Assessing Advanced Practice Provider Value

Kreeftenberg, Herman G.; van der Voort, Peter H. J.

Published in:
Critical Care Medicine

DOI:
10.1097/CCM.0000000000004254

Kristin H. Gigli, PhD, RN, CPNP-AC, CRISMA Center, Department of Critical Care Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA; **Grant R. Martsolf, PhD, MPH, RN, FAAN,** Department of Acute and Tertiary Care, University of Pittsburgh School of Nursing, Pittsburgh, PA, and RAND Corporation, Health Care, Pittsburgh, PA

REFERENCES

1. Kreeftenberg HG, Pouwels S, Bindels AJGH, et al: Impact of the advanced practice provider in adult critical care: A systematic review and meta-analysis. *Crit Care Med* 2019; 47:722–730
2. Kleinpell RM, Grabenkort WR, Kapu AN, et al: Nurse practitioners and physician assistants in acute and critical care: A concise review of the literature and data 2008-2018. *Crit Care Med* 2019; 47:1442–1449
3. Buerhaus PI: Nurse Practitioners: A Solution to America's Primary Care Crisis. Available at: http://www.aei.org/publication/nurse-practitioners-a-solution-to-americas-primary-care-crisis/. Accessed September 12, 2019
4. Medicare Payment Advisory Commission: Issues in Medicare beneficiaries' access to primary care in Report to the Congress: Medicare and the health care delivery system. Washington, DC, MedPAC, 2019. Available at: https://www.aei.org/wp-content/uploads/2018/09/Nurse-practitioners.pdf. Accessed December 9, 2019
5. Executive Order: Executive Order on Protecting and Improving Medicare for Our Nation's Seniors. Washington, DC, The White House, 2019
6. Gigli KH, Dietrich MS, Buerhaus PI, et al: Regulation of pediatric intensive care unit nurse practitioner practice: A national survey. *J Am Assoc Nurse Pract* 2018; 30:17–26
7. Weled BJ, Adzhigirey LA, Hodgman TM, et al; Task Force on Models for Critical Care: Critical care delivery: The importance of process of care and ICU structure to improved outcomes: An update from the American college of critical care medicine task force on models of critical care. *Crit Care Med* 2015; 43:1520–1525

DOI: 10.1097/CCM.0000000000004199

The authors reply:

With interest we have read the letter of Gigli and Martsolf (1), concerning two recently published articles (2, 3) in *Critical Care Medicine* regarding the benefits of replacing "incident-to" billing with billing traceable to advanced practice providers (APPs). We fully agree with the authors that this would create another level of clarity regarding the tasks APPs perform. The spin-off of this intervention could possibly be surprising. For instance, we retrospectively collected data from the Critical Care Outreach Team (CCOT) calls for a period of 2 years and evaluated their performance (unpublished data). APPs apparently handled twice as many calls as medical residents (MRs). The MRs said that they had enough to manage in the relatively new critical care environment and the CCOT call distracted them from their task. Furthermore, they had an uncertain attitude toward handling severely ill patients during a CCOT action. In contrast, the more experienced APPs saw a challenge in diagnosing and treating these patients. In published studies, the effect of the experienced APP in relation to other professions has not been completely elucidated. Studies are often not designed to evaluate the performance of just APPs alone. For example, an eloquent study evaluated the effect of adding an APP to an existing team (4). This showed a reduction in time for transfer to the ICU of critically ill patients but evaluation of the mechanisms and effort of APPs was not described to its full extent.

In The Netherlands, the initiative to implement APPs in all areas of medicine has been enthusiastically embraced by the government because it is undoubtedly a quality impulse and it can be a better alternative than a physician. However, it is also the overture to a reduced reimbursement by the health insurance companies. In the Netherlands, this brings hospitals into an uncertain financial position. An intervention billed by an APP is considered to be cheaper than an intervention billed by a physician. The disadvantage of this method is, that the effort of team work and quality improvement receives less attention. If the intensive care could be approached as a whole in which billing covers the costs of the entire intensivist led team of nurses, MRs and APPs, this would acknowledge all participants for their efforts in critical care.

Dr. Kreeftenberg received funding from the Catharina Hospital (Clinical Teacher for Advanced Practice Providers on the Intensive Care). Dr. van der Voort disclosed that he does not have any potential conflicts of interest.

Herman G. Kreeftenberg, MD, Department of Intensive Care Medicine, Catharina Hospital, Eindhoven, The Netherlands, and Department of Internal Medicine, Catharina Hospital, Eindhoven, The Netherlands; **Peter H. J. van der Voort, MD, PhD,** Department of Intensive Care Medicine, University Medical Center, Groningen, The Netherlands, and TIAS School for Business and Society, Department of Health Care, Tilburg University, Tilburg, The Netherlands

REFERENCES

1. Gigli KH, Martsolf G: Assessing Advanced Practice Provider Value: Beyond a Single Healthcare System. *Crit Care Med* 2020; 48:e335–e336
2. Kreeftenberg HG, Pouwels S, Bindels AJGH, et al: Impact of the advanced practice provider in adult critical care: A systematic review and meta-analysis. *Crit Care Med* 2019; 47:722–730
3. Kleinpell RM, Grabenkort WR, Kapu AN, et al: Nurse practitioners and physician assistants in acute and critical care: A concise review of the literature and data 2008-2018. *Crit Care Med* 2019; 47:1442–1449
4. Gershengorn HB, Xu Y, Chan CW, et al: The impact of adding a physician assistant to a critical care outreach team. *PLoS One* 2016; 11:e0167959

DOI: 10.1097/CCM.0000000000004254

Ultrasound for Pulmonary Gangrene: All That Glitters May Not Be Gold

To the Editor:

We read with great interest the article published in a recent issue of *Critical Care Medicine* by Echivard et al (1). The authors have done a great job of providing subjective description of ultrasonic imaging in suspected pulmonary gangrene. We would like to make few points that may be of interest to authors and readers of this case report.

Echivard et al (1) describe picture as fluid effusion below the fractal lines with its boundaries shredded, they called a "quagmire sign." Other conditions that may give similar picture include encysted pleural effusion formed on consolidated lung with metastasis with damaged, inflamed, and sloughed malignant tissue or local spread of tumor with hemorrhage or necrosis that may take a shape of area with irregular boundaries;