FACT OR FICTION

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- Neurosurgical workforce is aging
- O In 2010 43% of neurosurgeons > 55 years old
- O Declining number of neurosurgeons in solo or private practice
- Population growth outpacing growth of neurosurgical workforce by 2.6%

- O Classic private practice model
 - Autonomy
 - Not having to ask permission
 - O Being able to make decisions rapidly and act efficiently
 - O No administrative hurdles or are there?
 - O Difficulties due to medical liability climate
 - Avoidance of cranial cases
 - O Higher volume of spine cases with avoidance of emergency cranial cases

- Classic academic model as exemplified by Cushing
- The "quadruple threat": excellence in clinical work, teaching, research and administration
- O Does this paradigm sustain in this era of increasing regulatory control, increasing malpractice cost, consolidation of expensive care to academic medical centers and decreasing reimbursement?

- Hospital employment is growing steadily
- Merritt Hawkins group president before U.S. House Small Business committee – since 2004 requests for small group practices fell from 42% to 2%
- O During same time period hospital employment searches rose from 11% to to 65%
- O In a study of 221 hospital employed neurosurgeons nearly 90% had transitioned from either private or academic practices

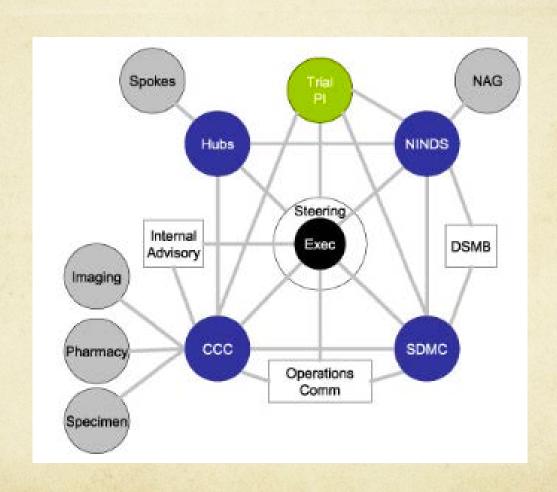
- Attracting, training and retaining younger generations in the workforce will be critical
- People born in differing eras with different external influences develop differing viewpoints in priorities, preferences and values
- O Danielle Walsh MD, East Carolina University: Mind the Gap Generational Differences in Medicine
- O Physician world slower to study the impact of these differences affecting hiring, work habits and financial decisions

- Daby Boomers: embrace corporate culture, seek promotions, seek additional responsibilities. Provides a sense of identity
- Gen Xers: seek happiness, express individuality. See medicine as a job, not a calling. A way to make a living and achieve personal goals. Want manageable work schedules
- Gen Y (Millenials) emphasis on teamwork and shared credit. Thrive with well defined structure with detailed guidance, rules and frequent feedback

- O How do we integrate all these forces?
- O Privademics a hybrid model that incorporates production based incentives with the potential for clinical research, continued publication and possibly medical student or resident oversight
- Allows for those with an affinity toward the academic model to express and independently control their clinical production. Compensation is typically based more like hospital based or private practice model

- Allows academic programs to expand their clinical presence into community locations
- O Enables efficient referral back to the academic program for subspecialty programs
- Integrates the concept of "hub and spoke" with comingling of community based and academic neurosurgery

- Successful expression of this model Neurologic
 Emergencies Treatment Trials network
- Twenty two regional hubs
- Each with several community hospital spokes
- One Statistical Data Management Center
- One Clinical Coordination Center



Clinical Coordinating Center

- Develops network architecture
- O Establishes processes to design and implement trials
- Manages clinical trial monitoring
- O Provide operational resources such as data entry
- Encourage the clinical translation of findings into routine practice
- O Use structure to achieve economies of scale enabling cost effective high quality research

- O Dabigatran Bleed Risk with Closed Head Injury: Are We Prepared? published JNS 2013
- O Principal Investigator, Delray Medical Center, Level I Trauma Center. SyNAPSe trial; Progesterone in Head Injury (pharma)
- Principal Investigator, DMC; ProTECT III;
 Progesterone in Head Injury (NIH)

- Pending research
 - Mild Traumatic Brain Injury Regsistry/ Longitudinal Analysis of Access to Care; collaboration with University of Florida
 - 5ALA Imaging as Adjunct to Malignant Glioma Resection
 - 0

- Only by collaboration and cooperation can we expand the frontiers of our specialty
- Artificial barriers are created by adherence to old definitions