placements arranged
- Pressure to sit exams
- Training inequalities
- Impact and disruption on trainees in research / Out of Programme – Research (OOPR)

Specialty-specific issues

- Lack of opportunities for autopsy (cellular pathology trainees)

Summary

The most frequent response was that trainees have seen lower case numbers and have had less experience throughout the pandemic. This is a knock-on effect of fewer routine cases presenting to the health service. They have also not been able to receive the supervision and teaching they expected, as a result of social distancing and travel restrictions. Many consultants have been working from home and with insufficient digital infrastructure in departments, meaning that supervision and training has suffered. Many commented that redeployment for periods of time in unrelated specialties took away training time and many histopathology trainees were unable to perform autopsies, take part in MDT meetings and arrange specialty placements e.g. neuropathology and paediatric pathology. Trainees also commented that they were unable to attend courses and are now struggling to register for them because of increased demand. These factors are made more challenging by increased pressure felt by some trainees to sit examinations when they do not feel ready to do so, and have all resulted in significant well-being issues being reported by some trainees.

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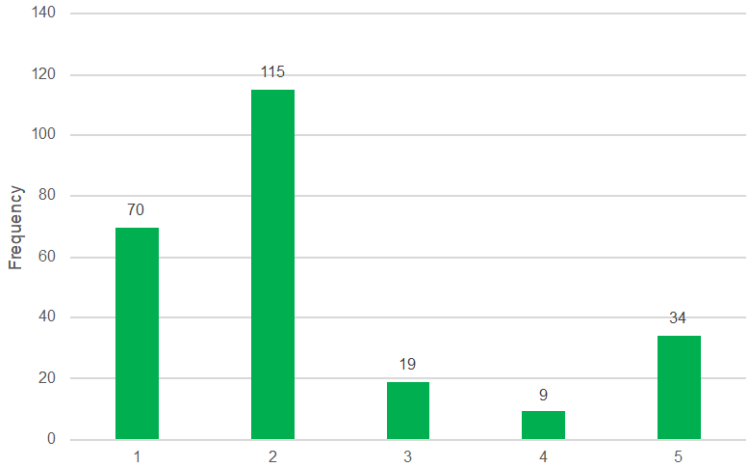
6. During the pandemic, have you managed to report your expected case numbers / undertake expected workload? Please provide specific comments about the type of cases / workload related to your specialty.



Key

1. Yes, I have been able to report / undertake my usual case numbers / work load without change.
2. No, I have not been able to report / undertake my usual case numbers / work load.
3. My case numbers and / or workload have increased but specifically due to COVID-specific cases - I have not been able to see / undertake my usual diverse case load.
4. My case numbers and / or workload have increased but specifically due to COVID-specific cases - but I have also been able to see / undertake my usual diverse case load alongside this.
5. Other (please specify in the comments box below)

Common themes identified from the comments provided:

- Many trainees experienced reduced workload
- Lack of consultant double-headed microscope teaching
- Lack of non-cancer histology cases due to changing clinical priorities (cellular pathology trainees)
- Significantly reduced opportunities to undertake post-mortems with some trainees reporting they are unable to perform any during the pandemic (cellular pathology trainees).
- Redeployment resulted in reduced case numbers relevant to specialty
- Those trainees who have achieved required numbers have had to work out-of-hours and at weekends as well as using teaching cases to boost numbers.
- Reduced frozen section experience (cellular pathology trainees)
- Impact on well-being and ability to revise
- Stress and impact on senior staff – less willing to engage with training activities

Summary

The most frequent response was that trainees had been unable to report / undertake their usual case numbers or workload throughout the pandemic, with a lack of non-cancer related cases. 70 respondents reports that they had been able to report / undertake their usual case numbers and workload but from the comments provided, this was often at significant personal cost in terms of time and effort and trainees often had to resort to using teaching cases. Trainees also again reported that they were lacking the required supervision from consultants. It should also be acknowledged that there has been increased pressure and stress felt by senior staff and consultants over this period which has reduced their ability to engage with different training activities.

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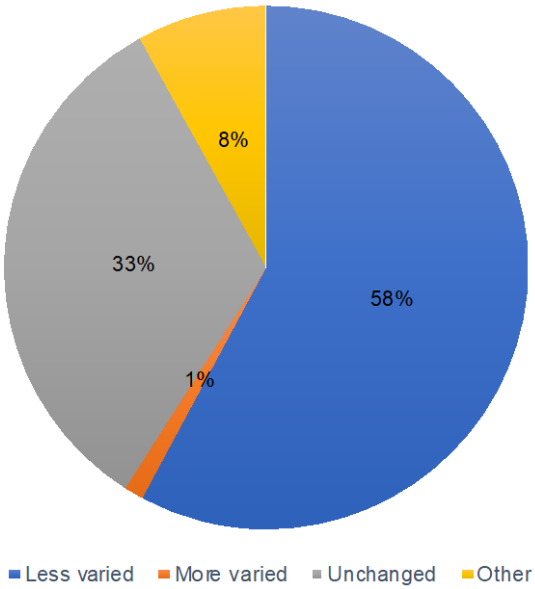
7. How has the diversity of cases / workload varied during the pandemic? Please provide specific comments about the type of cases / workload related to your specialty.



Common themes identified from the comments provided:

- Less varied cases with less non-cancer case work
- Very few cytology cases (cellular pathology trainees)
- More acute and often complex cases but fewer chronic conditions
- Restart of elective operating has resulted in increased pressure in some departments to meet the increased workload
- Junior trainees not seeing cases that would help their initial training

Summary

Most respondents felt that the cases they had seen were less varied during the pandemic, 33% feeling that the variety was unchanged. They commented that often the complexity of the cases had increased and they were also seeing more acute conditions. The absence of the more routine cases has also had an impact on the more junior trainees and those just starting training as these cases would have formed the basis of their introduction to the specialties. Some trainees also commented that with the restart of elective operating, departments are now under increased pressure to cope with the extra workload which also may have a significant impact on training and the time available for teaching.

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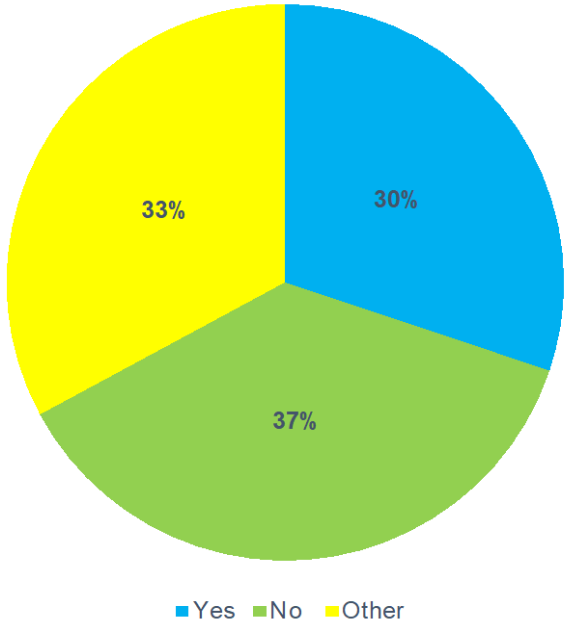
8. This question is for cellular pathology trainees only. If you are not a cellular pathology trainee, please go straight to question 10. During the pandemic, have you managed to undertake your expected autopsy case numbers?



Common themes identified from the comments provided:

- Many trainees struggled to achieve sufficient / expected numbers as not permitted to perform them during the pandemic, unless they were post-Certificate of Higher Autopsy Training (CHAT) exam.
- Disruption to CHAT exam / preparation
- Trainees in Northern Ireland unable to travel to get sufficient numbers to enable them to sit the CHAT

Summary

Only 30% of respondents reported that they had been able to undertake their expected autopsy numbers with many trainees commenting that they had been unable to perform any at all due to the restrictions. Trainees who were post-CHAT examination reported that they were able to perform autopsies. There has been significant disruption to the trainees who are trying to prepare for the CHAT exam, with restrictions on travel preventing trainees from Northern Ireland undertaking the placements needed for them to have sufficient numbers to apply to undertake the examination. These factors will result in increased competition for autopsy opportunities amongst trainees who are trying to reach their required numbers now that they are permitted to attend the mortuaries again. The fact that a third of respondents were still able to achieve their numbers may also highlight an inequality in training related to autopsy access that may have been exaggerated by the pandemic.

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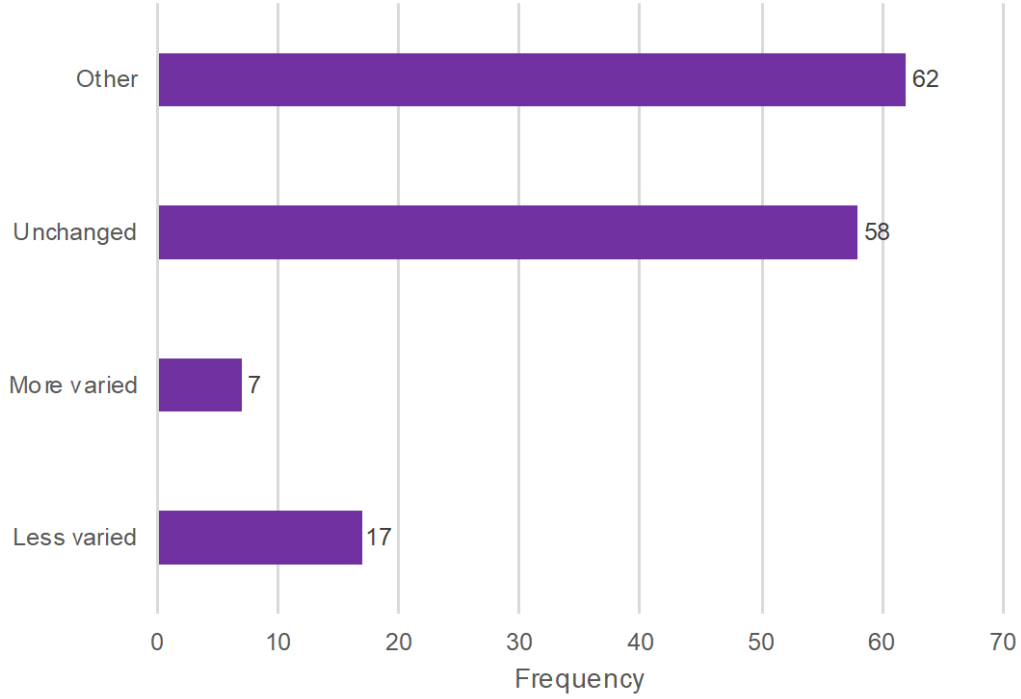
9. This question is for cellular pathology trainees only. If you are not a cellular pathology trainee, please go straight to question 10. Has the diversity of autopsy cases varied during the pandemic?



Common themes identified from the comments provided:

- Lack of post-mortem opportunities generally.
- Trainees now need to catch up with lost cases – pressure as new trainees starting in the specialty also require case numbers too.
- Some trainees who were still able to perform autopsies experienced an increase in diversity and complexity, possibly due as they were more senior and therefore provided with more complex cases.

Summary

For those who had been able to undertake autopsies, most respondents indicated that the diversity of cases had remained unchanged with only 17 respondents reporting that it was less varied. Trainees again highlighted that with new trainees starting in the specialty, there is now increased pressure to reach the numbers to satisfy training requirements. This will be more significant in areas where access to autopsies is very limited e.g. London deanery.

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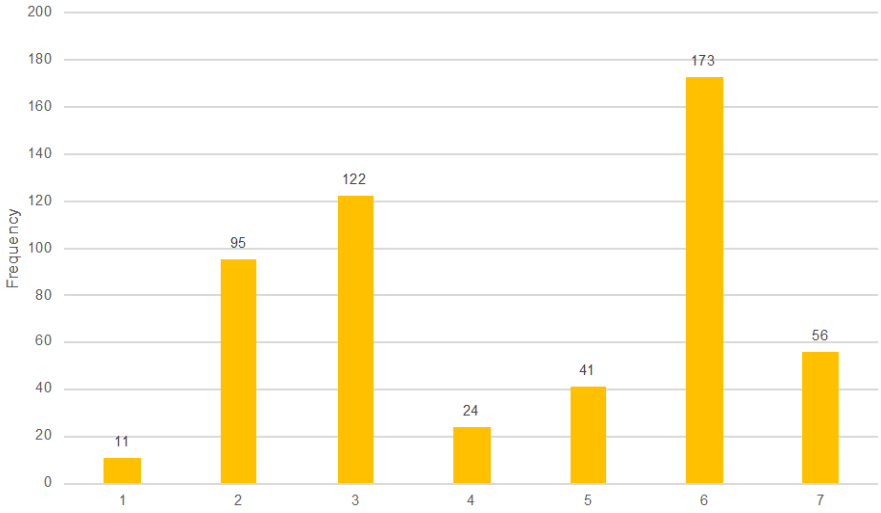
10. Was any equipment provided within your department to allow remote supervision/learning during the pandemic? Please provide any specific comments. Please tick all the options that apply.



Key

1. No changes required (my department is digital and supervision already possible remotely)
2. Webcams provided
3. Headsets provided
4. No additional equipment provided and direct real time supervision is not taking place
5. No additional equipment provided and supervision as before
6. Remote teaching introduced in place of face-to-face regional teaching
7. Other (please specify)

Common themes identified from the comments provided:

- Lack of real-time supervision and microscope double-heading (cellular pathology trainees)
- Teaching performed remotely but not supervision of reporting
- Software made available but no access to necessary equipment
- Those centres that were using digital pathology pre-pandemic were able to successfully integrate teaching and training
- Consultants often working at home and therefore no opportunities for supervision
- Some centres did provide webcams and headsets but this took significant time to do
- Example of good practice: social distancing measures were introduced and to maximise the information gain during double-heading sessions. These include: 1) perspex screens 2) rearrangement of equipment in consultant offices 3) consultant pre-screen cases reported by trainees and selectively double-report those that are of educational value or where errors may have been made. All consultants spent on average 30-45 minutes a day double-heading cases (cellular pathology trainees).
- Inequalities as some trainees receiving teaching when in the department and others miss out when at home
- New computer screens provided for better digital pathology experience
- Trainees challenged by using virtual environment without support
- One multi-header microscope with up to 30 trainees – challenging to accommodate all needs particularly with social distancing (cellular pathology)
- Overall a lack of teaching provided in many centres

Summary

Most respondents reported that remote teaching had been introduced instead of face-to-face teaching. Many reported that webcams and headsets had been provided to support this. Significantly, only 11 respondents reported that their departments were fully equipped for digital pathology and that supervision could take place remotely, with 24 reporting that no equipment had

been provided and there was no supervision taking place at all. Trainees commented that supervision was impeded by consultants working from home and there was a lack of digital resources to allow remote supervision. However, good practice was reported in that some trainees were provided with new computer screens to improve the digital experience and many were provided with equipment needed to engage in the virtual format. In those centres which were not able to undertake remote supervision, significant measures were put in place to allow supervision to take place as previously but with precautions put in place. However, due to social distancing, teaching taking place within departments could not be attended by all trainees meaning that some trainees missed out on this teaching.

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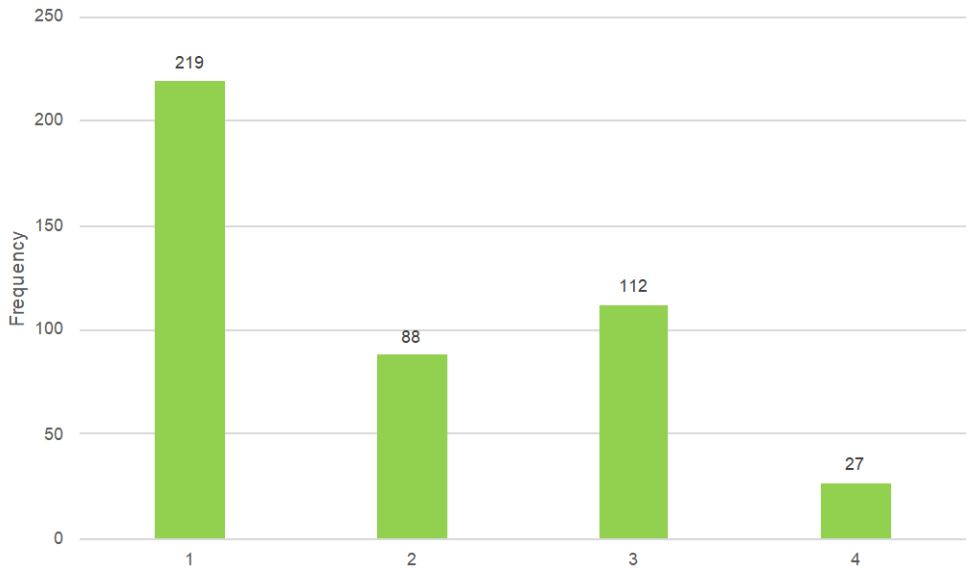
11. If remote teaching was introduced what format did this take? Please tick all the options that apply.



Key

1. Lectures/presentation
2. Photographs/images of relevant aspects of cases
3. Scanned slide circulation in place of glass slides
4. Other (please specify)

Common themes identified from the comments provided:

- MS Teams used to deliver presentations
- Live streaming of slides often poor quality
- Digital slides could not be accessed when outside the main teaching hospital
- Some trainees report no teaching provided at all

Summary

Most respondents (219) reported that remote teaching took the form of lectures/presentations with 112 respondents reporting that scanned slide circulation was used. Microsoft Teams is the platform used most frequently. However, when slides were used, the quality of the images was often very poor. Issues with accessibility were also highlighted with trainees reporting that if they were outside of the hospital, the digital slides could not be accessed. Some trainees also reported no delivery of teaching. Access to teaching for specialty doctors was also raised as an issue.

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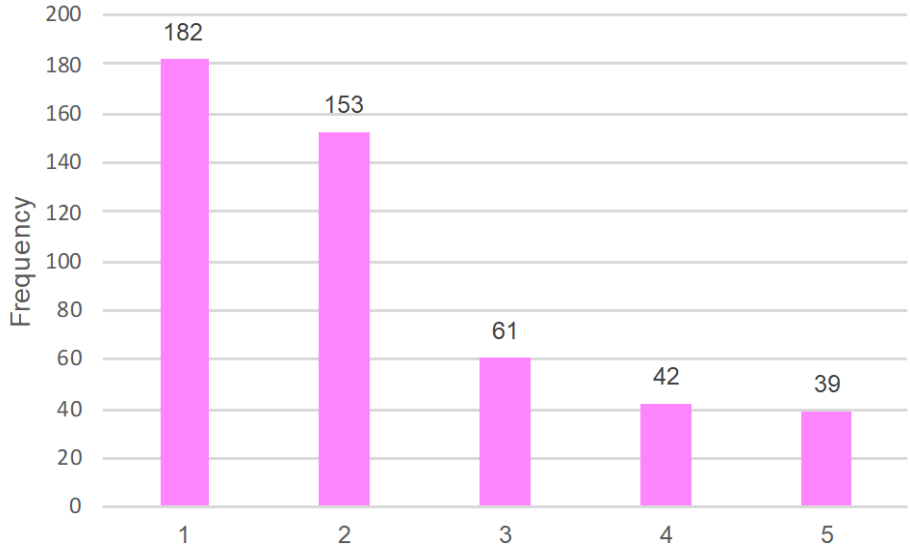
12. Who delivers this remote teaching? Please tick all the options that apply.



Key

1. Local department
2. Other departments within the same deanery
3. Other deaneries
4. Other organisation(s)/individual(s), please specify

Common themes identified from the comments provided:

- Trainee organised session using Microsoft Teams.
- Teaching with consultants has now reduced again due to increasing workload and pressure in departments
- External teaching webinars circulated
- National teaching still delivered virtually in some specialties
- Attended presentations / teaching delivered by other organisations
- Missing opportunities to meet up and network

Summary

Most respondents reported that the teaching was delivered by the local department or other departments within the same deanery. There were several trainees who commented that trainees themselves set up teaching sessions within their departments and many other organisations were able to support learning through virtual webinars and courses which is to be commended. However, it was also mentioned that teaching with consultants has also reduced with the increasing pressures on the workforce as the backlog of cases is being dealt with by the teams and this may have a significant impact on training.

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13. What worked well about this remote teaching? Please provide comments

Common themes identified from the comments provided:

- Convenient and accessible
- Availability of cases before the teaching to review in advance

- Benefits of no travel and reduced costs
- Recorded teaching very useful for those not able to attend
- Allowed increased flexibility for those with childcare considerations
- Less disruption to working pattern
- Access to teaching of niche or rare entities increased
- Access to international experts
- Some areas reported an increased amount of teaching compared to usual, for a period.
- Challenging for those trainees with dyslexia
- Excellent quality teaching delivered
- Easier to reach a larger audience over a greater distance
- Exposure to cases wouldn't usually see
- Resistance experienced when other registrars from within the deanery asked if they could join the teaching
- Remedial teaching needed to cover what has been lost and for those who were redeployed

Summary

Overall trainees were very positive about remote teaching opportunities, providing greater flexibility to attend from home and at convenient times. It also saved trainees significant costs associated with travel and accommodation and provided greater access to some of the international experts. Recording of teaching sessions allowed trainees to re-watch sessions at their convenience or allowed trainees who were not able to attend at the allotted time to catch up when it was more convenient. However, consideration is needed for those trainees with more complex needs such as those who have dyslexia or who have hearing difficulties. Also, the accessibility of remote teaching could be improved further by allowing other trainees in other locations to access this teaching.

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14. Were there any areas which did not work well when taught remotely? Please provide comments

Common themes identified from the comments provided:

- Difficulty with group discussions
- More challenging to engage audience
- Connection issues particularly when viewing images
- Lack of ability to scan cytology slides
- Quality of images shown
- Lack of networking opportunities
- Trainees less willing to answer questions
- Not everyone using digital technology which presented challenges
- Lack of interaction
- Lack of equipment for trainees to be able to engage e.g. headsets and webcams
- Difficult to concentrate for such prolonged periods
- Missed face-to-face interactions
- Challenging IT infrastructure of Trusts
- Style of teaching has become more lecture-based rather than discussions
- Challenges with storing digital images
- Virtual fatigue in block teaching sessions

Summary

Although remote teaching was considered to have many benefits, several areas were highlighted for improvement. Many commented on difficulties related to IT infrastructure and equipment which made access much more challenging. The quality of images shown was also very varied, possibly related to accessibility of slide scanners within departments. Trainee engagement in teaching sessions (for example, answering questions) was often reduced and respondents also commented that they missed the usual interactions and networking opportunities that face-to-face teaching usually provides. Some trainees reported that there were significant issues related to storage of digital images when creating and engaging with remote teaching sessions.

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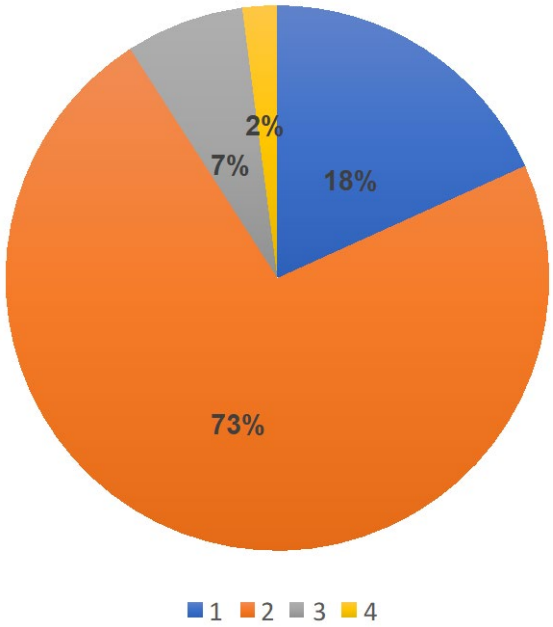
15. Would you like remote / virtual teaching to continue post-COVID?



Key

1. Yes, I prefer this to face-to-face formats
2. Yes, but I would like a combination of remote and face-to-face teaching
3. No
4. Other (please specify in the comments box below)

Common themes identified from the comments provided:

- Choice would be appreciated – decisions can be made based on work commitments, travel, location, cost etc.
- Face-to-face provide better opportunities for interaction
- Virtual teaching dependent on quality of equipment
- Virtual has been beneficial for many trainees who would have otherwise had to travel significant distances
- Better quality digital imaging is needed to support this as a priority
- Whole-day sessions may be better in person
- Dependent on the topic being taught – exam based teaching / courses may be better face-to-face

- Benefits of access to recorded material after the session
- Online teaching can be easier to organise
- Virtual teaching allows better comfort and able to be in your own environment
- Many trainees reported that they would prefer to see a combined approach

Summary

73% of respondents would like to see remote / virtual teaching continued but in combination with face-to-face teaching. However, if this is to be continued, significant investment is needed to support digital pathology engagement and access. Some teaching sessions may be better suited to a virtual arena but others may be better undertaken as face-to-face meetings. However, having a choice would be welcomed which allows trainees to consider other factors such as childcare, travel and accommodation.

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16. Are there any other changes to training that you think would help in the current climate? Please provide details.

Common themes identified from the comments provided:

Health and well-being

- More support for trainees unable to visit families abroad due to restrictions which is impacting negatively on training
- Addressing issues with burnout and workforce in departments
- Reduce pressure on trainees
- Concern from trainees at higher risk of severe disease from COVID-19 returning to face-to-face exams.

Training strategy

- More flexibility with reporting numbers
- Reconsider the lack of extensions to training given by deaneries
- Extra teaching to compensate for lost training time
- More regular teaching
- Better supervision by seniors in different specialties
- Centralised approach to training
- Communication needs to improve – teaching sessions are good quality but the administration could be better
- More opportunities to develop research skills
- Address the impact felt by academic trainees
- Trainees should not be pushed through training – results in lack of experience, competence and confidence
- Many trainees are rotated out of their department as certain services may not be present at their hospital and therefore they do not see examples of these cases. Some trainees would prefer not to be rotated out of departments, out of their geographical area and support network.
- More understanding and flexibility from HEE in relation to extensions to training so that trainees can make up the time that they have lost.

Training resources

- Online sessions from the College about exam formats for both medical and non-medical trainees
- Improved IT systems and access to digital pathology

- Better digital pathology learning platforms
- Access to online modules
- Teaching sets and content to be available digitally
- Putting national courses online
- Proper equipment to help engage with the digital and virtual arenas
- Digital case based resources – not just a library of cases but those that can teach you when to request further investigations
- Better policies / guidance for those who have to work from home

Specialty-specific issues

- Address the lack of access to specialist placements e.g. neuropathology, paediatric pathology and molecular pathology (cellular pathology trainees)
- Difficulty accessing cervical cytology numbers – use of interactive digital cases (cellular pathology trainees)

Summary

One of the main themes was improved IT systems and access to digital pathology for trainees with the provision of equipment and access. Additional support is also needed for academic pathology trainees whose research time has been significantly impacted by the pandemic. Trainees would also like greater flexibility in relation to extensions to training given the missed training time and experience they have had during the pandemic. Consideration regarding well-being support is also needed particularly related to burnout and workforce pressures.

Conclusions

- Training has been significantly impacted across the different specialties of pathology.
- Many trainees report reduced caseloads and difficulty achieving their expected case numbers to satisfy their ARCP requirements.
- Supervision and training has been significantly reduced during the pandemic, exacerbated by home working and a lack of digital pathology infrastructure to assist with remote supervision.
- Inequalities related to training have been further highlighted during the pandemic e.g. access to autopsies.
- As services return to normal, there is increased competition amongst trainees to achieve satisfactory case exposure made more challenging by the arrival of the new ST1 cohort.
- Well-being has been significantly affected, with some trainees reporting that they want to leave the specialty and others reporting burnout. This has significant implications for the future workforce particularly as the workload of services is increasing and trying to cope with the backlog of cases and tests.
- Significant investment in the provision of digital pathology equipment and access to it during training would be very beneficial to trainees.
- A combination of virtual and face-to-face training opportunities will help to address difficulties with access experienced by some trainees.
- Improving communication and access to teaching for particular groups e.g. specialty doctors and those with protected characteristics.
- Greater flexibility in relation to extensions to training and less pressure applied to sit examinations when trainees do not feel ready should be considered to help ensure well-being and retention of trainees.