

Name of Policy: Lead Garment Purchase, Inspection, Identification, and Care Policy Number: 3364-100-85-04 Approving Officer: Chief Executive Officer Responsible Agent: Assistant Professor & Deputy Clinical Service Chief, Radiology, Radiation Safety Officer Scope: University of Toledo Medical Center (All Radiology locations)		 Effective date: Original effective date:	
Key words: Lead Garment Purchase, Inspection, Identification, Infection Prevention, Rejection Criteria			
<input checked="" type="checkbox"/>	New policy proposal	<input type="checkbox"/>	Minor/technical revision of existing policy
<input type="checkbox"/>	Major revision of existing policy	<input type="checkbox"/>	Reaffirmation of existing policy

(A) Policy statement

The Radiation Safety department serves as the centralized authority for all lead garment acquisition. No additional departments may independently purchase lead garments. Lead (referring to lead or lead equivalent) garments such as aprons, vests, kilts, and thyroid shields will be inspected annually for lead integrity, identifying barcode tag, and corresponding yearly compliance vinyl discs. All lead garments will be hung appropriately and cleaned in accordance with manufacturers’ recommendations and University of Toledo Infection Prevention & Control department recommendations.

(B) Purpose of policy

To determine the areas of need for all lead garments, to uniquely identify each individual piece of lead garment, to establish a rejection criteria for each lead garment, and to define proper handling and care of lead garments.

(C) Scope

All health care professionals and departments are required to use lead garment shielding due to the use of ionizing radiation.

(D) Procedure

(1) Purchase of Lead Garments

- (a) At the direction of administration, the Radiation Safety Department will determine the areas of need for lead garment purchases.

- (b) The Radiation Safety Department will coordinate all lead garment purchases pending the approval of hospital administration. No department may independently purchase lead garments.
 - (c) All existing lead garments or new lead garments must be made of a minimum of 0.35 mm lead or lead equivalent thickness.
 - (d) All new lead garments will be inspected, tagged, and logged by Radiation Safety before being put into service.
- (2) Inspection of Lead Garments
- (a) Radiation Safety will inspect each individual piece of a lead garment annually.
 - (b) Radiation Safety will perform a visual and tactile inspection looking for any visible damage (wear and tear) and feel for sagging or deformities. In cases of questionable condition, fluoroscopy or radiography may be used to look for holes or cracks.
 - (c) During any fluoroscopic examination or lead garments, manual settings, and low technique factors (e.g., 80 KVp) will be used. There will be no use of the automatic brightness control, as this will drive the tube current and high voltage up, resulting in unnecessary radiation exposure to personnel and wear on the tube. Lead garments may also be examined radiographically.
 - (d) All lead garment vinyl disc year indicators will be changed annually to reflect the year the garment was inspected.
 - (e) Lead garments are to be taken out of service and discarded if an inspection determines that there are:
 - (i) Defects greater than fifteen (15) square mm found on areas of the lead garment shielding a critical organ (e.g., chest, pelvic area).
 - (ii) Defects greater than 670 square mm along the seam, in overlapped areas, or on the back of the lead garment.
 - (iii) Defects greater than eleven (11) square mm on a thyroid shield.
 - (f) Departments must notify Radiation Safety if a lead garment appears damaged at any time between annual inspections for further evaluation and possible removal.
- (3) Identification of Lead Garments
- (a) Each individual piece of lead garment (Apron, Vest, Kilt, Thyroid Shield, etc.) is tagged with a plastic numbered and barcoded band tag. The tag is the unique identifier for each piece of lead garment. A small vinyl disc is attached to the tag annually. The vinyl tag will have a year printed on it and will be a different color each year. The tag is used to identify each piece of lead garment, and the vinyl

disc is a visual indicator of when the lead garment was last inspected. Do not remove the barcode tag or vinyl disc for any reason.

- (b) All new lead garments will be inspected, tagged, and logged by Radiation Safety before being put into service.
 - (c) It is the responsibility of each department to inform the Radiation Safety if any individual lead garment in their department is missing a barcode tag or vinyl year disc so that it can be checked for inspection and tagged. The tags are extremely difficult to remove, if your staff do not try to remove them, they should remain attached.
 - (d) Any physician or individual who brings their own personal lead garment to a University of Toledo facility must have the lead garment tagged by Radiation Safety before use. If the physician or individual refuses, then the lead garment may not be used at any University of Toledo facility and must be removed.
- (4) Care of Lead Garments
- (a) When not in use, lead garments must be hung by hangers, wall peg hangers, or must be laid flat. Thyroid shields shall remain tethered to the lead vest or apron whenever possible to prevent them from getting lost. When not tethered they can also be secured to the lead garment with the velcro or clip (depending on the thyroid shield). At no time should a lead garment be folded and put into a drawer, folded and set onto a table, or folded and laying over the back of a chair or any surface. Lead garments that are folded repeatedly will develop creases or cracks and jeopardize the integrity of the lead and its ability to properly shield the individual from radiation. It is the responsibility of each department to see that their lead is hanging properly and never folded in any way.
 - (b) All cleaning of lead shall be performed according to manufacturers' recommendations and the University of Toledo Infection Prevention & Control Department's recommendations. It is the responsibility of each department to clean their lead with the proper cleaning materials at an interval designated by Infection Prevention & Control.

<p>Approved by:</p> <hr/> <p>Daniel Barbee Chief Executive Officer</p> <hr/> <p>Date</p> <hr/> <p>Puneet Sindhvani, MD Chief of Staff</p> <hr/> <p>Date</p> <hr/> <p>Nathan Egbert, MD Assistant Professor & Deputy Clinical Service Chief</p> <hr/> <p>Date</p> <hr/> <p>Joseph Agosti, CNMT Radiation Safety Officer</p> <hr/> <p>Date</p> <p><i>Review/Revision Completed by: Radiation Safety Officer, Directory of Radiology, Service Chief, Radiology, HAS</i></p>	<p>Policies Superseded by This Policy:</p> <ul style="list-style-type: none">• 3364-135-152 <p>Initial effective date:</p> <p>Review/Revision Date: N/A</p> <p>Next review date:</p>
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