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Amyotrophic Lateral Sclerosis Concerns at Little Rock AFB Memorandum for Record

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Gregory Wolff, Mr. James Escobar, Dr. Alisa Simon, and Lt
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USAFSAM/PHR



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November 2023

Final Report



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Air Force Research Laboratory
711th Human Performance Wing
U.S. Air Force School of Aerospace
Medicine

REPORT DOCUMENTATION PAGE

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14. ABSTRACT Methodology: The Defense Centers for Public Health-Dayton (DCPH-D)/Epidemiology Consult Service Division evaluated concerns regarding Amyotrophic Lateral Sclerosis (ALS) at Little Rock AFB, specifically "commander's row." Results: DCPH-D looked for all ALS cases in anyone stationed at LRAFB between 2004-2007 but the number was still too low to conduct a reliable statistical analysis. DCPH-D also looked at the individual records of the individuals reported to have lived on commander's row between 2004-2007, who subsequently developed ALS. None of the individuals was diagnosed while at Little Rock AFB. DCPH-D conducted a data review of documented environmental surveillance at Little Rock AFB. Historical radon sampling indicated levels in compliance with health and safety guidelines. Drinking water surveillance demonstrated drinking water which meet health and safety limits mandated by Federal and State policy. Soil sampling revealed lead levels in three sites across base; none of which were located within base housing. Conclusion: Given the limitations of scientific knowledge in regard to ALS, our investigation didn't reveal any potentially shared risks associated with developing ALS. Our results are consistent with a larger study conducted by USAF investigating potential links between the exposures of workers from Kelly AFB, Texas, and ALS. Given the small number of cases, lack of known causes of ALS, and lack of known latency period of ALS, we are unable to draw any scientifically supported correlations. As ALS continues to affect our military families, anyone who knows someone, or is personally diagnosed with ALS should participate in the national ALS Registry: https://www.cdc.gov/als/Default.html . Reporting ALS in the national registry is the most effective way to ensure continue Congressional funding for research, to improve our understanding of the disease, and to develop better diagnostics and treatments.					
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19a. NAME OF RESPONSIBLE PERSON

Lt Col Mark Lehman

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Col Chelsea Johnson Chair,
Public Health & Preventive Med Dept

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**DEPARTMENT OF THE AIR FORCE
711TH HUMAN PERFORMANCE WING (AFMC)
WRIGHT-PATTERSON AFB OHIO**

22 November 2023

MEMORANDUM FOR RECORD

FROM: USAFSAM/PHR
2510 Fifth Street
Wright-Patterson AFB OH 45433

SUBJECT: Amyotrophic Lateral Sclerosis (ALS) Concerns at Little Rock AFB

DISCLAIMER: This report is published in the interest of scientific and technical information exchange, and its publication does not constitute the Government's approval or disapproval of its ideas or findings.

References:

a) ALS Association, ALS in the Military. Defense Health Research Program. Available at: <https://www.als.org/navigating-als/military-veterans/ALS-in-the-Military>

b) Wackerman BL, Cox BL, Grayson KL, Shanklin SL, McGriff WW. Case Series Investigation of Amyotrophic Lateral Sclerosis (ALS) Among Former Kelly Air Force Base Workers. Defense Technical Information Center 1 Apr 2005;1-156.

1. The Defense Centers for Public Health-Dayton (DCPH-D)/Epidemiology Consult Service Division evaluated concerns regarding ALS at Little Rock AFB, specifically "commander's row." In consultation with the Congressionally Directed Medical Research Programs (CDMRP) ALS Research Program, the Centers for Disease Control and Prevention (CDC) ALS registry, as well as the Deputy Air Force Neurology consultant, we have completed our evaluation of the information and present our findings below.
2. While there is no definite environmental trigger known to cause ALS, some lifestyle activities and occupations have been shown to have an association with ALS. Serving in the military is one such association, although a reason for this association has yet to be identified. The DoD and the US government continue to research diagnosis and treatment of this devastating disease. Congress has appropriated \$40 million through the CDMRP to support ALS research. Attached is a white paper (ALS in military PDF), written by the ALS Association and in cooperation with CDMRP highlighting useful information about the association between military service and ALS.
3. DCPH-D reached out to the Agency for Toxic Substances and Disease Registry (ATSDR), experts in environmental exposures, to ensure we conducted our statistical analysis correctly. In general, having a small number of cases of the same or etiologically related non-infectious diseases results in unreliable results. DCPH-D looked for all ALS cases in anyone stationed at LRAFB between 2004-2007 but the number was still too low to conduct a reliable statistical analysis.

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4. DCHP-D also looked at the individual records of the individuals reported to have lived on commander's row between 2004-2007, who subsequently developed ALS. None of the individuals was diagnosed while at Little Rock AFB. Some of the individuals had commonalities associated with their military careers, such as serving in combat missions, but those commonalities were unrelated to their assignment at Little Rock AFB.

5. DCPH-D conducted a data review of documented environmental surveillance at Little Rock AFB. Historical radon sampling indicated levels in compliance with health and safety guidelines. Drinking water surveillance demonstrated drinking water which meet health and safety limits mandated by Federal and State policy. Soil sampling revealed lead levels in three sites across base; none of which were located within base housing. While some studies have shown possible links between ALS and chemical exposure, it is difficult to determine any causation considering ALS has no known latency period and no chemicals have proven to cause ALS.

6. Given the limitations of scientific knowledge in regard to ALS, our investigation didn't reveal any potentially shared risks associated with developing ALS. Our results are consistent with a larger study conducted by USAF investigating potential links between the exposures of workers from Kelly AFB, Texas, and ALS. In that study, the sample size was much more robust, and yet investigators were still unable to demonstrate an association between environmental exposures at Kelly AFB and future development of ALS. We have attached that study, Case Series Investigation of Amyotrophic Lateral Sclerosis as a reference.

7. We appreciate the opportunity to look into this concern. Given the small number of cases, lack of known causes of ALS, and lack of known latency period of ALS, we are unable to draw any scientifically supported correlations.

8. As ALS continues to affect our military families, I would encourage anyone who knows someone, or is personally diagnosed with ALS to participate in the national ALS Registry:
<https://www.cdc.gov/als/Default.html>.

9. Reporting ALS in the national registry is the most effective way to ensure continue Congressional funding for research, to improve our understanding of the disease, and to develop better diagnostics and treatments.

10. If you have any questions about this memorandum, the investigative team can be reached at usafsam.phrepiservic@us.af.mil.

Respectfully,

LEHMAN.MARK.W.12
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MARK W. LEHMAN, Lt Col, USAF, BSC
Chief, Epidemiology Consult Service Division

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2 Attachments:

Tab 1. ALS in military

Tab 2. Case Series Investigation of Amyotrophic Lateral Sclerosis