

## Current Status of Ir-192 Brachytherapy in Bangladesh

**Authors :** M. Safiqul Islam, Md Arafat Hossain Sarkar

**Abstract :** Brachytherapy is one of the most important cancer treatment management systems in radiotherapy department. Brachytherapy treatment is moved into High Dose Rate (HDR) after loader from Low Dose Rate (LDR) after loader due to radiation protection advantage. HDR Brachytherapy is a highly multipurpose system for enhancing cure and achieving palliation in many common cancers disease of developing countries. High-dose rate (HDR) Brachytherapy is a type of internal radiation therapy that delivers radiation from implants placed close to or inside, the tumor(s) in the body. This procedure is very effective at providing localized radiation to the tumor site while minimizing the patient's whole body dose. Brachytherapy has proven to be a highly successful treatment for cancers of the prostate, cervix, endometrium, breast, skin, bronchus, esophagus, and head and neck, as well as soft tissue sarcomas and several other types of cancer. For the time being in our country we have 10 new HDR Remote after loading Brachytherapy. Right now 4 HDR Brachytherapy is already installed and running for patient's treatment out of 10 HDR Brachytherapy. Ir-192 source is more comfortable than Co-60. In that case people or expert personnel prefer Ir-192 source for different kind of cancer patients. Ir-192 are economically, more flexible and familiar in our country.

**Keywords :** Ir-192, brachytherapy, cancer treatment, prostate, cervix, endometrium, breast, skin, bronchus, esophagus, soft tissue sarcomas

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