NICE National Institute for Health and Care Excellence

NICE information for the public

Artificial intelligence technologies to aid contouring for radiotherapy treatment planning: early value assessment

Information for the public
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NICE has said that artificial intelligence (AI) technologies can be used in the NHS to help with contouring of CT and MRI scans to plan radiotherapy treatment for people having external beam radiotherapy. A healthcare professional will always review the contours. These technologies can be offered in the NHS once they have Digital Technology Assessment Criteria (DTAC) approval from NHS England. The technologies are:

- AI-Rad Companion Organs RT (Siemens Healthineers)
- ART-Plan (TheraPanacea, Oncology Systems; Brainlab)
- DLCExpert (Mirada Medical)
- INTContour (Carina Medical)
- Limbus Contour (Limbus AI, AMG Medtech)
- MIM Contour ProtégéAI (MIM Software)
- MRCAT Prostate plus Auto-contouring (Philips)
- MVision Segmentation Service (MVision AI Oy, Xiel)
- RayStation (RaySearch).

The NHS is collecting more evidence for these AI technologies on:

- whether the contours created by the AI technologies are acceptable
- how long it takes for a healthcare professional to review and edit the contours
- the impact of the AI technologies on the radiation dose to organs at risk (healthy organs that are at risk of being damaged by the radiation) and the tumour
- whether there are any errors in the contours created by the AI technologies.

Contouring is part of the radiotherapy treatment planning process. A healthcare professional will outline the area of the tumour on images from CT scans or MRI scans to guide radiotherapy. They also outline organs at risk to minimise toxicity from radiation. AI technologies aim to improve the efficiency of contouring by automatically contouring the organs at risk and the tumour site. Images and contours are then reviewed by a trained healthcare professional and, if needed, the contours are edited before they are used for radiotherapy treatment planning. Improving the efficiency of contouring could mean healthcare professionals have more time for complex cases and with patients.

Information and support

The NHS webpage on radiotherapy may be a good place to find out more.

These organisations can give you advice and support:

- Jo's Cervical Cancer Trust, 0808 802 8000
- Prostate Cancer UK, 0800 074 8383
- METUPUK, join-us@metupuk.org.uk

You can also get support from your local Healthwatch.

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