Pay Level:	CG-29	Point Band:	622-675

Orthopaedic Technologist

						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	4	3	3	2	5	
Points	187	67	25	24	120	65	62	43	54	647

JOB SUMMARY

Job Class Profile:

The Orthopaedic Technologist performs advanced work in support of orthopaedic activities in clinics, emergency departments and operating rooms within a hospital. Work is performed under the general direction of an Orthopaedic Specialist which includes the application, maintenance and adjustment of skin, skeletal and manual traction and applied specialized casts.

Key and Periodic Activities

- Applies and makes adjustments of skin, skeletal and manual tractions; checks traction to detect deficiencies and makes adjustments if necessary; ensures patient's comfort and observes changes in condition.
- Assists the Orthopaedic Surgeon in out-patient clinics, operating room and plaster room by preparing fracture tables and drills for placement of K-wire, holds limbs for the surgeon and passes instruments. Removes sutures and pins relating to external fixation. Applies bandages, tourniquets, casts, etc.
- Applies specialized casts such as fracture braces, body casts, halo body casts, etc. using plaster or synthetic materials which involves adjusting, removing, and repairing of casts.
- Independently applies casts for patients as referred by outside physicians, reviews and interprets fractures or dislocations on x-rays.
- 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 other tests and for billing to insurance companies.
- Participates in regular scheduled in-services such as CPR, patient confidentiality, etc.

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.

Registered Orthopaedic Technologist through the Canadian Society of Orthopaedic Technologists.

Years of Experience:

— Minimum: 3 to 4 years.

Competencies:

- Ability to follow policies and procedures developed within the workplace and with governing body of Canadian Society of Orthopaedic Technologists
- Ability to apply techniques for the application of casts, splints and braces.
- Ability to operate a computer to prepare documents or access databases.
- Ability to operate machinery.

Interpersonal Skills

- A range of interpersonal skills are utilized including listening to information for purposes of taking medical orders from surgeon, surgical resident, or orthopaedic team; asking questions to obtain clarification; providing routine and complex information and direction to patients and staff; providing care and comfort to patients when manipulating hips or arms for them to have their 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, students/trainees and members of professional associations.
- The most significant contacts would include patients, orthopaedic surgeons; orthopaedic team
 including technicians/technologists or nursing staff; sales representatives to ensure the
 necessary equipment is available for upcoming procedures.
- The type of communication includes and asking questions to clarify;

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 in the position in having to lift over 50 lbs., when in surgery in order to position a limb over the shoulder in preparation for surgery and having to leave it there for extended periods of time, causing strain on the body while maintaining physical balance. Also transfers patients onto fracture tables.
- 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; to remove sutures and clips; setting up traction frames; and applying/removing casts, etc.

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 the 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; touching limbs to assess swelling. Smell is also important to identify odour from wounds or cast which could indicate infection.
- Higher than normal levels of attentiveness or alertness for the health and safety of others is evident when applying or removing casts for patients with saws; removing very fine sutures from fingers and toes; and ensuring over bed frames are secure to protect staff and patient.
- **Time pressures and deadlines** exist when waiting for x-rays to be completed on patients to ensure casts are applied in a timely manner for proper setting.
- Lack of control over work pace occurs when patients arrive at the emergency department, patients are waiting for x-rays, surgeon being called away from clinics, etc.
- **Eye/hand co-ordination** is required to apply/remove casts; to ensure proper alignment of bones during cast application and to remove fine sutures.
- Exact results and precision are required when positioning patients for surgery (adaptions to the operating table, supporting patients by braces, etc.); ensuring sutures and clips are removed; checking angel of pins before removal; using a provincial internet x-ray system called PACS to obtain x-ray images.

Complexity

- Work tasks or activities are different and can be related or unrelated but allow for the use of similar skills and knowledge.
- Problems/issues are well defined and can be addressed by following procedures, protocols and guidelines. Some may require analysis to determine appropriate solution.
- Typical challenges include the application of a "total contact" cast to an extremity which has an ulceration resulting in the need to ensure the cast is fitted properly and positioned so patient can function without causing further problems to the area; or patients showing up in the clinic with no appointment to see a surgeon. Without a history of the patient's fracture no care can be provided so it requires sending the patient to see a physician in the clinic or through emergency department.
- References available to address typical challenges include physicians (Orthopedic Surgeon), LNP scope of practice, Canadian Society of Orthopedic Technology, nursing supervisors and nursing/organizational policies and procedures.

RESPONSIBILITY

Accountability and Decision-Making

- Work tasks and activities are generally prescribed or controlled.
- Independent decisions can be made regarding the day to day ordering and receiving of supplies in order to keep case room ready on a 24 hour basis to meet patient needs. Discretion can be used regarding decisions of charging patients for materials (fibreglass). Can consider whether it was needed, circumstances of individuals, etc.
- 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 work 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 identifying and resolving consequences in the event of a mistake or error is within hours of problem identification. 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, odours, radiation (x-rays), physical threats (aggressive patients when waking up from anesthetic), sharp objects, heavy machinery (moving x-ray machines and operating room beds).