

Purpose: Recent reductions in the threshold of absorbed dose to the eye by the ICRP to 500 mGy indicate the need for elevated awareness for the risk of cataracts following Neuro CT scans, especially those potentially associated with high dose, such as perfusion-CT and CT-angiography (CTA) performed on stroke patients. Our goal was to design a process to clinically monitor eye dose during Neuro CT scans and use this process to assess the respective contributions to the total absorbed dose to the eye by the different components of stroke CT workups. **Method and Materials:** Eye entrance exposure measurements were made using nano-dosimeters. Dosimeters were taped on an in-house anthropomorphic head phantom, at the position of the eye. The phantom was scanned using a typical stroke CT protocol. We separately evaluated three components used for a stroke CT workup: scout + non-contrast head, perfusion sequence, and CTA + post contrast head. Entrance exposure measurements were made for each phase of the protocol. **Results:** The measured entrance doses for the 1st, 2nd, and 3rd phases of the protocol were 25 +/-0.2 mGy, 24 +/-1.8 mGy, and 58 +/-2.4 mGy, respectively. **Conclusion:** The use of nano-dosimeters may be a tool to gauge surrogates of eye dose in CT. The CT-angiography component of the stroke CT workup contributed more than half of the total eye dose delivered by the stroke CT protocol, while the non-contrast CT and the perfusion CT contributed equivalent, yet smaller doses.