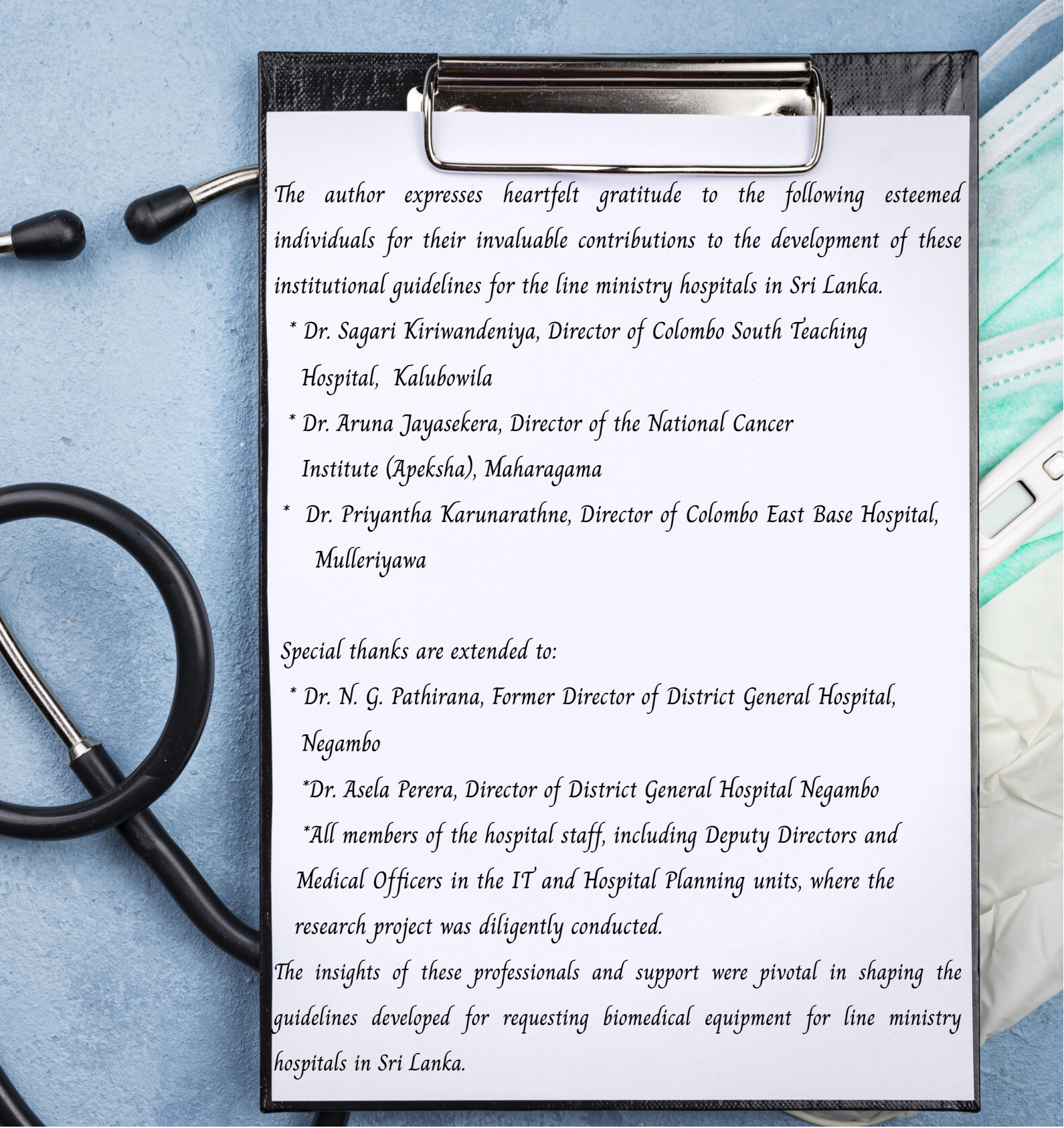


GUIDELINES

**for requesting biomedical equipment
by line ministry hospitals**





The author expresses heartfelt gratitude to the following esteemed individuals for their invaluable contributions to the development of these institutional guidelines for the line ministry hospitals in Sri Lanka.

** Dr. Sagari Kiriwandeniya, Director of Colombo South Teaching Hospital, Kalubowila*

** Dr. Aruna Jayasekera, Director of the National Cancer Institute (Apeksha), Maharagama*

** Dr. Priyantha Karunaratne, Director of Colombo East Base Hospital, Mulleriyawa*

Special thanks are extended to:

** Dr. N. G. Pathirana, Former Director of District General Hospital, Negambo*

** Dr. Asela Perera, Director of District General Hospital Negambo*

** All members of the hospital staff, including Deputy Directors and Medical Officers in the IT and Hospital Planning units, where the research project was diligently conducted.*

The insights of these professionals and support were pivotal in shaping the guidelines developed for requesting biomedical equipment for line ministry hospitals in Sri Lanka.

This document is one of the final results of the author's research project "To improve the decision-making process for selecting Biomedical Equipment in selected line ministry hospitals in the Western province, Sri Lanka" carried out as a partial fulfilment of the degree of MD in Medical Administration offered by the Postgraduate Institute of Medicine (PGIM) of the University of Colombo, Sri Lanka.

AUTHOR: I
MBBS (Ma

(Colombo)

PURPOSE

These guidelines are designed to inform healthcare providers about the necessary information required in Medical Equipment Requests (MERs) and align the request process with the principles outlined in the handbook for "Selecting Biomedical Equipment for Line Ministry Hospitals in Sri Lanka". The guidelines provide a comprehensive framework to facilitate effective, efficient and accountable procedures for requesting and procuring biomedical equipment by the hospitals in Sri Lanka.

BACKGROUND

These institutional guidelines are designed to streamline the process of requesting and procuring biomedical equipment, ensuring that the right equipment is acquired to meet the healthcare needs of the patients. By following these guidelines, hospitals and healthcare units can expect a more efficient and effective process.

KEY DEFINITIONS

- **Biomedical equipment:** Devices and instruments used in the healthcare setting for diagnosis, treatment or monitoring of patients.
- **Total Cost of Ownership (TCO):** The comprehensive cost of biomedical equipment, including direct and indirect expenses over its lifecycle.
- **Needs assessment:** A systematic process to evaluate the necessity of acquiring new equipment based on healthcare unit requirements.
- **VfM (Value for Money):** The assessment of equipment procurement, ensuring that the best value is achieved over its lifecycle.



SUBMITTING A REQUEST

At the heart of these guidelines is the commitment to streamlining and enhancing the process of acquiring biomedical equipment. It is essential to note that these guidelines are seamlessly integrated with the Ministry of Health's (MoH) Biomedical Engineering Services Unit's web-based **NAPM (Needs Assessment and Procurement Management)** module. This integration ensures that the requisition process is standardised and synchronised with advanced digital tools designed to facilitate a quicker and more efficient procurement journey. Users are encouraged to utilise this system to submit requests following these guidelines for optimal results.

- **Unit /ward**
Clearly indicate the requesting unit or ward
- **Requesting Officer's details**
Include the full name and designation of the officer making the request.



EQUIPMENT REQUEST FACTORS

Age of the replacing equipment (if replacement)

Include the current age of the equipment if a replacement is requested.

Equipment details

Specify the equipment name, model, design and brand.

Purpose

Identify whether the request is for replacement or new equipment.

Replacement reasons

- * Age of the replacement equipment
- * Technological upgrade
- * Maintenance costs exceed the economical value
- * Discontinued model

New equipment reasons

- * New unit
- * Service expansion of the existing system/unit

Level of need

Indicate the need based on severity - essential or good to have.

Existing similar equipment

Specify if similar equipment is available, including condition and functionality.

Requested equipment –specification / features

Provide detailed specifications.



INFRASTRUCTURE ASSESSMENT OF REQUESTING UNIT

Evaluate the following categories based on availability/non-availability or non-applicability of the following:

- * Space
- * Electricity with backup AC and humidity control
- * Water disposal water line (e.g. distilled water /deionized water/ line water)
- * Data management system (e.g. central monitoring system)
- * Waste disposal
- * Water line
- * Medical gas
- * Other necessary equipment to function



HUMAN RESOURCES OF REQUESTING UNIT

Assess the need of human resources as follows:

- * Consultants- Permanent, temporary, non-availability or non-applicability
- * Medical officers and Technicians/Technologists- Adequately available/ inadequate/ not available or not applicable



WORKLOAD ASSESSMENT

Specify the number of tests or cases handled and required per month in the requesting unit.



ENVIRONMENTAL IMPACT

Evaluate the anticipated environmental impact as negligible, minimal, moderate or high.



ECONOMIC FACTORS

Consider:

- * Cost of equipment
- * Cost of reagents/consumables

The importance of optimizing resource allocation and ensuring the value for money (VFM) in equipment procurement is key for economical viability of the hospital and healthcare services.



DEMAND FOR EQUIPMENT

Identify the level of demand, considering various factors.



PROCUREMENT PLANNING AND IMPLEMENTATION

Effective procurement planning and implementation are critical aspects of the biomedical equipment acquisition process. Proper planning is fundamental and hospital units are encouraged to comprehensively assess their specific needs. The demand for equipment can vary based on multiple factors and a detailed analysis is essential to align procurement with specific needs. The three primary options for procurement include direct purchase, leasing and renting.



The development of these institutional guidelines for line ministry hospitals in Sri Lanka has been a collaborative effort, incorporating valuable insights from experienced healthcare professionals, biomedical engineers and other stakeholders. Several rounds of rigorous review and thorough feedback have been instrumental in shaping this document to ensure its alignment with international standards for biomedical equipment procurement.



The guidelines have been carefully designed to provide hospital and healthcare officials with a comprehensive framework for requesting and procuring biomedical equipment. They are intended to serve as a succinct yet comprehensive reference that empowers healthcare units to make informed decisions in the acquisition of medical devices.



These guidelines signify a significant step towards enhancing the efficiency and transparency of the biomedical equipment procurement process. Their alignment with the Biomedical Engineering Services Unit's web-based NAPM module ensures a seamless transition to a digitally enabled, streamlined procurement process.



The feedback and collaboration of healthcare professionals are highly appreciated in the development of these guidelines and their continued feedback is encouraged to further refine and improve this resource. It is expected that these guidelines will contribute to a higher standard of healthcare service delivery and ensure the effective utilization of biomedical equipment, ultimately leading to enhanced patient care and well-being.



For more detailed and specific information on these guidelines and best practices for the need assessment of biomedical equipment procurement, it is highly advisable to download and refer to the comprehensive document "Practical Guide: Selecting Biomedical Equipment for Line Ministry Hospitals in Sri Lanka". This document is available on the Biomedical Engineering Services (BES) website at https://bmes.lk/Hospital_Requests/equ_request.html. It serves as an invaluable resource providing in-depth insights and guidance for healthcare officials involved in the decision making and procurement processes of biomedical equipment in Sri Lanka.