Radiation therapy can be used alone or in combination with other modalities such as surgery or chemotherapy. The purpose of radiation therapy is to kill cancer cells while causing minimal damage to normal healthy tissue. Radiation therapy takes advantage of advances in computer technology combined with diagnostic medical imaging to deliver a curative radiation dose to a tumour without harming critical structures and limiting treatment related side effects. New developments in radiation therapy such as intensity modulated radiation therapy, volumetric arc therapy, stereotactic radiosurgery, brachytherapy and other specialised techniques are assisting in this aim. Radiation therapy also plays a valuable role in the palliative care of patients by reducing pain and generally improving the quality of life of terminally ill cancer patients.

Effective patient care and treatment of cancer patients is determined by the close cooperation of a multidisciplinary oncology team. The radiation therapist sees the patient every day for a period of 6-8 weeks and is responsible for the education of the patient, the localization of the tumour, planning the radiotherapy treatment, delivering the treatment and monitoring the side effects of treatment. The radiation therapist works closely with the oncologist, a medical physicist and oncology nurses to ensure that the best care is given to the patient. The radiation therapist needs to be a person who is caring, empathetic, motivated, enjoys taking responsibility and can work well as a member of a team.