

This session explores the core details of head and neck treatment planning as practiced at multiple institutions using IMRT and VMAT.

Variability in planning criteria and plan evaluation: Much of the variability in the planning process is out of the control of the physicist or dosimetrist. For example, inter-user variability in defining the target volumes as well as deviations in levels of acceptable coverage and hotspots can lead to planning variations among clinics. These variabilities must be appreciated if reports of the successful implementation of new technologies, such as VMAT, are to be understood in the context of ones own clinic.

IMRT treatment planning: In this session, we will discuss IMRT treatment planning for routine head and neck tumors. We will also discuss IMRT planning tips for special cases such as sinus, thyroid and retreatment patients.

VMAT treatment planning: The use of VMAT for head and neck tumors will be described, including advantages and disadvantages compared with IMRT planning. Tips on planning VMAT cases will be discussed; VMAT and IMRT plans will be compared.

Educational Objectives:

1. Discuss the issues surrounding plan evaluation: Variability in target definition, prescriptions, margins, etc.
2. Discuss different approaches for the use of IMRT for treating head and neck tumors
3. Describe the use of VMAT to treat head and neck tumors
4. Comparison of VMAT and IMRT