

UW HEALTH JOB DESCRIPTION

Perfusionist

Job Code: 540001	FLSA Status: Exempt	Mgt. Approval: S. Niles	Date: February 2023
Department: Surg/OR – Operating Room - Perfusion		HR Approval: J. Olson	Date: February 2023

JOB SUMMARY

The Perfusionist is independently responsible for a wide range of mechanical life support systems. This position is based in the Surgical Services Department but due to the nature of the work provides clinical service throughout the health system on a wide range of patients ranging from the neonate to the geriatric population.

The technical complexity of this position requires the incumbent to have an understanding of cardiac, congenital pediatrics, pulmonary, vascular, and orthotopic transplantation procedures. Life support via cardiopulmonary bypass (CPB) must be administered to a varied patient population safely and efficiently. The individual conducts CPB independently, working closely with the surgeons, Anesthesiologist, and nursing staff in order to tailor the perfusion to the needs of each patient. The Perfusionist monitors and maintains many patient parameters during CPB. This includes the regulation of blood pressure, heart rate, urinary output, arterial and venous blood gasses, acid/base status, blood coagulation, temperature, and myocardial protection. In addition, the mechanical parameters of the circuit must be constantly assessed. The Perfusionist must remain alert and attentive and must respond appropriately to changes and problems. Procedures covered include CABG, valve, aortic aneurysm, heart and lung transplantation, ventricular assist devices, and neonatal & pediatric congenital defect surgeries.

MAJOR RESPONSIBILITIES

- Performs Cardiopulmonary Bypass (CPB), providing total life support safely and optimally during cardiac operative procedures including Coronary Artery Bypass Grafting (CABG), intracardiac valve repairs and replacements, congenital cardiac defect repairs, aortic aneurysm repairs, cardiac transplants, VAD (ventricular assist device) implants, and selected lung transplants.
- Performs Intraoperative Autotransfusion during procedures when significant amounts of blood loss is expected; independently operates the autotransfusion device, ensuring a safe blood product.
- Provides technical management of the Intra-Aortic Balloon Pump (IABP) during invasive placement in the Operating Room, I.C.U., or Cardiac Catheterization Laboratory.
- Ensures optimal performance of Ventricular Assist Devices (VADs).
- Provides extracorporeal shunting (VV bypass) of blood for selected patients, allowing for better control of blood loss and improved hemodynamic stability during liver transplantation, IVC/renal tumor excision, or venous thrombosis removal.
- Provides extracorporeal management of blood clot removal systems (AngioVac) for selected patients experiencing pulmonary or cardiac embolism.
- Performs Extracorporeal Membrane Oxygenation (ECMO) and Extracorporeal Cardiopulmonary Resuscitation (ECPR). Provides long term total body circulatory support for adult, pediatric, and neonatal patients suffering severe cardiac and/or pulmonary insufficiency.
- Performs Extracorporeal Oncologic Therapy. Provides a means of exposing a tumor to a high concentration of chemotherapeutic agent using an extracorporeal circuit. Techniques include isolated limb perfusion, Hyperthermic Intraperitoneal Chemotherapy (HIPEC), and Hyperthermic Intrathoracic Extracorporeal Chemotherapy (HITEC / HIPEC).
- Provides organ transplant recovery/maintenance procedures and transport including Transmedics Organ Care System (OCS).
- Provides ECMO transport services from referring health care systems.
- Provides expertise in extracorporeal circulation for various research protocols.
- Performs Hemofiltration; provides for excess intravascular and interstitial fluid removal from patients undergoing cardiac surgery, liver transplantation, and ECMO. This includes modified ultrafiltration in pediatric cardiac procedures.
- Provides and delivers Cardioplegia Solution (CPS) to coronary artery system, causing cardiac arrest and reduction in myocardial metabolic rate as are required for cardiac surgery.
- Supports procedures involving hybrid catheterization lab such as TAVR, laser lead extractions, AngioVac, and electrophysiology procedures.
- Participates in service-line "on-call" responsibilities.
- Assists with cardiothoracic surgery teaching for cardiothoracic surgeons, fellows, residents, and medical students in current techniques of cardiopulmonary bypass.
- Assists in instructing Cardiac Anesthesia Residents, Perfusion students, advanced practice providers, nursing staff, medical students, and residents with understanding cardiopulmonary bypass.
- Assists in the ECMO Specialist training course.

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JOB REQUIREMENTS		
Education	Minimum	Bachelor's degree and graduate of Perfusion program
	Preferred	Master's degree in related field
Work Experience	Minimum	
	Preferred	<ul style="list-style-type: none"> Three (3) years of post-training clinical experience providing CPB for adult cardiac surgical procedures including coronary artery bypass grafting (CABG), valve replacements, and aortic aneurysm repairs Experience in providing CPB for cardiac transplantation, ventricular assist device implantation, and congenital pediatric procedures.
Licenses & Certifications	Minimum	<ul style="list-style-type: none"> Certified Clinical Perfusionist (CCP) as recognized by the American Board of Cardiovascular Perfusion (ABCP) or ability to obtain within 12 months of hire State of Wisconsin Licensure as a Licensed Perfusionist or ability to obtain within six (6) months of hire CPR certification or ability to obtain within three (3) months of hire
	Preferred	<ul style="list-style-type: none"> Certified Clinical Perfusionist (CCP) as recognized by the American Board of Cardiovascular Perfusion (ABCP) State of Wisconsin Licensed Perfusionist
Required Skills, Knowledge, and Abilities		<ul style="list-style-type: none"> Clinical knowledge of the process for providing CPB for adult cardiac surgical procedures including coronary artery bypass grafting (CABG), valve replacements, and aortic aneurysm repairs Clinical knowledge of the process for providing CPB for ventricular assist device implantation and congenital pediatric procedures. Familiarity with techniques of IABP, intraoperative autotransfusion, and management of ECMO and LVAD/RVAD Ability to provide identified technical skills to patients of all ages including neonate, pediatric, adolescent, adult, and geriatric Physical requirements include the ability to work long hours remaining alert and attentive to the duties at hand Possesses a high degree of innovation and organizational skills High level of accountability for independent and interdependent decision making under minimal supervision

AGE SPECIFIC COMPETENCY (Clinical jobs only)

Identify age-specific competencies for direct and indirect patient care providers who regularly assess, manage and treat patients.

Instructions: Indicate the age groups of patients served either by direct or indirect patient care by checking the appropriate boxes below. Next,

<input checked="" type="checkbox"/>	Infants (Birth – 11 months)	<input checked="" type="checkbox"/>	Adolescent (13 – 19 years)
<input checked="" type="checkbox"/>	Toddlers (1 – 3 years)	<input checked="" type="checkbox"/>	Young Adult (20 – 40 years)
<input checked="" type="checkbox"/>	Preschool (4 – 5 years)	<input checked="" type="checkbox"/>	Middle Adult (41 – 65 years)
<input checked="" type="checkbox"/>	School Age (6 – 12 years)	<input checked="" type="checkbox"/>	Older Adult (Over 65 years)

JOB FUNCTIONS

Review the employee's job description and identify each essential function that is performed differently based on the age group of the patient.

PHYSICAL REQUIREMENTS

Indicate the appropriate physical requirements of this job in the course of a shift. *Note: reasonable accommodations may be made available for individuals with disabilities to perform the essential functions of this position.*

Physical Demand Level	Occasional Up to 33% of the time	Frequent 34%-66% of the time	Constant 67%-100% of the time
Sedentary: Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as dockets, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.	Up to 10#	Negligible	Negligible

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x	Light: Ability to lift up to 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Even though the weight lifted may only be a negligible amount, a job is in this category when it requires walking or standing to a significant degree.	Up to 20#	Up to 10# or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	Negligible or constant push/pull of items of negligible weight
	Medium: Ability to lift up to 50 pounds maximum with frequent lifting and/or carrying objects weighing up to 25 pounds.	20-50#	10-25#	Negligible-10#
	Heavy: Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	50-100#	25-50#	10-20#
	Very Heavy: Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	Over 100#	Over 50#	Over 20#
List any other physical requirements or bona fide occupational qualifications:		Participation in on call rotation is required for evenings, nights, weekends and holidays. A thirty-minute response time is required for all call back situations.		

Note: The purpose of this document is to describe the general nature and level of work performed by personnel so classified; it is not intended to serve as an inclusive list of all responsibilities associated with this position.