

Neurosurgical Resident Education During COVID Pandemic

Dear Program Directors and Associate Program Directors:

Thank you for taking the time to complete this survey on neurosurgery resident education during the COVID-19 pandemic. We hope to gather meaningful information on how educational leaders in neurosurgery like yourselves remain committed to resident training during these unprecedented times. This survey will take approximately 5 minutes.

With appreciation,

1 What is the name of your residency program/affiliated institution? (optional) _____

2 What region is your program located in?

- Northeast
- Northwest
- Southwest
- Midatlantic
- Midwest
- Southeast
- West coast

3 How many residents per year do you have in your program?

- 1
- 2
- 3
- 4

4 At the present time how many Covid 19 positive patients are in your hospital/health system?

- 0-50
- 51-100
- 101-150
- 151-200
- >200

5 How many TOTAL beds are there in hospitals/facilities where your neurosurgery residents are working? _____

6 What is your current departmental case volume relative to your pre-COVID volume?

- < 10% of the original volume
 10-20%
 20-50%
 >50%

7 Which of the following strategies have you taken to reduce resident exposure to COVID-19? Check all that apply.

- Reduction in resident shift length
 Reduction in the number of days per week that residents are working
 Reduction in the number of residents in the hospital at any one time
 Other/Specify

Please specify the other interventions you are taking to reduce resident exposure to COVID-19. _____

8 Have your residents been redeployed to provide care to non-neurosurgical patients?

- Yes
 No

Which clinical populations or care teams have your redeployed residents been asked to cover?

- ICU non-COVID patients
 ICU COVID patients
 Floor non-COVID patients
 Floor COVID patients
 Outpatient or ED screening
 Transport teams
 Proceduralist teams
 Other/Specify

Please specify other CLINICAL responsibilities that you are asking residents to take on during the COVID-19 crisis. _____

9 Which departments at your institution have redeployed residents?

- General surgery
 Internal Medicine
 Anesthesia/Critical Care
 Other surgical subspecialties
 Other

Please specify which other resident services are being asked to cross-cover in your hospital. _____

10 How has resident involvement in surgical cases changed as a result of COVID-19?

- Minimize the number of residents scrubbing into cases
 Increase the number of double-scrub cases to maximize educational opportunity during this time of decreased operative volume
 No change in resident involvement
 Other

Please specify how resident involvement in surgical cases has changed at your institution _____

- 11 Are you concerned that your GRADUATING chief resident class will not meet their ACGME case minimums for any of the following case types? Check all that apply.
- Spine
 - Tumor
 - Trauma
 - Vascular
 - Functional
 - Pediatric
 - Not concerned

- 12 Are you concerned that your INCOMING chief resident class will not meet their ACGME case minimums for any of the following case types? Check all that apply.
- Spine
 - Tumor
 - Trauma
 - Vascular
 - Functional
 - Pediatric
 - Not concerned

13. Which of the following benefits/initiatives have you made available to your residents?

	Continued from prior to COVID-19	Added following COVID-19
Child care vouchers	<input type="checkbox"/>	<input type="checkbox"/>
Hotel vouchers for residents on service	<input type="checkbox"/>	<input type="checkbox"/>
Counseling or wellness apps	<input type="checkbox"/>	<input type="checkbox"/>
Other/Specify	<input type="checkbox"/>	<input type="checkbox"/>

Please specify what other wellness initiatives you are taking to improve resident mental and/or physical health during the COVID-19 pandemic.

- 14 How have you modified grand rounds and other such large educational meetings?
- Tele-conferencing (e.g. Zoom, GoToMeeting)
 - In-person (small groups)
 - Cancelled
 - Other

Please specify how you are carrying out grand rounds at your institution during the COVID-19 pandemic.

- 15 How have you modified morbidity and mortality (M&M) conferences?
- Tele-conferencing (e.g. Zoom, GoToMeeting)
 - In-person (small groups)
 - Cancelled
 - Other

Please specify how you are carrying out morbidity and mortality sessions at your institution during the COVID-19 pandemic.

- 16 How are you continuing to provide didactic lectures to residents during the COVID-19 pandemic?
- Live-streamed faculty-led lectures
 - Live-streamed resident-led lectures
 - Recorded lectures
 - Lectures from other institutions
 - Grand rounds from other institutions
 - Other

Please specify which other didactic sessions/lectures you are holding to bolster resident education during the COVID-19 pandemic.

- 17 Have you incorporated materials from any outside organizations (e.g. professional societies) into your curriculum?
- CNS Online Complimentary Education
 Self-Assessment in Neurosurgery (SANS) Residency Program
 AANS/NREF Resident Education Courses
 Thieme MedOne Neurosurgery
 Board-preparation question banks
 Smart-phone/mobile educational applications
 Other

Please specify which other materials from outside organizations you are including in your updated curriculum.

- 18 How are topics for didactic sessions selected?
- Speaker selection
 Program director-selected
 Resident suggestion
 Previously formalized curriculum
 Other

Please specify how topics for didactic session/lectures are being selected.

- 19 How has the number of didactic sessions changed since declaration of the COVID-19 pandemic?
- Increased
 Decreased
 No change

- 20 How many hours per week are residents engaged in didactic lectures or other educational sessions?
- 0
 1-2
 3-6
 7-10
 >10

- 21 Are you using any tools to assess resident participation or retention?
- Mock oral boards
 Online quizzes
 Virtual polling
 Interactive questions during the lectures
 Other

How are you tracking resident participation in electronic sessions?

- 22 Aside from residents, who else participates in the online education sessions?
- Advanced practice providers (e.g. PAs, nurse practitioners)
 Medical students
 Residents from other surgical subspecialties
 All members of the institution
 We prefer to keep it just focused within the resident cohort
 Other

Please specify which members of your institution are invited to participate in your electronic education sessions.

- 23 Are there any additional changes that you have made to the utilization or education of residents at your program as a result of the COVID-19 pandemic?
- _____

24 What have you found to be most/particularly challenging in your role as PD/Associate PD in the response to this pandemic?

25 Please describe any positive changes to resident education that you plan to continue even after COVID.
