



HEALTH AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D C 20301-1200

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MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (M&RA)  
ASSISTANT SECRETARY OF THE NAVY (M&RA)  
ASSISTANT SECRETARY OF THE AIR FORCE (SAF/MR)  
DIRECTOR, JOINT STAFF

SUBJECT: Operation Iraqi Freedom Depleted Uranium Medical Management

The Department of Defense (DoD) policy for medical management of Operation Iraqi Freedom (OIF) personnel with Depleted Uranium (DU) exposures (Health Affairs (HA) Policy 03-12/[www.ha.osd.mil/policies/2003/03-012.pdf](http://www.ha.osd.mil/policies/2003/03-012.pdf)) was implemented in June 2003. In order to assess the impact of the policy and to more closely monitor the numbers of personnel with documented exposures to DU, I am requesting the Services report their DU Urine Bioassay results in 30 days from the date of this memo (for the period June 2003 – March 31, 2004), to the Deployment Health Support Directorate. Report semiannual and cumulative totals

The reports will include the number of Level I and Level II DU exposed personnel, source of exposed personnel, number of Level I and Level II exposures assessed qualitatively (i.e., through questionnaires and interviews), percentage of those Level I and Level II exposures evaluated with a urine uranium test, status of urine DU bioassay evaluations, status of reporting results to patients, and number of referrals to the Baltimore Veterans Affairs Medical Center's DU Follow-up Program. In addition, I am requesting additional detail on Level I exposures with fragment-type injuries. Data tables are provided in Attachment 1 to aid in collecting and reporting this information

In implementing this policy, we found some areas needing clarification. The following guidance supplements HA Policy 03-12 in identification of exposed personnel, exposure assessment, bioassay procedures, surveillance and tracking, and case management:

- Depleted Uranium-Exposed Personnel Identification. Services should not rely entirely upon answers on the DD Form 2796, "Post Deployment Health Assessment (PDHA)," for this purpose. Locating units involved in operations or incidents resulting in possible DU exposures may identify others requiring evaluation.

- **Depleted Uranium Exposure Assessment** Upon referral for determination of the DU exposure level, healthcare providers will evaluate personnel for possible DU exposure based on in-theater experiences. Complete the DoD DU Questionnaire and Health Survey Forms (currently DD Form 2872 Test and DD Form 2872-1 Test), to be overprinted on a single SF-600 in the near future, for each individual assessed. These forms are available from the DoD Deployment Health Clinical Center (DHCC) website, [www.pdhealth.mil](http://www.pdhealth.mil), or DHCC can assist directly (contact information provided at Attachment 3). For all personnel, regardless of identification method, use the DU Questionnaire and other available supporting information, such as incident reports or descriptions of exposure conditions, to assign patients to one of three DU exposure categories: Level I, II, or III as described in Health Affairs Policy 03-012.
- **Depleted Uranium Bioassay Procedures.** To ensure that urine specimen containers are free of natural uranium contamination, contact testing laboratories for the type of container to use. Testing for DU within the 180-day window increases the ability to detect lower-level exposures. Nevertheless, urine excretion of uranium, in general, continues after the 180 days; therefore, collect samples for the initial evaluation of DU exposure even when the earliest possible testing opportunity presents after the 180-day period. Laboratories performing the urine bioassays should store a 250-ml aliquot of the urine tested indefinitely. See the "Protocol for DU Urine Validation Testing and Referrals to the Baltimore Veterans Affairs (VA) Follow-up Program" (Attachment 2) for interpretation of results. Coordinate referrals to the VA through the DoD Deployment Health Clinical Center, located at the Walter Reed Army Medical Center
- **Depleted Uranium Exposure Surveillance and Tracking.** Collect and maintain exposure-related information in sufficient detail to characterize the exposure for use in follow-on investigations, evaluations, and health risk assessments. Compare that information with servicemembers identified with DU exposures and reports of possible contact with DU-contaminated equipment to ensure appropriate evaluations occur.
- **Archiving and DU Case Management.** The DHCC will serve as the central archive for all DoD patient information related to DU exposure, testing, and follow-up for active duty and reserve personnel. Forward lab results, assessment questionnaires, referrals, and narrative summaries from follow-up care to DHCC for archiving. Service labs and the Baltimore VA will forward

- all DU exposure assessment and testing results to DHCC for archiving upon completion of health services
- More detailed supplemental information and clinical guidance on these topics and others is now available on the DHCC website, [www.pdhealth.mil](http://www.pdhealth.mil)

My point of contact is COL Sulka, who can be reached at (703) 681-3279 x131, [Daniel.Sulka@deploymenthealth.osd.mil](mailto:Daniel.Sulka@deploymenthealth.osd.mil).

  
William Winckenwerder, Jr., MD

Attachments:  
As stated

# ATTACHMENT 1

# OIF DU EXPOSURE SEMI-ANNUAL PROGRESS REPORT

DU/Fragment Exposure Assessment, Testing, and Results Information

Reporting Period \_\_\_\_\_

Service	Report Date	POC(Name/Phone Number)										
Exposure Level	No. Personnel Identified	Referral Source				Fragment-Type Injury (Q 37) <sup>1</sup>	Urine Bioassay Results				# Patients Provided with Results	# Patients Referred to the VA
		Self	Service/Command	VA	Other		Initial Positive <sup>2</sup>	Confirmed Positive <sup>3</sup>	Negative <sup>4</sup>	Pending/Undetermined/Unknown		
I												
II												
III												
Total this report												
Cumulative Totals <sup>5</sup>												

## Exposure Level I Fragment Information

Fragment Type	Number of Patients with Fragments	Urine Bioassay Results			
		Initial Positive <sup>2</sup>	Confirmed Positive <sup>3</sup>	Negative <sup>4</sup>	Pending/Undetermined/Unknown
DU					
Other metal; specify <sup>5</sup> _____					
Other metal; specify <sup>5</sup> _____					
Other metal; specify <sup>5</sup> _____					
Total this report					
Cumulative Totals <sup>6</sup>					

Notes: 1 Positive response to Question 37a or 37b on the DU Exposure Questionnaire-- (DoD 2872 Test/SF 600 overprint)

2 Urinalysis  $\geq$  50ng Uranium per gram creatinine

3 Urinalysis  $\geq$  50ng Uranium per gram creatinine, initial and follow up specimens

4 Urinalysis  $<$  50ng Uranium per gram creatinine

5 If fragment types are known, identify them in the space provided

6 Cumulative totals will reflect total of this report as well as those on any previous progress reports

\* All three cells with this symbol should reflect the same value

# ATTACHMENT 2

## **Protocol for Urine DU Bioassay Validation Testing and Referrals to the Baltimore VA Follow-up Program**

### 24-Hour Urine Samples

1. If urine [total U] is  $< 50$  ng/g creatinine (cre) **and** isotopic analysis indicates presence of DU with or without evidence of embedded fragments, then repeat urine analysis in 6 months.
2. If urine [total U] is  $< 50$  ng/g cre **and** isotopic analysis does not indicate presence of DU, then no follow-up is necessary.
3. If urine [total U] is  $\geq 50$  ng/g cre **or** isotopic analysis indicates the sample contains DU at 10% or more, then perform urine uranium analysis on a repeat 24-hr urine sample for confirmation.
  - a. If second urine [total U] is still  $\geq 50$  ng/g cre **or** isotopic analysis indicates presence of 10% or more DU, then complete a radiological skeletal survey to look for evidence of embedded fragments.
  - b. If there is no evidence of embedded fragments on the radiological skeletal survey, then repeat urine DU analysis in 6 months. If still positive after 6 months, the primary care manager first consults with DHCC and, if appropriate, contacts the Baltimore VA for follow-up care.
4. If a servicemember has embedded fragments or fragment-type injuries **and** a urine [total U]  $\geq 50$  ng/g cre **and** isotopic analysis indicates the presence of DU at 10% or more, primary care manager refers patient to the Baltimore VA In-Patient DU Follow-up Program after consulting DHCC.

Note: all creatinine values used in the calculations to normalize results are urine creatinine concentrations.

### Spot Urine Samples

Follow all spot samples with [Total U]  $\geq 25$  ng/g cre with a 24-hour urine test and interpret as above. No follow-up is required for samples with results with [Total U]  $< 25$  ng/g cre.

# ATTACHMENT 3



## **Consultation and Referral Points of Contact**

### **DHCC Archiving and Consultation Information**

The DoD Deployment Health Clinical Center (DHCC) medical staff is available to discuss DU evaluation and management; archiving; case management procedures, including referral to the Baltimore VA; and to provide forms and documents. Forward all required documentation to DHCC, either in hard or electronic copy to:

DoD Deployment Health Clinical Center  
Walter Reed Army Medical Center  
6900 Georgia Avenue, NW  
Bldg 2, Rm 3G04  
Washington, DC 20307-5001

Clinician Helpline: 1-866-559-1627  
Toll-free from Europe: 00800-8666-8666  
Phone: 202-782-6563  
DSN: 662-6563  
Fax: 202-782-3539  
Email: [pdhealth@na.amedd.army.mil](mailto:pdhealth@na.amedd.army.mil)  
Website: [www.pdhealth.mil](http://www.pdhealth.mil)

### **Baltimore VA DU Medical Follow-up Consultation and Referral Information**

The VA medical staff is available to discuss the management of any patient's case with a clinician to provide guidance for follow-up decisions and discussions with the patient. Contact Information is:

Depleted Uranium Follow-up Program  
Baltimore VA Medical Center (11DU)  
10 N. Greene Street  
Baltimore, MD 21201  
1-800-815-7533