



Protecting, Maintaining and Improving
the Life of All Minnesotans



APRIL 2009

Radiation Control, X-ray Unit
Minnesota Department of Health
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New email address

Our general email account has changed to health.xray@state.mn.us. If you have tried emailing us at our new address and experienced problems, we've corrected the issue and you shouldn't have any problems in the future. Please notify us immediately if you encounter errors, thank you!

Limited Scope X-ray Operator Exam Identification

Applicants taking the Limited Scope X-ray Operator exam need to provide two forms of identification at their designated test center. Primary IDs must have the applicant's pre-printed name, photo, signature, and an expiration date that is not expired. Secondary IDs must have the applicants pre-printed name, signature and an expiration date that is not expired. Primary ID include: Drivers License, State ID card or passport. Secondary ID include: Social Security card, Employee ID, ATM card, School ID, credit card or any Primary ID not already used.

If you arrive at the test center without valid forms of ID, you will not be admitted to take the exam. If you are unsure whether you have an acceptable form of identification, please give us a call.



Chapter 4732 is available at the Minnesota Bookstore for \$13.95 plus shipping and tax .
Call 651.297.3000 or 1.800.657.3757 or order online at www.comm.media.state.mn.us/bookstore/bookstore.asp

X-ray Unit needed

Southlake Pediatrics is looking for a gently used, medical x-ray unit. If interested, please call Page at 952.401.8376. Just a reminder, be sure to notify MDH of any changes to your x-ray equipment.

C-arm Radiation Exposure

An article at www.AuntMinnie.com, about a new study advising orthopedic physicians to be aware that previous studies regarding radiation exposure with both standard and mini c-arms, shows that exposure had been underestimated in previous studies.

The study, published in the March 2009 issue of the *Journal of Bone and Joint Surgery* (Vol. 91, pp. 297-304), stated that exposure depends on tissue density and the shape of the imaged extremity. When larger body parts are imaged or when the extremity is positioned closer to the x-ray source, elevated exposure levels can be expected.

Results of the study included:

- Worst-case radiation exposure measured 8,988 millirems (mrem) with the standard c-arm, compared with 3,912 mrem for the mini c-arm
- Researchers describe both results as "considerable exposure", especially when mini c-arms are used incorrectly
- Most shocking finding came when researchers stationed a portable pressurized ion chamber to act as a control to monitor background radiation. At 20 feet away, about 40 times the normal level of background radiation was detected using the mini c-arm. Over time, this amount becomes significant.
- Physicians should distance themselves as far as possible from the radiation source and always use a protective shield, even with a mini c-arm.

Health Care Cost Information System (HCCIS)

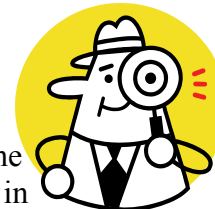
The MDH is required by Minnesota Statutes to collect accurate and reliable information about the utilization characteristics of diagnostic imaging facilities in Minnesota, and to provide this information to public policy makers, purchasers of health care services and to the general public. The request is for a diagnostic imaging report. This was not a requirement prior to the 2007 legislative session. The X-ray unit gets a number of phone calls asking about this, but is not responsible for collecting this information. For questions, please call 651.201.3575 or contact them via email at health.hccis@state.mn.us.

Digital equipment FAQ

Many facilities have decided to go digital with their x-ray equipment, and have questions as to how to follow proper Quality Control (QC) procedures in compliance with Ionizing-Radiation, Minnesota Rule 4732. Here are some suggestions from our Quality Control webpage:

- Send MDH a letter or email that you have gone digital. QC films can then be discarded.
- If you are installing new equipment in your digital conversion, you will need to complete an install performance evaluation.
- If you are converting to digital using the existing dental x-ray equipment, you will need to find out from the service provider what the new bite-wing technique is. Digital techniques are generally lower. All technique charts will need to be updated. Know how to recognize an over/under exposure when an image appears.
- Review your technical manuals very carefully. There is no universal QC standard as far as digital goes. All QC must be performed according to manufacturer's specifications.
- Training will need to be done at the time of conversion and documented for all those who attend. Initial training for future employees will need to include digital, so it is a good idea to keep training notes.
- Although dental offices are not required to perform an analysis on repeated x-rays, there is a big learning curve the first three months of operation in digital. A facility may want to track repeats as a training tool.

Inspector's Corner



Bone Density Units

MDH has noticed an increase in the number of bone density machines in the state, along with questions about them. MN Rule 4732.0305, subpart 1 C prohibits the use of precision testing except with a doctor's order. MDH has been informed that application specialists are encouraging volunteers to be screened. It is important to remember that they may not be familiar with MN Rules which prohibit this activity.

Radiation Warning Labels

According to FDA requirements, the warning label must be "readily visible and legible when the product is assembled for use (21 CFR 1020, subpart 4 b and b iii.) MDH is noticing that many manufacturers are hiding their labels for aesthetic reasons. Please be sure to keep warning labels visible, as patients should be aware of the potential radiation danger when equipment is operated.

Service Provider Requirements

Service Providers are required to include their name and registration number on all calibration and performance evaluation reports they complete for Minnesota facilities (4732.0280, Subp. 3, Item D). This includes non-human uses, such as veterinary and industrial.

While the burden is on the Service Providers to include this information, the registrants should come to expect this information on reports they receive from Service Providers.

If calibrations or performance evaluations are done by individuals not registered as Service Providers, please notify us. Non-registered Service Providers can be issued a Notice of Violation and assessed administrative penalties or fines.

To receive bulletins by email, please submit your request to Kelly.Sabanjo@state.mn.us. You can visit our website at www.health.state.mn.us/xray, click on Publications, to see our past Bulletins.

