Neurosurgical Residency Away Rotation

Neurosurgical Residency Away Rotation is an important component in the education of a neurosurgical resident. Subspecialization of physicians and regional centers concentrate the volume of certain rare cases into fewer hospitals. Consequently, the primary institution of a Neurosurgical Resident Training Program may not have sufficient case volume to meet the current Residency Review Committee case minimum requirements in some areas. To ensure the competency of graduating residents through comprehensive neurosurgical education, programs may need residents to travel to outside institutions for exposure to cases that are either less common or more regionally focused.

Harvey Williams Cushing 14-month Wanderjahr had a profound effect on his subsequent personal career, which in turn ushered in the modern age of American neurosurgery. From July 1900 to August 1901, he traveled to European neurosurgical centers in England, France, Switzerland, Italy, and Germany. His excursion happened at a crucial moment in his trajectory; it was built on his existing foundation of Halstedian surgical training and occurred at a time when interest in the special field of neurological surgery was emerging. The research and clinical experiences on his journey-good and bad-undoubtedly informed his fledgling neurosurgical practice. Salwi et al. present a concise account of Harvey Cushing's time in Europe that consolidates accounts from Cushing's travel journals, biographers, and other neurosurgeons.

The article of Salwi et al. highlights tensions in prior works and reveals new insights into the transformative nature of his Wanderjahr. Furthermore, he contextualizes his travels and achievements within the broader transformation of American medical education at the turn of the 20th century to elucidate how Europe influenced American medicine. They briefly consider the parallel benefits of Harvey Cushing's Wanderjahr and modern domestic or international training opportunities and present potential areas of implementation [1)]

Selection of the area of research

The selection of the area of research is essential. There are many arguments in favor of selecting research projects to be close to the individual trainee's clinical interest. Studies far away from the individual's clinical interest in most cases are less productive and will not be pursued later. There are also many advantages if cooperation is planned with other institutions. The residency program director or staff members play an important role in the selection of the research project, of an appropriate laboratory or institution, and in the process of financing a research rotation [2)]

Advantages

A neurosurgical residency away rotation allows a neurosurgical resident to spend time at another institution, usually for several weeks or months, to gain additional experience and training in the field of neurosurgery. Some potential benefits of a neurosurgical away rotation may include:

Exposure to a different patient population: Away rotations can expose neurosurgical residents to a different patient population, which may help broaden their clinical skills and experience.

Exposure to different surgical techniques and approaches: The host institution may use different surgical techniques and approaches than the resident's home institution, which can broaden the resident's skill set and knowledge of neurosurgery.

Access to specialized equipment and resources: The host institution may have access to specialized equipment or resources that are not available at the resident's home institution. This can provide a unique learning opportunity and exposure to cutting-edge technology.

Networking opportunities: Away rotations provide opportunities to build relationships with faculty members, residents, and other medical professionals at the host institution. This can be valuable for future job opportunities or collaborations.

Improved residency application: Completing an away rotation at a program of interest can provide neurosurgical residents with an opportunity to showcase their skills and abilities, potentially improving their chances of being accepted into the program.

Overall, a neurosurgical residency away rotation can provide valuable learning experiences, networking opportunities, and exposure to different clinical scenarios and surgical techniques, which can help to enhance the skills and knowledge of neurosurgical residents.

Disadvantages

While there are many potential benefits to a neurosurgical residency away rotation, there are also some potential disadvantages to consider. These may include:

Disruption of continuity of care: When neurosurgical resident is away from their home institution, they may miss out on some aspects of patient care and continuity of care. This can lead to challenges in communication and follow-up for patients.

Potential differences in practice style: The host institution may have different practice styles, expectations, or protocols than the resident's home institution. This can create confusion or challenges for the resident in terms of adapting to a new environment and different expectations.

Financial costs: Neurosurgical residents may need to bear the costs of travel, lodging, and other expenses associated with completing an away rotation. This can be a significant financial burden, particularly for residents with limited financial resources.

Challenges adapting to a new environment: Moving to a unique institution, even temporarily, can be stressful and challenging for neurosurgical residents. They may need to adapt to new living arrangements, a new hospital system, and new colleagues.

Limited time for exploration: While an away rotation can provide exposure to a different patient population and clinical setting, the limited amount of time can make it difficult to fully explore and understand the nuances of the institution and its practice.

Overall, a neurosurgical residency away rotation can be a valuable experience, but residents should carefully consider the potential disadvantages before making the decision to participate. It's important to weigh the potential benefits against the costs and challenges to determine if an away

rotation is a right choice for the individual resident.

ACGME rules regarding away rotations

Gephart et al. sought to evaluate off-site rotations to better understand the changing demographics and needs of resident education. This would also allow prospective monitoring of modifications to the neurosurgery training landscape. They completed a survey of neurosurgery program directors and a query of data from the Accreditation Council of Graduate Medical Education to characterize the current use of away rotations in the neurosurgical education of residents. They found that 20% of programs have mandatory away rotations, most commonly for exposure to a pediatric, functional, peripheral nerve, or trauma cases. Most of these rotations are done during postgraduate years 3 to 6, lasting 1 to 15 months. Twenty-six programs have 2 to 3 participating sites and 41 have 4 to 6 sites distinct from the host program. Programs frequently offset potential financial harm to residents rotating at a distant site by the support of housing and transportation costs. As medical systems experience fluctuating treatment paradigms and demographics, over time, more residency programs may adapt to meet the Accreditation Council of Graduate Medical Education case minimum requirements through the implementation of away rotations [3].

In 2019, the ACGME implemented new rules regarding away rotations, in an effort to promote resident well-being, reduce the burden of travel and expense associated with away rotations, and improve the quality of the educational experience for residents. Under these new rules, the ACGME now requires that:

Residency programs must limit the number of away rotations to no more than four weeks per year, per resident. Programs must have a written policy that outlines the process for selecting and approving away rotations, and must ensure that residents receive appropriate supervision and support during their away rotations. Programs must ensure that away rotations do not interfere with resident education and training, and that residents have adequate time to meet program requirements and prepare for board exams. The ACGME's requirements related to away rotations are part of a larger effort to improve the quality of graduate medical education in the United States, and to ensure that residents receive the training and support they need to become competent and compassionate physicians.

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Salwi S, Chitale RV, Kelly PD. Harvey Cushing's Wanderjahr (1900-1901). World Neurosurg. 2020 Oct;142:476-480. doi: 10.1016/j.wneu.2020.07.034. Epub 2020 Jul 19. PMID: 32698081; PMCID: PMC8048037.
2)
Reulen HJ. Basic research vs. applied research. Acta Neurochir Suppl. 2002;83:45-8. doi: 10.1007/978-3-7091-6743-4_8. PMID: 12442620.
3)
Gephart MH, Derstine P, Oyesiku NM, Grady MS, Burchiel K, Batjer HH, Popp AJ, Barbaro NM. Resident away rotations allow adaptive neurosurgical training. Neurosurgery. 2015 Apr;76(4):421-5; discussion 425-6. doi: 10.1227/NEU.0000000000000661. PMID: 25635889.