Independent Verification of Gamma Plan Dosimetry

It is a good practice to verify the dose calculations done by any treatment planning system (TPS) independently in order to avoid any gross error due to human, corrupted data, computer malfunction etc. A simple model is developed to calculate the dose rate at the focus of Gamma Knife System due to the sources for each shot (isocenter). The calculation is carried out through a computer program and the results are compared with that of the values calculated by the Gamma Plan (Treatment Planning System for Gamma Knife). The results are satisfactory given the model's simplicity. The model is discussed in detail along with its strength and limitations.