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RESULTS OF THE DOSE INTERCOMPRATION AT THE RCP PHANTOM OF PELVIS AND HEAD AN NECK USED FOR THE VALIDATION OF IMRT TECHNIQUE AT THE CENTRO CONTROL DE CANCER

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Abstract: The clinical implementation of a Intensity Modulatated Radiation Therapy (IMRT) technique is a hard work to physics group, however due to complexity and high quantity of parameter that must be taken into account, there are a good chance to introduce a systematic error at the chain of measurement which can be difficult to found by the same team that made the measurement as show by the results of the Radiological Physics Center (RCP), this make clear the need for an independent check allowing the validation of a chain of measurement, the test consist in the same processes to irradiate a patient, is required to do a CT of phantom, to define the target volume and the organ at risk, making the plan following a protocol with doses limits, perform the quality control, and finally delivery the plan in the phantom, we obtained satisfactory result with deviation at the absolute dose lower than 3% in all target and organ at risk, and a geometric match lower than 2mm. With these results we can conclude than our chain of measurements including the quality control system ensure the optimal performance of the IMRT technique for our clinical implementation

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