

# OUR 10-POINT ECMO CHECKLIST

How to Know if Your Hospital is Ready to Start or Expand Your ECMO Program

How do you know when it's time to take your ECMO program to the next level? Though COVID-19 cases may be dropping for the time being, the need for ECMO therapy continues to grow. What factors indicate that your hospital would benefit from a more robust ECMO Program? It's worth knowing, because a fully functioning ECMO Program can offer more stability to patients, greater revenue opportunities, and an increased ability to retain talented clinicians at your hospital.

**This 10-point checklist can help you determine whether starting or expanding your ECMO program would be worthwhile — and how to make it happen without overburdening your staff.**

## 10 POINTS THAT DETERMINE YOUR NEED TO START OR EXPAND AN ECMO PROGRAM

### 1. You're seeing an increase in the need to transfer patients to an ECMO center.

As patients within certain DRGs who meet the criteria for ECMO therapy get transferred out for treatment, your hospital may be losing a considerable amount of revenue over time. This happens for two reasons: it may be difficult to determine if the qualifications for full DRG payments are met or internal teams don't always have the bandwidth or ability to track whether all transfer DRG payments have been collected.<sup>1</sup> Being able to retain ECMO cases at your facility can provide stability to patients and minimize the revenue leak created by the complexities in the transfer DRG payment system.

### 2. You want to improve patient outcomes by having a more robust ECMO Program at your hospital.

Prior to the COVID-19 pandemic, a study on over 50,000 ECMO patients between 1983 and 2015 revealed that hospitals with more than 30 adult ECMO cases each year had "significantly lower odds of mortality" in comparison with hospitals that treated six or fewer adult cases.<sup>2</sup>

The use of ECMO therapy spiked significantly during the pandemic due to the increased incidence of lung damage. From this volume of ECMO usage, many data sets emerged that clinical researchers are still sifting through in terms of how the use of ECMO relates to mortality in COVID-19 patients.

However, researchers have since confirmed the previous conclusion that centers with greater experience in providing ECMO therapy (treating more than nine cases per year prior to March of 2020) have better outcomes compared to those with less experience.<sup>3</sup> The upfront benefit of a full service ECMO program is instant experience and improved outcomes. Centers are establishing ELSO pathways to excellence within two years of starting programs, which in turn puts the hospital on the registry, a great marketing tool for hospitals to use in the surrounding community.

### 3. You have patients that routinely meet ECMO criteria for cannulation.

You should consider starting or expanding your ECMO program if your adult patients are increasingly qualifying due to conditions such as the following:<sup>4</sup>

- Flu
- Viral or bacterial pneumonia
- Lung burn or inhalation injuries
- Traumatic lung injury
- Pulmonary contusion
- Acute Respiratory Distress (ARDS)
- Sepsis or post-shock
- Toxic Ingestion: Beta-Blocker/ Calcium Channel Blocker/ Tricyclic Antidepressant Overdose (2-3 day recovery on VA ECMO)
- Cardiac Arrest with Percutaneous Catheterization Intervention (Emergency Room/ CathLab (1-3 day recovery on VA ECMO)
- Bridge to transplantation
- Bridge to organ donation
- Pulmonary embolism

The same is true if your pediatric patients qualify based on conditions such as the following:

- Flu
- ARDS
- Respiratory failure from an asthma attack (Status Asthmaticus)
- Witnessed arrest
- Cardiac failure
- Congenital heart conditions
- RSV/ Metapneumovirus
- Myocarditis
- Cardiomyopathy
- Drug overdose
- Refractory pulmonary hypertension
- Malignant arrhythmias
- Witnessed arrest
- Sepsis
- Pulmonary embolism

While other factors must be considered for treatment, patients with these conditions meet the criteria for ECMO.

#### **4. You have a physician to champion your ECMO program.**

Cath lab physicians, pulmonary intensivists, and CT surgeons are all capable of completing the cannulations required for ECMO. A physician who is willing to lead the way and advocate for an ECMO program can promote collaboration and improve the program's effectiveness.

In fact, a 2012-2015 study showing the effects of a multidisciplinary approach to ECMO revealed a 30% drop in mortality rates over three years.<sup>5</sup> Having a qualified physician who is able to champion your ECMO program's success can be vital to its creation and development.

#### **5. You have skilled clinicians who are looking to expand their bedside skills.**

You don't want to see talented clinicians leaving your hospital because they can't continue to develop new skill sets within your hospital. Are valuable members of your team heading to other hospitals or centers to learn ECMO? When you create opportunities through an ECMO program, you have greater leverage to retain talented respiratory therapists and critical care nurses.

#### **6. You recognize the long-term viability of an ECMO Program (because even as COVID-19 cases are going down, the need for ECMO therapy is not).**

Today, hospitals are discovering that ECMO is not simply a salvage therapy. Research indicates that it has long-term viability and can improve survival rates in treated patients:

- A study published in 2015 revealed that usage of ECMO therapy had increased by 433% from 2006-2011. The authors stated, "There was a huge increase in the usage of ECMO in adults from 2006 to 2011 with a trend toward improved survival rates and no increase in hospitalization costs."<sup>6</sup>
- A study published in 2021 analyzed the long-term survival rates of 289 ECMO-treated patients. It tracked survival from six months to 9.7 years. According to the study, "This analysis of VV ECMO patients showed favourable long-term survival and high levels of HRQL suggesting promising prospects for VV ECMO survivors."<sup>7</sup>

#### **7. Your cardiac service line is looking to expand.**

If your cardiac program is looking to expand, an ECMO program can be a fitting solution. Commonly, hospital staff are not fully equipped to get a lung rescue unit or pulmonary unit off the ground without assistance. With help, hospital staff can be trained to develop and operationalize these units through an ECMO program and even learn how to mobilize patients, getting them moving during the recovery phase, in order to improve their condition.

#### **8. You're looking to expand patient care therapies.**

Expanding patient care therapies has no downside, especially if those therapies can provide stability for patients and increased revenue. As the need for and usage of ECMO therapy increases, an in-house program can provide another avenue for innovation and continuity of care. It's one more reason why patients may choose your hospital over others.

#### **9. You want to be more competitive in the market.**

Being left behind in the market can be extremely costly in healthcare. Staying on top of trends and continuously seeking to improve outcomes is the path to increased revenue and profitability. Having been used for nearly 60 years, ECMO therapy has established reliability and continues to increase in effectiveness and usage. As research continues to inform ways to optimize ECMO, its applications and versatility will only continue to grow.

## 10. You're interested in data and research opportunities for ECMO cases.

No hospital is an island, and none should be. All parties within the healthcare industry must be constantly learning in order to better serve patients. If you're interested in data and research opportunities for ECMO cases, you can choose to mine and contribute to research through SCOPE™, the SpecialtyCare Operative Procedural Registry.<sup>8</sup>

It's the largest procedural database of its kind, and we use it to identify healthcare standards, spread best practices across the country, determine benchmarks, and foster innovations that improve patient outcomes, increase efficiency, and minimize costs. With nearly 1,500 clinicians supporting over 400,000 procedures every year, we are able to collect a tremendous amount of data on treatments such as ECMO therapy.

## HOW TO START OR EXPAND YOUR ECMO PROGRAM TODAY

What is the potential value of an ECMO program to your hospital? The use of ECMO can provide experience to your clinicians and improved outcomes to your patients, yielding long-term returns in revenue, retained talent, and patient survival.

But, even if you see the need for the establishment of an ECMO program at your hospital, that doesn't mean you have the staffing, capacity, and training to start and sustain one. Fortunately, you don't have to handle the responsibilities of setting up or expanding an ECMO Program entirely on your own. SpecialtyCare provides ECMO assessment, consulting, and ECMO Specialist staffing expertise, including coordinators to manage ECMO programs. Here are some advantages to partnering with us:

- **Staff Placement.** Not only do we know exactly what it takes to get ECMO programs up and running safely, but we are also able to place highly trained RN's / RT's at hospitals to maintain them.
- **Extensive Knowledge of Best Practices.** With an extensive research database that collects information from the 400,000 procedures we support every year, our clinicians have a clear window into the most effective ECMO methods and best practices being used throughout the industry. We understand what's involved in developing the structure and protocols that will help your ECMO program run efficiently.
- **High Quality Oversight.** Our strategic support also involves providing an ECMO leader to ensure the quality and superior functionality of your ECMO program. In addition, we have detailed guidelines for the clinical coordinator who will handle the day-to-day responsibilities of the ECMO Program.

With a talented multidisciplinary team in place, you will be able to serve critically ill patients with ECMO's life-saving capabilities instead of having to refer them out to ECMO centers. You can retain talented clinicians and create valuable learning opportunities within your hospital. You can tap into greater potential revenue, potentially minimize revenue loss from transfer DRGs, and lower patient mortality rates through clinical experience and continuity of care.

Contact SpecialtyCare today to find out more about how we can help you create and sustain an effective ECMO program at your hospital. We can provide your hospital with an initial assessment and discuss how our training programs, staff placement, and consultations can benefit you and your patients.

## ABOUT SPECIALTYCARE

SpecialtyCare is the market leader in perfusion, ECMO services, and patient blood management services. We perform over 130,000 procedures requiring perfusion each year. Our 500 perfusionists perform over 45,000 or 1 in 8 open-heart procedures conducted in the nation. Approximately 99% of responses to our customer service experience surveys say we positively contribute to the quality of care the client provides and that we are an integral part of their OR team. Our evidence-based approach focuses on clinical quality, a commitment to excellence, strict adherence to industry regulations, and continuous improvement backed by best-in-class education, training, and research. Our job is to make surgery safer, share innovation and research using our extensive knowledge base, and help your health system maintain standards of excellence to improve patient outcomes year after year.

## Sources

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