

AI Auto-Contouring for Improved Plan Quality

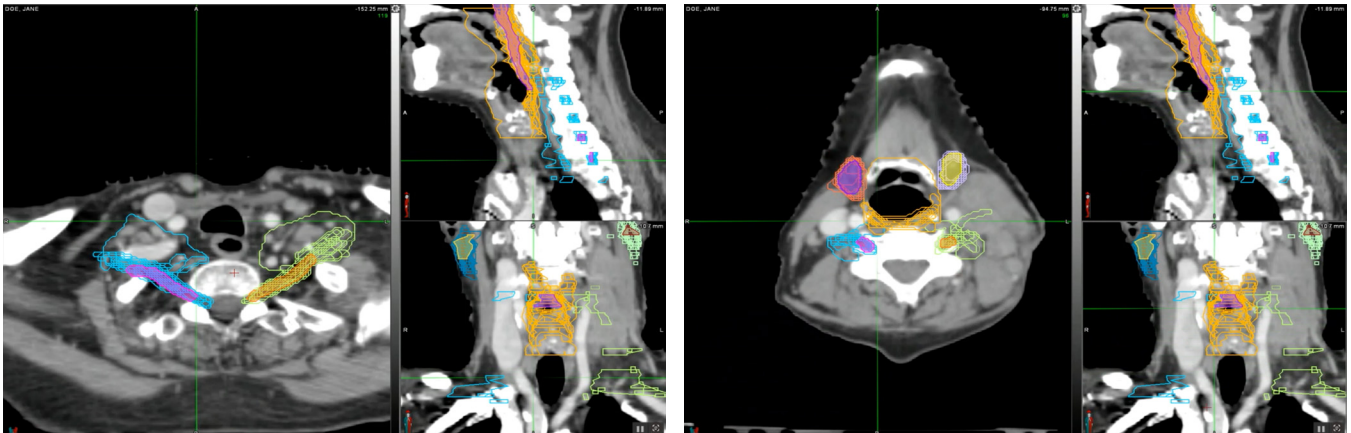
Is it possible to get better plan quality—not just efficiency—with AI?

A growing number of Radiation Oncology clinicians are using auto-contouring powered by artificial intelligence (AI). Many tend to think of this timesaving technology primarily as a means of achieving greater efficiency in the treatment planning process.

However, the benefits of AI auto-contouring extend beyond just efficiency gains. AI-driven auto-contouring can also significantly improve the quality and consistency of contours for treatment planning.

Variability in Expert Contouring

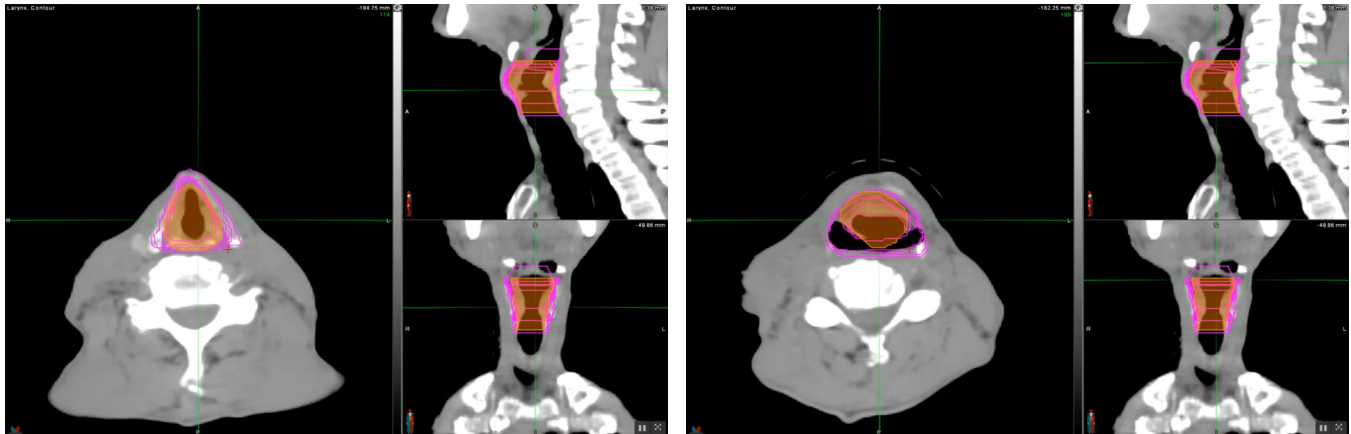
What happens when 29 dosimetrists contour the same structure?



Several industry organizations, such as the [American College of Radiation Oncology](#), hold ongoing contouring workshops with dosimetrists to improve standard contouring techniques. One such workshop included 29 experienced dosimetrists who drew contours for the brachial plexus, including constrictors and submandibular glands.

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These dosimetrist-drawn contours show significant variability. These contour variations could lead to inaccurate radiation dose calculations and affect the quality of treatment planning.



Here's another sample of contour variations in a more routine structure, the larynx.

You might expect there to be a lower level of contour variability with a routine structure like this, but there is still quite a bit of irregularity present.

Standardization is Possible

Contouring consistency is possible with AI-driven auto-contouring, allowing the expert dosimetrists at your institution to begin with a baseline that is aligned with clinical guidelines.

This not only saves time—AI auto-contouring introduces better quality and consistency into the treatment planning process.

Starting from consistent initial contouring results can have a strong impact in your clinic.