# ABSTRACT

## "Calculating Radiation Dose Estimates of Receipts on Escort Patient from Examination CT Scan of the Head without contrast in the Radiology Unit Emergency RSU Dr Soetomo Surabaya"

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It have been researched on the calculation of the radiation dose received by a escort patient from examination CT scan of the head without contrast in the Radiology Unit Emergency RSU Dr Soetomo.This study is aimed to calculate the radiation dose received by a escort patient and determine a safe point for a escort patient during the examination take a place. From these data, it can be used as a SOP (Standard Operational Procedure) for the escort patient from examination CT scan of the head without contrast in the Radiology Unit Emergency RSU Dr Soetomo so the escort patients safe from the radiation in CT Scan.

This research is a quantitative Research method with cross sectional approach. Data collection is doing by observation and measurement point for location is predetermined. Furthermore, the data obtained from the results of measurements, prepared in the form of a table and compared with the limit dose that were prescribed by the head of Bapeten. So from these data, we can determine the point or a safe location for a escort patient from examination in a CT Scan of the Head with contrast by means varying the distance from the gantry.

The results showed that a safe point for escort patient in examination CT scan of the head without contrast is 3m from the gantry plane CT Scan to the left of the examination table, if it is needed escort near the gantry can be 1 m from the gantry by using apron. Therefore expected this thesis can be used as a reference and standardization to escort patients from examination in CT scan of the head without contrast in the Radiology Unit Emergency RSU Dr Soetomo so the escort patient more safely during the examination takes place.

**Keywords:**

**escort patients, CT Scan of the Head without contrast, distance, radiation, gantry**