

# Perfusion Profession Agenda

## **What is a Perfusionist?**

A perfusionist operates a heart/ Lung machine whereby, they use take over the function of the heart and lungs while these organs are being bypassed for repair. A perfusionist is the only allied health Professional tasked with arresting the heart with a potassium-based formula. With the heart in its quiescent state, it is then repaired. A perfusionist can maintain a patient on cardio-pulmonary bypass for many hours, and then awakes the cardiac organ so that it can again take over its native function.

**EDUCATION:** Managed by the Commission on Accreditation of Allied Health Education program. Accredited Perfusion Programs offer both master's and baccalaureate degrees, with most being the former. There are only 19 programs across the United States.

## **How many license states are there for Perfusionists?**

18 states license perfusionists. Approximately 4000 perfusionist are in the United States, according to the Journal of Extracorporeal Technology 2020 Mar; 52(1): 27-42.

The American Board of Cardiovascular has summarized the perfusion profession as a constrained resource.

- **Item 1:** License NRS 630.2696 Sub 4.
  - States, a temporary license issued must be surrendered if a candidate who functions with said license fails their medical board exam on the first attempt.
    - Consideration to change legislature: to allow parity with other allied health professionals.
- **Item 2:** To allow experienced perfusionists who are qualified by the American Board of Cardiovascular Perfusionists, to also obtain a temporary license while they wait clearance.
  - To establish a fast-track approach to credentialed Perfusionists who are licensed in other states in a reciprocity manner.

## **What is ECMO?**

Extracorporeal membrane oxygenation is a therapy used to bridge or recover the heart, lungs or both. It employs the major components of the perfusionists heart-lung machine into a smaller platform. This platform can be placed into the ICU or transport units to mobilize patients to places for further care. As stated, the main components of the Heart-lung machine in cardiac surgery are the artificial heart and artificial lung. Placed peripherally into the body, a clinician will provide ECMO services to a patient. Currently, across the United States, the lack of Perfusion resources has led to cross training nurses and Respiratory therapist to manage the ECMO system with Perfusionists as back up for catastrophic issues. This therapy is covered by a perfusionists license and training.

## **Item 3:**

- which clinicians does Nevada want to allow to provide this service to patients?
- It is common practice to use Perfusionists, Nurses, and Respiratory therapist at the bedside while a patient is on ECMO
  - Should they hold Nevada license? Nursing? Respiratory Therapist?
  - Should be credentialed by a hospital? Competency?

- A Nevada ECMO Program should have Perfusion oversight. Since Cardiopulmonary Bypass, ECMO, AND NRP are covered by the Extracorporeal terminology. Perfusionists must be involved.
- **NRS 630.0137 “Perfusion” defined.**
- 1. “Perfusion” means the performance of functions which are necessary to provide for the support, treatment, measurement or supplementation of a patient’s cardiovascular, circulatory or respiratory system or other organs, or any combination of those activities, and to ensure the safe management of the patient’s physiological functions by monitoring and analyzing the parameters of the patient’s systems or organs under the order and supervision of a physician.
- 2. The term includes, without limitation:
  - (a) The use of extracorporeal circulation and any associated therapeutic and diagnostic technologies; and
  - (b) The use of long-term cardiopulmonary support techniques.
- 3. As used in this section, “extracorporeal circulation” means the diversion of a patient’s blood through a heart-lung bypass machine or a similar device that assumes the functions of the patient’s heart, lungs, kidney, liver or other organs.
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### What is NRP/DCD?

In donation after circulatory death (DCD) organ transplantation, normothermic regional perfusion (NRP) restores oxygenated blood flow following cardiac arrest and reverses warm ischemia. Recently, NRP has also been used to help recover DCD hearts in addition to the abdominal organs.

Normothermic Regional Perfusion is an Emerging Cost-Effective Alternative in Donation After Circulatory Death (DCD) in Heart Transplantation

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**NOTE: in these cases, the restoration of organs is done by utilizing cardiopulmonary machine. Currently, these cases are done by qualified perfusionist. This should remain under protection of Perfusion license.**

### Who should be able to perform NRP cases.

- NRP should protect the public by allowing the most qualified to operate the cardiopulmonary machine- Perfusionist.

#### **NOTE: NRS 630.0137 “Perfusion” defined.**

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**Maryland General Assembly License: protecting Perfusion Scope of Practice**

**§14-5E-20.**

Except as otherwise provided in this subtitle, a person may not practice, attempt to practice, or offer to practice perfusion in this State unless licensed to practice perfusion by the Board.

**§14-5E-21.**

(a) Unless authorized to practice perfusion under this subtitle, a person may not represent to the public by title, by description of services, methods, or procedures, or otherwise, that the person is authorized to practice perfusion in this State.

(b) Unless authorized to practice perfusion under this subtitle, a person may not use the titles "certified clinical perfusionist", "licensed perfusionist", or "licensed clinical perfusionist", the abbreviations "C.C.P.", "L.P.", or "L.C.P.", or any other words, letters, or symbols with the intent to represent that the person practices perfusion, holds a certificate as a certified clinical perfusionist issued by the American Board of Cardiovascular Perfusion or its successor entity, or holds a license as a licensed perfusionist issued by the Board.

**§14-5E-22.**

A person may not provide, attempt to provide, offer to provide, or represent that the person provides perfusion services unless the perfusion is provided by an individual who is authorized to practice perfusion under this subtitle.

**§14-5E-23.**

(a) A person who violates any provision of §§ 14-5E-20 through 14-5E-22 of this subtitle is guilty of a misdemeanor and on conviction is subject to a fine not exceeding \$1,000 or imprisonment not exceeding 1 year or both.

(b) A person who violates any provision of §§ 14-5E-20 through 14-5E-22 of this subtitle is subject to a civil fine of not more than \$5,000 to be levied by a disciplinary panel.

(c) The Board shall pay any penalty collected under this section into the Board of Physicians Fund.

**§14-5E-24.**

This subtitle may be cited as the Maryland Perfusion Act.