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DEPARTMENT OF VETERANS AFFAIRS
Veterans' Advisory Committee on Environmental Hazards

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18 February 2005
DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF THE SECRETARY

The Honorable R. James Nicholson
Secretary
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420

Dear Secretary Nicholson:

At the meeting of the Veterans' Advisory Committee on Environmental Hazards (Committee) that was held on January 6-7, 2005, the Committee reviewed the summary of radiation medical opinions prepared by Dr. Neil S. Otchin, Program Chief for Clinical Affairs, Office of Public Health and Environmental Hazards (see enclosure). These medical opinions are based on dose estimates and an estimate of the probability of causation (PC) that was calculated using two different methods (Committee on Interagency Radiation Research and Policy Coordination (CIRRPC) and Interactive RadioEpidemiological Program (IREP)).

An updated method for calculating probability of causation (IREP), sponsored by the Department of Veterans Affairs (VA) and Department of Health and Human Services (HHS), became available about two years ago. The scientific basis for this new method is far superior to the screening doses that were derived from the 1985 probability of causation tables (CIRRPC). IREP is superior because it includes new scientific information published since 1985, includes cancers not addressed by CIRRPC tables and uses computer modeling not available in the past.

When IREP was first introduced, the Committee recommended that the VA use the old (CIRRPC) and the new (IREP) methods concurrently to make certain that there were no unintended consequences associated with the use of IREP. After two years of review, the Committee recommends that the VA stop using the CIRRPC method and calculate the PC using only IREP. Use of IREP exclusively will result in fewer favorable opinions than the use of both CIRRPC and IREP. However, because it includes more types of cancer, the use of IREP will result in more favorable opinions than CIRRPC alone. The Committee further recommends that this change be implemented expeditiously. The Committee hopes that this change can be implemented before it meets again in the spring of 2005.

Page 2

Secretary Nicholson

On behalf of the Committee, we hope that this information is helpful. Please do not hesitate to ask us for any additional assistance you may wish, or to answer any questions that you may have.

Sincerely,

Mary Stremlow
Colonel USMCR (Ret)

Mary Stremlow, USMCR (Ret)
Full Chairwoman, VACEH

Henry D. Royal, M.D.

Henry D. Royal, M.D.
Scientific Chairman, VACEH

Enclosure

cc: Under Secretary for Health
Under Secretary for Benefits

DRAFT rev 12/23/04c KMD

**COMMENTS FOR THE MEETING OF THE
VETERANS ADVISORY COMMITTEE ON ENVIRONMENTAL HAZARDS
(VACEH)**

January 6-7, 2005

I am a physician in the Office of Public Health and Environmental Hazards (OPHEH), the office within the Veterans Health Administration (VHA) which is responsible for providing medical opinions to assist in the adjudication of some radiation compensation claims.

Our office also is involved in other activities relating to radiation including the VA's Ionizing Radiation Registry (IRR) examination program and the Depleted Uranium (DU) screening and surveillance programs.

I appreciate the opportunity to briefly update the committee on several issues.

Public Law 108-183

As was mentioned at the previous meeting of the VACEH in February 2004, Public Law 108-183, which was signed on December 16, 2003, mandated a joint review and report to Congress by the Secretaries of the VA and the Department of Defense (DoD) on the Radiation Dose Reconstruction Program. The law also mandated the establishment of a new independent advisory board to provide oversight.

The National Council for Radiation Protection and Measurement (NCRP) assisted in the mandated review and Dr. Mary Ann Stevenson participated as a representative of the VACEH.

Report to Congress

Following incorporation of some additional changes requested by the Office of Management and Budget, the finalized report was delivered to Congress in June 2004. Dr. Royal has distributed electronic copies of the finalized report to the committee members.

The report included the following statement regarding the medical evaluation of VA radiation claims:

"Based on a recommendation from VA's Veterans Advisory Committee on Environmental Hazards (VACEH), the OPHEH currently is using the IREP software to estimate probability of causation in parallel with the CIRRPC screening doses. The veteran is given the benefit of the doubt in that the methodologies most favorable to the veteran are used in formulating the

medical advisory opinion. The VACEH has requested updates on the use of the CIRRPC and IREP tables and, assuming that no unexpected issues arise, is expected to recommend that VA use IREP data exclusively." [Report to Congress, page 13].

The report also described actions that the Defense Threat Reduction Agency (DTRA) has taken or is planning to take to improve the dose reconstruction process and upper bound estimates. DTRA expected to complete these actions within 2 years following submission of the report to Congress.

The report also stated the agencies' intention to establish the new advisory board within 180 days of submitting the report to Congress.

Establishment of the Advisory Board

The VA agreed that DoD will be the lead agency for establishing and managing the new radiation advisory board in accordance with requirements of the Federal Advisory Committee Act. The NCRP under contract to the DoD will provide administrative and technical support to the board.

Mr. Lynn McGuire, Director of the VA National Health Physics Program, has been recommended to be the VA representative on the advisory board. Mr. McGuire is certified by the American Board of Medical Physics.

Currently agency efforts to activate the new advisory board are continuing but target dates for its official establishment or first meeting currently are not available.

Medical Opinions

As recommended by the VACEH and as noted in the VA-DoD report to Congress, when applicable, our office currently is using the National Institute for Occupational Safety and Health (NIOSH) version of the Interactive RadioEpidemiological Program (IREP) software in parallel with the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC) screening doses, to assist in formulating medical opinions for radiation claims.

Our office has identified some issues relating to reporting and entry of radiation doses for Atomic Veterans (e.g., skin doses, combined external and internal doses) and have discussed these with staff of the DTRA and its contractors. Some of these issues may become more important if the VA utilizes the IREP exclusively rather than in parallel with the CIRRPC (e.g., internal alpha doses). David Kocher, Senior Staff Scientist of SENES Oak Ridge, will be discussing options with your committee later this morning.

We would appreciate feedback and recommendations from the VACEH regarding our office's SOPs for providing medical opinions or on any other issues.

I would be happy to try to answer any questions.

Thank you.

Neil S. Otchin, M.D.

KMD

**SUMMARY OF RADIATION MEDICAL OPINIONS FOR VACEH
INCLUDING COMPARISON OF RESULTS USING
CIRRPC SCREENING DOSES (BASED ON UPPER 99 PERCENT
CREDIBILITY LIMITS)
AND
NIOSH IREP (99 PERCENTILE VALUES FOR PC)**

2/03/04- 12/13/04

All cases are "non-presumptive [3.311] unless indicated as "presumptive" [3.309]

All cases are for Atomic Veterans unless indicated as related to "occup" (occupational) [e.g., served as a nuclear sub crewmember, military x-ray or dental tech, military service at a nuclear facility such as Hanford, etc.] or "med" [e.g., received radiation therapy or multiple diagnostic X-rays in service]

In cases with multiple malignancies, each cancer is considered individually using the CIRRPC and/or NIOSH IREP

Medical opinions were "unfavorable" [claimed condition felt to be "unlikely" to be attributed to radiation] unless indicated as "favorable"

Case	Disease	Dose (rem/rad/r)	CIRRPC	NIOSH IREP	Comment
V-99	Stomach ca	0.285 (occup)	(-)	(-)	
V-100	Colon ca	0.499 (occup)	(-)	(-)	
V-101	Myelo-dysplastic syndrome	1	(-)	(-)	Using CIRRPC for leukemia
V-102	Sq cell skin ca's	1	n/a	(-)	
V-103	Lung ca	1.356 (occup)	(-)	(-)	
V-104	Basal cell skin ca	1.1(occup)	n/a	(-)	
	Testicular ca	1.1 (occup)	n/a	(-)	
V-105	Brain ca	0.030 (occup)	n/a	(-)	
V-106	Basal cell skin ca	40.3	n/a	(+)	Favorable
	Prostate ca	3.8	n/a	(-)	
V-107	Testicular ca	2	n/a	(-)	
V-108	Larynx	0	n/a	(-)	
V-109	Sq and basal skin ca's	0.8-1.4	n/a	(-)	
V-110	Prostate ca	1	n/a	(-)	
	Cataracts	1	n/a	n/a	

Vet's dose equaled adjusted screening dose for lung cancer and skin dose was 40 rem resulting in a PC for melanoma of 83.18 %. However these were not suspected of being the primary site clinically and the specific pathology of transitional cell ca suggests that a urinary tract primary was most likely]

V-135 Squamous skin 1	n/a	(-)	
Basal skin 1	n/a	(-)	
Cataracts 1	n/a	n/a	
V-136 Pancreatic ca 0.126 (occup)	(-)	(-)	
V-137 Prostate ca 16 (occup) + Japan)	n/a	(-)	
Basal skin ca 16	n/a	(-)	
V-138 Squamous skin 1620 (occup)*	n/a	(+)	Favorable

*Veteran was a dental tech and reported holding X-ray film in patients' mouths with his index finger (site of his skin cancer) while taking dental X-rays about 4 times per week for 9 years

V-139 Testicular ca 0.051 (occup)	n/a	(-)	
V-140 Prostate ca 1.960 (occup)	n/a	(-)	
Cataracts 1.960	n/a	n/a	
V-141 Sq skin ca 1	n/a	(-)	
Basal skin ca 1	n/a	(-)	
V-142 Basal skin ca 2.1	n/a	(-)	
Sq skin ca 2.1	n/a	(-)	
V-143 Colon ca 1	(-)	(-)	
V-144 Prostate ca 2	n/a	(-)	
V-145 Sq skin ca 0.002	n/a	(-)	
V-146 Melanoma 0.065 (occup)	n/a	(-)	
V-147 Sq skin ca 17	n/a	(-)	
V-148 Ch myel leuk 0.0226 (occup)	(-)	(-)	
Prostate ca 0.0226	n/a	(-)	
V-149 Kidney ca 0.050 (occup)	(-)	(-)	
V-150 Colon ca 1.002	(-)	(-)	
V-151 Colon ca 1	(-)	(-)	
Rectal/anal ca 1	n/a	(-)	
Sq ?skin/?LN face*1	n/a	(-)	

* also evaluated per NIOSH IREP for unknown primary with secondary involvement of LN of head (-)

V-152 Prostate ca 1	n/a	(-)	
V-153 Melanoma 1	n/a	(-)	
Basal sk ca's 1	n/a	(-)	
V-154 Thyroid ca 15 (occup)	(+)	(-)	Favorable
V-155 Prostate ca 1	n/a	(-)	

Basal ca lip	13	n/a	(-)	
V-187 Thyroid ca	0.294 (occup. - DU)	(-)	(-)	
V-188 Prostate ca	0.267 (occup)	n/a	(-)	
V-189 Lymphoma	0.75 (occup)	n/a	(-)	
V-190 Prostate ca	1.05	n/a	(-)	
Basal skin ca	0.9	n/a	(-)	
V-191 Lung ca	0.101 (occup)	(-)	(-)	
V-192 melanomas	15.3	n/a	(+)	Favorable for both
Basal skin ca	15.3	n/a	(+)	
V-193 Prostate ca	1.001	n/a	(-)	
V-194 Melanomas	3.0-3.5 (occup)	n/a	(-)	
V-195 Prostate ca	1.2	n/a	(-)	
V-196 Prostate ca	1	n/a	(-)	
V-197 Basal skin ca	1.675 (occup)	n/a	(-)	
V-198 Prostate ca	1.3	n/a	(-)	
V-199 Skin/lip ca's	1	n/a	(-)	
V-200 CML leukemia	1.328 (occup)	(+)	(-)	Favorable
V-201 Prostate ca	1.2	n/a	(-)	
V-202 AML leukemia	0.084 (occup)	(-)	(-)	
V-203 Prostate ca	1	n/a	(-)	
V-204 Melanomas	18.5 & 62.3	n/a	(+)	Favorable
V-205 Sq. cell skin	2.489 (occup)	n/a	(-)	
V-206 Basal cell skin	2.309 (occup)	n/a	(-)	
V-207 Lymphoma	0.431 (occup)	n/a	(-)	
V-208 Bladder ca	0.008 (occup)	(-)	(-)	
V-209 Melanoma	0.121 (occup)	n/a	(-)	
V-210 Ca pancreas	7.1 (occup)	(-)	(-)	
V-211 CNS lymphoma	2.55 (occup)	n/a	(-)	
V-212 Oral cancer	0.6 (occup)	n/a	(-)	
Bladder ca	0.6 (occup)	(-)	(-)	
V-213 Lung cancer	4 (occup)	(+)*	(-)	Favorable
*using adjusted screening dose				
V-214 Prostate ca	0.49	n/a	(-)	
BCC skin cas	2.16	n/a	(-)	
V-215 BCC's & SCC skin ca's	28	n/a	(-)	
V-216 Prostate ca	1	n/a	(-)	
V-217 Skin ca's	1	n/a	(-)	
V-218 Osteochondroma	22 (med-NP radium)	n/a	(-)	using IREP for bone cancer
V-219 Prostate ca	0.520 (occup)	n/a	(-)	
Non-neoplastic brain lesion	0.520 occup	n/a	n/a	
V-220 Lymphoma	0.284 (occup)	n/a	(-)	
V-221 Multi skin ca's	0.024	n/a	(-)	
V-222 Multi sq skin ca's	1.1-2.4	n/a	(-)	
V-223 Prostate ca	0.195 (occup)	n/a	(-)	
Colon ca	0.195 (occup)	(-)	(-)	

Kidney ca	0.0026 (med - I-131 tests)	(-)	(-)	
V-256 Laryngeal ca	1	n/a	(-)	
V-257 Multiple skin ca's	0.2	n/a	(-)	
Cataracts	0.2	n/a	n/a	
V-258 Prostate ca	1.4 (med - NP radium rx)	n/a	(-)	
Lung ca	1.4 (med - NP radium rx)	(-)	(-)	
Bladder ca	1.4 (med - NP radium rx)	(-)	(-)	
V-259 Metastatic ca to neck	0.472 (occup)	n/a	(-)	
Kidney ca	0.472 (occup)	(-)	(-)	
V-260 Brain ca	0.427	n/a	(-)	
V-261 Prostate ca	1	n/a	(-)	
V-262 Skin ca squam cell in situ	0.2	n/a	(-)	
V-263 Skin ca's	1	n/a	(-)	
V-264 BCC skin ca's	0.2	n/a	(-)	
Cataracts	0.1	n/a	n/a	
V-265 BCC skin ca's	1	n/a	(-)	
Prostate ca	1	n/a	(-)	
V-266 Rectal ca	6.52	n/a	(-)	
V-267 Prostate ca	0.017 (occup)	n/a	(-)	
Anal.rectal ca	0.017(occup)	n/a	(-)	
V-268 Prostate ca	1	n/a	(-)	
V-269 BCC skin ca's	1	n/a	(-)	
Prostate ca	1	n/a	(-)	
V-270 BCC skin ca's	1	n/a	(-)	
V-271 Leukemia (AML)	7 (occup)	(+)	(-)	Favorable
V-272 CNS lymphoma	0.507 (occup)	n/a	(-)	
V-273 Skin cancers	1	n/a	(-)	
V-274 Skin cancers	1.9	n/a	(-)	
V-275 Prostate ca	3.002 (occup)	n/a	(-)	
V-276 Lung cancer	10 (occup)	(-)	(-)	
V-277 Brain tumor	0.028 (occup)	n/a	(-)	
V-278 Skin cancers	1-1.14	n/a	(-)	
V-279 Lung cancer	41.74* (occup-Hanford)	(+)	(-)	Favorable
Skin cancers	401.74* (occup-Hanford)	n/a	**	for both
*includes potential doses from "active particles"				
**Couldn't use NIOSH IREP because details of skin cancers not provided				
Cataract	1.74 (occup-Hanford)	n/a	n/a	
V-280 Prostate ca	0.901	n/a	(-)	
V-281 Testicular ca	60.133 (occup & med)	n/a	(+)	Favorable
Lymphoma	74.173 (occup & med)	n/a	(+)	for both
V-282 Bilat female breast ca	29.2 (occup & med)	(+)	(+)	Favorable for both
V-283 Bladder ca	30 (occup)	(+)	(+)	Favorable
V-284 Melanoma of choroid/eye	1(occup)	n/a	(-)	
V-285 Sq skin ca's	1.5	n/a	(-)	
V-286 Lung ca	2 (occup)	(-)	(-)	

V-320	Sq skin ca	1		n/a	(-)	
V-321	Hypothyroidism	0.176	(occup)	n/a	n/a	
V-322	Skin ca's	1		n/a	(-)	
V-323	Prostate ca	1.08		n/a	(-)	
V-324	Melanoma eye	4.5		n/a	(-)	
V-325	Basal skin ca's	90	(occup)	n/a	(+)	Favorable for both
	Myeloma	90	(occup)	n/a	(+)	
	Sq skin ca	90	(occup)	n/a	(-)	
V-326	Skin ca's	1		n/a	(-)	
V-327	Sq skin ca's	1		n/a	(-)	
V-328	Prostate ca	20	(occup)	n/a	(-)	
V-329	Sq skin ca	15.1		n/a	(-)	
V-330	Prostate ca	1.84		n/a	(-)	
V-331	Anal canal ca	1		n/a	(-)	
V-332	Lung ca	5.620	(occup)	(+)	(-)	Favorable
V-333	Prostate ca	1		n/a	(-)	
V-334	Erectile dysfunction & infertility	0.1	(occup)	n/a	n/a	
V-335	Cataracts	1.29		n/a	n/a	
	Non-malig thyroid nod disease	1		n/a	n/a	
	Basal skin lip ca	4.95		n/a	(-)	
V-336	Sq skin ca	1		n/a	(-)	
V-337	Sq skin ca	1.9		n/a	(-)	
V-338	Rectal ca	7.5		n/a	(-)	
V-339	Cataracts	1		n/a	n/a	
V-340	Skin ca's	1-1.5		n/a	(-)	
V-341	Prostate ca	1		n/a	(-)	
V-342	Skin ca's	3.9-18.3		n/a	(-)	
V-343	Sq. skin ca	1.38		n/a	(-)	
	Cataracts	1		n/a	n/a	
V-344	Malig brain tumor	0.971	(occup)	n/a	(-)	
V-345	Ca of tongue	0.008	(occup)	n/a	(-)	

Total 247 cases

**CIRRPC+ =14 IREP+ =17 IREP&
CIRRP+ = 5**

Cases with favorable opinions - 26

Percentage cases with favorable opinions - 11 %

Diagnoses attributable to radiation

Diagnosis	Number of cases
Skin cancer -	11
Leukemia -	4