Are Adult Thoracic Patient Education Materials Designed with Patients in Mind?

Objective: Patients are increasingly using the Internet to obtain healthcare information. U.S. News and World Report Best Hospital (USN) rankings received more than 103 million views in 2021. Considering 21% of thoracic surgery patients are minorities, 27.9% are in the bottom quartile of household income, and 70% have Medicare/Medicaid or no insurance, online patient educational materials (PEMs) should be accessible and written at a level easily understood by majority of patients. We performed a comprehensive analysis of readability of websites containing patient-centered resources across all adult thoracic surgery areas.

Methods: Online PEMs on thoracic surgical procedures (TSP) were collected from top 50 hospitals for pulmonology and lung surgery ranked by USN as of December 1st, 2021. Text pertaining to TSPs was collected and divided into four procedural genres: esophageal, lung, transplant procedures, and other. Texts were analyzed using OleanderSoftware's Readability Suite through the Raygor readability test.

Results: N=372 articles met criteria for analysis. Websites were difficult to read, mean (SD) readability score for all content requiring a 13.9 (3.6, image) grade level for comprehension. The mean (SD) readability for esophageal, lung, lung transplant, and other surgeries were 14.5(3.6), 13.1 (3.6), 11.5 (3.9), 13.4 (3.7), respectively.

Conclusions: Online PEMs required at least a college reading level to comprehend, well exceeding the sixth-grade level recommended by the American Medical Association. As digital health becomes increasingly relevant, improving the readability of online PEMs in adult cardiac surgery will facilitate equitable access to high-quality care.

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GRAPH FOR ESTIMATING READABILITY—EXTENDED
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Average number of syllables per 100 words