MEMORANDUM FOR SGVT
ATTN: MAJ CHARLES BORDERS

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **A Case of Acquired Pulmonary Alveolar Proteinosis Successfully Treated with Whole Lung Lavage** presented at/published to **American Thoracic Society; San Francisco, CA 13-18 May 2016** with MDWI 41-108, and has been assigned local file #16218.

2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.

3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.

4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

Warrior Medics – Mission Ready – Patient Focused
INSTRUCTIONS
USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING

1. The author must complete page two of this form:
   a. In Section 2, add the funding source for your study (e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRP); NIH; Congressionally Directed Medical Research Program (CDMRP); Grants; etc.)
   b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.

2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.

3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.

4. Attach a copy of your abstract, paper, poster and other supporting documentation.

5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.

6. On page 2, have either your unit commander, program director or immediate supervisor:
   a. Print their name, rank/grade, title; sign and date the form in the approving authority's signature block or use an electronic signature.

7. Submit your completed form and all supporting documentation to the CRD for processing (59crdpubsres@us.af.mil). If you have any questions or concerns, please contact the 59 CRD/Publications and Presentations Section at 292-7141 for assistance.

8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDW/PA) for review and then forward you a final letter of approval or disapproval.

9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. Note: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.

10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DTIC). See 59 MDWI 41-108, Presentation and Publication of Medical and Technical Papers, for additional information.

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement:
"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:
"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02_AFI 40-402."

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving animals, as required by AFMAN 40-401_IP:
"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."
**Processing of Professional Medical Research/Technical Publications/Presentations**

1. TO: CLINICAL RESEARCH
2. FROM: (Author's Name, Rank, Grade, Office Symbol)
   Maj Charles Borders; 959 CSPS/SGVT
3. GME/GHSSE STUDENT: YES ☐ NO ☐ N/A
4. PROTOCOL NUMBER:

5. PROTOCOL TITLE: (NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.)
   A Case of Acquired Pulmonary Alveolar Proteinosis Successfully Treated with Whole Lung Lavage

6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED:
   A Case of Acquired Pulmonary Alveolar Proteinosis Successfully Treated with Whole Lung Lavage

7. FUNDING RECEIVED FOR THIS STUDY? YES ☐ NO ☐

8. DO YOU NEED FUNDING SUPPORT FOR PUBLICATION PURPOSES? YES ☐ NO ☐

9. IS THIS MATERIAL CLASSIFIED? YES ☐ NO ☐

10. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.? YES ☐ NO ☐

11. MATERIAL IS FOR: ☑ DOMESTIC RELEASE ☐ FOREIGN RELEASE

12. EXPECTED DATE WHEN YOU WILL NEED THE CRD TO SUBMIT YOUR CLEARED PRESENTATION/PUBLICATION TO DTIC

13. 59 MDW PRIMARY POINT OF CONTACT (Last Name, First Name, M.I., email)

14. DUTY PHONE/PAGER NUMBER

15. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.

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I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP, AND 59 MDW 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.

16. AUTHOR'S PRINTED NAME, RANK, GRADE
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17. AUTHOR'S SIGNATURE
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18. DATE

19. APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE
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20. APPROVING AUTHORITY'S SIGNATURE
   McCann Edward T 1244108845

21. DATE
The case report is approved.

28. PRINTED NAME, RANK/ GRADE, TITLE OF REVIEWER
Rocky Calcote, PhD, Clinical Research Administrator

29. REVIEWER SIGNATURE
CALCOTE ROCKY D 1178245844

30. DATE

31. DATE RECEIVED
32. DATE FORWARDED TO 502 ISG/JAC

33. COMMENTS

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35. REVIEWER SIGNATURE

36. DATE

37. DATE RECEIVED
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38. DATE FORWARDED TO 59 MDW/IPA
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39. COMMENTS

40. PRINTED NAME, RANK/ GRADE, TITLE OF REVIEWER
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41. REVIEWER SIGNATURE
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42. DATE
May 17, 2016

43. DATE RECEIVED

44. SENIOR AUTHOR NOTIFIED BY PHONE OF APPROVAL OR DISAPPROVAL

45. COMMENTS

46. PRINTED NAME, RANK/ GRADE, TITLE OF REVIEWER

47. REVIEWER SIGNATURE

48. DATE
A Case of Acquired Pulmonary Alveolar Proteinosis Successfully Treated with Whole Lung Lavage

Charles Borders, Maj, USAF, MC
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Classification: Diffuse Parenchymal Lung Diseases
Discipline: Adult
Subclassification: Case Report
Reviewing Assembly: Clinical problems (CP)

Introduction:
Pulmonary alveolar proteinosis (PAP) is a rare disorder characterized by the accumulation of surfactant within the alveoli. Surfactant phospholipids and proteins are produced by type II alveolar epithelial cells, and subsequently cleared by the alveolar macrophages. Cell signaling initiated by the granulocyte-macrophage colony-stimulating factor (GM-CSF) receptor is essential to the breakdown of surfactant. The acquired form of PAP most commonly involves circulating antibodies to GM-CSF, with resultant accumulation of surfactant.

Case Presentation:
A 32-year old active duty Army male presented to our Pulmonary Clinic for further evaluation after 3 years of progressive dyspnea. The patient had reported gradually increasing dyspnea following a 12-month deployment to Iraq in 2011. At that time he was seen by a local civilian pulmonologist, with reports of a ‘non-diagnostic’ work-up to include BAL and trans-bronchial biopsies. The patient then underwent VATS with biopsy, which reportedly identified eosinophilic material in the alveoli, but no subsequent therapy. The patient did not follow-up for the next three years, which included an additional 6-month overseas tour to Afghanistan, before presenting to our clinic with increasing dyspnea.

At that time the patient complained of dyspnea with minimal aerobic activity, with a SaO2 of 77% in our clinic with minimal exertion – although he appeared comfortable at that time. Clubbing of the extremities was noted, but the pulmonary exam was otherwise normal. PFTs demonstrated an isolated reduction in DLCO to 43% predicted, but was otherwise normal. BAL and transbronchial biopsies both demonstrated amorphous proteinaceous material consistent with PAP; HRCT showed bilateral ground-glass and septal thickening in a ‘crazy paving’ pattern, also consistent with this diagnosis.

The patient underwent bilateral whole-lung lavage, with clearing of the lavage fluid after approximately 12L. Significant radiographic improvement was noted shortly following the procedure, with near-complete resolution of radiographic changes and improvement in digital clubbing at 12 month follow-up. The patient’s DLCO subsequently normalized, now 94% predicted, and he has successfully resumed aerobic activity.

Discussion:
Pulmonary alveolar proteinosis is an uncommon disorder with high morbidity. In adults, secondary and acquired PAP predominate. Our patient, despite clinical and radiographic progression of his disease over a 4-year period, responded well to a single lavage treatment. Only 30% of patients with acquired PAP will not have disease progression requiring either additional treatments with lavage, GM-CSF therapy or rituximab. Aggressive diagnosis and intervention is indicted when the disorder is suspected.
The view(s) expressed herein are those of the author(s) and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army or the Department of Defense or the U.S. Government.