SUBJECT/TITLE: CT Protocol Development

PURPOSE: Define process for development and implementation of CT protocols to assure lowest possible dose, consistent installation of protocols across equipment and maintain highest level of image quality.

DEFINITION: CT protocols define the imaging acquisition and image processing parameters.

POLICY: CT protocols are developed with the Medical Director for the specialty imaging division and are reviewed by a physicist to assure that the radiation doses do not exceed those recommended by ACR or other appropriate organizations.

PROCEDURE:

1. New requests or requests to change existing stored protocols must be approved by the imaging section chief and the clinical chief for CT, using the protocol request form. Forms are available in CT area. Before implementation, form must be signed by section chief.
2. CT units will be secured so stored protocols can not be changed unless the machine is unlocked. CT units are unlocked only for the time needed to change the stored protocol.
3. All new requests and any change requests that involve imaging acquisition parameters that might affect dose will be reviewed by a physicist to evaluate impact on radiation dose.
4. On an annual basis, all stored protocols installed in the CT units will be reviewed by a physicist to assure that the radiation doses do not exceed those recommended by ACR or other appropriate organizations. Results of this audit will be reported to the Radiology QA committee.
5. To assure quality control for the process of entering stored protocols into the CT units the following procedure will be followed:
   a. Access to unlock CT units will be restricted to technologists who have been assigned responsibility for management of the stored protocols on the CT units.
   b. Immediately after completion of changes, the assigned technologist will lock the CT unit to restrict access to changing stored protocols.
   c. The number of technologists with access will be very limited to assure compliance with quality control measures.
d. All stored protocol changes will be entered only by the technologists specifically trained for this process.

e. Stored protocol changes will be made to all affected CT units by the designated technologist.

f. Designated technologist will document changes as required on protocol request form.

g. Designated technologist will return form to clinical chief when changes are complete.

6. Upon completion, stored protocol changes will be communicated to all CT techs (including 3rd shift) and Radiology Engineering by the clinical chief.