

**Health Technology Clinical Committee
Final Findings and Decision**

Topic: Extracorporeal Membrane Oxygenation Therapy
Meeting Date: March 18, 2016
Final Adoption: May 20, 2016

Meeting materials and transcript are available on the HTA website:
www.hca.wa.gov/hta/meetingmaterials/Forms/ExtMeetingMaterial

Number and Coverage Topic:

20160318A – Extracorporeal Membrane Oxygenation Therapy (ECMO)

HTCC Coverage Determination:

Extracorporeal membrane oxygenation therapy is a **covered benefit with conditions**.

HTCC Reimbursement Determination:

Limitations of Coverage:

In patients with severe life-threatening, but potentially reversible, acute respiratory or cardiac dysfunction unresponsive to conventional management.

As a bridging therapy for patients in pulmonary failure who are on a pulmonary transplant list.

As a bridging therapy for patients in cardiac failure who are eligible for a ventricular assist device or cardiac transplantation.

All procedures only at a facility participating in the ELSO case registry.

Non-Covered Indicators:

N/A

Agency Contact Information:

| Agency | Phone Number |
|------------------------------|----------------|
| Labor and Industries | 1-800-547-8367 |
| Public Employees Health Plan | 1-800-200-1004 |
| Washington State Medicaid | 1-800-562-3022 |

HTCC Coverage Vote and Formal Action

Committee Decision

Based on the deliberations of key health outcomes, the committee decided that it had the most complete information: a comprehensive and current evidence report, public comments, and state agency utilization information. The committee concluded that the current evidence on ECMO is sufficient to make a determination on this topic. The committee discussed and voted on the evidence for use of ECMO compared to conventional intensive care management. The committee considered the evidence and gave greatest weight to the evidence it determined, based on objective factors, to be the most valid and reliable.

Based on these findings, the committee voted to cover with conditions extracorporeal membrane oxygenation therapy.

| | Not Covered | Covered Under Certain Conditions | Covered Unconditionally |
|---|-------------|----------------------------------|-------------------------|
| Extracorporeal Membrane Oxygenation Therapy | 0 | 11 | 0 |

Discussion

The committee reviewed and discussed the evidence, and the quality and limitations of the evidence. Based on the available information and including contextual input from the clinical expert, the committee developed conditions for coverage for ECMO to address use for patients with severe life-threatening respiratory or cardiac dysfunction that is not responding to conventional management but is potentially reversible; as a bridging therapy for patients in pulmonary failure and who are on a pulmonary transplant list; and as a bridging therapy for patient in cardiac failure who are eligible for a ventricular assist device or cardiac transplantation. All procedures should only be provided at a facility participating in the Extracorporeal Life Support Organization (ELSO) registry to continue to collect valuable registry data for future use. With the above noted condition the committee voted to cover ECMO with conditions.

Limitations

In patients with severe life-threatening, but potentially reversible, acute respiratory or cardiac dysfunction unresponsive to conventional management.

As a bridging therapy for patients in pulmonary failure who are on a pulmonary transplant list.

As a bridging therapy for patients in cardiac failure who are eligible for a ventricular assist device or cardiac transplantation

All procedures only at a facility participating in the ELSO case registry.

Action

The committee checked for availability of a Medicare national coverage decision (NCD). There is no NCD for ECMO.

The committee discussed clinical guidelines addressing use of ECMO from the following organizations:

- Extracorporeal Life Support Organization (ELSO)(2010)
- American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (AHA)(2010)
- International Society of Heart and Lung Transplantation (ISHLT)(2010)
- American Thoracic Society (1997)
- National Institute for Health and Care Excellence (NICE)(2014)

The chair noted consistency with existing guidelines and the fact that some of the guidelines preceded some of the available literature.

The committee chair directed HTA staff to prepare a findings and decision document on ECMO reflective of the vote for final approval at the next public meeting.

Health Technology Clinical Committee Authority:

Washington State's legislature believes it is important to use a science-based, clinician-centered approach for difficult and important health care benefit decisions. Pursuant to chapter 70.14 RCW, the legislature has directed the Washington State Health Care Authority (HCA), through its Health Technology Assessment (HTA) program, to engage in an evaluation process that gathers and assesses the quality of the latest medical evidence using a scientific research company and that takes public input at all stages.

Pursuant to RCW 70.14.110 a Health Technology Clinical Committee (HTCC) composed of eleven independent health care professionals reviews all the information and renders a decision at an open public meeting. The Washington State HTCC determines how selected health technologies are covered by several state agencies (RCW 70.14.080-140). These technologies may include medical or surgical devices and procedures, medical equipment, and diagnostic tests. HTCC bases its decisions on evidence of the technology's safety, efficacy, and cost effectiveness. Participating state agencies are required to comply with the decisions of the HTCC. HTCC decisions may be re-reviewed at the determination of the HCA Administrator.