



## Classification of acute respiratory distress syndrome.

### Is the current staging distinct?

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The Berlin definition has existed for a few years, and the graciousness of this new classification is that it not only simply classified acute respiratory distress syndrome (ARDS) according to severity but it stratified the therapeutic modalities accordingly. (1) The pandemic caused by coronavirus disease 2019 (COVID-19) and the subsequent severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) placed a major burden for the health care systems globally and regionally. (2) Ulterior critical care teams suffer more, predicting the outcome in these complex situations and aligning the disposition and management option seems to be perfect goals.

The Berlin classification suggested VV-ECMO as possible treatment for severe ARDS. (1) Additionally, previous studies demonstrated the prospective advantages of severe ARDS by veno-venous extracorporeal membrane oxygenation (VV-ECMO). (3, 4) The classification of ARDS was addressed in a work by Oromendia and Siempos, which analyzed high-quality data from the ARDSnet trials. The authors did not find significant mortality differences between moderate versus severe and mild versus moderate ARDS. The encountered differences occurred with respect to ARDS resolution, and ventilator- and intensive care unit (ICU)-free days. (5) More recently, in a randomized clinical trial done by Combes et al., the investigators found no significant 60-day mortality differences when

they compared ECMO versus the conventional mechanical ventilation treatment for severe ARDS in which ECMO was also used as a rescue therapy. These notable and favorable findings were secondary composite end points, and the high crossover rate signals potential benefits from the ECMO treatment. (6) The latter was the first randomized study in this context that shed a light on the need to have more limitations in ECMO treatment for these patients.

**In conclusion**, in the view of the pandemic burden, recent analyses and trials, we think that it may be a time to reclassify ARDS in which the effective therapeutic modalities conform with the relationship to each class; therefore, a very severe class of ARDS could exist in which VV-ECMO may have a definitive role.

List of abbreviations:

ARDS: acute respiratory distress syndrome;

COVID-19: coronavirus disease 2019;

SARS-CoV-2: acute respiratory syndrome coronavirus-2;

VV-ECMO veno-venous extracorporeal membrane oxygenation

Acknowledgment

This work would not have been possible without the kind support and help of many individuals and our organization.

*Funding*

No funding exist for this report

*Availability of data and materials*

NA

*Authors' contribution*

ASO: study design, contribution to the concepts, writing the manuscript and revising the final form. YS: writing and manuscript revision. All authors read and approved the final

manuscript.

*Competing interest*

The authors declare that they have no competing interests.

*Consent for publication*

Not applicable.

*Ethics approval and consent to participate*

Not applicable.

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