Artificial-Intelligence Based Documentation in Orthopaedic Hand Surgery

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INTRODUCTION: Artificial Intelligence (AI)-based scribe services may enhance physician productivity by reducing the administrative workload. However, coding and billing AI-based notes may differ from traditional methods. We hypothesized that the level of billing associated with AI-generated documentation is similar to that of traditional modalities.
METHODS:
Three fellowship-trained orthopaedic hand surgeons evaluated 7 standardized patients with prewritten clinical vignettes, consisting of new, postoperative, and follow-up visits. Clinical documentation was auto-populated in the note during the encounter with the AI-based virtual scribe service. This was compared to a voice recognition (VR) modality, transcription service, and medical scribe. A trained medical coder, who was blinded to the note modality, assigned a billing level to all clinical notes based on the American Society for Surgery of the Hand Guide to 2021 E/M Office Visit Coding.
RESULTS: The average level of billing amongst all 4 modalities was a level 3. Greater than 90% of all notes were billed as a level 3. Notes billed as at least a level of 4 were most frequently dictated using VR (42.9%), whereas the AI-based modality had the lowest percentage of level 4 notes (33.3%). A total of 18% of AI-based notes attained a lower level of billing compared to VR notes. Only 3.6% of notes were billed as a level 5, which was generated using the VR application and transcription service. Notes generated from the AI and medical scribe had attained a maximal billing level of 4.
DISCUSSION AND CONCLUSION:
Artificial Intelligence-based documentation is a promising tool to help decrease documentation burden. However, AI-based documentation may attain a lower level of billing compared to notes generated from voice recognition applications.