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Application of ethical principles to VV-ECMO patients in Qatar

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With the introduction of veno-venous extracorporeal membrane oxygenation (VV-ECMO) to Qatar, the medical intensive care unit (MICU) team started to face new and challenging ethical dilemmas. These ethical questions have subjected the team of physicians, nurses, and other healthcare professionals to mental stress in addition to the physical stress already encountered running the ECMO service. In this article, we reviewed the literature for similar ethical dilemmas to the ones we have faced comparing our experience with that of other centers around the world.¹

The main principles that we applied were justice, beneficence, non-maleficence, and avoiding cruelty.² The principle of justice was practiced by making ECMO service available to all residents of Qatar, regardless of their social, cultural, or economic background.

Applying this principle has not incurred any injustice to the other fields of medicine as the health system in Qatar provides full medical coverage to all residents of Qatar. The principle of beneficence was applied by lowering the threshold of accepting acute respiratory distress syndrome (ARDS) cases regardless of the inciting cause. As such, ECMO support was started for patients with ARDS due to medical, surgical, and trauma-related conditions.

The two principles of non-maleficence and avoiding cruelty were most challenging.³ The team faced these two principles when dealing with a patient who ended with permanently damaged lungs due to open TB and ARDS with no favorable outcome; lung transplantation was not available in Qatar. What made the situation difficult was the fact that the patient was alert, communicating, and able to make decisions. The patient clearly indicated wanting to stay on ECMO support to stay alive, hoping to return home. Although some argued against continuing ECMO to avoid complications which will harm the patient,

others argued against stopping ECMO as it would lead to death. As there was a clear conflict among the team members, the Ethics Committee was consulted and more than one meeting were conducted. At the end, the decision was to continue with full ECMO support, including changing the circuit and/or membrane if needed. The patient eventually succumbed to acute severe right heart failure after more than 9 months on ECMO support.

In conclusion, the ethical challenges that we faced and will most likely continue to face in the ECMO program in Qatar are similar to those faced in other parts of the world. The main difference remains that withdrawing care from futile cases is not accepted in

general. This is governed by the local cultural, religious backgrounds, and the level of awareness among the medical staff and the public at large. We believe that any ECMO program should include in its training discussions about potential ethical dilemmas that will most likely be faced in the course of managing the critically ill patients.

Keywords: ECMO, justice, beneficence, non-maleficence, cruelty

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