Dr. Andrew Einstein

We have developed a survey instrument to assess the protocols used and dosimetry of nuclear cardiology procedures. Partnering with the International Atomic Energy Agency, we will distribute this survey to most nuclear cardiology laboratories in the United States and to representative laboratories across the globe. We will determine the distribution of protocols used (e.g. low dose rest-high dose stress Tc-99m, low-dose stress first Tc-99m, 2 day Tc-99m, dual isotope, Rb-82 PET, etc.) over one week, and the administered activity used for each protocol. From this data, we will calculate the radiation effective dose of each procedure. This data will serve as a baseline against which the effect of future dose-reduction initiatives can be compared, and as a framework from which a radiation protection registry can be built. Moreover, we will compare radiation dosimetry in the US to that in other healthcare systems, and evaluate the effect of protocol, laboratory, provider, and regional factors on radiation dose from nuclear cardiology procedures.