



Government of
Northwest Territories

IDENTIFICATION

Department	Position Title	
Northwest Territories Health and Social Services Authority	Territorial Manager Biomedical Engineer	
Position Number(s)	Community	Division/Region(s)
17-11042	Yellowknife	Informatics & Health Technology/ Stanton Territorial Hospital

PURPOSE OF THE POSITION

This position provides technically advanced professional engineering support for the management of medical technology throughout the health facilities in the Northwest Territories (NWT) and the Kitikmeot Region of Nunavut. The position is responsible for managing the operation, repair, maintenance, assessment and planning of health technology resources. Services are delivered in accordance with established codes and standards (i.e. Canadian Standards Association and Health Canada Medical Device Act and subsequent Regulations) and equipment specific parameters as well as a high degree of professional engineering judgment to ensure that health technology is operating within established parameters and available to assist in patient care and assessment.

SCOPE

Stanton Territorial Hospital (Stanton) is an accredited facility, located in Yellowknife, Northwest Territories (NWT). Stanton is the referral center for approximately 43,000 NWT residents and 5,900 residents from the Kitikmeot Region of Nunavut. Stanton provides health care services to adults and children on an inpatient/outpatient and outreach bases in order to restore health with dignity. Stanton recognizes the health hazards associated with tobacco in the workplace, both to smokers and non-smokers alike. Therefore, Stanton maintains a tobacco free environment within the building and throughout the property.

Located at Stanton, the position provides expert professional engineering and system level support on over 3000 health technology devices for three (3) hospitals, twenty four (24) health centers and approximately twenty (20) long term care facilities, clinics, health stations and other government clients in the Northwest Territories and Nunavut.

The position is seen as a Government of the Northwest Territories (GNWT) medical technology management expert and provides expert technical and system advice on the management of health technologies.

The position provides direct input on capital equipment planning for all NWT health facilities and the GNWT Department of Health and Social Services (DHSS). The position is responsible for an Operations and Maintenance budget of \$800,000 per year. The overall value of the assets within this scope of services is approximately \$30,000,000. The position can directly affect the procurement and operation costs of these assets.

Due to the territorial and inter-territorial role, this position reports to Director, Informatics & Health Technology and interacts directly with Managers/Directors/Executive Directors/Chief information Officers/Chief Financial Officers/Chief Operating Officers in health care and other government departments and is responsible to communicate effectively in all aspects of health technology management services to meet their needs.

This position is ultimately responsible and accountable for managing medical technology and support resources in an optimum manner, which has direct impact on the safety and comfort of patients, staff and visitors. The incumbent manages three Biomedical Technologists, a Chief Biomedical Technologist, contracted biomedical engineers and technologists, student positions, task specific contractors, projects and medical technology priorities concurrently to allow for the provision of high quality Biomedical Engineering services for the constantly changing medical technology needs throughout the North.

The Northwest Territories Health and Social Services Authority (NTHSSA) is the single provider of all health and social services in the Northwest Territories (NWT), with the exception of Hay River and Tłı̨chǫ regions, covering 1.2 million square kilometers and serving approximately 43,000 people, including First Nations, Inuit, Metis, and non-aboriginals. Health and social services includes the full range of primary, secondary and tertiary health services and social services including family services, protection services, care placements, mental health, addictions, and developmental activities, delivered by more than 1,400 health and social services staff.

While the Tłı̨chǫ Community Services Agency (TCSA) will operate under a separate board and Hay River Health and Social Services Agency (HRHSSA) will in the interim, the NTHSSA will set clinical standards, procedures, guidelines and monitoring for the entire Northwest Territories. Service Agreements will be established with these boards to identify performance requirements and adherence to clinical standards, procedures, guidelines and policies as established by the NTHSSA.

Under the direction of the Minister of Health and Social Services, the NTHSSA is established to move toward one integrated delivery system as part of the government's transformation strategy.

RESPONSIBILITIES

1. Department Management

- Manages day-to-day Biomedical Engineering support activities for healthcare facilities. Overall responsibilities include managing the technical support of medical devices, engineering project management and other routine functions of a service and engineering department such as prioritizing and assigning work orders to technologist staff and planning schedules for Biomedical Engineering travel clinics.
- Direct supervision of biomedical technologists, contracted biomedical engineers and technologists, students and interns.
- Plans the human resource needs of the department.
- Recruits and hires staff and assists with development of job descriptions.
- Directs and oversees technologist, student and intern training and development.
- Conducts performance evaluations of personnel.
- Initiates corrective and/or disciplinary actions as appropriate.
- Approves annual and other leave requests.
- Approves bi-weekly time for payroll and monitor's attendance.
- Operational Budgetary Planning - Develops and manages the Biomedical Engineering department budget. Assists health authorities in operational budget planning for new technologies that may be acquired (i.e. helps determine service support costs, ancillary support technology costs).
- Develops internal strategic plans, goals and objectives that define and direct department growth based on institution level strategic planning.

2. Engineering Project Management

- Directs the management of dynamic engineering projects: e.g. Territory-wide Medical Technology Evergreening planning and implementation, introduction of a new clinical device, new facility support and system implementation. Tasks include medical device research and evaluation, tender and request for proposal document creation, procurement document evaluation in particular, the technical specifications, and ensuring equipment receipt, installation, training and safe and appropriate removal of retired equipment.
- Capital Equipment Budgetary Planning - Provides Evergreening priorities and technical assistance for the coordination of medical equipment capital budget preparation for DHSS and the NTHSSA. Understands and has functional knowledge of GNWT financial administration, capital planning processes, and tendering and contract administration.
- Medical Technology Management Plan - Refine and develop new and unique methodologies and associated procedures and automated tools to progressively manage health technology assets and define replacement priorities.
- Develops and maintains effective relationships with clinical and administrative customers, providing appropriate and optimal levels of customer service for safe and effective management of medical devices.

- Assists and provides direction into facility and furniture fixture and equipment planning for the design of new and renovated health care facilities in the NWT and Nunavut as it pertains to medical technology.
- Collaborate with related information technology and information system experts to ensure progressive integration of health technologies.

3. Biomedical Policy and Process Development

- Assists and develops policies and procedures relating to the use, service and procurement of health technology.
- Ensures that the Biomedical Engineering internal departmental policy and processes adapt to meet changing health technology trends.

4. Risk Management and incident investigation

- Responsible for providing pro-active risk management advice and, when necessary, implementation of device-related incident investigation and reporting.
- Responsible for interacting with manufacturers and Health Canada to ensure solutions to medical technology related risks.
- Responsible for institutional compliance with regulatory requirements and accreditation standards for medical technology and medical technology support.

WORKING CONDITIONS

Physical Demands

Most of the incumbent's time will be spent in a typical office/clinical environment. The Hospital's physical size requires a substantial amount of walking from one area to another on a frequent basis.

This position travels to remote Northern Communities (NWT and Nunavut) under harsh environmental conditions that can be stressful.

Environmental Conditions

The incumbent works in a generally comfortable work environment. However, working the hospital exposes the incumbent to infectious diseases when working directly with staff in patient care areas.

This position travels to remote Northern Communities (NWT and Nunavut) in small planes or by automobile and may be exposed to extreme weather conditions.

Sensory Demands

The incumbent routinely works with very complex medical technology systems. This requires a concentrated level of attention in order to discern conditional discrepancies, and safely conduct corrective actions.

Mental Demands

The incumbent must work on multiple projects concurrently involving 4-20 people on multi-

disciplinary teams. Frequent interruptions, overlapping demands and tight time lines puts stress on the incumbent. Travel demands can be disruptive to family life.

KNOWLEDGE, SKILLS AND ABILITIES

- Effective leadership and management skills required to manage technologist and engineering staff as well as contractors.
- Effective financial budgetary abilities.
- Knowledge on the operation and support of health technology used in both hospitals and smaller health centers. The incumbent is recognized as the health technology expert for the NWT and must be able to diagnose and remedy problems both at a technical level and at a territorial health system level.
- Recent Northern medical technology management experience would be an asset.
- The position is a highly specialized field and requires mastery of many varied principles within biomedical engineering as well as knowledge of theories of other fields (e.g. Government practices, human anatomy and physiology, financial administration).
- Ability to manage diverse activities that are often only broadly or generally defined.
- Substantial ability in oral and written communication required to convey difficult concepts and engineering advice to non-technical co-workers, healthcare workers, and health system executives.
- Effective communication and interpersonal skills in order to develop and maintain necessary industrial relationships with device vendor s, professional engineering associations, and biomedical engineering associations and societies to ensure proactive development of health technology management programs.
- Ability to operate computers and computer software applications to a high degree (i.e., send and receive electronic mail, draft correspondence, create spreadsheets and presentations, develop computer databases and unique applications as required).
- Understanding of the principles of computer networking as they relate to modern health technology applications.
- Strong human resources skills for recruiting, developing and retaining technical and engineering staff.
- Political awareness and ability to operate in a complex matrix management professional environment.
- Knowledge of human physiology in order to clearly understand the operation of health technology and its interaction with human anatomy.

Typically, the above qualifications would be attained by:

This level of knowledge, skill and ability is typically attained through the completion of a Master's Degree in Engineering or Applied Science with specialized experience in the Biomedical or Clinical Engineering field.

The position must registered or in the process of being registered with the Northwest Territories and Nunavut Association of Professional Engineers (NAPEG) and a minimum of

five (5) years of health technology management experience and two (2) years of management experience.

ADDITIONAL REQUIREMENTS

Position Security (check one)

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

French language (check one if applicable)

- French required (must identify required level below)

Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) Intermediate (I) Advanced (A)

READING COMPREHENSION:

Basic (B) Intermediate (I) Advanced (A)

WRITING SKILLS:

Basic (B) Intermediate (I) Advanced (A)

- French preferred

Aboriginal language: To choose a language, click [here](#).

- Required
- Preferred