

**EVALUATION PROTOCOL FOR VETERANS WITH POTENTIAL EXPOSURE TO
DEPLETED URANIUM (DU)**

- 1. REASON FOR ISSUE:** This Veterans Health Administration (VHA) directive outlines the procedures for evaluating Veterans with possible exposure to depleted uranium (DU) and replaces VHA Handbooks 1303.1 and 1303.4.
- 2. SUMMARY OF CONTENT:** This directive establishes policy concerning VHA evaluation of Veterans with potential DU exposure, makes the Baltimore DU Follow-up Program the primary registry, and eliminates the requirement for local VHA staff to enter DU exposure data into the Gulf War Registry.
- 3. RELATED ISSUES:** None.
- 4. RESPONSIBLE OFFICE:** The Director, Post 9/11 Era Environmental Health Program, Post Deployment Health Services (10P4Q) is responsible for the contents of this directive. Questions about DU examinations and results should be addressed to the Baltimore DU/TEFSC Program at 1-800-815-7533. General questions about the protocol may be addressed to Post-Deployment Health Services at 202-461-1020.
- 5. RESCISSIONS:** VHA Handbooks 1303.1 and 1303.4, both dated September 2, 2004, are rescinded.
- 6. RECERTIFICATION:** This VHA directive is scheduled for recertification on or before the last working day of April 2022. This VHA directive will continue to serve as national VHA policy until it is recertified or rescinded.

Poonam Alaigh, M.D.
Acting Under Secretary for Health

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EVALUATION PROTOCOL FOR VETERANS WITH POTENTIAL EXPOSURE TO DEPLETED URANIUM (DU)

1. PURPOSE

This Veterans Health Administration (VHA) directive outlines the procedures for evaluating Veterans with possible exposure to depleted uranium. **AUTHORITY:** Title 38 United States Code 7301(b), Public Law 102-585, 703(b) (2).

2. BACKGROUND

a. Depleted uranium (DU) is a by-product of the uranium enrichment process whereby the more radioactive U-235 isotope has been removed from natural uranium mined from ore. DU is a radiation hazard primarily if internalized, such as in retained shrapnel, contaminated wounds, and inhalation (though inhalation has not been shown to have lasting effects in humans). In addition to its radioactivity, DU has some chemical toxicity related to being a heavy metal.

b. The United States military began using DU on a large scale during the 1990-1991 Gulf War (GW) in projectiles and armor for tanks. DU has also been used in other conflicts, such as Operational Enduring Freedom, (OEF), Operation Iraqi Freedom (OIF), Operation New Dawn (OND), and military deployments to Bosnia. Service members who may have had potential inhalation exposure to DU include those on, in, or near vehicles hit with "friendly fire;" rescuers entering burning vehicles, individuals near fires involving DU munitions, individuals salvaging damaged vehicles, and those near burning vehicles. Routine contact with intact munitions would not produce significant exposure.

c. VA continues to evaluate potential medical effects of DU. A group of GW Veterans with retained DU fragments or DU-contaminated wounds is being followed by the Baltimore DU Follow-up Program at the Department of Veterans Affairs (VA) Medical Center, Baltimore, MD. To date, no clinically significant adverse effects related to DU exposure have been found in the group. The overwhelming preponderance of available animal toxicology studies and human surveillance data show no evidence that DU has a negative effect on reproduction or offspring development. **NOTE:** *As of September 2016, the Baltimore DU Follow-up Program has seen 80 Gulf War I Veterans as part of this group.*

d. The Baltimore DU Follow-up Program has determined that for friendly-fire victims, a urine collection and determination for uranium is a more sensitive screening test for DU than whole-body counting. Testing for these Veterans should be accomplished as soon as possible after exposure.

e. Results from the Baltimore DU Follow-up Program indicate Veterans with solely inhalational exposure are at low risk of significant body burden of DU. **NOTE:** *As of September 2016, Baltimore DU Follow-up Program has received and analyzed urine specimens from over 4,916 Veterans concerned about DU exposure.*

3. DEFINITION

Depleted Uranium. Depleted uranium (DU) is a by-product of the uranium enrichment process whereby the more radioactive U-235 isotope has been removed from natural uranium mined from ore.

4. POLICY

It is VHA policy that each VA medical facility must offer a DU screening evaluation, using the DU Evaluation Protocol (see Appendix A), to any Veteran eligible for listing, or inclusion, in VA's DU Registry Program according to Public Law 102-585, section 703(b)(2). Veterans eligible for this Registry include Veterans identified and referred by the Department of Defense (DoD) because of possible DU exposure, or Veterans who self-refer because they are concerned about their potential exposure to DU.

5. RESPONSIBILITIES

a. **Under Secretary for Health.** The Under Secretary for Health is responsible for appropriate resourcing and overall VHA compliance with this directive.

b. **Chief Consultant, Post-Deployment Health Services.** The Chief Consultant, Post-Deployment Health Services is responsible for developing, coordinating, and monitoring VHA activities relating to medical issues associated with the 1990-1991 Gulf War (GW), Operational Enduring Freedom, (OEF), Operation Iraqi Freedom (OIF), Operation New Dawn (OND), and military deployments to Bosnia.

c. **Director, Post-9/11 Era Environmental Health Program, Post-Deployment Health Services.** The Director, Post-9/11 Era Environmental Health Program is responsible for programmatic oversight of depleted uranium screening and evaluation. This oversight includes setting performance goals and reviewing and approving written policy documents

d. **VA Medical Facility Director.** The VA medical facility Director is responsible for:

(1) Ensuring that local VA health care providers and other staff implement the policies and procedures in this directive.

(2) Identifying a person responsible for completing the evaluation of Veterans for potential DU exposure. This staff person should be an Occupational and/or Environmental Health Clinician or may be a primary care clinician in the absence of an Occupational and/or Environmental Health Clinician.

e. **Director, Baltimore VA Medical Center.** The Director, Baltimore VA Medical Center is responsible for providing dedicated staff, space and other necessary resources for the operation of the Depleted Uranium Follow-up Program.

f. **Director, Baltimore Depleted Uranium Follow-up Program.** The Director, Baltimore Depleted Uranium (DU) Follow-up Program is responsible for ensuring that the Program staff:

- (1) Arrange for testing of urine samples for uranium;
- (2) Send, by regular mail, the results of the urine collection for uranium directly to the Veteran with an explanation of the test result and forwarding a copy to the VA referring clinician;
- (3) Capture urine uranium results and questionnaire data in the Baltimore DU Follow-up Program database; and
- (4) Provide consultative advice to VHA clinicians regarding DU testing.

g. **Health Care Providers.** Environmental Health (EH) Clinicians are responsible for DU screening of Veteran patients; however, in locations where no EH Clinicians are available, primary care clinicians will assume these responsibilities. Depleted Uranium screening responsibilities include:

- (1) Performing DU screening evaluations using the DU Evaluation Protocol (Appendix A), for any Veteran concerned about DU exposure, for participation in VA's DU Registry Program;
- (2) Coordinating with the Baltimore DU Follow-up Program Staff as needed for testing and follow-up recommendations;
- (3) Completing and forwarding exposure questionnaires to Baltimore DU Follow-up Program staff;
- (4) Following up any positive responses to the DU questionnaire by taking a more detailed history; and
- (5) Recording the full-exposure history in the Veteran's consolidated health record (CHR) and/or the Computerized Patient Record System (CPRS).

h. **Environmental Health Clinicians.** Environmental health clinicians are responsible for providing education and outreach to medical facility staff regarding the DU screening program.

i. **Environmental Health Coordinators.** Environmental Health (EH) Coordinators are responsible for:

- (1) Providing information to Veterans regarding Veterans Health Administration (VHA) programs related to DU exposure concerns; and
- (2) Ensuring that active duty Servicemembers concerned about DU exposure or other health issues related service in the Gulf or other conflicts, are advised to contact a

military treatment facility. Additional information about DoD's post-deployment DU health care program is available through the US Army Public Health Command Web site [U.S. Army Public Health fact sheet on Depleted Uranium](#).

6. REFERENCES

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l. McDiarmid MA, Keogh JP, Hooper FJ, McPhaul K, Squibb K, Kane R, DiPino R, Kabat M, Kaup B, Anderson L, Hoover D, Brown L, Hamilton M, Jacobson-Kram D, Burrows B, Walsh M, "Health Effects of Depleted Uranium on Exposed Gulf War Veterans," *Environmental Research*. Section A, Vol. 82, pages 168-180, 2000.

m. U. S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry. Toxicological Profile for Uranium. February, 2013. Available at: <https://www.atsdr.cdc.gov/ToxProfiles/tp150.pdf>. **NOTE:** This linked document is outside of VA control and may or may not be conformant with Section 508 of the Rehabilitation Act of 1973.

PROTOCOL PROCEDURES

1. Evaluation of Veterans for potential Depleted Uranium (DU) exposure must be provided by either a primary care clinician, or an Occupational and/or Environmental Health Clinician, utilizing the DU Evaluation Protocol described in VA Form 10-9009D, DU Questionnaire, and DU Consult Urine Uranium Collection Instructions (VA Form 10-9009F); these forms are included in the urine collection kits provided by the DU Follow-up Program at the Baltimore VA Medical Center.
2. Any positive responses to the DU exposure questionnaire must be followed-up with a more detailed history taking by the VA clinician. The full-exposure history must be recorded in the Veteran's Consolidated Health Record (CHR) and/or the Computerized Patient Record System (CPRS).
3. The VA clinician must contact the DU Follow-up Program at the Baltimore VA Medical Center (1-800-815-7533) to discuss obtaining a urine collection for uranium. **NOTE:** *The urine collection for uranium must be performed in accordance with instructions in VA Form 10-9009F.*
4. Upon completion of the evaluation protocol, the DU exposure questionnaire must be submitted to the Baltimore DU Follow-up Program.
5. Results of the urine collection and testing for uranium are communicated directly to the Veteran by letter from the Baltimore DU Follow-up Program with a copy to the VA referring clinician for the Veteran's CHR and/or CPRS.
6. Follow-up actions for any Veteran with an elevated urine uranium determination must be individualized based on discussion between the Veteran's primary VA clinician and the staff at the Baltimore DU Follow-up Program.