

EDITOR-IN-CHIEF

NITIN SEAM, MD, ATSF

SENIOR DEPUTY EDITOR

PATRICIA KRITEK, MD, EdM

DEPUTY EDITOR

KRISTIN BURKART, MD, MSc

ASSOCIATE EDITORS

Felicity Blackstock, PhD

Debra Boyer, MD

Jennifer Cleland, PhD

Geoffrey Connors, MD, FACP

Sanjay Desai, MD

DorAnne Donesky, PhD, ANP-BC, ACHPN

Michelle Eakin, PhD

Juliana Ferreira, MD, PhD, ATSF

Henry Fessler, MD

Jeff Gold, MD

Burton Lee, MD

Jennifer McCallister, MD

Dominique Piquette, MD, MSc, MEd,
PhD, FRCPC

Jeremy Richards, MD

Lekshmi Santhosh, MD

Shirin Shafazand, MD

Nirav Shah, MD

Geneva Tatem, MD, FCCP

Carey Thomson, MD

STATISTICAL EDITOR

Junfeng Sun, PhD

CHIEF, JOURNALS

Diane Gern

DIRECTOR, TECHNICAL PEER REVIEW

Fay Ling

SENIOR MANAGER, EDITORIAL

Eric Gumpert

PRODUCTION EDITOR

Megan Murphy

ADVERTISING REPRESENTATIVE

Cunningham Associates

180 Old Tappan Road

Old Tappan, NJ 07675

Tel: (201) 767-4170

Fax: (201) 767-8065

E-mail: kdunn@cunnasso.com

ADVERTISERS

Rates will be furnished by Cunningham Associates. The publisher reserves the right to decline any advertising submitted. Billing directed to the advertising agency is approved on the condition that the advertiser will accept full responsibility for payment if the agency does not remit within 90 days.

EDITORIAL BOARD

Abdullah Alismail, PhD, RRT,
FCCP

Ren Ashton, MD

Taison Bell, MD

Anna K. Brady, MD

Erin Camac, DO, FCCP

Chris Carroll, MD, ATSF

Neil Chaisson, MD

Fei Chen, PhD

Jared Chiarchiaro, MD, MSCR

Avraham Cooper, MD

Başak Çoruh, MD

Rebecca Disler, PhD, MSc,

PDAN, BSc, BN

Ben Francisco, PhD, PNP,

AE-C

James Frank, MA, MD

Jill Guttormson, PhD, RN

Molly Hayes, MD, ATSF

Van Holden, MD, FCCP

Shazia Jamil, MD, FCCP,

FAASM, ATSF

Stacey Kassutto, MD

Michael Keller, MD

Mark Lavercombe, MBBS,

FRACP, FCCP

Hans Lee, MD, MEHP

May Lee, MD, ATSF

Peter Lenz, MD, MEd, FCCP

Patrick Lyons, MD, MSc

Stephanie Maximous, MD

Jake McSparron, M.D.

Gaetane Michaud, MD

Darlene Nelson, MD, MHPE

Bela Patel, MD, FCCP

Deepak Pradhan, MD

Rachel Quaney, MD, MAEd

Kannan Ramar, MD

Hiram Rivas-Pérez, MD

Clara Schroedl, MD, MS

Morgan Soffler, MD

Curtis Weiss, MD, MS

Ozge Yilmaz, MD

NOTICE TO READERS & CONTRIBUTORS

The ATS publishes ATS Scholar in furtherance of its educational and scientific purposes as a nonprofit and tax-exempt organization. All articles published in the Journal are open-access and distributed under the terms of the Creative Commons Attribution. Non-Commercial No Derivatives License 4.0 (<https://creativecommons.org/licenses/by-nc-nd/4.0/>) unless the funder requests a different license.

The statements and opinions expressed in the Journal only represent those of individual author(s) and do not reflect the policies or opinions of the ATS. The ATS assumes no responsibility for the content of the Journal and expressly disclaims all liability for any damages arising out of use, reference to, or reliance on the contents of the Journal. The authors, editors, or ATS are not responsible for errors or omissions of articles published in print or online from ATS Scholar or other associated ATS publications. Although great care has been taken in compiling the content of this publication, neither ATS or their servants are responsible or liable in any way for the currency of the information, for any errors, omissions or inaccuracies, or for any consequences arising there from. Approved product information should be reviewed before prescribing. The mention of any product, service, or therapy in this publication should not be construed as an endorsement of the products mentioned. It is the responsibility of the treating physician or other health care provider, relying on independent experience and knowledge of the patient, to determine drug dosages and the best treatment for the patient. Readers are advised to check the appropriate medical literature and the product information currently provided by the manufacturer of each drug to be administered to verify the dosage, method, and duration of administration, or contraindications. Readers are also encouraged to contact the manufacturer with questions about the features or limitations of any products. ATS assumes no responsibility for any injury or damage to persons or property arising out of or related to any use of the material contained in this publication or to any errors or omissions. Statements and claims concerning the effectiveness, quality, or safety of the products or procedures advertised in the Journal are solely those of the advertiser and do not represent any endorsement or approval by the ATS.

Manuscripts: Contributors are requested to read the Instructions for Contributors posted on ([https://www.atsjournals.org/journal/ats-scholar/instructions?="](https://www.atsjournals.org/journal/ats-scholar/instructions?=)) or obtained from the Peer Review Office upon request. Failure to follow these instructions may cause delay in publication. Manuscripts must be submitted online using ScholarOne at (<http://mc.manuscriptcentral.com/atsjournals>). If you have questions or encounter problems with an online submission, please contact Fay Ling, Director, Technical Peer Review (fling@thoracic.org).

Editor Submission Policy: ATS Journal Editors and Editorial Board members are not prevented from submitting manuscripts to their own journals. However, they recuse themselves from review and decisions for authored works. For additional details, see our full policy [here](#).

PERMISSION REQUESTS

For permission requests, please contact Diane Gern, Chief, Journals (dgern@thoracic.org) or permissions@thoracic.org. The ATS solely reserves the right to decline any request for any reason.