Correlates between camera age, patient volume, and laboratory accreditation: A snapshot of equipment utilization in the practice of nuclear cardiology in US. Harshal Patil, Mouin Abdallah, Timothy Bateman; Cardiology, University of Missouri Kansas City, Kansas City, MO.

Objectives: Historically there has been no capability to track data related specifically to the practice of nuclear cardiology in the US. The ICANL began the electronic capture of elements relevant to the Accreditation process in 2009. We used this database to examine distribution of camera age in relation to several correlates as a reflection of current practice of nuclear cardiology in the United States.

Methods: Between 2009 to 2011, 1,993 nuclear labs utilizing 3,730 cameras and imaging a total of 3,382,431 patient-studies applied to ICANL for initial or reaccreditation. Our investigation examined overall camera age, trends in camera age over the 3-year time interval, and correlates between camera age and lab volume, accreditation status (repeat versus new application) and application outcome (granted versus delayed). IBM SPSS 21.0 was used for statistical analysis.

Results: Average camera age was 7.7 ± 4.8 yrs; 36% of cameras were ≤ 5 yrs old, 43% were 6-10 yrs old, 18% were 11-20 yrs old and 3% were >20 yrs old. 54% of patients were imaged on cameras < 5yrs old, and 90% on cameras < 10 yrs old. The average no of studies performed were 2086, 1550, 1325 and 905 in camera age groups ≤5, 6-10, 11-20 and >20 yrs. Average camera age increased comparing 2009, 2010 and 2011: 6.2 ± 4.1, 7.5 ± 4.6 and 8.2 ± 5.1 yrs respectively (p <0.0001). There was no difference in average camera age between labs applying for initial accreditation (666 labs, 33%) vs. reaccreditation (1327 labs, 67%). However labs granted accreditation had newer cameras when compared to labs with delayed accreditations (6.30 yrs vs. 6.9 yrs; p=0.002).

Conclusions: The vast majority of patients undergoing cardiac nuclear testing in labs applying for ICANL accreditation in the US are imaged utilizing recently (< 10 yrs) acquired cameras. Recent trends raise concerns however, possibly reflecting economic realities. Larger volume labs and those labs initially granted versus delayed accreditation appear to be using more recent vintage cameras.

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