

## 의료용 X-ray 기기의 성능평가

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### **Analysis of efficiency of X-ray equipment for medical service**

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**Abstract :** Diagnostic X-ray system is general and basic medical equipment to be used in mostly medical organizations, but being bombed of radioactivity is a big weak point when irradiates a X-ray to the human body so that ICRP restricted the radiation exposure tolerance of the human body. In order to reduce being bombed, the many research and development is now advanced. A lots of diagnostic X-ray machines have currently used due to the increase of occurrence efficiency of X-ray and precisely the output control by using the inverter which is a high speed switching semiconductors. For getting the confidence of the X-ray machine, the same radiation occurrence, same evaluation, and same irradiation condition are necessary when evaluates X-ray irradiation. It is the most important part for the accuracy of the test result and the patient safety. This paper has produced the high voltage occurrence system of full-wave rectification method by using the LC resonance inverter, and evaluated the irradiation reproducibility in order to use it in diagnosis of the patient.

**Key Words :** X-ray, Radioactivity, Full-wave rectification