

SPECIALISED COMMISSIONING – RESPONSE TO AMENDMENTS REQUESTED TO EVIDENCE REVIEW DURING ENGAGEMENT OR CONSULTATION

URN	1803
POLICY TITLE	Extracorporeal membrane oxygenation (ECMO) for bridge to lung transplant (all ages)
CRG:	Specialised Respiratory
NPOC:	Internal Medicine
Date	2 October 2020

Description of comments during consultation (If studies have been suggested please provide a list of references)	Consideration should be given of additional evidence published after the evidence review was completed. Reference to specific devices should be removed. Y. Tipograf, M. Salna, E. Minko, et al. Outcomes of extracorporeal membrane oxygenation as a bridge to lung transplantation Ann Thorac Surg, 107 (5) (2019), pp. 1456-1463
Action taken by Public Health lead	Review of additional evidence.
Outcome for studies suggested during consultation	
1. Evidence already identified during the evidence review	None of the outcomes from the evidence presented in the evidence review were highlighted in the consultation feedback.
2.New evidence identified by stakeholders that does not fall within PICO and search methodology	None
3.New evidence identified by stakeholders that falls within PICO and search methodology but does not materially affect the conclusions of the existing evidence review	<p>This paper was published after the literature review search was undertaken but would have been picked up in the PICO and search methodology. The evidence supports the policy proposition and would not materially affect the existing conclusions or policy position.</p> <p>Y. Tipograf, M. Salna, E. Minko, et al. Outcomes of extracorporeal membrane oxygenation as a bridge to lung transplantation Ann Thorac Surg, 107 (5) (2019), pp. 1456-1463</p> <p>Background: Extracorporeal membrane oxygenation (ECMO) as a bridge to lung</p>

	<p>transplantation (BTT) has become a critical component of caring for patients with end-stage lung disease. This study examined outcomes of patients who received ECMO as a BTT.</p> <p>Methods: Statistical analysis was performed on data gathered retrospectively from the electronic medical records of adult patients who received ECMO as BTT at Columbia University Medical Center from April 2009 through July 2018.</p> <p>Results: A total of 121 adult patients were placed on ECMO as BTT, and 70 patients (59%) were successfully bridged to lung transplantation. Simplified Acute Physiology Score II, unplanned endotracheal intubation, renal replacement therapy, and cerebrovascular accident were identified as independent predictors of unsuccessful BTT. Ambulation was the only independent predictor of successful BTT (odds ratio, 7.579; 95% confidence interval, 2.158 to 26.615; $p = 0.002$). Among the 64 patients (91%) who survived to hospital discharge, survival was 88% at 1 year and 83% at 3 years. Propensity matching between BTT and non-BTT lung transplant recipients did not show a significant difference in survival (log-rank = 0.53) despite significant differences in the lung allocation score (median, 92.2 [interquartile range, 89.0 to 94.2] vs 49.6 [interquartile range, 40.6 to 72.3], $p < 0.01$).</p> <p>Conclusions: ECMO can be used successfully to bridge patients with end-stage lung disease to lung transplantation. When implemented by an experienced team with adherence to stringent protocols and patient selection, outcomes in BTT patients were comparable to patients who did not receive pretransplant support.</p>
<p>4.New evidence identified by stakeholders that falls within PICO and search methodology, that does materially affect the conclusions of the existing evidence review. Updated evidence review to be undertaken (agreed with CET)</p>	<p>None</p>