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Report from Affiliate Alternate Delegate: WVSRT;

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As the alternate delegate I was in the gallery as an observer as the WVSRT had two worthy delegates who performed their duties. I do not file a report to the ASRT for confirmation of attendance to verify funding or to report to the WVSRT the business of the House of Delegates; I report to my affiliate, you, the WVSRT, who paid for my attendance to the HOD. I did attend the entire HOD, the ARRT update, a chapter meeting, the pin exchange (the mixer they use to help you make friends), and the installation of officers. I also experienced two emotional events I want to share: the installation of our friend Julie Gill from Ohio, as President Elect for this coming year, and the memorial resolution honoring our fellow ASRT members who died this past year that included my friend from Bluefield, WV, Charlotte Taylor.

However, my most substantial contribution to the WVSRT will be to report on my solo activities: the CT educational symposium track and the CT Chapter meeting. Since I was also the second alternate CT chapter delegate, it is most appropriate to me to concentrate on that area.

I opted to attend the educational symposium at my own cost and attended the CT track, volunteering as a moderator for the afternoon sessions. There were a total of 5 speakers, and 6 classes. The focus of 3 of them was CT dose and its potential impact; the overdose in CT: the causes and possible solutions, and shielding or protection techniques in CT. The other classes were about pediatrics, cross-sectional anatomy, and post processing. By far, the most stimulating discussions were from the CT dose related lectures.

A speaker who was a tech chided us about technique; reminding us that as technologists we know all about kVp and mAs, but once we become CT techs, there is no application of technique: we just push the buttons and let the manufacturers choose the protocol setups in regard to kVp and mAs. He really opened our eyes to our responsibilities when he said: Whose finger is it pushing the button? He spoke to reducing technique whenever possible.

Another speaker, Marilyn Siegel, MD, covered the CT exposure, dose, and dose reduction questions in depth over 2 sessions. She had been working with Siemens newest dose reduction software; CARE kV. Her presentation focused on the changes that lowering the scanning kVp from 120 to 100 or 80 will make in the overall CTDI and surprisingly, still reduce the mAs. When working without the Siemens software package, she suggested lowering the kVp for CT chests, based on the transmission of the energy thru the lungs with little attenuation, allows for dose reduction without reduction in resolution. This is most effective on scans aimed at the lung parenchyma. There is a protocol referred to as low dose imaging which incorporates the lowered kVp and a very low mAs. These scans will not be diagnostic in the mediastinum but do provide data in regard to the lung tissue and are excellent for repetitious scanning for following pulmonary nodules. Both Dr. Siegel and the other speaker provided ideas and processes to reduce exposure in CT.

Upon my return to my department, we implemented this kVp reduction on small patients who are scanned repeatedly at our oncology facility and compared the images and the scan CTDI displayed on prior scans to our newer ones with this reduction. We see no significant image degradation and a marked reduction in CTDI by just lowering the kVp to 100 from 120. We have implemented this change for patients under 120 pounds. In multiple procedures, on the chest portions of smaller patients we reduce the KV, but find the livers to be too noisy and return the abdomen to 120 KV. In areas like the pelvis, you can increase pitch to decrease the dose, when the KV reduction isn't applicable. In systems that are not applying software that automatically calculates the lowest possible mAs, it is possible to choose a lower mAs and still achieve diagnostic scan quality. As we are all now struggling to improve the public view of CT, using some of these methods becomes very important. I recommend consulting your diagnostic physicist for advice; read some articles and talk to your vender representative for advice as to how to correctly implement some of these reduction techniques.

Another dose reduction technique under discussion was the use of bismuth breast shielding during CT scanning of the chest. This proved to be controversial with two speakers arguing both sides of the question. Two solid points were made: incorrect use of shielding results in increased dose; and shielding during CT is often more of a public relations maneuver than a radiation safety action.

To clarify the incorrect use of either shielding: bismuth or lead; when the topogram(scout) is made with a shield in place, the Automatic Exposure control will RAISE the exposure over that area to penetrate the shielding. Shielding should be used AFTER the topogram/scout is obtained when Bismuth shielding of the breast is implemented, and lead should not be within the exposure field when used for non-scanned areas, i.e. thyroid or gonadal.

These same questions arose during the CT Chapter discussions. We were challenged as a chapter to gather information and make an advisory statement regarding shielding during CT scans. Information is being gathered for a questionnaire that will be sent to the CT chapter members in attendance for input and opinions. The CT Practice Standards Subcommittee and the CT Chapter Steering Committee of the ASRT will compose the advisory or Position Statement following their analysis. We will also be consulting diagnostic physicists for input regarding dose, shielding, and overall effect.

I reported on the AAPM WGCTNP committee that I work on, specifically the publishing of the CT Lexicon and the CT Protocols. The Protocol publication was met with enthusiasm and was to be posted on the CT Community page of the ASRT website. Google the words 'CT Lexicon' and you can easily find that publication.

As is usual during the chapter meeting, nominations and responsibilities had to be discussed and confirmed for the next year. CT Practice Standards are up for review in 2013 and the CT subcommittee was introduced and their role in the Practice Standards and Advisory Statement review, update' and future changes was outlined. I am part of that subcommittee and that subject has been of exceptional concern for me. The sub-committee begins work this month (August), and must conclude by November, with our recommendations due to the main committee for submission and review by the ASRT executive committee and then on to the legal department before being offered for approval at the HOD in 2013. This will be a great learning experience and I look forward to it.

I would like to express my gratitude to the WVSRT for allowing me to attend the ASRT HOD this year as your alternate delegate. This was an unexpected pleasure for me, and I tried to do the best I could to give you your money's worth. I also want to thank Jamie and Debby for including me in their adventures in Vegas (what happens in Vegas, stays in Vegas), and our colleague Nancy, who joined me in the gallery as an observer while the governing action took place. We also tried to look out for our student Casey, who was doing a great job in her role. She has her own story to tell, but she also seemed to be having a good time and we were all proud when she carried in the WV flag.

Respectfully submitted

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