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Commentary: "To list, or not to list? That is the question"

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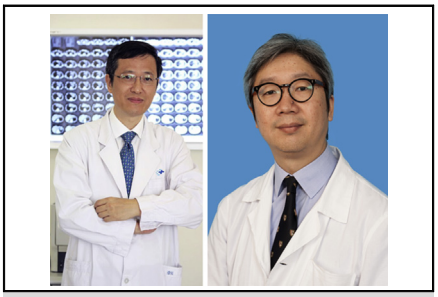

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CENTRAL MESSAGE

Lung transplantation for urgently listed patients is challenging and resource-intensive. Transplantation teams need to exercise good judgment in offering urgent listing to offset the risks of poor outcomes.

Lung transplantation (LTx) is the only treatment option for selected patients with end-stage lung disease. Donor lung scarcity leads to waitlist mortality. Prioritizing the sickest patients who will most likely die without a transplantation needs to be balanced against concerns regarding worse outcomes and futile procedures.

In this issue of the *Journal*, the Cleveland group present their results of LTx following urgent listing.[1] In their cohort, with a mean lung allocation score of 82 and bridging with mechanical ventilation/extracorporeal membrane oxygenation (ECMO) in 25% of patients, mortality was 26% at 1 month after listing, and 58% underwent LTx. Compared with propensity-matched patients who were electively listed, there was no significant difference in death at 1 month after LTx, ECMO use, or intensive care unit stay. The survival at 1 month and 5-year survival of urgently listed patients were comparable to that reported in the literature. Older age, liver impairment, and outside hospital transfer were associated with death after urgent listing. What is not known was their decision process: who to urgently list and who to bridge? Further investigation into frailty, sarcopenia, and other organ system dysfunction may improve patient selection.

Most European countries allocate organs to the sickest patients first. In France, "high emergency status" may be granted to patients with idiopathic pulmonary fibrosis, cystic fibrosis, or pulmonary hypertension, but not to patients with chronic obstructive pulmonary disease (COPD),[2] whereas in the United Kingdom, patients with COPD are eligible.[3] In France, national priority is given for 8 days, and only 1 renewal is allowed. Scandiatransplant has no predefined entry criteria for priority or limits on urgent status duration; however, only 3 urgent calls are allowed per year per center.[4]

The China Organ Transplant Response System allocates all deceased organs nationally. Matching is based on medical urgency (using principles similar to LAS) and waiting times[5]; patients with ECMO are prioritized. Owing to delayed referral and inadequate medical insurance coverage for LTx, Chinese patients frequently present to transplantation centers in critical condition.[6] An analysis of the Chinese national database showed that 52.9% of patients were in New York Heart Association (NYHA) Class IV, 4.9% had ECMO bridging to transplantation, and 5.5% received mechanical ventilation. Decreased survival was associated with older age, NYHA Class IV, ECMO use, and renal insufficiency.[7] Unlike in the West, in China the number of available clinically suitable donor lungs exceeds the number of patients referred for LTx[7]; therefore, urgent and critical cases are often assessed, and patients with pneumonia-related acute respiratory distress syndrome (ARDS), including post–COVID-19 ARDS, have undergone LTx. Continued scrutiny and follow-up are needed to ensure just and appropriate transplantation in urgent cases. Unique to China, logistical bottlenecks result from the uneven distribution

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Disclosures: The authors have nothing to disclose with regard to commercial support.
Received for publication March 7, 2020; accepted for publication March 9, 2020; available ahead of print March 20, 2020.

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J Thorac Cardiovasc Surg 2021;161:321-2
0022-5223/$36.00

https://doi.org/10.1016/j.jtcvs.2020.03.032

of Chinese LTx centers over vast geographical areas and jeopardize timely organ procurement. The "Green Channel of Human Organ Transportation" is a national policy that ensures priority for flight departures and seamless connections to minimize ischemic times.[6]

The Cleveland group should be commended for their results for transplantation in urgently listed patients. Individual centers need to recognize that LTx for these patients is resource-intensive and challenging, and the results of expert high-volume centers may not be replicable.

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