## Preface Spinal Deformity Surgery







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We are delighted to present this issue of *Neurosurgery Clinics of North America* dedicated to the ever expanding role of the neurosurgeon in managing complex adult spinal deformity. Truly, several factors have converged together to create a "perfect storm" of critical educational need in this area.

In the United States we now have an aging population that collectively is demanding improved functionality well into their later years. High prevalence rates of degenerative scoliosis in patients over the age of 65 have been well documented in the literature. Moreover, recently published studies have specifically linked health-related quality of life to specific radiographic thresholds in the sagittal plane. Importantly, neurosurgeons now perform the majority of thoracolumbar surgery in the United States.

Unfortunately, a significant knowledge gap still exists among many spinal surgeons from both neurosurgery and orthopedic surgery on the appropriate preoperative workup and surgical treatment of patients with adult spinal deformity. Commonly, surgeons may report that they do not treat spinal deformity patients and therefore

mastery of these principles is unnecessary. This is however severely flawed logic given the prevalence data and increasingly high rates of revision surgery for iatrogenic deformity. More likely, all neurospinal surgeons are evaluating these patients, but may not be fully appreciating the spinal alignment issues that are already present, nor the alignment goals in fusion surgery.

Over the last 20 years our specialty has progressed tremendously in the realm of complex spinal instrumentation in the areas of trauma, degenerative disease, and spinal oncology. Certainly many spinal neurosurgeons possess the general skill set required to appropriately evaluate and manage adult deformity patients. It is our hope that this work will call further attention to this educational need and serve as a comprehensive and state-of-the-art resource on the topic.

This work in large part represents the combined multidisciplinary efforts of the International Spinal Study Group (ISSG), a group composed of both neurosurgeons and orthopedic surgeons dedicated to high-quality multicenter clinical research and education in adult spinal deformity. The ISSG research work is truly at the forefront of

defining the state-of-the-art treatment and the very latest developments on planning, treatment, and complications are therefore able to be included in this work; for that the editors are deeply grateful and indebted to our colleagues and friends.

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