

Foreword

Disorders of the spine represent a major health issue both nationally and worldwide, with widespread impact on the quality of health care and its associated costs. During the past 10 years, we have witnessed an explosion in the development of new spine surgery techniques and technologies. This rapid technical growth, coupled with escalating patient demand for therapies that offer complete resolution of spine symptoms, has fueled an intense search to discover new therapeutic interventions. Both physicians and patients want “cutting edge technology.”

Although these exciting advances offer great promise, one of the perils of high demand and accelerated product development is overenthusiasm and incomplete assessment of the new technology. Too often, new devices have been embraced before necessary studies have been performed and long-term data and outcomes evaluated. In addition, adequate training for surgeons is also key to ensuring good outcomes. When training is inadequate, complications and substandard outcomes are possible, as has sometimes occurred in the past with spine technologies.

It is clear that assessing new technology is not always easy or straightforward. Yet it is essential that we employ the highest level of scientific principles in our investigations to ensure that disappointments do not follow. To achieve this goal, a physician requires scientific evidence that a new technology is not only safe and effective but also indicated for a specific problem. This information can be obtained

by evaluating each new technology with a prospective, randomized, controlled trial. By using information achieved from these scientific studies, physicians will be able to give evidence-based advice to their patients on the efficacy of a particular treatment. Unfortunately, this type of evidence-based medicine is not uniformly practiced.

It should be our goal to have every new technology undergo this type of rigorous evaluation before being released for general use. *Emerging Spine Surgery Technologies: Evidence and Framework for Evaluating New Technology*, edited by Terry Corbin, Patrick Connolly, Hansen Yuan, Qi-Bin Bao, and Scott Boden, is a major step toward helping us realize this goal. It provides a solid evidence-based foundation for evaluating the host of new spinal techniques and technology available today. This comprehensive work brings together, in one place, all of the exciting new developments in the field, and provides data for assessing this technology and its benefits for our patients. As evidence-based medicine plays an increasingly important role in the clinical decision-making process and in the financial decisions that determine the efficacy of new devices, this book will serve as a valuable resource for surgeons and oversight agencies.

The Editors are to be commended for organizing this important text on the current state of evidence-based outcomes for new spine surgery technologies. They have assembled an outstanding group of contributors, both neurosurgeons and orthopedic sur-

geons, who are leaders in the field. These experts share their insights, research studies, and clinical experience.

This book provides physicians and other health care professionals with a highly informative, eminently readable, and well-organized source for updated information on technology currently available for spine surgery. Hopefully it will prove an invaluable

guide to surgeons as they face the multitude of options available today.

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