

# Evaluating AI-based nodal contouring in head and neck cancer

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A new study evaluates an artificial intelligence (AI)-based algorithm for autocontouring prior to radiotherapy in head and neck cancer. Manual contouring to pinpoint the area of treatment requires significant time,

and an AI algorithm to enable autocontouring has been introduced. The study is [published](#) in the journal *AI in Precision Oncology*.

Sushil Beriwal, from Allegheny Health Network, and Varian, and co-authors, analyzed 108 patients with head and neck cancers. The automated nodal contours were evaluated using a 4-point scale: a score of 4 was clinically usable with no edits; a score of 3 required minor edits; a score of 2 required major edits; and a score of 1 required complete re-contouring of the region.

The mean score for autocontouring was 3.56 +/- .40.

"Overall, the AI segmented autocontouring performed well with significant time saving and were clinically usable with no or minor edits the majority of times," concluded the investigators.

"The recent findings underscore the efficiency and reliability of AI in enhancing radiotherapy planning for head and [neck cancer](#). With autocontouring algorithms demonstrating clinically usable results in the majority of cases, we're on the brink of a major shift in treatment preparation. This advancement not only promises significant time savings for [health care professionals](#) but also opens the door to potentially more precise and patient-specific treatments. As we move forward, the integration of AI into oncological care represents a pivotal step towards more streamlined and effective patient care," says Douglas Flora, MD, Editor-in-Chief of *AI in Precision Oncology*.

**More information:** Mangesh Patil et al, Multi-Institutional Study to Evaluate an AI Algorithm for Auto-Segmentation of the Head and Neck Nodal Contouring, *AI in Precision Oncology* (2024). [DOI: 10.1089/aipo.2023.0009](#)

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