To the Editor:

We applaud Tukpah and colleagues for highlighting the challenges of minimizing the racial and ethnic inequities in current acute and postacute care management frameworks for patients with coronavirus disease (COVID-19). In their recent Viewpoint (1), they astutely describe action items related to the recognition of implicit bias and the creation of a multidisciplinary task force. Although we agree that they are a strong step in the right direction, we suggest some additional considerations on the basis of our efforts in Imperial County, a predominantly Latinx region in southernmost California still overwhelmed with critical cases of COVID-19. First, the highly varied nature of multidisciplinary task forces can lead to confusion even when physician champions and administrative leaders are working together to make clear, on-the-ground decisions. Although we have greatly appreciated additional staff (e.g., federal disaster personnel and traveling physicians and nurses) sent to care for patients alongside local providers, a clear and consistent set of expectations that minimizes implicit bias has been difficult, as direct clinical matters often take precedence over “softer” skills. In addition, hospital administrators may feel pressure to accept terms of such external resources arbitrarily, fearing political backlash or having difficulty dismissing those not clinically or culturally appropriate rather than strategically integrating them to maximize benefits. As a result, higher quantities of resources have not always translated into an enhanced quality of care delivery. Second, although interpreter services and multilingual staff help communicate directly with patients, we have found that language proficiency alone does not always bridge the preexisting gaps in healthcare access and medical understanding (2, 3). Leveraging nuances in expressive language to deepen understanding of both disease and care management would allow providers, patients, and family members to navigate complex dynamics better, as many are unfamiliar with (and often unprepared for) the emotional and medical aspects of critical illness, now compounded by hospital visitation restrictions. Furthermore, discussions of Crisis Standards of Care have heightened sensitivity about expectations of care standards and local concerns regarding inequities in rationing of care. Finally, postacute care networks traditionally have not been harnessed to handle high-acuity patients with COVID-19. Although there is a promise for long-term acute care hospitals (LTACHs) in this regard (4), current variations in the appropriate use of limited resources. Although opinions may differ on how the resources should be handled, the collective discussion allows for transparency and idea sharing that assists in disseminating consistent messages to diverse staff. Finally, institutions should support efforts by physician leaders to develop bridges between acute care and postacute care hospital environments. Such positions can bring confidence and education to providers on both sides to facilitate pathways for patients still requiring high-acuity care during the longer term for recovery.

Author disclosures are available with the text of this letter at www.atsjournals.org.

Venktesh R. Ramnath, M.D.*
University of California–San Diego Health
La Jolla, California

Andrew Lafree, M.D.
University of California–San Diego Health
La Jolla, California

and

El Centro Regional Medical Center
El Centro, California

Katherine Staats, M.D.
Stanford University
Stanford, California

and

Emergency Medical Services
Imperial County, California

Christian Tomaszewski, M.D.
University of California–San Diego Health
La Jolla, California

and

El Centro Regional Medical Center
El Centro, California

ORCID ID: 0000-0003-0163-0066 (V.R.R.).

*Corresponding author (e-mail: vramnath@health.ucsd.edu).

References

1 Tukpah AM, Moll M, Gay E. COVID-19 racial and ethnic inequities in acute care and critical illness survivorship. Ann Am Thorac Soc 2021; 18:23–25.

2 Ryder AG, Ban LM, Chentsova-Dutton YE. Towards a cultural–clinical psychology. Soc Personal Psychol Compass 2011; 5:960–975.
We read with great interest the article by Shimatani and colleagues (1), in which the authors sought to describe the frequency of reverse triggering (RT) and its associated risk factors among pediatric patients with acute respiratory distress syndrome. The authors have conducted a colossal work, analyzing the patient–ventilator synchronization in 36 patients. Their main conclusion is that RT is highly prevalent in this population, as it was observed in 41.6% of patients and associated with breath stacking in 25% of the cases. This finding is quite surprising, as only one case of RT has been previously reported in children (2).

We completely agree that patient–ventilator asynchrony was very frequent in their series, in line with previous findings (3). However, we respectfully disagree with the diagnosis of RT in this study and, therefore, its prevalence. As initially described by Akoumianaki and colleagues (4), the notion of RT implies that the patient’s effort is triggered by the ventilator, with the patient’s respiratory drive being entrained by the ventilator rate. Differentiating a patient’s spontaneous breath from a breath triggered by the ventilator is difficult. To allow this distinction, important criteria have been proposed (4): the RT breaths should occur according to a stable and repetitive pattern, with minimal variability (as assessed by the coefficient of variation) of both the neural respiratory time and the phase difference, and at least five breaths with a fixed mechanical/patient effort ratio (1:1, 1:2, or 1:3) should be present.

Shimatani and colleagues did not use these discriminant criteria. All patients’ breaths occurring after the beginning of insufflation were defined as RT breaths, with no criteria related to the phenomenon’s regularity and predictiveness (see Table E1 in the online supplement). They observed a single patient with a clear repetitive pattern of RT (1:1), which is a worthy and significant result, as descriptions of RT in pediatrics are scarce. However, there is no evidence that the "RT" breaths observed in the 14 remaining patients were really triggered by the ventilator. No regular pattern was observed in these patients, in contradiction with recent adult studies in which the absence of an identified pattern was very rare (5) or simply excluded by definition.

Except for the patient with a 1:1 entrainment pattern, our interpretation is that most asynchronous breaths observed after the beginning of the ventilator cycle are not RT but instead reflect severe patient–ventilator asynchrony, with a complete “dissociation” between the ventilator’s and patient’s rates. This is well illustrated in their Figure 3, in which patient B exhibits regular spontaneous breaths. It seems quite probable that the first and sixth breaths (considered RT) were not triggered by the ventilator but rather occurred at this time fortuitously. In the absence of a convincing demonstration of entrainment by the ventilator, we believe that this type of asynchronous event should rather be classified as “premature triggering” (3) or complete desynchronization.

Is this distinction important? As pointed out by Shimatani and colleagues, a theoretical risk of ventilation-induced lung injury exists in cases of breath stacking with increased tidal volume. We fully agree that detecting these events is primordial, whether they are considered RT breaths or not. However, we believe maintaining a rigorous definition and differentiating RT from other types of asynchrony is essential because the pathophysiology and management likely differ. Adjusting the ventilator settings to the patient’s breathing effort or innovative ventilation modes such as neurally adjusted ventilatory assist can markedly improve severe asynchrony, whereas the management of RT is not well established. Observing the patient’s response to a prolonged expiratory hold can help facilitate the distinction between RT episodes and simple asynchronous effort (6).

Author disclosures are available with the text of this letter at www.atsjournals.org.

Michael Levy, M.D., Ph.D.
Université de Montréal
Montreal, Quebec, Canada

and

Université de Paris
Paris, France

Laurence Tabone, M.D.
Université de Montréal
Montreal, Quebec, Canada

Guillaume Mortamet, M.D., Ph.D.
Université de Montréal
Montreal, Quebec, Canada

and

Université de Grenoble
La Tronche, France

Céline Thibault, M.D.
Guillaume Emeriaud, M.D., Ph.D.*
Université de Montréal
Montreal, Quebec, Canada

*Corresponding author (e-mail: guillaume.emeriaud@umontreal.ca).