# ELSO061505

**ELSO Award for Excellence in Life Support**

**Application Worksheet**

**2024**

Intended Use

This document is intended for the ECMO Center to use as a preliminary document in preparation for completing the online award application. Use it as a tool to collate your answers, edit as necessary and then copy and paste from this document into the online application form.

***Do not submit this document to ELSO***.

Each question has a designated space for answers. This mirrors the online application requirements.

All inquiries regarding the Award for Center of Excellence in Life Support or the Path to Excellence in Life Support direct to [award@elso.org](mailto:award@elso.org)

# 1. Systems Focus

Supply generalized institutional information

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| --- |
| 1.1 Has your center been a member of the Extracorporeal Life Support Organization (ELSO) for at least 3 years? How many patients have been supported with ECLS at your center per year in the last 5 years? Count each patient once. *(List patients/year and any variances)* |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2019 | 2020 | 2021 | 2022 | 2023 |
| Neonate |  |  |  |  |  |
| Pediatric |  |  |  |  |  |
| Adult |  |  |  |  |  |
| Total ECMO Patients |  |  |  |  |  |

Insert additional information here.

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| 1.2 Are there any patients in your institution on extracorporeal life support (specifically a pump with an oxygenator) that are not reported to the Registry and why? |

Insert answer here.

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| 1.3 Check all of your specialty services available on a 24-hour/day on-call basis? *(Describe plan for any services not available)* |

|  |  |
| --- | --- |
| ☐ Cardiology | ☐ General Surgery |
| ☐ Cardiovascular Surgery | ☐ Neonatology |
| ☐ Anesthesiology | ☐ Neurosurgery |
| ☐ Interventional Radiology | ☐ Genetics |
| ☐ Biomedical Engineering | ☐ Social Work |
| ☐ Neurology | ☐ Nephrology |
| ☐ Critical Care Specialist | ☐ Pulmonology |
| ☐ Hospitalist | ☐ Hematology/Oncology |
| ☐ Infectious Disease | ☐ Gastroenterology |
| ☐ Pathology | ☐ Psychology/Psychiatry |
| ☐ Other: | ☐ Clinical Perfusion |

Insert additional information here.

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| 1.4 Check available support services and/or consultants that are available *(Describe plan for any services and/or consultants not available)* |
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| --- | --- |
| ☐ Blood gas laboratory | ☐ Chemistry and hematology laboratory |
| ☐ Blood Bank | ☐ Pharmacy |
| ☐ Cardiovascular operating room with cardiopulmonary bypass capabilities | ☐ Radiology including cranial ultrasound and  CAT scan |
| ☐ Occupational and/or Physical Therapy | ☐ Developmental/Rehabilitation Specialist |
| ☐ Nutritionist | ☐ Pastoral care |
| ☐ Interpreter services | ☐Wound care |
| ☐ Palliative Care | ☐ Obstetrics/Gynecology |
| ☐ Child Life | ☐ Other |

Insert additional information here.

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| 1.5 Outline available inter-hospital transport services for patients on ECLS. If you do not provide ECLS transport services, please detail your plan for transporting patients on ECLS to or from your center in case of emergent need. |

Insert answer here.

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| 1.6 Describe the ECLS Medical Director position(s) responsible for the overall operation of the Center. |

1. Provide medical specialty of the Medical Director(s):

Insert answer here.

1. Detail the specific role of the Medical Director(s) of the ECMO Program, including the job description.

Insert answer here.

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| 1.7 Describe the ECLS Coordinator position(s) responsibilities in your institution. |

1. Provide credentials or licensure for ECLS Coordinator(s):

Insert answer here.

1. Detail the specific role of the ECMO Coordinator(s), including the job description.

Insert answer here.

# Environmental Focus

Define the facility and equipment available for ECLS

*Please assure that you have completed the ELSO Equipment and Disposable Resource questionnaire.*

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| 2.1 Describe in detail all units/areas in the institution where ECLS is provided.  ***Include each patient population cared for within your ECMO program.*** |

Insert answer here.

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| 2.2 Describe the location and general availability of the back-up equipment and components in relation to your ECLS patient.  ***Include details about types and numbers of equipment and supplies.*** |

Insert answer here.

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| 2.3 Detail your plans for equipment ***and*** staff utilization in the event that your center approaches and/or exceeds your maximum number of ECLS beds/pumps (increased census).  ***Include specific details regarding plans that are implemented once census maximum is reached.*** |

Insert answer here.

# Workforce Focus

Describe personnel caring for the patient

*For this application, “ECLS Specialist” refers to the individual your center designates to care for the ECLS pump and circuit. This may be a bedside nurse in a center’s single caregiver model; or a Perfusionist and/or a Respiratory Therapist that manage ECLS pump(s).*

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| 3.1 Describe the pre-requisites required to hire or select an ECLS Specialist*.*  If RNs **and/or** Perfusionists **and/or** Respiratory Therapists are used to manage ECLS pumps, describe the selection process for each group. In single caregiver models, describe the specific detail that an individual may need to achieve before becoming an ECMO Specialist.  ***Must include specialty/licensure/credentials/discipline. Examples include: past experience, skills assessments, certifications, recommendations, endorsements, etc.*** |

Insert answer here.

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| 3.2 What is your staffing model for your ECMO patients? (Check all that apply) |

1 Specialist per pump, patient has a dedicated nurse 1:1

1 Specialist per pump, patient’s nurse may have 1 or more other patients

1 Specialist for 2 pumps, patients have a dedicated nurse 1:1

1 Specialist for 2 pumps, patient’s nurse may have 1 or more patients

Single caregiver model (ECLS specialist is also the patient’s nurse)

Total number of pumps 1 Specialist is responsible for \_\_\_\_\_\_\_\_\_

Other (describe below)

Insert answer here.

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| 3.3 What written and/or electronic materials, other references and clinical expertise are available 24/7 to the ECLS Specialists for ECLS pump and patient management troubleshooting?  ***Include all types of materials and staff that are available.*** |

Insert answer here.

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| 3.4 Who provides **primary** medical management of the ECLS patient?  ***Must include all individual ECLS populations described in 1.1.*** |

Insert answer here.

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| 3.5 Who performs ECLS priming **and** how do you provide 24/7 coverage for priming?  ***Include details regarding availability 24/7.*** |

Insert answer here.

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| 3.6 Describe how you address highly stressful events that may occur during an ECLS run. These events may overwhelm individual staff members and their ability to cope. Staff debriefing processes are defined as programs available for staff where they are able to discuss events or situations, receive support, and learn coping skills.  ***Include the staff debriefing process that occurs after ECLS related critical stressful incidents. Include both immediate and non-immediate processes. May include an example.*** |

Insert answer here.

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| 3.7 Describe how you prevent or mitigate the moral distress that staff may experience when caring for critically ill patients on ECLS. Moral distress is the physical or emotional suffering that is experienced when an individual staff member knows the right thing to do, but constraints make it nearly impossible to pursue the right course of action.  ***Include interventions and resources available for individuals in these situations. May include an example.*** |

Insert answer here.

# Knowledge Management

Detail specifics on ECLS Team training and competencies

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| 4.1 Detail your institution’s **initial** educational process to credential/privilege/qualify physicians to medically manage ECLS patients. Include all attendings, fellows, and residents who care for ECLS patients**.**  ***Include every ECLS specific internal, external and/or virtual course, mentoring, minimum patient requirements, etc.*** |

Insert answer here.

|  |
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| 4.2 Detail your institution’s **annual continuing** professional development/education is required for physicians, including attendings, fellows and residents, to maintain credentials/privileges/license or registration to care for an ECLS patient?  ***Include every ECLS specific internal, external and/or virtual course, water drills/simulations, minimum patient requirements, peer review, etc.*** |

Insert answer here.

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| 4.3 Detail your institution’s **initial and continuing** educational process to credential/privilege/qualify advanced practice providers/nurse practitioners/nurse specialists/physician extenders/physician assistants to medically manage ECLS patients. If you do not use these professionals, please state.  ***Must include both initial and continuing education requirements such as internal, external and/or virtual courses, water drill/simulations, orientation, mentoring, minimum patient requirements, etc****.* |

Insert answer here.

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| 4.4 Explain your center’s initial training program for future ECLS Specialists (*ECLS Specialist refers to the individual your center designates to care for the ECLS pump and circuit*)  ***Specifically, how do you incorporate the ELSO Guidelines regarding the following four aspects: Core educational process, water drills/simulations, bedside orientation and the final exam?*** |

1. Describe your basic core ECLS educational process, including content and requirements for traditional didactic learning, asynchronous learning (time defined self-learning), and/or other curriculum or educational methodologies.

***Must attach overall course outline.***

Insert answer here

1. Describe how your water drill and/or simulation sessions are used in teaching basic ECLS, circuit and emergency ECLS management skills.

***Must attach a water drill checklist or simulation scenario.***

Insert answer here

1. Describe your ECLS Specialist bedside training process.

***Must include total hours AND attach orientation competency/checkoff document.***

Insert answer here.

1. Describe ECLS Final Exam and process. If team members achieve an outside agency recognized ECLS Certification, describe process.

***Must include minimum passing requirements or how competency is determined.***

Insert answer here.

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| 4.5 Explain your center’s continuing professional development/education and competency validationplan for the ECLS Specialists (*ECLS Specialist refers to the individual your center designates to care for the ECLS pump and circuit*)  ***Specifically, how do you incorporate the ELSO Guidelines regarding the following four aspects: Team updates, water drills/simulations, bedside orientation and the final exam?*** |

1. Describe how you update your ECLS team, including team meetings, case reviews, education updates, quality improvement, policy development and administrative updates. This may include meetings, emails, recordings, etc.

***Must include content details and frequency. Must also include how you record team attendance and minimum participation requirements.***

Insert answer here

1. Describe your emergency water drill and simulation sessions used to assess competency annually.

***Must attach a simulation scenario***.

Insert answer here

1. Describe how you annually evaluate the knowledge, skills and performance of the ECLS Specialists. This may include written or practical exams, skills validation, etc.

***Must include minimum passing requirements or how competency is determined. Must attach an example of competency evaluation tool.***

Insert answer here.

1. Describe Annual Pump Time requirements.

Insert answer here.

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| 4.6 Describe your policy regarding an ECLS Specialist who ***does not meet*** ECLS continuing professional development/education and competency validationrequirements as described in Question 4.5.  ***Must reflect all four requirements: team updates, water drills and simulations, annual competency evaluation and pump time requirements.*** |

Insert answer here.

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| 4.7 Describe your educational program for the bedside nurse ***(NOT trained as ECLS Specialist)*** to care for an ECLS patient. Single caregiver model education should be described in questions 4.4 and 4.5. |

Insert answer here.

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| 4.8What **center specific initial** ECLS priming education and water drill training are required to be a primer?  ***Include courses, water drills/simulations, minimum patient requirements, proctoring, policies etc.*** |

Insert answer here.

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| 4.9What **center specific continuing education** and competency validationrequirements are required for ECLS primers.  ***Include courses, water drills/simulations, minimum patient requirements, proctoring, policies etc.*** |

Insert answer here.

**Application for the Path to Excellence (Silver Level) - Stop Here**

# Quality Focus

Provide evidence regarding continuous quality improvement activities

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| 5.1 How does your center maintain knowledge of current ECLS practice? How do you incorporate that new knowledge into your Centers’ clinical practice? |

1. Describe your process for staying current with the latest advances/research/techniques.

Insert answer here.

1. Describe how you communicate this knowledge with your team.

Insert answer here.

1. Give a ***specific example*** demonstrating how your center implemented a recent advance/research/technique into policy OR procedure OR standards, OR best practice development and initiation. This example must represent work conducted within the last 3 years.

Develop your answer with the advance/research/technique you wanted to implement, how you incorporated it into your practice and contextually within your ECLS program.

***Include evidence that shows you successfully implemented the advance/research/technique into practice and how it improved patient care or outcomes.***

Insert answer here.

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| 5.2 What new best practice related to workforce management was implemented fully in your ECLS center in the last 3 years?  Workforce management includes topics such as education and training, staff satisfaction, job aids, or restructuring processes. The term “Best Practice” refers to processes and policies that generally produce exceptional results. Best practices may involve the innovative uses of resources, staff, and technology. |

Relate a ***specific example*** related to the development and initiation of a process specific to workforce management within your ECLS program in the last 3 years.

***Describe how you identified this practice change and include evidence of how it was developed, initiated, and evaluated for effectiveness.***

Insert answer here.

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| 5.3 What initiative have you implemented in your ECLS program to improve the value of the care you deliver to the patient or family?  The value of care we give our patients can be improved by reducing costs, increasing work efficiency, reducing waste, optimizing the use of resources, promoting family centered care or improving patient outcomes. |

Give a ***specific example*** related to a process that improved the value of care delivered within your ECLS program in the last 3 years.

***The detailed example must include statistics that show improvement in the value of care.***

Insert answer here.

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| 5.4 List all ***ELSO*** conferences attended by one or more of your team **within the last 3 years**. (ELSO and ELSO Chapter meetings). Maintain anonymity by listing the individuals by role (coordinator, director, etc.) |

1. Describe the team members who attend each of the above conferences.

Insert answer here.

1. List any current ELSO committees that individuals from your institution actively participate on.

Insert answer here.

1. List the title of every **ECMO related** presentation, poster or oral, with generic authors (MD, RN, etc.) within the last 3 years. Include the conference and year it was presented.

Insert answer here.

# Process Optimization

Explain strategies developed from outcome and quality reviews

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| 6.1 Describe your ECLS Morbidity and Mortality (M&M) process for reviewing cases that include a major complication or death. |

1. Detail your ECLS M&M process, including how you incorporate all ECLS team members (physicians, specialists, perfusion, etc.) into this process.

Insert answer here

1. Give a ***specific example*** of a recent ECLS patient that was presented at an M&M **within the last three years.**

***Include personnel present, discussion, analysis, and conclusions including resultant process change that may have arisen from the M&M.***

Insert answer here

|  |
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| 6.2 Describe how your program uses the ELSO Quality Reporting Platform, ArborMetrix. Every program should review their ArborMetrix quality data regularly. Discuss a specific example of the use of this data and how it has impacted patient care or practice changes. |

1. Describe your process for reviewing ArborMetrix data, including outcomes and complications.

Insert answer here.

1. Give a ***specific example*** of how these reports specifically have impacted patient care or driven practice changes within the last 3 years. Describe the entire process - from identifying the need for data through the change implemented and the evaluation.

***Example must include a de-identified screen shot of the ArborMetrix data relevant to the example.***

Insert answer here.

|  |
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| * 1. Discuss your center’s benchmarking process. How has it influenced your ECLS Program to adapt best practices to increase an aspect of performance within your Program?   Benchmarking is the process of measuring your own performance against the performance of industry leaders. Utilizing information obtained through benchmarking to improve processes, procedures, and treatment strategies shows a commitment to excellence and improving patient care outcomes. |

1. Detail your benchmarking process.

Insert answer here.

1. Give a ***specific example*** of the development or revision of an ECLS process that can be directly related to Benchmarking within the last 3 years.

***Must include data to show the improvement in the process****:*

Insert answer here.

|  |
| --- |
| * 1. Describe a policy or guideline that was newly written or revised regarding ECLS practice within the last three years.   Standardization of patient care is important to quality and safety. Policies establish boundaries, guidelines and best practices. |

Give a **specific example** of the development of the policy or guideline.

***Describe the entire process - from identifying the need for the policy through the implementation and evaluation.***

Insert answer here.

# Patient &Family Focus

Illustrate family education and participation in care

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| 7.1 Give a detailed explanation of educational materials you provide to the family/caregivers/support individuals of the ECLS patient.  ***Must include how you document the education provided.*** |

Insert answer here.

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| 7.2 Describe how your center incorporates the family/caregiver into the daily care of the patient on ECLS.  Family centered care recognizes the vital role families play in ensuring the health and well-being of patients of all ages. Daily care includes activities of daily living. |

1. How do you include family in the daily care of the patient?

Insert answer here.

1. How do you provide appropriate activity/developmental care for **every ECLS patient population** you care for listed in question 1.1? For those awake and responsive patients, how do you include them in self-care activities?

Insert answer here.

|  |
| --- |
| 7.3 How do you address the potential moral distress and suffering that may occur in your **families and/or patients** with the real probability of death or unpredictable outcomes on ECLS?  ECLS patients are often awake, responsive, and may require long ECLS runs. Families are presented with statistics, facts and unknown prognoses for their loved ones which may create moral distress. |

Insert answer here.

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| --- |
| * 1. How do you provide follow-up for your patients to see what their outcomes are?   Describe your medical follow-up plans for **every ECLS patient population** you care for listed in question 1.1. |

Insert answer here.

**END OF APPLICATION**