
Foreword

The practice of neurosurgery is not static—it is dynamic, demanding, and continually shaped by the needs of our patients and the structure of our teams. As our field grows in complexity, the model of the solitary surgeon at the center gives way to a more effective and sustainable truth: excellence in neurosurgical care is achieved through collaboration. At the heart of this collaborative model are advanced practice providers (APPs)—clinicians whose clinical judgment, procedural expertise, and commitment to patient care make them indispensable across all domains of our specialty.

Neurosurgery Fundamentals for Advanced Practice Providers, edited by Abigail G. Crum and Nitin Agarwal is a landmark contribution that meets this moment. Dr. Agarwal has long exemplified excellence in neurosurgery—as a surgeon, educator, and innovator. His work reflects a deep appreciation for the complexities of modern neurosurgical care and the collaborative structures required to deliver it. Ms. Crum, an accomplished APP herself, brings front-line experience and a voice that is both practical and visionary. With a cadre of esteemed neurosurgical providers, Agarwal and Crum have produced a text that serves not only as a reference, but as a strategic, practical, and comprehensive blueprint for building high-performing neurosurgical teams.

From the basic neurological examination to neuroanatomy, critical care, spine, trauma, cerebrovascular disease, tumors, pediatrics, and functional disorders, Agarwal and Crum provide the foundational knowledge needed to deliver care across the

breadth of our field. Equally important, the authors devote meaningful attention to professional development—mentorship, onboarding, and team dynamics—because clinical excellence requires more than technical skill; it demands communication, leadership, and shared vision.

For neurosurgeons, this text is a guide to building stronger, smarter, and collaborative teams. It challenges us to rethink how we integrate APPs not as assistants, but as leaders within our service lines. For APPs, it is both a resource and a roadmap—helping develop the confidence, knowledge, and perspective needed to thrive in one of the most demanding environments in medicine.

In summary, this novel contribution is a reflection of where our field is headed. Neurosurgery will always be defined by excellence—but today, excellence is a team effort. It is time our training and our tools reflected that. This volume does just that, and it should be essential reading for every neurosurgical team committed to delivering world-class care.

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