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Taiwan deploys first heavy ion therapy system for cancer treatment

May 18, 2023 | News

Hitachi's first heavy ion system outside of Japan



Japanese multinational conglomerate corporation Hitachi has delivered a heavy ion therapy system to Taipei Veterans General Hospital and the system has started treatment as of May 15. This marks the first operation of heavy ion therapy system in Taiwan and Hitachi's first heavy ion therapy system outside of Japan.

This system has been installed in the new Heavy Ion Therapy Center of Taipei Veterans General Hospital, consisting of two treatment rooms, each equipped with vertical and horizontal ports. It also includes real time image gating motion management, enabling it to treat tumours in motion due to respiration and advanced spot scanning technology to irradiate even tumours with complex shapes with high precision.

Recognised as an advanced type of cancer radiotherapy, this heavy ion therapy system is intended to address the unmet cancer treatment demand beyond the capacity of existing proton therapy systems in Taiwan.

Particle Therapy is an advanced type of cancer radiotherapy. Protons extracted from hydrogen atoms, or carbon ions are accelerated up to 70% of the speed of light. This energy is concentrated directly on the tumor while minimizing radiation dose to surrounding healthy tissue. Particle therapy improves the quality of life for cancer patients since the patient experiences no pain during treatment and the procedure has very few side effects compared to that of traditional radiotherapy. In most cases, patients can continue with their normal daily activities while undergoing treatment.