

CONTRAST SAFETY & CONTRAST SIMULATION TRAINING LAB EXTRAVASATION PROJECT



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In 2007-2008, when Dr. Curry was President of the Society of Uroradiology, she was approached by officials of the American College of Radiology requesting that our society develop a practice quality improvement project. Their intent was to establish a database to collect data from multiple institutions across the US which would provide a meaningful way to compare practice performance in areas of quality and patient safety with other facilities nationwide.

Maintenance of certification for the specialty of radiology was in its earliest stages at that time. Dr. Curry appointed and worked with a committee, chaired by Dr. Tom Dykes at Hershey Medical Center with significant contribution by Dr. Jim Ellis from the University of Michigan, to develop a patient safety project whose purpose was to identify and reduce the frequency of intravenous extravasation events occurring with CT examinations. Although the usual consequence of such an event is pain and swelling, the extreme adverse outcome can be loss of limb function.

The resulting ICE (intravenous contrast extravasation) project was officially approved and MUSC was one of the first institutions nationwide to participate in this patient safety initiative. We collected and analyzed two six month periods of data from February 2011 through July 2011 and then again from March 2012 through August 2012. Our results showed that we were consistently at or below national benchmarks for the total overall number of extravasation events although in both study periods we showed a greater number of moderate volume events. In both data collection periods, however, all these events were minor with no long term consequences. Eighty two percent were associated with catheters placed by non-radiology personnel and 6.5% were associated with deep brachial placements. Feedback was given to ER personnel (Dr. Geoffrey Hayden) and Risk Management for further investigation with the intent to reduce incidence further.