Job Class Profile:

Orthopaedic Technician

Pay Level:CG-28Point Band:578-621

| | | | | | | Accountability | | Development | Environmental | |
|--------|-----------|---------------|-----------------|---------------|------------|----------------|--------|-------------|---------------|--------|
| | | Interpersonal | | | | & Decision | | and | Working | Total |
| Factor | Knowledge | Skills | Physical Effort | Concentration | Complexity | Making | Impact | Leadership | Conditions | Points |
| Rating | 4 | 4 | 4 | 5 | 3 | 3 | 3 | 2 | 5 | |
| Points | 187 | 67 | 25 | 24 | 90 | 65 | 62 | 43 | 54 | 617 |

JOB SUMMARY

The Orthopaedic Technician performs skilled work in support of orthopaedic activities in clinics, emergency departments and operating rooms within a hospital, under the general direction of an Orthopaedic Specialist. Duties include the application and adjustment of casts, splints, and for assisting with wound care.

Key and Periodic Activities

- Applies and removes casts and splints independently. Removes stitches, staples, minor dressing and K-wires.
- Organizes the orthopaedic surgery list daily. Ensures specialized instruments are available from the medical supplier, the sterilization department or from other sites; and ensures special order items are in stock.
- Assists the Orthopaedic Surgeon by removing casts and verifying wound site suitable for surgery; positioning patients for procedures ensuring that it is the most optimum to prevent additional injury; applying pressure device to the patient to prevent excessive blood loss during the operation; and applying specialized appliances to the patient after surgery that immobilizes the patient in a specific position to allow for proper healing.
- Instructs orthopaedic residents on dedicated orthopaedic instruments. Orientates physicians, nursing staff and support staff on accessory orthopaedic equipment.
- Performs quality control to ensure proper functioning of orthopaedic equipment; accuracy of the pressure in the pneumatic tourniquet; ensuring that x-rays are available, up to date and show the needed image; and examining the patient to ensure there are no risks for surgery.
- Orders bulk supplies for the orthopaedic area (casting material, plaster shears, cast saw blades, slings, etc.).
- Maintains clinic statistics on a daily basis.
- Fills out requisitions for MRI, CT or repeat X-rays when necessary.

SKILL

Knowledge

General and Specific Knowledge:

- Meditech system.
- Orthopaedic related equipment and procedures.
- Licensed practical nursing and related policies, procedures, trends and developments.

Formal Education and/or Certification(s):

- Minimum: 2 Year Diploma in Licensed Practical Nursing.
- Licensure from the College of Licensed Practical Nurses of Newfoundland and Labrador.
- Training recognized by the Canadian Society of Orthopaedic Technologists.
- Training under a Registered Orthopaedic Technologist and/or Orthopaedic Surgeon.

Years of Experience:

— Minimum: 1 - 2 years of experience.

Competencies:

- Ability to operate a computer to prepare documents or access databases.
- Ability to repair/calibrate or operate machinery.
- Ability to apply established techniques to the completion of activities.
- Ability to develop new solutions to deal with new problems.

Interpersonal Skills

- A range of interpersonal skills are utilized including listening to information; asking questions; providing routine and complex information and direction to patients and staff; providing care and comfort to patients when manipulating hips or arms for surgery; instructing/teaching orthopaedic residents on dedicated orthopaedic instruments; and orientating physicians, nursing staff and support staff on accessory orthopaedic equipment.
- Interactions occur with employees within the immediate work area, department and organization, supervisors, managers, patients, sales representatives, and students/trainees. May also interact with members of professional associations.
- The most significant contacts are patients requiring surgery; sales representatives to ensure the necessary equipment is available for upcoming procedures; central supply department to ensure that all necessary instruments are available and accurate for the daily orthopaedic surgery lists; and divisional manager to ensure they are aware of concerns, needs and expenses that pertain to the orthopaedic service.

EFFORT

Physical Effort

- Demands of the job occasionally results in fatigue, requiring periods of rest.
- There is a constant need for strength and/or endurance to lift over 50 lbs., when in surgery in order to position a limb over the shoulder for surgery in preparation for surgery and having to leave it there for extended periods of time causing strain on the body while maintaining physical balance.
- Standing for extended periods while in surgery, and walking are regularly required to perform work duties.
- Manual and physical activities include fine finger or precision work to use equipment and using hand tools that require accurate control and steadiness.

Concentration

- Visual concentration is required for the examination of x-rays, adjusting exposure for optimal exposure and to determine the type of injury and what instruments are required for surgery. Visual concentration is also required when using equipment (cast saws) to ensure patient safety.
- Auditory concentration is required to listen to tourniquet alarms (monitors the length of time,

delivered pressure and its function) which alerts anything outside safety limits.

- Other sensory demands such as **touch**, is used to examine a patient to ensure the cast saw is not cutting too deep.
- Higher than normal levels of attentiveness or alertness for the health and safety of others is evident when applying or removing casts for patients. Saws are used to cut the cast away from the limb and any injury can harm the patient and delay any surgery that needs to happen. When applying a cast, ensures it is padded properly and secured because if applied too loosely it could prevent healing of the bones and if too tight it could cause major injury to the area.
- Time pressures and deadlines exist when a trauma patient needs surgery immediately but requires special equipment. This equipment may not be available and may require making arrangements to obtain equipment from another part of the province, country or the United States immediately. Surgery cannot be done until the equipment arrives. Delays can cause more patient complications.
- Lack of control over work pace occurs when several operating rooms are conducting orthopaedic surgery and require services, as well as emergency cases that may come in to the hospital.
- Eye/hand co-ordination is required to apply/remove casts.
- **Exact results and precision** are required when positioning patients for surgery (adaptions to the operating table, supporting patients by braces, etc.); examining extremely small screws and setting them up in the instrument tray to repair broken bones; using a provincial internet x-ray system called PACS to obtain x-ray images.

Complexity

- Work tasks or activities are different but related allowing for the use of similar skills and knowledge.
- Most problems/issues are well defined and can be addressed by following procedures, protocols and guidelines.
- A typical challenge is having a trauma patient need surgery as soon as possible which requires special equipment that is not available in geographic area. Research has to be conducted to find equipment in another part of the province, country or the United States immediately. The surgery cannot take place until the equipment arrives. Once equipment is available appropriate personnel are notified. The quicker this is accomplished the better as long delays can have an impact on patient's condition and could cause complications.
- References available to address typical challenges include physicians, sales representatives, equipment catalogues, nurses, supervisors and central supplies department.

RESPONSIBILITY

Accountability and Decision-Making

- Work tasks and activities are generally prescribed or controlled.
- Independent decisions can be made regarding the ordering of items available in the operating room and could be something as small as a head rest that costs \$140.00 to knee replacement parts that cost greater than \$5000.00.
- Can maintain the predetermined stock level (upwards of \$10,000.00); and investigate new equipment and cost analysis.
- Decisions requiring supervisory approval include capital equipment purchases.

Impact

- Work tasks and activities are generally prescribed or controlled as procedures have predetermined protocols.
- Results of work tasks and activities are directly felt within the immediate wok area, department, organization and on patients.
- Results of work tasks and activities directly impact equipment (ensuring in good working order and available), process (quality check shows that the instruments are sterile and no contamination), information (positive patient identification, positive surgery site identification, consent, diagnostic data checked), finances (cost of hardware used in surgery), health and safety (patients properly supported to prevent additional injury, work area is free from accidental slips and falls, use of proper patient moving techniques), corporate image (maintaining excellent patient outcomes, decreased wait times).
- Typical time frame required to identify and resolve consequences in the event of a mistake or error, is within hours. For example, if an error is made before the surgery (tourniquet was applied incorrectly, would note the concern and reapply properly). Also, if a patient was brought to the operating room and the wrong area was prepared for surgery. There are procedures in place, however, to ensure that the risk of this happening is mitigated.

Development and Leadership of Others

- Not responsible for the supervision of staff.
- Provides on the job advice/guidance/direction to orthopaedic residents on dedicated orthopaedic instruments and provides orientation to physicians, nursing staff and support staff on accessory orthopaedic equipment.

WORKING CONDITIONS

Environmental Working Conditions

- Some special precautions are required as per hospital guidelines.
- Limited likelihood of minor cuts, bruises, abrasions, minor illnesses, fractures, injury or occupational illness resulting in partial or total disability.
- Exposed to noise (orthopaedic drill), fumes (orthopaedic cement), hazardous chemicals (formalin), blood and body waste (in surgery), infectious diseases, radiation (x-rays), physical threats (aggressive patients when waking up from anesthetic), sharp objects, and heavy machinery (moving x-ray machines and operating room beds).