

INTRA-OPERATIVE RADIATION THERAPY (IORT)

Innovations and benefits - Minor recurrence of tumors, thanks to the possibility of locally imparting a high dose of radiation during surgery, through the use of radio frequency linear accelerators for electrons. Linear accelerators operate in S-band, with characteristics of compactness and capacity for self-focusing, that make them suitable to be mounted on a robotic arm required for their handling.

Uses - Intra-operative radiation therapy (IORT) applications. Irradiation of the tumor or tumor bed immediately after surgery in the operating theater.

Past and present activities - Decades long experience in the realization and testing of linear electron accelerators. IORT technology transferred to the company SIT-Sordina IORT Technologies SpA for the marketing of two products (NOVAC 7 and LIAC) on the international market. Compact systems with modest demands for shielding. Development activities in the accelerator miniaturization and dedicated sources.

