MAYO CLINIC

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March 4, 2010

Rebecca Smith-Bindman, MD
Professor
Radiology and Biomedical Imaging,
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University of California, San Francisco

Re: **Submission of a Diagnostic CT Radiation Dose Quality Metric to the NQF**

Dear Rebecca:

I am strongly supportive of the quality metric you are submitting to the National Quality Forum focused on quantifying the radiation associated with Computed Tomography. This is an extremely important topic which addresses a real safety concern, given the large number of patients who undergo CT every year. There is much higher than acceptable variation in the dose indices associated with CT, and there is currently no program where data are collected from actual CT scans conducted across the country, and no simple metrics for facilities to know how they are doing with respect to other facilities. Measuring and reporting a dose index in a simple and consistent fashion are extremely important first steps toward reducing variation, and thereby improving the safety and quality of CT imaging.

I have been actively involved in the area of measuring and reporting dose information in radiology for the last 20 years, as Chair of the ACR Commission on Medical Physics, Chair of the ACR Safety Subcommittee, President of the AAPM, President of the Florida Radiologic Society, etc. In fact, I am the current Chair of the American College of Radiology Dose Index Registry, a project in which we are acquiring data directly from CT image headers and transmitting these data to our registry in order to understand the distribution of dose indices for CT. We currently have collected data from 10 institutions

as part of our pilot and are expanding this to 12 machines in the next phase. Our hope is in the coming years to make this operational at a large number of centers across the country. I have provided a sample of our data to demonstrate the current and dramatic variation in dose indices we have seen through the registry, highlighting the need for quality improvement in this area. We have through the ACR dose index registry, submitted a separate metric as a measure of quality, and I believe this effort corresponds nicely with the measure you have proposed.

I believe the rapid adoption of the metric you have proposed would immediately provide guidance for radiology facilities to collect dose index information to understand how their dose indices compare with optimal performance standards. These data would be extremely easy for facilities to collect, and could immediate lead to local quality improvement efforts where problems are identified. It would also encourage facilities to compare dose indices, and thus encourage them to wisely optimize doses.

Please let me know if I can provide you or the NQF any other information for consideration of this metric.

Sincerely,

Richard Morin, PhD, FACR
Brooks-Hollern Professor