

## UW HEALTH JOB DESCRIPTION

### SURGICAL CLINICAL MONITORING TECHNOLOGIST

Job Code: 510037	FLSA Status: Non-Exempt	Mgt. Approval: S. Niles	Date: February 2024
Department: Surg/OR - Anesthesiology		HR Approval: J. McCoy	Date: February 2024

#### JOB SUMMARY

Under the medical direction of an Anesthesiologist, the Surgical Clinical Monitoring Technologist provide assistance during the institution of invasive hemodynamic monitoring and performs both invasive and non-invasive measurements and testing of hemodynamic functions of surgical patients. Intraoperative autotransfusion is utilized during procedures when a significant amount of blood loss is expected; the Technologist independently operates this device, ensuring a safe blood product. The Technologist provides for the maintenance and monitoring of equipment to perform these tests and ensures that strict quality control and safety standards are always maintained. The Technologist may perform laboratory testing under the supervision of the Clinical Laboratories. This position serves as a resource to members of the department for technical questions related to surgical clinical monitoring.

#### MAJOR RESPONSIBILITIES

##### Clinical Physiological Measurements

- Responsible for professional testing in conjunction with the administration of anesthesia and the monitoring during adult and pediatric operative procedures.

##### Hemodynamic Monitoring

- Provides assistance during invasive hemodynamic monitoring including peripheral artery or pulmonary artery catheterization and subsequent measurement of intravascular pressures for adult and pediatric patients.
- Obtains blood samples from intravascular catheters for biochemical analysis including ACT/TEG/ABG.
- Performs cardiac output measurements by injection of an indicator and the subsequent computations of hemodynamic parameters.
- Monitors hemodynamic real time cardiac output
- Sets up Transesophageal Echocardiogram (TEE) Instrumentation and basic functions/ returns for reprocessing
- Utilizes Site Rite, Activated Clotting Time (ACT) Hemochron, and Blood Gas Analyzer (quality assurance and test performance) and TEG6
- Submits accurate records of all measurements performed to be placed in the electronic medical record.

##### Intraoperative Autotransfusion

- Provides and sets up disposable material needed to collect shed blood.
- Assists with determining the composition of the fluids in the collection chamber. Determines whether there are sufficient red blood cells (RBCs) to warrant processing.
- Processes shed blood from the collection chamber, separating red blood cells from other components. Washes the RBCs until free of debris. Transfers the washed RBCs into an appropriately labeled blood transfer pack. Delivers this blood to anesthesia for reinfusion.
- Aseptically assembles autotransfusion disposables.
- Maintains chronological intra-operative autotransfusion record via the electronic medical record.
- Provides the Anesthesia Department and the nursing staff with the estimated blood loss and the total number of blood units recovered through proper documentation in the electronic medical record.
- Properly enters the charge document. Restocks all used supplies.
- Disposes of contaminated materials and disinfects equipment in accordance with general operating room policies and procedures concerning biohazardous waste.

##### Quality Control and Safety

- Determines that all measurement equipment has been found electrically safe before its use, maintaining particular attention to equipment attached directly to patients.
- Ensures that the maintenance of all measurement equipment has been carried out prior to use.
- Ensures or provides for the correct calibration of all measurement equipment prior to use.
- Collaborates and works in cooperation with the Anesthesia Clinical Biomedical Engineer, the UW Health Plant Engineering Department, and the UW Health Electrical Safety Division to ensure availability of an adequate amount of functioning and safe monitoring equipment in the operating room.

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### Department Contributions

- Participates in the training of technical and medical personnel, including medical students, house staff, physicians, and nurses in the proper use of all equipment and procedures utilized by the anesthesia clinical monitoring service.
- Evaluates the integration of new designs, corrections, and alternative methodologies into existing technology.
- Initiates the investigation and appropriate correction of errors in both precision and assurance of measurements and equipment.
- Organizes and delivers lectures and presentations to physicians, nurses, and other medical and paramedical staff on measurements provided by the monitoring service.
- Participates in and shares call responsibilities for cases in which clinical monitoring services are required.
- Assists Anesthesia/Perfusion with blood gas analysis, transportation, and blood bank needs.
- Assists Anesthesia with safe transfer of surgical patients to post-op location.
- Assists within the anesthesia work room as needed

**ALL DUTIES AND REQUIREMENTS MUST BE PERFORMED CONSISTENT WITH THE UW HEALTH PERFORMANCE STANDARDS.**

### JOB REQUIREMENTS

Education	Minimum	Bachelor's degree in Biology, Chemistry, Physics, Medical Technology, or relevant Clinical Science
	Preferred	
Work Experience	Minimum	
	Preferred	One (1) year of previous clinical experience One (1) year of previous experience performing relevant anesthesia related analytical or clinical measurement or surgical related monitoring services
Licenses & Certifications	Minimum	
	Preferred	
Required Skills, Knowledge, and Abilities		<ul style="list-style-type: none"> <li>• Knowledge of the basic principles and physiology of anesthesia monitoring procedures</li> <li>• Knowledge of strict sterile techniques and safety procedures</li> <li>• Knowledge of quality control standards related to analytical and clinical measurement</li> <li>• Excellent analytical and interpretive abilities</li> <li>• Ability to perform advanced trouble shooting and problem resolution</li> <li>• Ability to work under stress and tight deadlines</li> </ul>

### 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
<b>Sedentary:</b> Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as docket, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and	<b>Up to 10#</b>	<b>Negligible</b>	<b>Negligible</b>

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	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.			
	<b>Light:</b> 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.	<b>Up to 20#</b>	<b>Up to 10#</b> or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	<b>Negligible</b> or constant push/pull of items of negligible weight
X	<b>Medium:</b> Ability to lift up to 50 pounds maximum with frequent lifting/and or carrying objects weighing up to 25 pounds.	<b>20-50#</b>	<b>10-25#</b>	<b>Negligible-10#</b>
	<b>Heavy:</b> Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	<b>50-100#</b>	<b>25-50#</b>	<b>10-20#</b>
	<b>Very Heavy:</b> Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	<b>Over 100#</b>	<b>Over 50#</b>	<b>Over 20#</b>
<b>Other</b> - list any other physical requirements or bona fide occupational qualifications not indicated above:				

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.