Thesis Title	Comparison of the Dose Distribution between Ir-192 and Cs-137 Sources at the Reference Points in the Treatment of the Cervical Carcinoma
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ABSTRACT

The incidence of uterine cervical carcinoma is very high and ranks the first in Thai woman . The treatment of carcinoma of uterine cervix is the combination of external and intracavitary irradiation . Because of the high dose gradient of intracavitary sources, the accuracy and precision dose distribution are desired . Normally, the dose determination are represented by the dose at the reference points (point A, point B, bladder, and rectum) . In Chulalongkorn Hospital, the Plato computation system has been used to determine the dose distribution of Ir-192, HDR-source microSelectron and Cs-137, LDR-sources Selectron since 1995 . In this research, the dose distribution of both sources were compared for the cervical carcinoma treatment . LiF phosphor (TLD-100) were used to measure the dose in water and wax phantom. The phantom was provided for loading tandem and ovoid applicators . The results show that the dose distribution between measured and computed values are comparable . So the Plato treatment planning system can be used to determine the dose distribution in reliability . The dose distribution of Ir-192

and Cs-137 sources are comparable when the sources were arranged in the same pattern . AM6 CA dosemeter system was used to evaluate the dose at the bladder and the rectum . The results show that the accuracy and precision of the bladder and the rectal dose can be determined by this dosemeter systerm .