

Quality Driven
Innovative
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Exceeding
expectations

NEW Contrast Induced Nephrotoxicity Guidelines

eGFR	Recommendation	Notes
>59	Give Contrast	Encourage fluids until 1 hour prior to scan
45 - 59	Give Contrast	Encourage pre and post scan oral hydration (or IV if NPO)
30 - 44	Use Contrast with Caution	Active IV Prehydration Protocols recommended (in development)
< 30	Avoid Contrast	Active IV Prehydration advised. MD-MD discussion recommended. Life threatening emergencies excluded.
Dialysis Dependent	Contrast Use OK if on permanent dialysis	Contrast not advised for acute renal failure or temporary dialysis patients

NOTE: New guidelines will take effect throughout CHS early this Spring. Watch for future announcements and additional details on the roll-out as they become available.

New Protocols, New Scanners New Challenges

By Douglas H. Sheafor, MD

2012 begins with a number of new protocols, guidelines, equipment and challenges.

CTDI

Pre-scan CTDI thresholds were distributed in 2011 to help identify and avoid high technique scans. Highly successful, the thresholds are now being standardized with new rules for repeat scans and new guidelines for pediatric and bariatric patients. These changes are summarized on the next page.

NEW PROTOCOLS

Updated 2012 protocols are being implemented thanks to a lot

of work by the protocol committee. Thanks to our dedicated CT staff who have worked hard to update and test these new techniques! New protocols will still need to be "tweaked": please copy problem cases into the iSite 2012 Test Protocol folders and give your lead or Doug Sheafor a heads up.

NEW TECHNOLOGY

Multiple new CT scanners are due to arrive throughout our system in the next 6 months. Both new and old scanners will be outfitted with more advanced noise and dose reduction capabilities. Two "premium" CT scanners will join the mix

including the GE 750 and Siemens Flash scanners, capable of dual kV imaging. These machines will have state of the art dose reduction capabilities and a number of new, cutting edge techniques and protocols will be deployed for these scanners.

NEW BREAST FEEDING CONTRAST GUIDELINES

Use of iodinated and gadolinium contrast agents is considered SAFE in breastfeeding patients.

**CTDI INITIATIVE
FINAL PHASE!**

Here is the low down on changes and additions since phase 1 rollout:

1. New CTDI's (see chart). Adult and peds categories reduced by 5. Adult Head unchanged. New thresholds for small pediatric (< 40 lbs) and bariatric adults (>450 lbs).
2. All primary data acquisitions should be represented on the PACS (don't delete repeat scans).
3. Don't repeat scans without pre-approval, EXCEPT:
 - a. One repeat head CT for motion
 - b. Additional scan for excluded anatomy (e.g. liver dome).

NOTE: After 9pm, do not call for pre-approval. Instead return patient to ED and Radiologist will contact you if patient is to be recalled for additional imaging.

P E D S T	CTDI <15 *Indication, priors? *Centered correctly? *Avoided overscan? *Breast shields?	SMALL PEDI (< 40 lbs)	CTDI <5 *Indication, priors? *Centered correctly? *Avoided overscan? *Breast shields?
	CTDI 15-20 *Followed green steps? *Correct protocol? *AutoMa, CareDose on/off? *Pitch, kV, slice thickness OK?		CTDI 5-10 *Followed green steps? *Correct protocol? *AutoMa, CareDose on/off? *Pitch, kV, slice thickness OK?
	CTDI >20 *Followed green/yellow steps? *Asked for help from CT lead? *RADIOLOGIST approval prior to scan?	SMALL PEDI (< 40 lbs)	CTDI >10 *Followed green/yellow steps? *Asked for help from CT lead? *RADIOLOGIST approval prior to scan?

A D U L T	CTDI <20 *Indication, priors? *Centered correctly? *Avoided overscan? *Breast shields?	BARIATRIC (>450 lbs)	CTDI <30 *Indication, priors? *Centered correctly? *Avoided overscan? *Breast shields?
	CTDI 20-25 *Followed green steps? *Correct protocol? *AutoMa, CareDose on/off? *Pitch, kV, slice thickness OK?		CTDI 30-45 *Followed green steps? *Correct protocol? *AutoMa, CareDose on/off? *Pitch, kV, slice thickness OK?
	CTDI >25 *Followed green/yellow steps? *Asked for help from CT lead? *RADIOLOGIST approval prior to scan?	BARIATRIC (>450 lbs)	CTDI >45 *Followed green/yellow steps? *Asked for help from CT lead? *RADIOLOGIST approval prior to scan?



**WHEN TO USE
LOWDOSE CHEST CT**

- YES:**
1. Ordered by physician
 2. Recommended by prior radiologist report
 3. Routine lung nodule follow-up

- NO:**
1. Known lung cancer follow-up
 2. Work-up of suspected lung cancer
 3. Asbestos Screening

REMEMBER:
NO BREAST SHIELDS FOR THIS EXAM
FIXED mAs (no CareDose or AutoMa)

Large vs. Average Protocol?
70 is the magic number for LowDose Chest CT AND LowDose CTA for PE

If A + B > 70cm, GO LARGE!

TAKE THE PLEDGE!
www.imagewisely.org



Questions?
Contact your lead technologist, RSO, or Douglas Sheafor, MD - (RCC Chair)
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