WikiAnesthesia Practice Groups: A Solution for Sharing Institutional Anesthesia Knowledge

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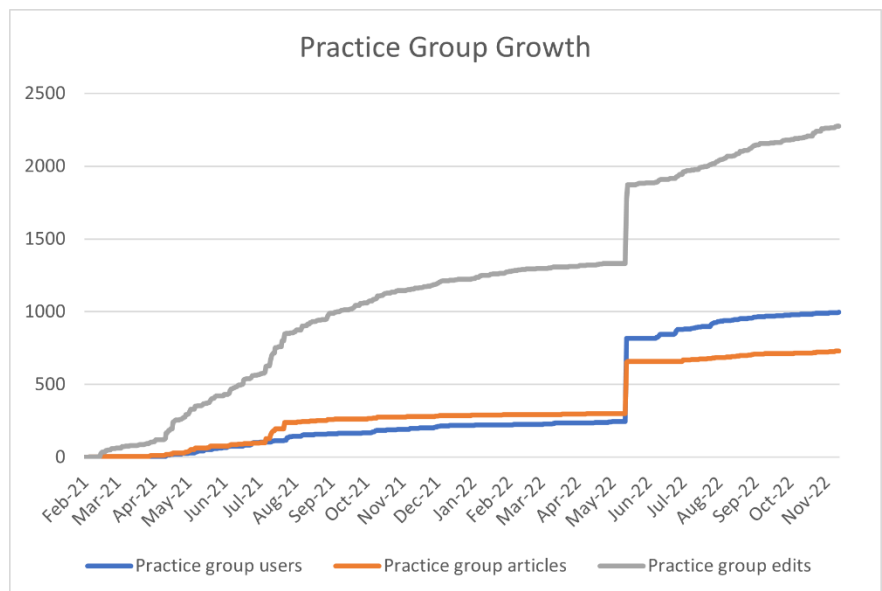[b] Stanford University Department of Anesthesiology, Perioperative and Pain Medicine
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Introduction: For years, anesthesia knowledge has been shared through textbooks, word of mouth, and, more recently, online databases. WikiAnesthesia is the first resource created that allows for the spread of knowledge online through a crowd-sourced model whereby users both consume and contribute content. Although the concept and implementation of WikiAnesthesia were already novel ideas, there are many differences in the practice of anesthesia that exist across different hospitals. These differences remain a barrier to the applicability of generalized anesthesia knowledge as a whole. In addition, specific institutions may implement their own practice methods due to attending preferences, surgical preferences, limitations in workflow or accessibility, and variation in hospital resources.

Methods: We hypothesized that the creation of a wiki-based platform which provides institutions with a private, centralized repository to store and organize information relevant to their practice would help address many of these challenges. Thus, we have created a feature for WikiAnesthesia called "Practice Groups", which we developed as a custom extension for the MediaWiki software package that powers WikiAnesthesia, Wikipedia, and many other Wiki-based websites. In addition, Practice Groups allow private articles to be linked to public articles and allow users to seamlessly switch between public information and detailed institution-specific information. This limits the amount of content that institutions must internally maintain to only what is truly specific to their practice, and distributes the responsibility of maintaining knowledge of general interest across the entire WikiAnesthesia community. Practice Groups also allow institutions to make some of their articles public, enabling the global community to learn about institutional differences in their anesthetic practices.

Results: Since the public launch of the Practice Groups feature in February 2021, 16 Practice Groups have been created, representing mostly large academic centers with residency programs. 996 (65.3%) WikiAnesthesia users are members of a Practice Group and have created 728 articles for their institutions across 2,278 revisions. The demographics of members across all Practice Groups consist of 682 (68.5%) physicians, 118 (11.8%) CRNAs, and 119 (11.9%) students and staff.

Practice Group Growth

Based upon feedback from institutional representatives, Practice Groups have been used to share case protocols, clinical primers, extended recovery after surgery (ERAS) protocols, and surgeon preferences. A particular use case that has emerged is with residency programs to distribute residency-specific materials such as rotation guides, resident policies, and anesthesia attending preferences.

Conclusion/Future Directions: The Practice Groups feature of WikiAnesthesia has successfully addressed many of the challenges with sharing institutional knowledge for multiple institutions, simplifying the process of creating and maintaining information relevant to their practitioners within a centralized private repository.