



The Mycetoma Research Center,
University of Khartoum
WHO Collaborating Center
on Mycetoma & Skin NTDs

Infection Control Policies and Standard Operating Procedures (SOPs)

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Infection Control Policies and Standard Operating Procedures (SOPs)

Background

Mycetoma is a chronic granulomatous infection caused by various microorganisms, including both fungi and bacteria. This condition predominantly affects individuals of low socioeconomic backgrounds who often have limited access to healthcare and health education. As a result, patients typically present with advanced stages of the disease, which are frequently complicated by secondary bacterial infections. The delayed presentation and complications underscore the critical need for improved awareness, early diagnosis, and comprehensive treatment strategies to manage and prevent the progression of mycetoma.

This comprehensive framework for infection control policies and SOPs ensures the Mycetoma Research Center maintain high standards of hygiene and safety, minimising the risk of infection transmission and safeguarding the health of patients, staff, and visitors.

General Infection Control Policies

Mission

To prevent and control infection within the Mycetoma Research Center, ensuring a safe environment for patients, staff, and visitors.

Purpose

To establish guidelines and procedures to minimise the risk of infection transmission.

Governance and Responsibilities Infection Control Committee

The MRC has established a committee responsible for overseeing infection control practices.

Roles and Responsibilities

MRC has defined the roles of healthcare workers, administrative staff, and cleaning personnel in infection control.

The Policies and Procedures

These include the following:

Hand Hygiene Policy

All staff must perform hand hygiene before and after patient contact, after contact with potentially infectious materials, and after removing gloves.

Procedure

Use alcohol-based hand rubs or wash with soap and water for at least 20 seconds.

Personal Protective Equipment (PPE) Policy

Appropriate PPE must be worn as required by the nature of the task and the infectious agents.

Procedure

Follow the guidelines for the use, removal, and disposal of gloves, gowns, masks, and eye protection.

Environmental Cleaning Policy

Regular cleaning and disinfection of surfaces and equipment.

Procedure

Use of FDA-registered disinfectants and adherence to cleaning schedules.

Waste Management Policy

Safe disposal of medical waste to prevent infection transmission.

Procedure

Segregation, handling, transport, and disposal of medical waste according to regulatory guidelines.

Education and Training Policy

Continuous education and training on infection control for all staff.

Procedure

Regular training sessions, workshops, and updates on best practices.

Monitoring and Compliance Policy

Regular monitoring and audits of infection control practices.

Procedure

Conducting compliance checks, reporting breaches, and implementing corrective actions.



**Infection Control SOPs for
The Mycetoma Clinic**

Infection Control SOPs for The Mycetoma Clinic

By implementing these comprehensive infection control SOPs, the Mycetoma Clinic cannot only significantly reduce the risk of infection transmission but also enhance patient outcomes and ensure a safer environment for both patients and healthcare workers. This should give us all confidence in the effectiveness of these measures.

Patient Admission and Screening The Procedures

Initial Screening

- Upon arrival, every patient must undergo a thorough initial screening for infectious diseases. This includes a detailed medical history and a physical examination focused on identifying any symptoms and signs of infectious diseases.
- Utilise a standardised screening questionnaire to gather information on recent illnesses, contact with infectious individuals, and travel history to areas with prevalent infectious diseases.

Triage and Isolation Protocols

- Based on the initial screening, patients are classified into risk categories for infectious diseases.
- For patients suspected of having infectious conditions, implement immediate isolation protocols to prevent the spread of infection within the clinic.
- Designate specific isolation rooms equipped with appropriate ventilation and infection control measures for suspected infectious patients.

Use of Personal Protective Equipment (PPE)

- Ensure that all healthcare workers wear appropriate PPE, including gloves, masks, gowns, and eye protection, when interacting with patients during the screening process.
- Train staff on the correct use and disposal of PPE to minimise the risk of cross-contamination.





The Clinical Procedures

Clinical Procedures

The Procedures

Sterile Techniques for Wound Care

- Ensure that all wound care procedures are conducted using sterile techniques to prevent secondary infections. This includes using sterile gloves, instruments, and dressings.
- Cleanse the wound with antiseptic solutions before applying any dressings or conducting minor surgical procedures.

Disinfection Protocols

- After each patient interaction, thoroughly disinfect examination tables, medical instruments, and any surfaces that may have come into contact with the patient.
- Use hospital-grade disinfectants and follow the manufacturer's instructions for contact time to ensure effective disinfection.

Clinical Procedures

The Procedures

Handling and Disposal of Contaminated Materials

- Implement strict protocols for the handling and disposal of contaminated materials, including used dressings, gloves, and instruments.
- Use biohazard bags and sharps containers for the safe disposal of medical waste, and ensure regular collection and proper disposal by trained personnel.

Monitoring and Compliance

- Conduct regular audits to ensure compliance with sterile techniques and disinfection protocols.
- Provide ongoing training and refresher courses for clinical staff to maintain high standards of infection control.

75 HEALTH
FOR ALL

**Accelerate
action together**

**SAVE LIVES -
Clean Your
Hands**

Patients Education

11

Patient Education

The Procedure

Infection Prevention Education

- Educate patients and their caregivers on essential infection prevention practices, such as proper hand hygiene, wound care, and the importance of adhering to prescribed treatment regimens.
- Provide clear, easy-to-understand educational materials, such as brochures, posters, and videos, to reinforce key infection prevention messages.

Hand Hygiene Training

- Demonstrate proper handwashing techniques using soap and water, as well as the use of alcohol-based hand sanitisers when soap and water are not available.
- Encourage patients and caregivers to practice hand hygiene before and after wound care after using the restroom, and before eating.

Wound Care Instructions

- Offer step-by-step instructions on how to clean and dress wounds at home, emphasising the importance of using clean materials and maintaining a sterile environment.
- Advise patients on signs of wound infection (e.g., increased redness, swelling, pain, discharge) and the need to seek medical attention if these occur.

Regular Follow up

- Schedule regular follow-up appointments to monitor wound healing and provide ongoing education and support to patients and caregivers.
- Establish a helpline or contact point where patients can ask questions and seek advice on infection prevention and wound care between visits.

Community Outreach

- Engage in community outreach programmes to raise awareness about mycetoma and the importance of early diagnosis and treatment.
- Collaborate with local health organisations and community leaders to disseminate infection prevention information and resources.



Infection Control SOPs for The Pharmacy Department

Infection Control SOPs for the Pharmacy Department

Background

By implementing these detailed infection control SOPs, the Pharmacy Department at the Mycetoma Research Center can ensure the safe and effective handling, dispensing, and disposal of medications, thereby minimising the risk of infection and contamination.

Medication Handling and Dispensing

The Procedures

Hand Hygiene and PPE

- All pharmacy staff must perform hand hygiene using soap and water or an alcohol-based hand sanitiser before and after handling medications.
- Wear gloves when handling medications, especially those that are unpackaged or require special handling. Gloves should be changed between different tasks to prevent cross-contamination.

Dispensing Process

- Ensure that all medications are dispensed in a clean and organised environment. Use clean instruments and containers to avoid contamination.
- Label all dispensed medications clearly, including dosage instructions and any special storage requirements.

Cleaning and Disinfection

- Clean dispensing equipment (e.g., pill counters, trays) between uses, especially when handling different medications, to prevent cross-contamination.
- Regularly disinfect countertops, dispensing equipment, and other surfaces in the pharmacy using hospital-grade disinfectants.

Handling Special Medications

- Implement specific protocols for handling high-risk medications, such as antibiotics, chemotherapeutic agents, and biologics, to minimise the risk of contamination.
- Store medications requiring refrigeration or other special conditions according to the manufacturer's guidelines.



Sterile Compounding

Sterile Compounding The Procedures

Aseptic Techniques

- Train all staff involved in sterile compounding on aseptic techniques, including proper hand hygiene, use of sterile gloves, and gowning procedures.
- Use sterile equipment and supplies for compounding, and ensure all items are within their expiration date and stored properly.

Laminar Flow Hoods

- Perform all sterile compounding activities within laminar flow hoods to maintain a controlled environment.
- Ensure that laminar flow hoods are regularly maintained and certified according to manufacturer guidelines and regulatory requirements.

Cleaning and Disinfection

- Clean and disinfect the compounding area, including work surfaces, equipment, and laminar flow hoods, at the beginning and end of each compounding session.
- Use appropriate disinfectants and follow recommended contact times to ensure effective microbial kill.

Environmental Monitoring

- Implement regular environmental monitoring, including air and surface sampling, to detect and address any contamination in the compounding area.
- Document and review monitoring results regularly to identify trends and implement corrective actions if needed.

Waste Disposal The Procedures

Identification and Segregation

- Clearly identify and segregate expired, contaminated, or unused medications from active inventory.
- Use designated containers for hazardous and non-hazardous pharmaceutical waste.

Safe Disposal

- Follow regulatory guidelines for the disposal of pharmaceutical waste. Ensure that all staff are trained on these guidelines and understand the importance of safe disposal.
- For hazardous medications, such as chemotherapeutic agents or controlled substances, use specific disposal methods, including incineration or secure take-back programs.



Sharps and Biohazardous Waste

20

Sharps and Biohazardous Waste

- Dispose of sharps (e.g., needles, syringes) in approved sharps containers. Ensure that these containers are puncture-resistant, leak-proof, and clearly labelled.
- For any biohazardous waste, such as contaminated gloves or gowns, use biohazard bags and follow protocols for safe handling and disposal.

Documentation and Tracking

- Maintain records of all disposed medications, including the type and quantity of waste, disposal method, and date of disposal.
- Conduct regular audits of waste management practices to ensure compliance with protocols and identify areas for improvement.

Emergency Spill Response

- Develop and implement procedures for responding to medication spills, including hazardous materials.
- Train staff on spill response protocols and provide appropriate spill kits.



**Infection Control SOPs for
The Laboratory Department**

Infection Control SOPs for Laboratory Department

By implementing these detailed infection control SOPs, the Laboratory Department at the Mycetoma Research Center can ensure a safe and controlled environment for handling and testing patient samples, thereby minimising the risk of infection transmission among laboratory personnel and ensuring accurate and reliable diagnostic testing for mycetoma and other diseases.

Sample Collection and Handling The Procedures

Personal Protective Equipment (PPE)

- Wear appropriate PPE, including gloves, lab coats or gowns, masks, and eye protection, when handling patient samples.
- Change gloves between different sample collections to prevent cross-contamination.

Aseptic Techniques

- Use sterile collection containers and instruments for sample collection to minimise the risk of contamination.
- Maintain a sterile field during sample collection procedures and handle samples in a manner that prevents spills or leaks.

Infection Control SOPs for Laboratory Department

Disinfection of Work Surfaces and Equipment

- Disinfect all work surfaces, including laboratory benches, before and after sample handling, using appropriate disinfectants with effective contact times.
- Clean and disinfect equipment, such as microscopes, centrifuges, and pipettes, after each use to prevent the spread of microorganisms.

Transport and Storage

- Ensure proper labelling and secure transport of samples to the laboratory.
- Use leak-proof containers and secondary containment when transporting potentially infectious samples.
- Store samples at appropriate temperatures and conditions according to standard operating procedures to maintain sample integrity.



Laboratory Testing Procedure

Laboratory Testing Procedure

Biosafety Guidelines

- Adhere to biosafety guidelines and regulations for handling infectious agents and potentially hazardous materials in the laboratory.
- Classify laboratory procedures based on the level of risk and implement appropriate safety measures accordingly.

Biological Safety Cabinets (BSC)

- Perform high-risk procedures, such as culturing or manipulating infectious agents, inside Class II biological safety cabinets (BSCs) to provide a controlled environment and protect laboratory personnel.

Use of Personal Protective Equipment (PPE)

- Wear appropriate PPE, including gloves, lab coats or gowns, masks, and eye protection, when working with potentially infectious samples or performing high-risk procedures.

Decontamination and Spill Response

- Develop and implement procedures for decontaminating spills of infectious materials promptly and safely.
- Train laboratory staff on spill response protocols and provide spill kits for immediate use.



Laboratory Waste Disposal

Laboratory Waste Disposal The Procedures

Autoclaving Infectious Waste

- Collect all potentially infectious waste, including used culture plates, contaminated PPE, and disposable laboratory equipment, into biohazard bags or containers.
- Autoclave biohazardous waste using validated cycles and dispose of autoclaved waste according to institutional and regulatory guidelines.

Sharps and Contaminated Materials

- Dispose of used needles, syringes, and other sharps in puncture-resistant containers specifically designed for sharps disposal.
- Segregate and dispose of contaminated materials, such as gloves and gowns, in biohazard bags or containers labelled for infectious waste.

Documentation and Compliance

- Maintain accurate records of waste disposal activities, including the type and quantity of waste generated, method of disposal, and date of disposal.
- Conduct regular audits and inspections of waste management practices to ensure compliance with SOPs and regulatory requirements.

Training and Awareness

- Provide ongoing training and education for laboratory staff on infection control practices, including proper waste disposal procedures and the importance of following SOPs.



**Infection Control SOPs for
The Imaging Department**

Infection Control SOPs for the Imaging Department

By adhering to these detailed infection control SOPs, the Imaging Department at the Mycetoma Research Center can effectively mitigate the risk of infection transmission, maintain a safe environment for patients and staff, and ensure the reliability and accuracy of diagnostic imaging services for mycetoma and other medical conditions.

Patient Preparation The Procedures

Screening for Infectious diseases

- Screen patients for symptoms of infectious diseases, recent illnesses, travel history to endemic areas, and exposure to infectious individuals before scheduling imaging procedures.
- Use standardised screening questionnaires and protocols to identify patients who may pose an infection risk.

Infection Control SOPs for the Imaging Department

Isolation and Precautions

- Implement isolation precautions for patients suspected of having infectious diseases, such as placing them in designated isolation rooms or areas equipped with appropriate ventilation.
- Communicate with referring physicians and infection control personnel to ensure appropriate precautions are followed.

Use of Protective Covers

- Use protective covers (e.g., disposable sheets, plastic wraps) to cover imaging equipment and surfaces that come into direct contact with patients during procedures.
- Replace protective covers between patients to prevent cross-contamination and maintain cleanliness.



Imaging Procedures

Imaging Procedures

The Procedures

Personal Protective Equipment (PPE)

- Wear appropriate PPE, including gloves, masks, gowns, and eye protection, when positioning patients for imaging procedures.
- Ensure PPE is donned and doffed according to recommended guidelines to minimise the risk of exposure to infectious agents.

Cleaning and Disinfection of Equipment

- Clean and disinfect imaging equipment, including tables, surfaces, and accessories, before and after each patient use.
- Use hospital-grade disinfectants with proven efficacy against bacteria, viruses, and fungi, following manufacturer instructions for proper dilution and contact time.

Imaging Procedures

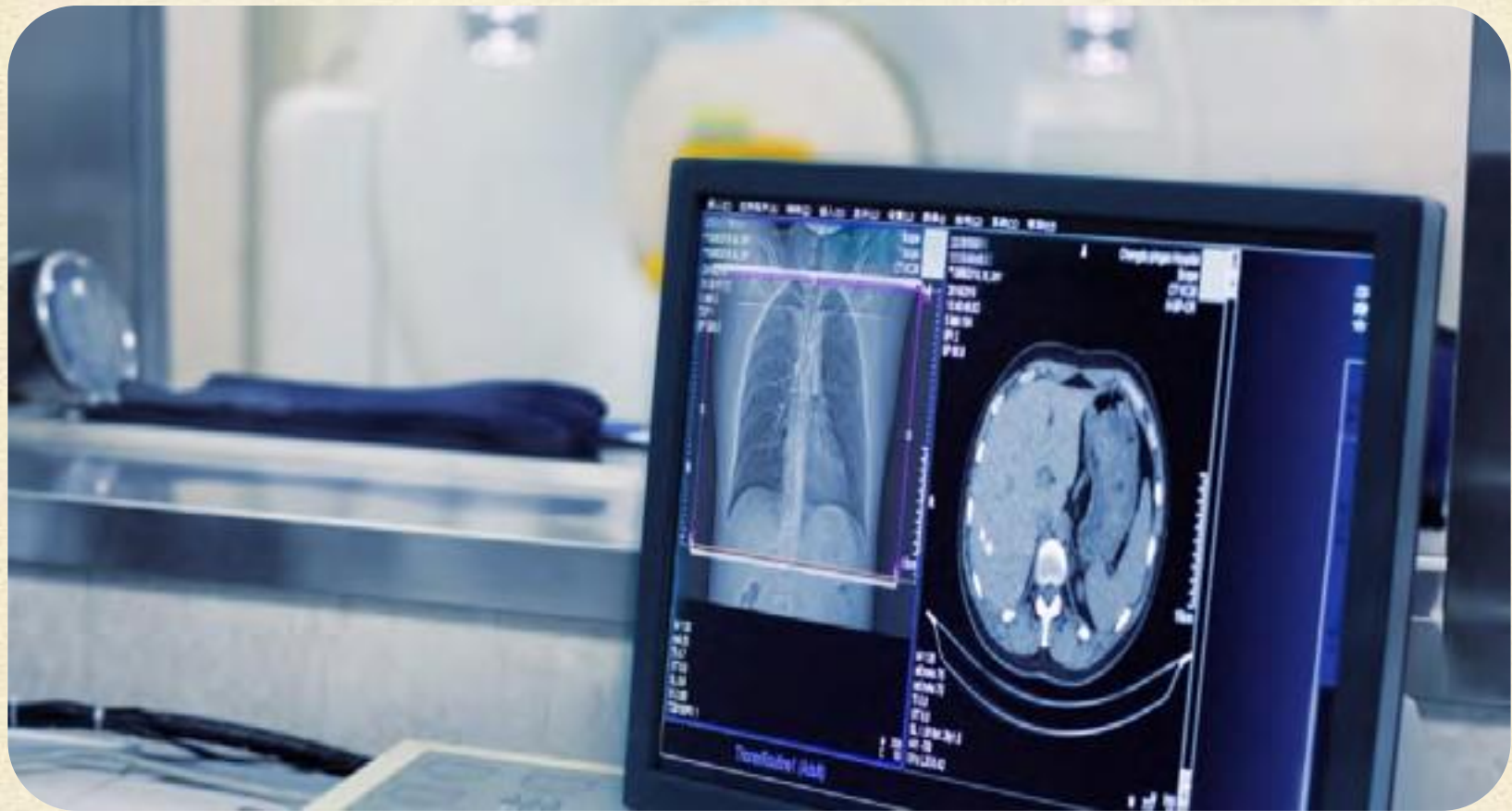
The Procedures

Handling Contaminated Equipment

- Immediately remove and clean any visible contamination or spills on imaging equipment using the appropriate disinfectants and disposable wipes.
- Regularly inspect equipment for damage or wear that could compromise its cleanliness or functionality.

Environmental Controls

- Maintain a clean and organised imaging environment to minimise the risk of contamination.
- Monitor and regulate temperature, humidity, and airflow to support infection control efforts and ensure patient comfort during procedures.



Equipment Maintenance

Equipment Maintenance The Procedures

Regular Cleaning and Maintenance

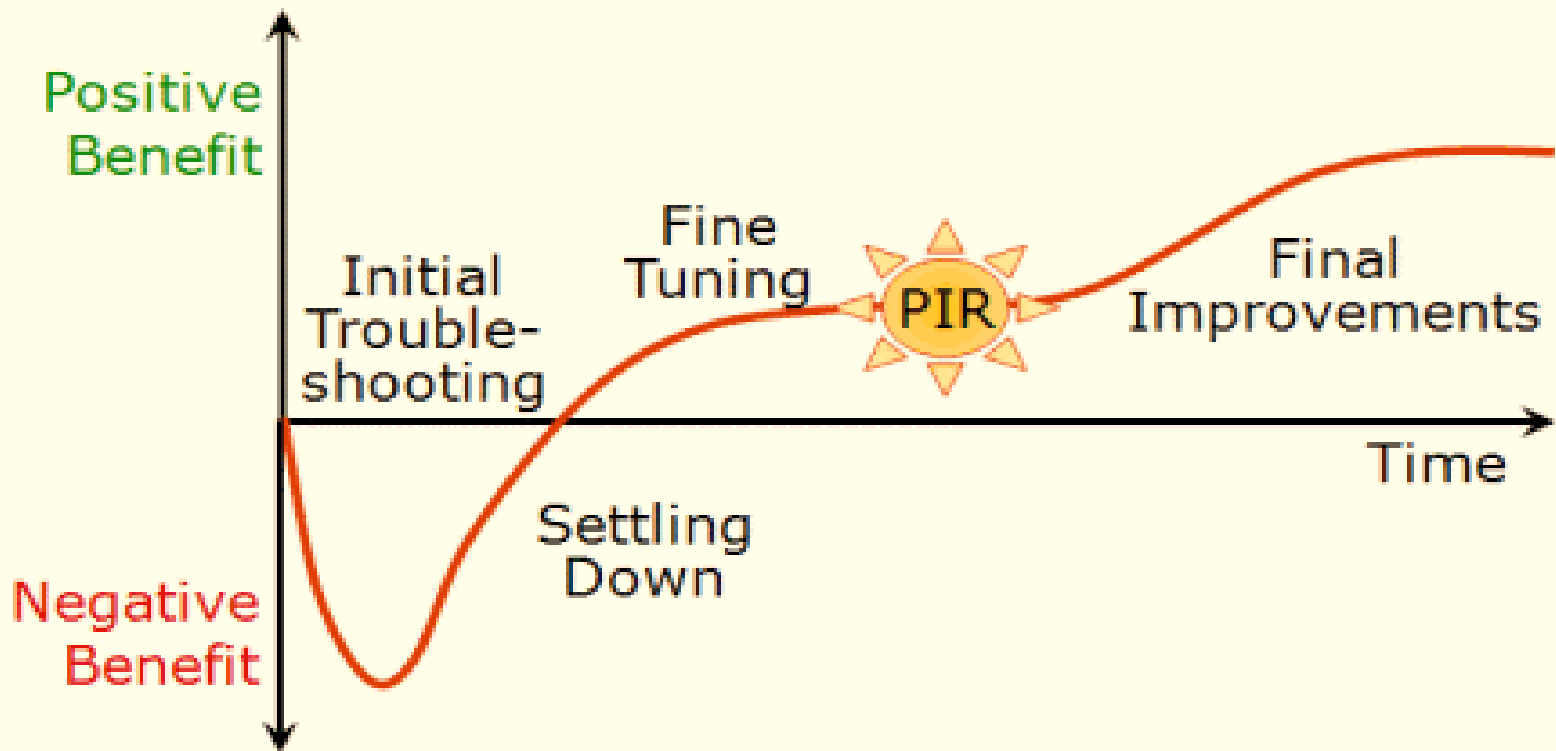
- Establish a schedule for routine cleaning and maintenance of imaging equipment, including daily, weekly, and monthly tasks.
- Clean external surfaces of equipment with disinfectants suitable for electronic devices to prevent the buildup of dirt and germs.

Manufacturer Guidelines

- Follow manufacturer guidelines and recommendations for specific imaging equipment maintenance calibration, and disinfection procedures.
- Maintain records of maintenance activities, including dates of service, repairs, and any replacements of components.

Quality Assurance

- Conduct regular quality assurance checks and performance testing of imaging equipment to ensure accurate and reliable diagnostic results.
- Document and address any issues or deviations promptly to maintain the highest standards of imaging quality and safety.



Implementation and Review

Implementation and Review

Training and Orientation

- Regular training sessions on infection control policies and SOPs should be conducted for all staff.

Compliance Monitoring

- Implement regular audits and inspections to ensure adherence to infection control practices.

Periodic Review

- Review and update infection control policies and SOPs annually or as needed based on new evidence or regulatory changes.

Appendices

Keep and circulate the following:

Forms and Templates

- Sample forms for hand hygiene audits, PPE inventory, and cleaning schedules.

Contact Information

- Important contacts for infection control personnel and emergency services.

Approval

These Standard Operating Procedures have been prepared, reviewed and approved by:

Dr Isam EL Khaidr	Consultant Microbiologist	Isam
Prof Suliman Hussein	Consultant Surgeon	<i>Suliman</i>
Prof Fahal	MRC Director	<i>Fahal</i>

On April 3, 2024



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