



The First IPC Conference

REBUILDING HEALTHCARE SYSTEMS AND ENHANCING THEIR RESILIENCE THROUGH INFECTION PREVENTION AND CONTROL STRATEGIES



**FROM JANUARY 4 TO 13, 2026
VIA GOOGLE MEET**

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Organization and Sponsorship

- Al-ekhwa Center for Training and Human Development
- Sudan National Council for Health Professions
- Sponsored by the Federal Ministry of Health



Address by the Chair of the Conference Supreme Committee

Praise be to Allah, who taught by the pen, taught man what he did not know, and peace and blessings be upon our master Muhammad, leader of Arabs and non-Arabs, and upon his family and companions.

On behalf of the Supreme Committee of the **First Infection Prevention and Control Conference: Rebuilding Healthcare Systems and Enhancing Their Resilience Through Infection Prevention and Control Strategies**, it is my pleasure to extend a warm welcome to all of you to this important scientific event. This conference brings together a distinguished group of experts, scholars, and practitioners in public health and infection control, from both inside and outside the country, to exchange experiences and review best practices.

Infection prevention is not merely a professional responsibility; it is a national and humanitarian duty to protect patients, healthcare workers, and visitors from risks that threaten their safety within healthcare institutions and, by extension, the safety, health, and well-being of the community.

This conference comes at a time when health challenges are increasing, whether due to microbial resistance to antibiotics or because of epidemics and environmental conditions that require effective prevention and control systems.

The conference aims to strengthen a culture of safety and quality in healthcare services, build partnerships among educational, healthcare, and research institutions, and develop sustainable national plans that align with global standards in infection prevention and control.

I would like to take this opportunity to express my sincere gratitude and appreciation to the members of the scientific and organizing committees, to all supporters and sponsors, and to everyone who contributed their effort and time to the success of this conference.

Special Thanks and Appreciation to:

Federal Ministry of Health: On behalf of the Supreme Committee of the conference, we extend our sincere thanks and appreciation to the Federal Ministry of Health for its generous support and sponsorship of this important scientific event, and for its ongoing efforts to strengthen infection prevention systems and improve the quality of healthcare services nationwide. Your support has played a crucial role in the success of this conference and in achieving its objectives.

Sudan National Council for Health Professions: The conference expresses deep gratitude to the Sudanese National Council for Medical and Health Professions for its leading role in developing professional practice and its continuous support in building the capacities of healthcare personnel. Your active contribution to this conference reflects your firm commitment to advancing medical and health professions and enhancing the quality of care in the country.

Al-Ikhwa Center for Human Development: Sincere thanks and appreciation to **Al-ekhwa Center for Human Development** for its fruitful partnership and outstanding efforts in ensuring the success of the conference activities. Your logistical and training support has been pivotal in presenting this work in a manner befitting its scientific and professional significance.

We pray to Allah to crown our efforts with success and that this conference becomes a new milestone in advancing public health and the quality of care in our beloved country.

Peace and blessings be upon you.

Supreme Committee

Address by the Scientific Committee

The Scientific Committee is honored to present this booklet, which contains the abstracts of scientific contributions for the **First Conference on Rebuilding the Health System and Enhancing Resilience through Infection Prevention and Control**.

This conference comes at a pivotal moment for Sudan, as the health system faces unprecedented challenges, including limited resources, deteriorating infrastructure, and a severe shortage of healthcare personnel.

The conference represents a true starting point for rebuilding a health system capable of resilience, recovery, and adaptability in the face of challenges. This is achieved by establishing infection prevention practices as a fundamental scientific pillar to ensure patient safety and support healthcare professionals.

The abstracts included in this booklet showcase innovative ideas, emerging research, practical experiences, and realistic solutions addressing the daily challenges faced by our healthcare institutions. All submissions have undergone rigorous review to ensure scientific quality and alignment with the main objective of this conference: rebuilding the Sudanese health system through effective infection prevention practices and empowering healthcare personnel with essential knowledge and skills.

We extend our sincere thanks and appreciation to all researchers, reviewers, speakers, and partners who contributed to this important scientific work. We hope this edition serves as a starting point for constructive scientific dialogue, sustainable collaboration, and practical steps toward a stronger and safer future for healthcare in Sudan.

The Scientific Committee

Address by the Organizing Committee


Praise be to Allah, by whose grace all good things are perfected, and peace and blessings be upon the noblest of prophets and messengers, Muhammad, and upon his family and companions.

We welcome you to the **First Conference on Infection Prevention and Control: Rebuilding Healthcare Systems and Enhancing Their Resilience Through Infection Prevention and Control Strategies.**

We express our deep gratitude to our key partners in this conference—the **Sudane National Council for Medical Health Professions** and the **Federal Ministry of Health**—for their continuous support and active contribution to enhancing healthcare quality and developing national health policies. Their support has played a pivotal role in enabling the Organizing Committee to prepare a comprehensive scientific program that meets the needs of the health sector and reflects the highest standards of professionalism and excellence. We value their efforts and contributions in ensuring the success of this conference, and we affirm that their partnership represents a model of collaboration between healthcare institutions and academic bodies to achieve common goals in infection prevention and control.

This conference embodies our shared commitment to advancing public health, highlighting the challenges facing the community, and presenting practical solutions grounded in scientific research and modern medical knowledge.

Through diligent efforts and professional vision, the Organizing Committee has ensured a fully integrated scientific environment, bringing together scholars, practitioners, and experts from diverse health specialties. This setting enables knowledge exchange, practice development, and the strengthening of partnerships between healthcare and academic institutions, contributing to a more resilient and adaptable health system.



The committee has also worked meticulously to design a scientific program that addresses the real needs of the health sector, aligns with global advancements in infection prevention, and ensures high-quality organization while facilitating meaningful participation for all attendees.

We extend our sincere thanks and appreciation to everyone who contributed to the success of this event. We value your presence and your valuable contributions. We hope this conference serves as a real opportunity for researchers and stakeholders, fostering constructive scientific dialogue that supports improved healthcare services and professional development.

We once again welcome you and wish you a productive and enriching scientific experience, praying for success in all endeavors that serve the common good.

The Organizing Committee



Conference

Introduction

The First Conference on Infection Prevention and Control is convened to support the development of a health system capable of managing daily risks within healthcare institutions. The conference focuses on reviewing current practices, presenting the latest scientific evidence, and offering practical solutions that can be implemented in hospitals and health centers. It brings together healthcare institutions, academic bodies, and infection control practitioners.

The conference also contributes to unifying efforts and strengthening collaboration across sectors, providing a platform to discuss the challenges faced by frontline teams.

The scientific program spans several days and covers core principles, surveillance, laboratory practices, practical skills, digital transformation, and field research. The objective is to support the development of infection prevention policies and improve the quality of healthcare services.

This conference represents a practical step in a long-term effort to strengthen Sudan's healthcare systems, build the capacity of healthcare teams, and ensure the delivery of safe patient care.



Main Objectives of the Conference

Raising Awareness and Developing Healthcare Workforce Capacity

The conference aims to raise awareness and enhance the skills of healthcare personnel regarding the principles and strategies of infection prevention and control. It highlights scientific and practical techniques and methods to prevent infections within healthcare institutions.



Enhancing Collaboration and Coordination

The conference seeks to strengthen cooperation among healthcare, academic, and research institutions. It aims to activate joint communication channels to reduce the spread of infections and unify national efforts to achieve an integrated health response.



Supporting Scientific Research and Innovation

The conference aims to support scientific research and innovation in infection prevention and control by encouraging researchers to conduct applied studies, raising awareness about the growing threat of antimicrobial resistance, and developing evidence-based solutions to improve healthcare outcomes.



Developing Practical and Actionable Recommendations

The conference aims to produce practical, implementable recommendations that contribute to improving the health sector in Sudan and enhance the effectiveness of national infection prevention and control programs.

Conference

Committees

The Higher Committee

- **Chairman:** Dr. Elsadig El-Tayeb El-Zain
- **Rapporteur:** Dr. Zaki Mohamed Al-Bashir
- **Secretary:** Mr. Yasir Mohamed El-Bashir

Committee Members

- Dr. Mohamed Salah
- Dr. Mohamed Hamad Mohamed Ahmed
- Dr. Fazza Abdullah Abdel-Sayed
- Dr. Mustafa Ahmed Mohamed El-Nour
- Dr. Safaa Mohamed Hussein
- Dr. Malaka Elsadig
- Dr. Nihad Mohamed Khalifa
- Dr. Reem Abdelrahman Farag-Allah

Conference

Committees

The Scientific Committee

- **Chairwoman:** Dr. Reel Asim Hamad
- **Rapporteur:** Dr. Fazza Abdullah Abdel-Sayed
- **Secretary:** Dr. Safaa Mohamed Hussein

Committee Members

- Prof. Nahla Abdel-Wahid Suleiman
- Dr. Wafaa Mohamed El-Badawi
- Dr. Elsadig El-Tayeb El-Zain
- Dr. Zaki Mohamed Al-Bashir
- Dr. Mohamed Hamad Mohamed Ahmed
- Dr. Youssef Fadl El-Moula
- Dr. Nihad Mohamed Khalifa
- Dr. Malaka Elsadig Abdelrahman

Conference Administrative and Organizational Structure

I. Central Leadership and Secretariat

- **Executive Director:** Mr. Yasir Mohammed Al-Bashir.
- **Head of Scientific Coordination:** Dr. Reem Fath Al-Rahman.
- **General Secretary:** Ms. Maab Onsa Ahmed.

II. Operational Task Forces

1. Media and Public Relations Unit

- **Members:** Dr. Malaka Al-Sadiq Abdul-Rahman.
 - Dr. Abdul-Rahim Mohammed Khalifa.
 - Dr. Waad Al-Tayeb Othman.

2. Technology and Digital Infrastructure Unit

- **Head of Unit:** Eng. Malaz Sharaf Al-Din.
- **Technical Support:** Supervised by the Specialized Technical Team of Al-Ekhwa Center for Training and Human Development.

3. Coordination, Marketing, and Registration Unit

- **Head of Unit:** Mr. Yassir Mohammed Al-Bashir.
- **Unit Secretary:** Ms. Maab Onsa Ahmed.
- **Support Team:** A select group of Coordination and Marketing Specialists at Al-Ekhwa Training Center.



Rebuilding a Resilient Healthcare System

Conference Logo

**Quality Care Begins
with Infection
Prevention**



Target

Audience

- Medical and healthcare professionals (physicians, pharmacists, dentists, ophthalmologists)
- All practitioners in medical and health professions: nurses, laboratory staff, radiology, anesthesia, physiotherapy, dental assistants, general medical assistants, psychologists, laboratory technologists, paramedics, medical physics, biotechnology, nutrition, and related fields
- Hospital and healthcare institution managers and staff
- Public health officers
- All healthcare sector employees
- Students in medical and health-related fields



Conference Vision and Mission



Vision

To build a health system capable of recovery, adaptability, and resilience by establishing infection prevention practices as a strategic approach that ensures the protection of patients and healthcare workers, leading to safer, more effective, and sustainable healthcare institutions.

Mission

To strengthen the healthcare sector by disseminating knowledge, exchanging expertise, and applying the latest scientific evidence in infection prevention and control. This supports the development of healthcare institutions capable of responding to risks, enhances workforce readiness, and creates a sustainable practical impact that contributes to rebuilding a resilient health system capable .of facing challenges



Conference Schedule

DATE	Conference Program	Program Presenter
Sunday, 4/1/2026	Opening Session & Basic Concepts of Infection Prevention	Dr. Samah Said Mohamed Organizing
Monday, 5/1/2026	Infection Prevention in Clinical and Diagnostic Settings	Dr. Roaa Moataz Al-Balah Omar Dr. Awadiya Abdel
Tuesday, 6/1/2026	Epidemiology, Surveillance, and Data-Driven Infection Prevention	Dr. Khalida Al-Fadil Idris Dr. Zaki Mohamed
Wednesday, 7/1/2026	Infection Prevention in Surgical and Interventional Procedures	Dr. Reel Asim Hamad
Thursday, 8/1/2026	Strategic Planning for Action	Dr. Yusuf Fadl Al-Mawli Dr. Musab Brir
Friday, 9/1/2026	++++	++++
Saturday, 10/1/2026	Workforce Development and Capacity Building in Infection Prevention and Control	Dr. Al-Sadiq Al-Tayeb
Sunday, 11/1/2026	Digital Transformation, Artificial Intelligence, and Surveillance in Infection Prevention and Control	Dr. Malaka Al-Sadiq Dr. Waad Al-Tayeb
Monday, 12/1/2026	Hand Hygiene Workshop: Practical Skills in Infection Prevention and Control	Dr. Nihad Mohamed Khalifa
Tuesday, 13/1/2026	Closing Ceremony and Recommendations	Organizing Institutions



Day One

January 4, 2026

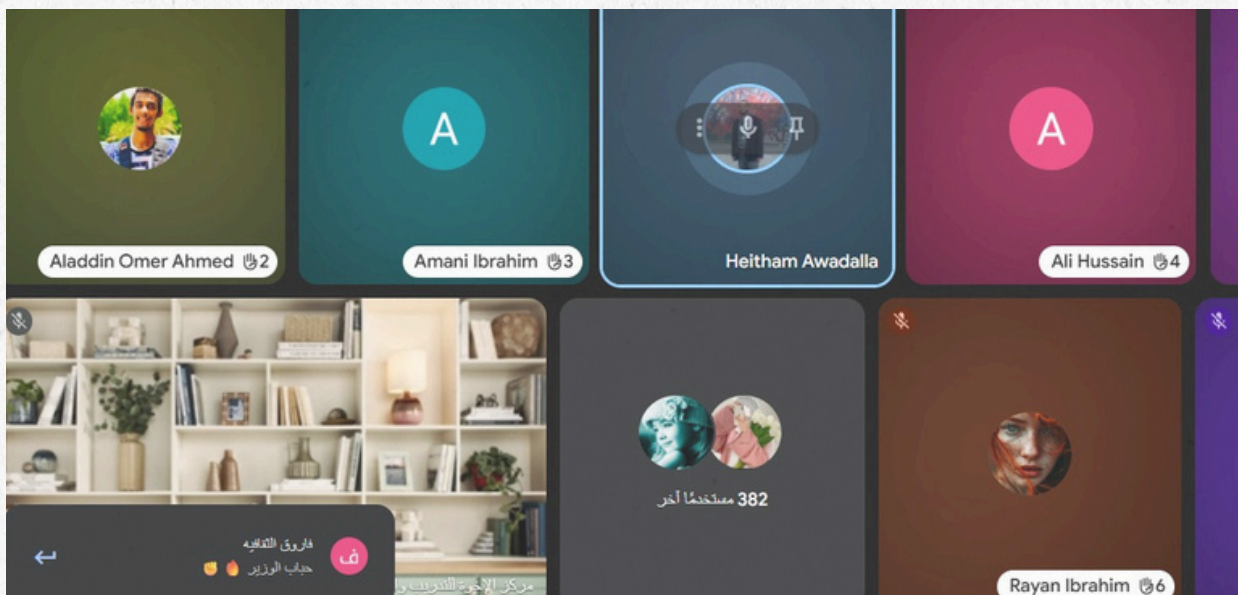
Opening Session

Presented by:

- Organizing Committees

Despite the challenges associated with organizing the conference in an online format—particularly given the current circumstances in the country—the organizing committee successfully executed the event with remarkable results. The most prominent obstacles included the weakness and instability of internet services for some participants, power outages in several regions, variations in digital literacy skills, and the difficulty of coordinating time zones between participants inside and outside Sudan.

However, notwithstanding these challenges, the study's findings highlighted several significant advantages.





The online format expanded the scope of participation to include a significant percentage of attendees from both inside and outside Sudan, thereby enhancing the conference's regional character. It also contributed to reducing operational and travel costs, providing a larger number of healthcare professionals from various specialties and institutions the opportunity to participate with ease and convenience.

Furthermore, the virtual environment provided a high degree of flexibility in attendance and accessibility to scientific content, thereby supporting the continuity of learning and professional development. Consequently, it can be concluded that the conference—despite the challenges—served as a successful model for adapting to exceptional circumstances, contributing to wide dissemination and a tangible professional and scientific impact.

In this context, the healthcare sector witnessed the launch of the **First Infection Control Conference** on Sunday, January 4, 2026, via the Google Meet platform. The event saw broad participation, exceeding 600 attendees from both within and outside Sudan. Participants included medical and health practitioners, official and governmental bodies, academic institutions, and partners—a clear indication of the growing national interest in infection control and prevention.

The opening session was honored by **the Federal Minister of Health, Professor Haitham Mohamed Ibrahim**. He commenced his speech by welcoming the attendees and congratulating medical and health practitioners, valuing their national role and continuous efforts in serving the community. He praised the sacrifices made by the "White Army" amidst the exceptional circumstances facing the country. Furthermore, he commended the efforts of the Armed Forces in protecting the nation, emphasizing that the stability of the health system is closely linked to the stability of the state.



His Excellency underscored that infection control is a top priority and a fundamental pillar of healthcare quality, given its pivotal role in mitigating risks associated with health services and enhancing the safety of both patients and providers, ultimately strengthening and increasing the efficiency of the national health system.

He also commended the scientific and professional initiatives championed by the Sudanese National Council for Medical and Health Professions, praising the active role played by the Ikhwa Center for Training and Human Development in supporting training and capacity building.

The conference was held from January 4 to 13, 2026, organized by the **ALEkhwa Center for Training and Human Development**, in cooperation with the **Sudanese National Council for Medical and Health Professions**, and under the auspices of the **Federal Ministry of Health**. This institutional partnership reflects the integration of roles and the unification of efforts to serve the priorities of the health sector.

The opening session witnessed a distinguished presence of health sector leaders, headed by **Professor Mohamed Al-Fadil, President of the National Council for Medical and Health Professions**, and **Dr. Zaki Mohamed Al-Bashir, Secretary-General of the Council**. Also in attendance were representatives from the Federal Ministry of Health and the states, higher education institutions, relevant authorities, and a large number of medical and health practitioners.

During the scientific addresses, **Dr. Al-Sadiq Al-Tayeb Al-Zain, Chairman of the Conference Higher Committee**, emphasized that the convening of this conference comes at a critical time given the current health and humanitarian challenges. He stressed that infection control is no longer an option but has become a national and professional necessity to ensure patient safety, protect healthcare providers, and improve the quality of healthcare.



He also pointed out the importance of capacity building, exchanging expertise, and linking theoretical aspects with practical application to enhance performance within health institutions.

For her part, **Dr. Reel Asim Hamad, Head of the Scientific Committee**, explained that the conference was a response to an urgent national need. She noted that the scientific program was developed in accordance with the latest international standards and practices, achieving a balance between theoretical and practical aspects to help build a safe and resilient health system capable of facing challenges. She further emphasized that infection control represents an integrated system that requires professional commitment and close cooperation among all components of the healthcare system.

Dr. Somaya Mohamed El-Sayed, representing Sudanese universities, emphasized the vital role of academic institutions in developing scientific curricula and advancing scientific research to help curb the spread of diseases, particularly given the challenges currently facing the health sector.

In the same context, **Dr. Abdel Rahman Hassan El-Haj, Chairman of the Higher Technical Committee for Infection Control**, highlighted the importance of building resilient infection control systems, especially in fragile and conflict-affected environments. He stressed the necessity of providing qualified personnel, infrastructure, and preventive supplies, while addressing the critical issue of antimicrobial resistance (AMR).

Dr. Yasser El-Sadiq Mukhtar, Deputy Secretary-General of the National Training Center, affirmed that investing in training and human capacity building is the cornerstone of health system development. He noted that the National Training Center remains open to supporting all national initiatives within this framework. Furthermore.



Dr. Safaa Mohamed Hussein, Director of Training at the Sudanese National Council for Medical and Health Professions, underscored the importance of enhancing cooperation between the Council and training centers. She emphasized the need to continue scientific programs despite challenges to ensure the sustainability of professional development. For his part, **Mr. Yasser Mohamed El-Bashir, Director of the Alekhwa Center for Training and Human Development**, stated that organizing the First Infection Control Conference aligns with the Center's steadfast commitment to supporting health system development and promoting concepts of quality and patient safety through investment in training and capacity building.

He explained that since its establishment in 2015, the Center has operated under a strategic vision aimed at qualifying medical and health practitioners and enhancing their professional efficiency through specialized scientific and training programs that keep pace with the latest international standards.

He added that these programs are designed to respond to the practical needs of the health sector. He pointed out that the conference theme, **"Quality of Care Begins with Infection Prevention,"** reflects a deep conviction in the importance of prevention as a fundamental entry point for improving health service quality and mitigating healthcare-associated risks.

Furthermore, he stressed that the current phase requires strengthening institutional partnerships between government agencies, professional councils, training centers, and universities. He emphasized that rebuilding the health system can only be achieved through qualifying human resources, implementing quality systems, and embedding an infection control culture within health institutions.

In his concluding remarks, **Mr. Yasser Mohamed El-Bashir** renewed the commitment of the Ikhwa Center for Training and Human Development to continue supporting all national initiatives and enhancing cooperation with partners.



This aims to contribute to the development of the health sector and the construction of a safe and resilient health system that meets the community's aspirations.

The opening session concluded with a speech by **Dr. Fazza Abdullah Abdel Sayed, Director of Scientific and Academic Affairs at the Sudanese National Council for Medical and Health Professions.** He affirmed that convening this conference reflects an advanced awareness of the importance of infection control as one of the pillars of safe professional practice, emphasizing that continuous training and capacity building are the foundation for developing the health sector and enhancing service quality.

The conference is expected to yield a set of actionable practical recommendations that will contribute to developing infection control policies and programs at the national level. These recommendations aim to enhance patient safety and elevate the quality of health services, thereby supporting the establishment of a strong, safe, and resilient health system that serves the people of Sudan.



Day One

January 4, 2026

Basic Concepts in Infection Control

Content:

- Basic Concepts in Infection Control

Presented by:

- Dr. Samah Said Mohammed



Academic and Professional Qualifications:

- PhD in Public Health
- Master's in Epidemiology
- Professional Diploma in Infection Prevention and Control – Candidate
- Bachelor of Medicine and Health Sciences

Contact Information:

- Phone: +24914745013
- Email: samahsaeed@gmail.com



Dr. Samah Said Mohamed

Dr. Samah is a pivotal leader in infection prevention, quality, and health systems management, with over 15 years of experience in developing health policies, implementing training programs, and managing hospitals at the state level. She has contributed significantly to strengthening prevention practices within healthcare institutions and enhancing staff competence through specialized training programs in quality, emergency response, and research methodology.

She holds trainer accreditation in infection prevention from the Federal Ministry of Health and the World Health Organization, in addition to certifications from Al-Ikhwa Training Center and the Sudanese National Council for Medical and Health Professions. Her professional and academic awards include the Academic Excellence Award from Al-Zaeem Al-Azhari University and the Performance Award from Italian Cooperation. She has trained healthcare personnel through workshops on infection prevention, first aid, teaching and learning, and contributed to curriculum development and quality improvement programs.

Dr. Samah has held leadership positions including Director of the Health Sciences University Center in Red Sea State, Dean of the Faculty of Nursing Sciences at Port Sudan Private University, and Director General of Quality and Development in Red Sea State. She also served as a senior hospital management professional for ten years, leading initiatives in quality and patient safety, and building healthcare workforce capacity through supervision of research and clinical training in nursing, critical care, and community health.

She continues to advance infection prevention systems and develop safe work environments, with a focus on training, performance improvement, and enhancing the readiness of the health system to respond to epidemics and emergencies.

Standard Precautions

A fundamental framework for infection prevention in healthcare institutions.

Abstract

Background

Standard precautions form the essential foundation for infection prevention in healthcare institutions. They aim to protect both patients and healthcare workers. With the increasing prevalence of infectious diseases and the complexity of clinical environments, maintaining consistent adherence to these precautions remains a significant challenge. This lecture emphasizes the importance of standard precautions and focuses on integrating them into daily, routine practice.

Key Topics

- Definition of standard precautions and associated core concepts
- Hand hygiene as the first line of defense
- Proper use of personal protective equipment (PPE)
- Safe handling of body fluids and patient care equipment
- Safety principles for handling sharps and disposal of medical waste
- Local examples reflecting common challenges in implementation

Learning Objectives

- Identify the components of standard precautions and understand the rationale for their application
- Apply basic infection prevention measures in daily clinical practice
- Differentiate between correct and incorrect use of personal protective equipment

Expected Outcomes

Participants will gain practical knowledge that enhances the safety of healthcare facilities, reduces infection risks, addresses gaps in adherence to basic preventive practices, and contributes to improving the quality of healthcare.



Day Two

January 5, 2026

Infection Control in Clinical and Diagnostic Settings

Content:

1. Infection Control in the Laboratory
2. Infection Control in the Blood Bank

Presented by:

- Dr. Awadiya Abdelhaleem
- Dr. Ruqa Mutaz Al-Balla



Academic Qualifications

- Master's in Medical Laboratory Sciences (Specialization in Hematology and Blood Transfusion)
- Bachelor's in Medical Laboratory Sciences (Specialization in Hematology)

Contact Information:

- Phone: +249110906193
- Email: awdiaahmeidi@gmail.com



Dr. Awadiya Abdel Halim

Dr. Awadiya is a distinguished leader in medical laboratory sciences and clinical microbiology, with over 20 years of experience in education, training, and scientific research, with a special focus on molecular diagnostics and hematology. She is recognized for her significant contributions to curriculum development, supervising undergraduate research, and enhancing laboratory quality and safety standards.

She holds trainer accreditation from the American-Canadian Council and advanced certifications in next-generation sequencing, real-time PCR, bioinformatics applications, medical research methodology and ethics, in addition to a computer diploma and university teaching methods certification. She has contributed to training trainers, curriculum development in medical laboratories, and supervision of practical laboratories in hematology, blood transfusion, and coagulation, applying quality control and laboratory safety practices. She has also participated in specialized workshops to advance practical and molecular knowledge in hematology and clinical microbiology.

Dr. Awadiya continues to play a leadership role in improving the efficiency of training and practical education, enhancing laboratory safety and quality practices, and building the capacity of educational and technical teams to apply the latest scientific methods in diagnostics and treatment within healthcare institutions.

Infection Prevention in Blood Banks

Abstract

measures are not strictly applied. Pre-transfusion testing is essential to ensure compatibility between donors and recipients, with particular emphasis on screening for transfusion-transmissible infections, as contaminated blood can result in severe morbidity or mortality.

All personnel working in blood banks must rigorously implement infection prevention protocols at every stage of blood preparation, handling, and transfusion.

Objectives:

- Identify the different types of transfusion-transmissible pathogens and their clinical impact.
- Select appropriate screening tests to detect these pathogens effectively.
- Apply infection prevention measures across all blood bank sections.
- Develop clear preventive strategies to minimize bacterial, viral, and parasitic contamination.

This framework emphasizes the integration of evidence-based practices to safeguard both blood recipients and healthcare personnel while ensuring the highest standards of quality and safety in blood transfusion services.

Academic Qualifications

- Bachelor's in Medical Laboratory Sciences

Contact Information:

- Phone: +2495996251030
- Email: rouamutaz@yahoo.com



Dr. Ruaa Mutaz Al-Balla

Dr. Ruaa is a highly skilled professional in medical laboratory sciences and quality management, with over ten years of experience in research laboratories and international projects. Her career has progressed from laboratory specialist to quality management officer, and then laboratory supervisor in Johns Hopkins projects, where she oversees daily operations and ensures strict compliance with CAP, DAIDS, and internationally recognized quality standards.

She holds an extensive range of specialized certifications, including Molecular Biology, Quality and Safety Management, Good Clinical Practice (GCP), Good Clinical Laboratory Practice (GCLP), Quality Management System (QMS) oversight and assay validation, External Quality Assessment (EQA), and an introduction to Epidemiology, in addition to advanced training as a CAP Inspection Team Leader. She is a member of the American Society for Microbiology and the African Society for Laboratory Medicine.

Dr. Ruaa has played key roles in establishing and implementing QMS, conducting audits, training staff, and supervising diagnostic testing in clinical research. She has contributed to major research projects such as HPTN, IMPAACT, ACTG, COVPN, and PALISADE, enhancing her expertise in highly regulated and precision-driven research environments.

She continues to advance laboratory quality practices, lead professional teams, and support research through oversight that adheres to international standards and comprehensive quality control processes.



Day Three

January 6, 2026

Epidemiology, Surveillance, and

Data-Driven Infection Control

Content:

- A Surveillance Study of Sepsis Cases in Children
- Healthcare-Associated Infections (HAI): Epidemiology, Prevention, and Control

Presented by:

- Dr. Khalda Al-Fadil Idris
- Dr. Zaki Mohammed Al-Bashir



Academic Qualifications

- Master's in Infection Prevention and Control
- Diploma in Clinical Pharmacology
- Bachelor's in Nursing Sciences with Honors

Contact Information:

- Phone: +249960097990
- Email: mathane2020@gmail.com



Dr. Khalda Al-Fadil Idris

Dr. Khalida is an accomplished healthcare professional specializing in nursing and infection prevention, with over 10 years of experience in clinical practice, nursing supervision, and the implementation of infection prevention systems within hospitals and healthcare projects. She has worked in several national and international healthcare institutions, including the Federal Ministry of Health, teaching and specialized hospitals, and international humanitarian organizations such as Médecins Sans Frontières – France and Spain. In these roles, she held supervisory positions in nursing and infection prevention, contributing to the organization and delivery of safe healthcare according to professional standards.

As an infection prevention supervisor in specialized medical projects, Dr. Khalida has developed and implemented standard precaution protocols, monitored outbreaks, reported communicable diseases, trained medical and non-medical staff on safety practices, and supervised medical waste management to ensure a clean and safe treatment environment.

She has extensive experience overseeing nursing teams, managing schedules, handling emergencies, and improving healthcare quality. This expertise is evident in her current role as a registered nurse at Hamad Medical Corporation in Qatar, where she also supervises nursing teams in emergency, pediatric, and mental health departments.

Dr. Khalida continues to advance patient safety, build healthcare workforce capacity, and promote sustainable infection prevention practices, combining field experience, professional discipline, and effective leadership.

Academic Qualifications

- PhD in Strategic and Security Studies
- Master's in Microbiology and Immunology
- Advanced Diploma in Medical Parasitology
- Bachelor's in Medical Laboratory Sciences

Contact Information:

- Phone: +24912942816
- Email: zakielbashir@hotmail.com



Dr. Zaki Mohamed El Bashir

Dr. Zaki is a distinguished leader in administrative development, quality management, and infection prevention, with over 20 years of experience in managing healthcare institutions, developing administrative policies, and designing specialized training programs. He is recognized for his significant role in enhancing safety and quality within healthcare facilities and improving professional performance of teams in the Khartoum State Ministry of Health and multiple hospitals.

He has contributed to laboratory management, development of specialized training programs in occupational safety, process optimization, and infection prevention, resulting in higher compliance with health practices and improved workplace environments.

Dr. Zaki holds CPD trainer accreditation from the Federal Ministry of Health and the London Academy for Development and Training. He has also earned a professional diploma in quality and leadership, as well as an Administrative and Leadership Excellence Award. He continues to lead policy development, capacity building, and the creation of safe and healthy work environments, focusing on sustainable infection prevention practices and enhancing healthcare quality within institutions.

Healthcare-Associated Infections (HAIs): Epidemiology, Prevention, and Control

Abstract

Healthcare-associated infections (HAIs) represent a critical concern, particularly in Sudan's current health context, where the healthcare sector has faced systematic challenges to its infrastructure. This paper aims to highlight the concept of infection prevention and advocate for the adoption of a framework based on international and local standards to embed effective infection control practices amid the ongoing crisis.

An inductive and analytical approach was used to examine the capacity of the healthcare workforce to respond to challenges, considering administrative awareness, leadership at all levels, and community engagement in promoting health resilience.

The study concludes that the healthcare workforce is well-prepared to address health crises, particularly hospital-acquired infections, and that health administration at both federal and state levels demonstrates strong commitment and ambition to reduce patient infections and improve safety within healthcare facilities.



Day Four

January 7, 2026

Prevention and Epidemiological Surveillance

of Surgical Site Infections: A Global Perspective

Content:

- a. Surgical Site Infection (SSI): Global Framework and the Sudanese Experience
- b. Prevention and Epidemiological Surveillance of Surgical Site Infections: A Global Perspective

Presented by:

Dr. Reel Asim Hamad



Academic Qualifications

- Family Medicine Specialist
- Master's in Infection Prevention and Control
- Mini Master's in Hospital Management
- Professional Diploma in Family Medicine
- Professional Diploma in Infection Prevention and Control
- Bachelor's in Medicine and Surgery (MBBS)

Contact Information:

- Phone: +2491554927171
- Email: reelon1@gmail.com



Dr. Reel Asim Hamad

MD Family Medicine /an MS IPC/ Mini-Master- Hospital Management/prof dip FM/ prof dip IPC/ MBBS Medicine and Surgery .

With over 15 years of experience spanning clinical practice, national IPC policy development, and outbreak management, she is recognized for her leadership in strengthening healthcare safety and quality.

At the Federal Ministry of Health in Sudan, she co-reviewed the National IPC Manual and contributed to developing evidence-based policies that improved compliance and patient outcomes across healthcare facilities. During the COVID-19 pandemic, she led the technical committee responsible for assessing isolation centers and implementing rapid IPC improvements.

With a strong clinical foundation in family medicine and cardiology, Dr. Reel integrates clinical expertise with strategic public health leadership to advance IPC systems through policy, training, and capacity building

Infection Prevention in Surgical and Interventional Procedures

Abstract

Background

Surgical site infections (SSIs) are among the most common preventable complications following surgical procedures, yet they remain a major challenge in resource-limited healthcare systems. Despite clear global guidelines, weak adherence to perioperative prevention bundles and gaps in surveillance systems contribute to the ongoing burden of SSIs. Integrating international evidence with Sudanese clinical experience provides a key approach to enhancing patient safety.

Key Points

- Core concepts and standard definitions of surgical site infections.
- Evidence-based perioperative prevention principles.
- The role of blood sugar control, thermal stability, and optimized oxygenation in wound healing.
- Importance of avoiding preoperative hair removal.
- Structured surveillance and post-discharge follow-up.

Objectives

- Identify essential prevention strategies for surgical site infections.
- Understand the importance of effective surveillance systems.
- Apply global best practices in resource-limited settings.

Conclusion

Global and Sudanese evidence highlights that strict adherence to perioperative prevention bundles, combined with organized and practical surveillance systems, is central to reducing the burden of SSIs. Enhanced post-discharge follow-up further improves early detection and supports safe surgical care.

Keywords

Surgical site infection, prevention, surveillance, global evidence, Sudan, perioperative care



Day Five

January 8, 2026

Strategic Planning for Work

Content:

- a. Knowledge and Practices Related to Infection Control in Healthcare Facilities
- b. Waste Management Strategy in Infection Prevention and Control

Presented by:

- Dr. Youssef Fadl Al-Mawla
- Dr. Musab Barir



Academic Qualifications

- PhD in Health Management
- Diploma in Medical Education
- Master's Degree in Health Management
- Diploma in Health Management
 - Master's Degree in Histopathology and Cytology
 - Master's Degree in Hematology
 - Higher Diploma in Medical Laboratory Sciences
- Bachelor's Degree in Histopathology

Contact Information

- Phone: 00249912307132



Dr. Youssef Fadl El-Moula

Dr. Yousif is a prominent leader in the fields of medical laboratories, health management, and the regulation and governance of medical and health professions in Sudan. He has over three decades of professional experience in technical, regulatory, and administrative work within the health sector.

He is widely recognized for his influential role in regulating professional practice, registration, and national examinations for medical and health professions through his long-standing service at the Sudanese National Council for Medical and Health Professions. Through this role, he contributed significantly to establishing standards of quality and professional competence and to strengthening the safety of health services at the national level.

Dr. Yousif has worked in diverse health settings, including teaching hospitals and diagnostic medical centers. He also held direct supervisory responsibilities over medical laboratories, which provided him with deep practical insight into daily challenges related to quality, safety, and laboratory performance control.

He currently serves as Director of the Gezira State Branch of the Sudanese National Council for Medical and Health Professions. In this role, he leads efforts in professional regulation, oversight, and capacity building, while promoting adherence to national standards, improving the efficiency of health personnel, and supporting a safer and more disciplined health system.

Dr. Yousif is distinguished by his ability to combine specialized technical expertise with strong administrative vision, with a clear focus on health system development, ensuring safe professional practice, and sustainably improving the quality of health services within Sudanese health institutions.

Knowledge, Attitudes, and Practices Related to Infection Prevention and Control Among Healthcare Workers in Al-Managil, Sudan

Abstract

د / ريل عاصم حمد

Hospital-acquired infections remain a major threat to patient safety, particularly in resource-limited settings such as Sudan. This study aims to assess the knowledge, attitudes, and practices of healthcare workers toward infection prevention and control in Al-Managil city, Sudan. A simulated dataset of 100 healthcare workers was analyzed to reflect realistic distributions. Descriptive and inferential statistics were used to explore the relationships between knowledge, attitude, and practice scores and demographic variables. The results showed generally positive attitudes and moderate levels of knowledge, with a statistically significant effect of infection prevention and control training on improving all components of knowledge, attitudes, and practices ($p < 0.001$). These findings highlight the need for continuous training, improved resource availability, and the implementation of structured infection prevention policies in Sudanese healthcare facilities.

Academic Qualifications:

- PhD in Health System Management
- International Diploma in Vector Control Planning and Management
- Master's in Public and Environmental Health (Medical Entomology)
- Bachelor's in Public and Environmental Health

Contact Information:

- Phone: 00249912368123
- Email: musapbrear@gmail.com



Dr. Musab Barir

Dr. Musab is a distinguished professional who has contributed significantly to strengthening infection prevention systems through his extensive work in public health, environmental health, and vector control. He has led several programs aimed at reducing disease transmission risks, most notably the "Malaria-Free Khartoum" project, where he mapped vector hotspots, led health education campaigns, and designed mosquito breeding control plans in high-risk areas. These efforts are a central component of the system to prevent infection spread within communities and the surrounding environment.

He has held leadership positions in the health and environmental sectors, including Director General of the Khartoum State Sanitation Authority and Director of the Federal Health Promotion Department at the Ministry of Health. He contributed to establishing the state's solid waste management system, a field directly linked to reducing pollutants, limiting infection sources, and improving public health environments.

Dr. Musab has trained personnel in essential skills supporting infection control, such as medical entomology, vector management, planning, monitoring, and evaluation, through short- and long-term programs in collaboration with the Blue Nile Institute and the Sudanese Academy of Health Sciences. He has also participated in national committees related to environmental health, health policy, and standards, contributing to regulatory frameworks that support infection prevention and enhance public health system readiness.

He possesses extensive research and practical experience in analyzing health risks and identifying infection hotspots associated with vectors, based on his study mapping the *Anopheles gambiae* mosquito complex in Khartoum.



Day Six

January 10, 2026

Workforce Development

and Capacity Building in Infection Prevention and Control

Presented by:

Dr. Al-Sadiq Al-Zain



Academic Qualifications:

- PhD Researcher in Occupational Health and Safety
- Master's Degree in Environmental Sciences
- Advanced Diploma in Environmental Sciences
- Bachelor's Degree with Honors in Public Health

Contact Information:

- Phone: 00249 122378182



Dr. Al-Sadiq Al-Zain

Dr. Al-Sadiq is a distinguished university professor and researcher in the fields of public health, environmental sciences, and occupational health and safety, with extensive experience in teaching and academic supervision of undergraduate and master's students, as well as in designing research programs and scientific projects. He has participated in numerous scientific conferences, presented research papers, and contributed to the development of policies and programs to enhance safety and quality within healthcare institutions. He served as Director General of the Khartoum State Sanitation Authority and currently holds the position of Vice President of the Sudanese National Council for Medical and Health Professions and Chair of the Professional Complaints and Violations Committee. He is recognized for his role in building team capacities, developing policies, and promoting safe and healthy work environments, with a focus on implementing sustainable infection prevention practices and improving healthcare quality within institutions.

Developing the Workforce and Building Capacity in Infection Prevention and Control Abstract

Occupational Health and Safety Management Systems (OHSMS) play a critical role in strengthening Infection Prevention and Control (IPC) practices within hospital settings. Their structured approach to hazard identification, risk assessment, staff training, incident reporting, and continuous improvement directly supports the prevention of healthcare-associated infections (HAIs) and the protection of healthcare workers from occupational exposures. This paper reviews theoretical and empirical evidence demonstrating how the integration of OHSMS with IPC programs reduces biological hazards, particularly bloodborne pathogen exposure and sharps-related injuries. Global evidence indicates that effective OHSMS implementation can reduce occupational bloodborne exposures among healthcare workers by approximately 30–70%.

The paper contextualizes these findings within the Sudanese health system, which faces significant challenges due to armed conflict, infrastructure damage, shortages of personal protective equipment, and workforce instability. These conditions have weakened IPC performance and increased occupational risks for healthcare personnel. Using a narrative review approach, this paper highlights key mechanisms through which OHSMS enhance IPC implementation, including standardized operating procedures, staff competency development, surveillance of occupational injuries, and supply chain management. Practical and context-sensitive recommendations are proposed to support hospitals operating in resource-limited and emergency settings. Strengthening the integration of OHSMS and IPC represents a feasible and sustainable strategy to improve healthcare worker safety, patient outcomes, and overall health system resilience in Sudan.

Keywords: Occupational Health and Safety Management Systems; Infection Prevention and Control; Healthcare-Associated Infections; Bloodborne Pathogens; Sudan.



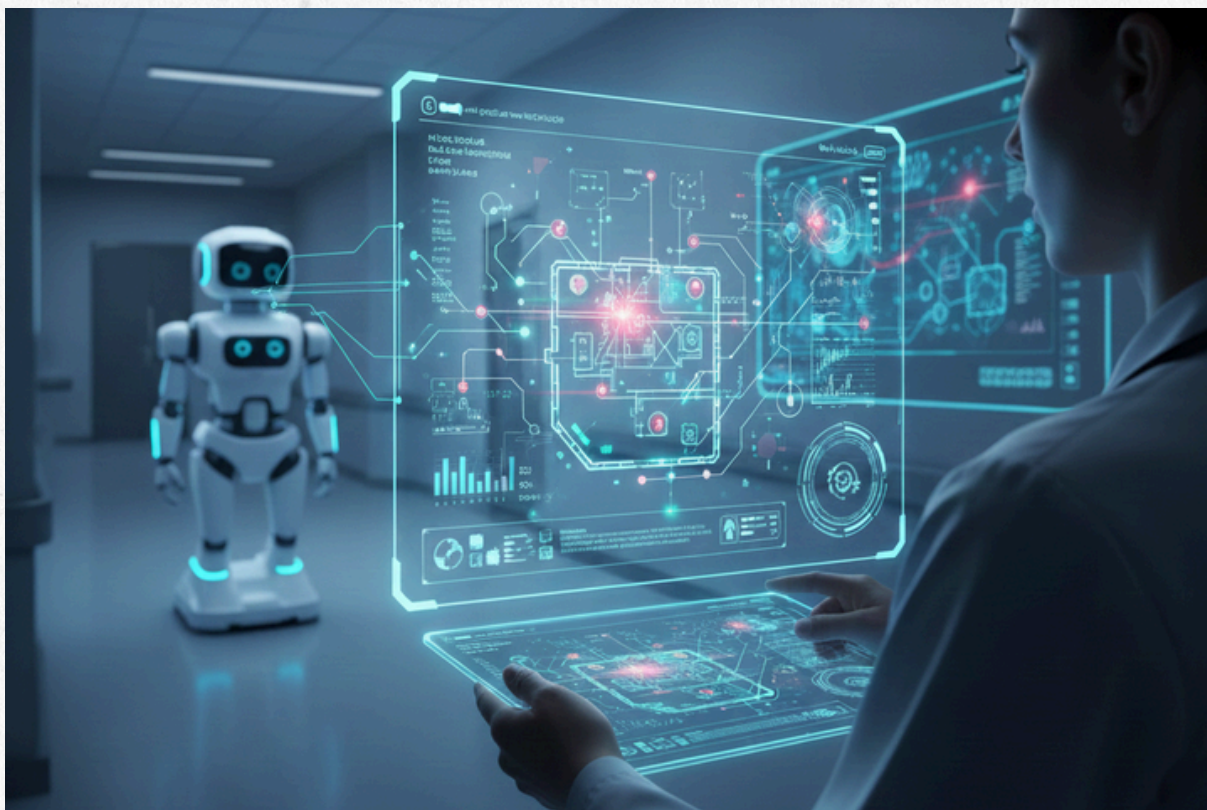
Day Seven

January 11, 2026

Digital Transformation, Artificial Intelligence, and Surveillance in Infection Prevention and Control

Presented by:

- Dr. Malaka Al-Sadiq Abdelrahman
- Dr. Waad Al-Tayeb Othman



Academic Qualifications

- Doctor of Dental Surgery (DDS)
- Diploma in Infection Prevention and Control
- Diploma in Health Economics
- Diploma in Leadership and Management
- Bachelor of Dental Surgery and Dental Technology

Contact Information:

Email: Malkaelsadig@gmail.com



Dr. Malaka Al-Sadiq

Dr. Malka is a specialized professional in infection prevention and control, capacity building, and healthcare quality, with practical experience in developing national programs and supervising policy implementation within healthcare institutions. She holds a fellowship and membership in the International Society for Quality in Health Care, alongside a Project Management Professional (PMP) certification for development, and maintains active professional registration with the Sudan Medical Council.

Since 2020, she has served as Head of Capacity Building at the Infection Prevention and Control Directorate, Federal Ministry of Health, contributing to training programs and supervising follow-up visits across 18 states. Previously, she worked as Academic Monitoring and Evaluation Officer at the Institute of Public Health, and as Project Director and Coordinator for several initiatives, in addition to participating in drafting the national IPC guidelines, protocols, and policies.

Her training expertise includes training of trainers, facilitating online programs, and monitoring academic quality. She has also worked clinically as a dentist and participated in research activities within national institutions, enhancing her understanding of the health system and supporting her ability to advance professional practices within the sector.

Academic Qualifications

- Postgraduate Diploma in Clinical Research, Oxford College of Arts, Business, and Technology, Canada
- PhD in Public Health Dentistry, Sudan Medical Specializations Board
- Bachelor of Dental Surgery (BDS), Al-Razi University, Sudan

Contact Information:

Email: Dr.waadosman@outlook.com



Dr. Waad Al-Tayeb

Dr. Waad is a professional combining clinical experience, medical research, quality management, and health program administration in Sudan and Canada. She holds a CPHQ certification in healthcare quality, advanced certificates in risk management, good clinical practice, research ethics, and specialized training in NGO management and cardiopulmonary resuscitation.

She currently works as a Clinical Research Assistant in the Rheumatology Department at Toronto Western Hospital within the University Health Network, supporting care in the Diabetes Health Program at Scarborough Hospital. Previously, she held academic positions as an Assistant Lecturer in Public Health Dentistry and Clinical Dentistry, alongside extensive experience as a dentist in the Sudanese Ministry of Health, the Military Hospital, and Khartoum General Hospital.

Dr. Waad leads and participates in research methodology workshops, supervises undergraduate student projects, and develops educational materials and curricula related to public health dentistry. She also provides patient education on lifestyle modification and participates in school-based prevention and health education programs. Her expertise in academic leadership, teaching, and curriculum development enhances her role in supporting quality and advancing healthcare practices in clinical settings.



Day Eight

January 12, 2026

Hand Hygiene Workshop:

Practical Skills in Infection Prevention and Control

Content:

- Hand Hygiene Workshop

Presented by:

- Dr. Nihad Mohammed Khalifa



Academic Qualifications

- Public Health and Infection Prevention Specialist.
- Ph.D. in Dentistry and Public Health.
- Professional Diploma in Infection Control.
- Intensive Training in Quality Management.
- Training on Core Components of Infection Prevention and Control (IPC).
- Capacity Building Training in Public Health and Infection Prevention.
- Certified Trainer for Infection Prevention and Quality Improvement Programs at the National Level (Sudan).



Dr. Nihad Mohamed Khalifa

Dr. Nihad possesses extensive experience in healthcare quality, patient safety, and national health programs in Sudan. She currently serves at the General Directorate of Quality at the Federal Ministry of Health, holding the position of Director of the Infection Prevention and Control (IPC) Program, leading governance documentation and international campaigns.

Dr. Nihad has played a pivotal role in establishing IPC governance structures across 18 states in Sudan, developing national infection prevention guidelines, updating the National IPC Manual (2022), and contributing to national accreditation standards for hospitals and primary healthcare centers. She has also led initiatives such as the Safe Surgery Program and collaborated with national and international partners, including the World Health Organization (WHO), the Japan International Cooperation Agency (JICA), and regional accreditation bodies.

Dr. Nihad has contributed to research on healthcare quality, COVID-19 vaccine safety, and healthcare-associated infections, and remains actively involved in strengthening resilient and robust health systems in Sudan.

Hand Hygiene Workshop: Practical Skills in Infection" "Prevention and Control (IPC) Abstract

The Importance of Hand Hygiene in Infection Prevention

Hand hygiene is considered one of the most effective and cost-efficient measures for preventing the transmission of infectious diseases in both healthcare facilities and local communities. Proper hand hygiene practices—including washing hands with soap and water and using alcohol-based hand sanitizers—significantly reduce the spread of pathogens responsible for Healthcare-Associated Infections (HAIs) and community-acquired diseases.

Challenges and Barriers to Compliance

Despite strong evidence supporting its effectiveness, adherence to recommended hand hygiene guidelines remains sub-optimal. This is due to several factors, including:

- Time constraints.
- Skin irritation.
- Lack of resources.
- Inadequate awareness.

Strategies to Improve Compliance

This summary reviews the importance of hand hygiene, its role in infection prevention, and key strategies to improve adherence among healthcare workers and the general population. Particular focus is placed on the following core components to raise compliance levels:

- Education and training.
- Availability of hand hygiene facilities.
- Behavioral interventions.
- Institutional support.

Conclusion

Promoting hand hygiene practices is essential for enhancing patient safety, reducing morbidity and mortality rates, and curbing the global spread of infections.



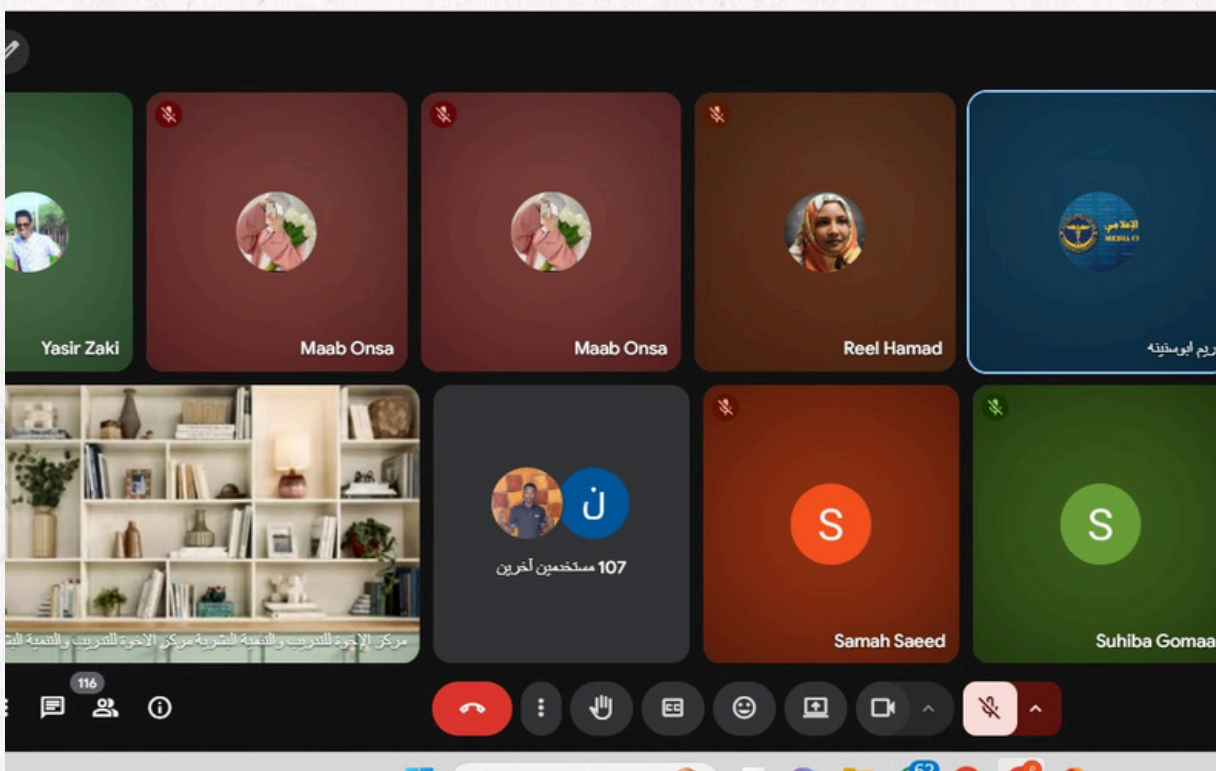
Day Nine


January 13, 2026

Closing Day and Recommendations

In an atmosphere brimming with hope and determination, the First Infection Control Conference in Sudan concluded its activities. The event witnessed a distinguished presence of official, academic, and healthcare leaders. The closing day served as the crowning achievement of ten days of continuous scientific contribution, held under the theme: "Quality of Care Begins with Infection Prevention," serving as a guiding light for practitioners across the nation.

The conference's ambitious vision was rooted in building a robust Sudanese healthcare system, capable of recovery and resilience through the consolidation of rigorous infection control practices.






It carried a noble professional message aimed at enhancing the healthcare sector's capabilities by disseminating modern knowledge, fostering expertise exchange among Sudanese specialists, and implementing the latest international scientific evidence in the field.


The closing ceremony was deeply rooted in loyalty and national pride, featuring a tribute of honor and esteem to the Sudanese youth and the Armed Forces. A moment of gratitude was dedicated to the nation's righteous martyrs, accompanied by heartfelt prayers for the swift recovery of the wounded. Attendees unanimously declared 2026 as the Year of Health in Sudan, marking the cornerstone of rebuilding the national health system on the foundations of science and sustainability.

The opening remarks concluded with a confident outlook toward transforming the conference's outcomes and recommendations into a tangible reality, steering the health sector toward a safer future, and expressing hope that this year would herald comprehensive construction and development across our beloved Sudan.

In his keynote address at the closing, Dr. Elsadig Elzain El-Tayeb, Chairman of the High Committee, reflected on the journey of this major scientific event. He emphasized that it was the result of a strategic partnership and the gracious patronage of the Sudanese National Council for Medical and Health Professions and the Federal Ministry of Health, in professional coordination with the Ikhwa Center for Training and Human Development. He lauded the exceptional efforts of the various committees that worked tirelessly, day and night, sacrificing time and effort to ensure the conference was presented in a distinguished manner befitting Sudan's scientific prestige.

Dr. Elsadig extended his deepest gratitude to the speakers, experts, and researchers who enriched the platform with their knowledge. He also praised the vital role of the organizing and scientific committees, as well as the media, which served as an essential partner in this success. He highlighted the conference's key themes, which focused on strengthening prevention programs, the importance of systematic continuous training, and strict adherence to standard protocols and occupational safety systems.







Particular attention was devoted to discussing the challenges facing vulnerable groups and resource-limited populations under the current circumstances. The Chairman's address carried an urgent national message: infection control is no longer an option but a "top national priority" to protect patients and healthcare workers while ensuring the continuity of services. He called for the reconstruction of health institutions according to integrated occupational health and safety systems that enhance the healthcare system's capacity for recovery and resilience.

Dr. Elsadig concluded his speech by outlining a roadmap for the future, emphasizing the necessity of transforming the conference's outcomes into policies and executive plans applicable to the Sudanese reality. He further stressed the importance of strengthening national, regional, and international partnerships to support continuous scientific research and the development of qualified national cadres.

In a moment that embodied the synergy between academic institutions and the healthcare reality, Dr. Somaya Mohamed El-Sayed, representing Sudanese universities, delivered a speech on behalf of the participating academic bodies. She underscored the strategic timing of this conference, describing it as a fundamental opportunity to redefine the role of science and education in supporting healthcare systems and enhancing their agility in the face of crises.

Dr. Somaya further explained that infection control has evolved beyond transient preventive measures into an integrated system based on three core pillars: continuous knowledge and training, applied scientific research, and strict professional commitment.







She emphasized that Sudanese universities play a pivotal role in preparing a generation of healthcare professionals capable of transforming scientific policies and theories into safe and effective practices within the halls of healthcare institutions.

Furthermore, she announced the commitment of Sudanese universities to deeply integrate infection control and prevention concepts into educational curricula and training programs. This includes directing scientific research to serve national health system priorities and strengthening partnership ties with the Federal Ministry of Health and the Sudanese National Council for Medical and Health Professions.

The representative of the universities concluded her speech by affirming that the conference's recommendations represent a "practical roadmap" requiring sustainable institutional cooperation and a true integration between academic classrooms and the fields of healthcare service. She extended her deep gratitude to the Ikhwa Center for Training and Human Development, as well as all partners and organizing committees, expressing her hope that this conference would serve as a foundation for future programs contributing to the nation's progress and the safety of its people.

In an analytical review of the conference's knowledge content, Dr. Reel Asim Hamad, Chairperson of the Scientific Committee, confirmed that this event served as a strategic national platform for scientific dialogue on infection control and patient safety. She noted its success in unifying national concepts and standards, linking health policies with daily clinical practices in support of the state's direction toward building a resilient health system capable of effective response to health emergencies.







Dr. Reel explained that the conference's scientific program was characterized by its comprehensiveness and reliance on the highest international benchmarks, foremost among them the guidelines of the World Health Organization (WHO) and the standards of the Centers for Disease Control and Prevention (CDC), in addition to the latest evidence-based practices. The program covered vital pillars, including standard precautions, epidemiological surveillance of healthcare-associated infections (HAIs), prevention of surgical site infections (SSIs), and quality of care assurance across various specialized departments.

The Chairperson of the Scientific Committee reviewed the most significant outcomes achieved, primarily raising professional awareness and unifying standards among staff, while building a solid national knowledge base that adopts the principle of "Prevention over Cure." She also noted that the conference laid the scientific foundation for developing comprehensive national infection control policies based on data-driven surveillance systems.

Dr. Rayil concluded her remarks with an optimistic vision of the expected impact of this scientific endeavor. She emphasized that these efforts would directly lead to improving the quality of health services, reducing hospital infection rates, and enhancing the safety of both patients and healthcare workers. She affirmed that this conference is not merely a transient event, but rather the "beginning of a new era" of institutional work and development in the field of infection control in Sudan.






In a scientific address that blended academic rigor with modern technical solutions, Professor Nahla Abdelwahid Suleiman, member of the Scientific Committee, began her speech by extending her highest gratitude to the Federal Ministry of Health, the Sudanese National Council for Medical and Health Professions, and the Ikhwa Center for Training. She lauded their monumental efforts in ensuring the success of this scientific event, despite the technical challenges and the exceptional circumstances currently facing the country.

Professor Nahla highlighted the meticulous precision exercised by the Scientific Committee in selecting research papers and lecturers to ensure that the most pressing and impactful issues in Sudan's infection control landscape were addressed. She emphasized that the peer-review and revision process was conducted with extreme care to align with the requirements of the "reconstruction phase" and to ensure the sustainability of medical services according to the highest international standards. She noted that infection control remains one of the most critical challenges with a direct impact on the safety of the healthcare sector and professional practices.

She further praised the legendary resilience and ambition demonstrated by healthcare professionals—the "White Army"—who continued to work and build despite limited resources. She also noted the participation of a distinguished group of experts and researchers from both inside and outside Sudan, whose scientific contributions are published in prestigious international journals, lending a global dimension to the conference discussions.

In a significant technical gesture, Professor Nahla shed light on the importance of integrating modern technologies and Artificial Intelligence (AI) applications into epidemiological surveillance and infection control processes. She affirmed that the future availability of such advanced technologies is the fundamental pillar for supporting health programs and achieving the desired development.



She concluded her speech by emphasizing the importance of core practices, foremost among them "Hand Hygiene," describing it as the cornerstone for elevating the quality of infection control and protecting healthcare institutions.

The First Infection Control Conference was not merely a passive platform for receiving information; rather, it functioned as a major workshop where attendees actively shared their views and field experiences. From the heart of these discussions, a select group of medical and health practitioners, known as the "Group of 18 Leaders," was nominated to collect and analyze real-world challenges facing the health sector and to formulate practical, innovative solutions reflecting the participants' aspirations.

The following is a comprehensive review of the observed challenges and the proposed solutions agreed upon by the conference experts and leaders:

1. Digital Space and Scientific Research

- **Challenges:** Absence of a unified national surveillance system, weak data documentation, and a lack of decision-support dashboards.
- **Solution Pathway:** Launching a unified national digital system, creating an Infection Prevention and Control (IPC) Dashboard, and establishing a peer-reviewed scientific journal alongside a medical equipment database to link laboratories with health institutions.

2. Financing and Economic Sustainability

- **Challenges:** Insufficient allocated budgets, total reliance on imports, and shortages in protective supplies.
- **Solution Pathway:** Activating partnerships with the private sector to support local manufacturing of medical supplies, providing sustainable financial incentives for workers, and implementing free national training programs.

3. Service Quality and Clinical Environment

- **Challenges:** Discrepancies in sterilization levels between institutions, inefficient waste and water management, and weak adherence to environmental standards.
- **Solution Pathway:** Implementing a "Color-Coded Waste Segregation System," tightening oversight on the sterilization of instruments and endoscopes, and conducting periodic swabs of operating theaters to ensure Zero Surgical Site Infections (Zero SSIs).

4. Investing in Human Capital (Training and Resources)


- **Challenges:** Lack of mandatory training and the absence of links between career progression (promotions) and specialized certification.
- **Solution Pathway:** Adopting a Mandatory National Training Program as a prerequisite for medical license renewal, with a focus on occupational hazard prevention programs and a culture of teamwork.

5. Governance and Health Legislation

- **Challenges:** Inconsistent policy implementation across different states and a lack of deterrent legal frameworks for violations.
- **Solution Pathway:** Establishing strict regulations and laws, forming active State-level Infection Control Committees, and prohibiting any sources of contamination (such as restaurants) in close proximity to hospitals, while committing to an annual periodic conference.

6. Community Partnership and Public Awareness


- **Challenges:** Low awareness among patients and visitors regarding prevention procedures and a lack of sustainable health education programs.
- **Solution Pathway:** Integrating infection control concepts into school curricula, utilizing digital media to disseminate a culture of prevention, and strictly regulating visitor policies within healthcare institutions.




This package of solutions represents a "National Charter for Action," drafted by the practitioners themselves to serve as a clear roadmap for the Ministry of Health and all relevant stakeholders toward achieving a safe and sustainable health system in Sudan 2026.

Mr. Yassir Mohamed El-Bashir, Director of the Ikhwa Center for Training and Human Development, opened his address with words of refuge and praise to the Almighty. He emphasized that the success of the First Infection Control Conference is the fruit of "sincere intentions and dedicated resolve," embodied in ten days of tireless scientific activity from its launch on January 4th until its closing station. He extended his highest appreciation to His Excellency the Federal Minister of Health, the Secretary-General of the National Council for Medical and Health Professions, and all health and academic leaders who embraced this qualitative event. He considered this support the primary driver in transforming the initiative into a national phenomenon contributing to the "reconstruction journey of the health sector."

Mr. Yassir lauded the exceptional efforts of all high-level, scientific, and media committees, with special mention of the "unsung heroes"—the coordinators and organizers behind the scenes—whose perseverance and immense efforts ensured the conference was presented with such a magnificent level of organization and precision. He also paid tribute to all participants, paper presenters, and lecturers who enriched the platform with high-level methodological and professional efforts over the ten days, significantly impacting the achievement of the conference's goals and the exchange of expertise among health institutions.






In a solemn national tribute, the Director of the Ikhwa Center offered a salute of honor to the nation's brave soldiers—the protectors of security and stability—standing alongside the "White Army" of medical and health practitioners. These professionals, armed with science and humanity, have served as a bulwark for the nation and an authentic partner in the battle for survival, resilience, and dignity, defending the health of every Sudanese citizen.

Mr. Yassir concluded his speech by reaffirming that the conference slogan, "Quality of Healthcare Begins with Infection Control," was not merely a phrase but a reality embodied within the scientific papers and sessions. This effort culminated in a package of professional recommendations submitted to decision-makers for translation into practical policies. He renewed the Ikhwa Center for Training and Human Development's commitment to continue supporting scientific initiatives and collaborating with all partners, driven by the belief that "Health Builds Nations."

In his final review of the conference outcomes, Dr. Fazzaa Abdullah Abdelsayed, Director of Scientific Affairs at the National Council for Medical and Health Professions, confirmed that this scientific forum—which hosted over 600 practitioners—successfully formulated a unified national vision under the patronage of the Federal Ministry of Health.



Dr. Fazzaa Abdullah Abdelsayed announced the Council's endorsement of the five fundamental pillars that will constitute the roadmap for the upcoming phase:

Pillar 1: Governance and Sovereign Policies

- Establishing Key Performance Indicators (KPIs) to ensure strict compliance with infection control standards.
- Consolidating the culture of "Patient Safety" as an indivisible ethical and professional responsibility.
- Activating sustainable financing frameworks and effective governance for national prevention programs.

Pillar 2: Infrastructure and Digital Transformation

- Adopting mandatory regulations to redesign health facilities according to International Safety Standards.
- Accelerating the pace of Digital Transformation and Health Information Systems (HIS) to enhance surveillance and oversight.

Pillar 3: Human Resources and Knowledge Investment


- Launching the "National Capacity Building Program" in partnership between the Ministry, universities, and professional councils.
- Integrating infection control concepts into university curricula and ensuring the sustainability of vocational training.
- Strengthening partnerships with the private sector to support qualification and quality-building programs.

Pillar 4: Scientific Research and National Innovation

- Allocating a governmental and international support umbrella to fund scientific research in the field of infection control.
- Building Research Twinning initiatives with global centers for the exchange of expertise and innovative solutions.


Pillar 5: Awareness and Community Partnership

- Launching sustainable national awareness campaigns aimed at changing community health behaviors.
- Empowering the citizen as an essential partner in the prevention system and the effort to limit the spread of epidemics.



On behalf of the Federal Ministry of Health, Dr. Nihad Mohamed Khalifa (Representative of the General Directorate of Quality and Infection Control) opened her speech at the conclusion of the conference's first session by extending her highest expressions of respect and appreciation to all distinguished attendees. She lauded the "Spirit of Determination" that prevailed throughout the conference days, noting that the participants' patience in the face of technical challenges and poor communication networks was definitive proof of the Sudanese health cadres' passion for learning and development. She emphasized that without such resilience and esteemed effort, this brilliant success would not have been achieved.

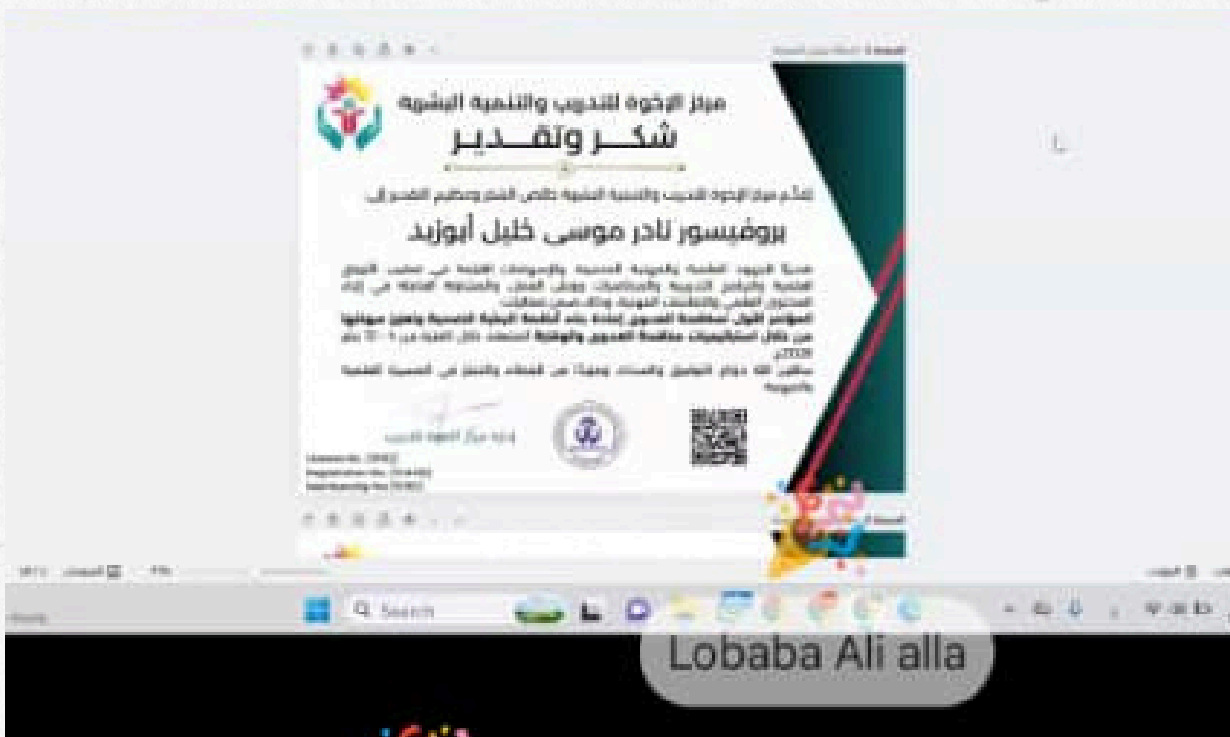
Dr. Nihad conveyed the assurances of the Federal Ministry of Health, represented by the General Directorate of Quality and Infection Control, regarding their full commitment to adopting all scientific recommendations and outcomes resulting from the conference. She announced that the Ministry will serve as a constant supporter in transforming these results into a tangible reality that enhances the quality of healthcare services. She further praised the role of everyone who contributed to and led this great national endeavor amidst the current circumstances facing the country.





Ceremony of Loyalty and Gratitude

In a historic moment, coinciding with the early signs of victory and the return of institutions to the heart of Khartoum, the closing of the First Infection Control Conference witnessed a high-level honoring ceremony. This event embodied the values of loyalty and gratitude toward everyone who contributed to the success of this national milestone, which came at a strategic timing at the dawn of 2026.



I. Honoring the Federal Ministry of Health

With great pride and merit, the conference extended its deepest gratitude to the Federal Ministry of Health in recognition of its pivotal leadership. The honors included:

- His Excellency, Dr. Haitham Mohamed Ibrahim, the Federal Minister of Health.
- The General Directorate of Quality and Institutional Development.
- The Infection Control Department and the Ministry's Training Department.

II. Honoring the National Council for Medical and Health Professions

In a segment characterized by a profound sense of institutional belonging—recognizing the leading body that managed crises with utmost dedication and teamwork—the Ikhwa Center for Training honored the leadership and departments of the Council. These are the teams that stood resiliently, successfully opening 26 service windows both inside and outside Sudan:

- Dr. Zaki Mohamed El-Bashir, Secretary-General of the Council.
- The Executive Directorate, and the departments of Scientific Affairs, Registration and Examinations, Finance, Coordination and Services, Media and Public Relations, and the Training Department.

III. Honoring Strategic Partnerships and Universities

In appreciation of their efforts that enriched both the scientific content and field applications:

- The National Training Center.
- Representatives of participating Sudanese Universities and Colleges.

IV. Honoring the Scientific and Organizing Committees

In profound appreciation of their tireless efforts, working day and night:

- The High Committee: Chaired by Dr. Elsadig Elzain El-Tayeb.
- The Scientific Committee: Chaired by Dr. Rayil Asim Hamad.
- The Media Committee: Chaired by Dr. Reem Fath El-Rahman.
- The Coordination and Follow-up Committee.
- Distinguished Lecturers and Discussants: Who enriched the platform with their knowledge and research throughout the ten days of the conference.

V. Honoring the "Heroes Behind the Scenes"

With great affection and appreciation, the conference extended special thanks to the coordinators and organizers—those who were an unquenchable flame of activity and dedication.

Closing Tribute: Wise Leadership for a Promising Future

The ceremony concluded with a special tribute of loyalty to the Secretary-General of the Council, Dr. Zaki Mohamed El-Bashir. He is the man who steered the institution through the darkest of times and successfully restored the Digital System following the period of destruction. His leadership culminated in the announcement of the first-ever fully electronic proficiency exam, reaffirming that the Council will remain the inclusive home for all medical and health practitioners and a guiding lighthouse in the service of the nation.

With a heart full of praise to Allah Almighty and blessings upon the Prophet (PBUH), Dr. Zaki Mohamed El-Bashir delivered the closing address. It was not merely an announcement of the event's conclusion, but rather a "Covenant for Protecting Life." He welcomed the high-level, distinguished attendees, led by representatives of the Cabinet, the Federal Ministry of Health, and the National Training Council, as well as the High and Scientific Committees, describing the conference as a "Message of Awareness and a Pledge of Responsibility" toward the nation.

In his strategic address, Dr. Zaki emphasized that infection control is not a transient procedure, but rather "a culture to be instilled, a behavior to be practiced, and a trust to be upheld." He stressed that true achievement in this field is attained through science, not fear, and through system, not improvisation. With the wisdom of a leader, he noted that the journey begins with "Hand Washing" and culminates in "Saving Lives," for a small oversight can create a major crisis, and the correct procedure is the essence of professional integrity.

In a speech brimming with hope and realism, the Secretary-General directed a poignant message to the participants: "We depart from this conference, but we do not depart from its message. We do not fold its page; rather, we carry its recommendations to our workplaces to translate them into a tangible reality." Quoting poetry that urges patience in seeking knowledge and rising above the indignity of ignorance, he affirmed that a person's true value lies in their knowledge and piety.

Dr. Zaki concluded the proceedings of the First Infection Control Conference with great optimism for the future of the Sudanese health sector, reiterating that "Quality of Care Begins with Prevention." He offered sincere prayers for Allah to protect Sudan, shield its healthcare workers—the "White Army"—and place the shared knowledge and research in the balance of everyone's good deeds, ensuring that the National Council for Medical and Health Professions remains the lighthouse illuminating the path of return and reconstruction.

Final Recommendations of the First Infection Control Conference

The conference served as a prime opportunity to highlight the achievements attained and the challenges encountered throughout the journey of infection control. This was presented through a rigorous scientific framework during the sessions, which were characterized by extensive and purposeful discussions. These dialogues culminated in several impactful recommendations, which all participants harbor great hope in realizing.

The conference officially recommends the following:

I. Policies and Governance

- **Performance Metrics:** Implementing clear Key Performance Indicators (KPIs) to measure and ensure strict compliance with infection control protocols.
- **Safety Culture:** Enhancing the culture of Patient Safety and actively reducing Healthcare-Associated Infections (HAIs).
- **Non-Punitive Reporting:** Encouraging a "No-Blame" culture for reporting medical errors and adverse events, ensuring that transparency leads to quality improvement rather than punishment.

II. Infrastructure and Reconstruction

- **Facility Redesign:** Redesigning and developing healthcare facilities in accordance with international Quality and Safety Standards.
- **Digital Transformation:** Pivoting toward Digital Health Transformation and integrated health information systems to provide robust data support for infection control policies.

III. Human Resources and Training

- **Integrated National Strategy:** The conference recommends the adoption of a comprehensive national strategy for Health Capacity Building. This journey should begin at the undergraduate university level and continue throughout the professional career path

- **Sustainable Resilience:** This strategy must be grounded in a Continuous Quality Improvement (CQI) approach, ensuring the establishment of a resilient and sustainable health system in Sudan.

Proposed Training Approach: National Capacity Building Program

The conference recommends the establishment of the National Capacity Building Program in Quality and Infection Control. This program shall be a strategic partnership between:

- The Federal Ministry of Health.
- Sudanese Universities.
- The National Council for Medical and Health Professions.
- The Sudan Medical Specialization Board (SMSB).
- The Sudan Medical Council.
- International Partners.

IV. Research and Collaboration

- **National Funding:** Allocating dedicated support for infection control research through government funding and partnerships with the private sector and international organizations.
- **Global Research Twinning:** Building regional and international research partnerships with universities, research centers, and global health organizations.
- **Innovation Culture:** Promoting a culture of research and innovation within the health sector by providing grants and specialized training programs for medical and health practitioners.

V. Community Awareness

- **Sustainable Campaigns:** Launching long-term awareness campaigns to promote healthy and preventive behaviors among the general public.

Closing Acknowledgments and Gratitude

In conclusion, the conference participants extend their highest expressions of thanks and appreciation to:

- H.E. Dr. Haitham Mohamed Ibrahim, Federal Minister of Health.
 - Dr. Zaki Mohamed El-Bashir, Secretary-General of the National Council for Medical and Health Professions.
 - All Conference Committees and the Alekhwa Center for Training and Human Development.
 - Our distinguished guests and representatives of the Media.
- We pray to the Almighty for success and prosperity for all, victory for our armed forces, and lasting security and peace across all corners of Sudan.

#Quality_of_Care_Begins_with_Infection_Prevention

Success is granted by Allah alone.

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The Scientific Committee of the Conference

Organized and Managed by:

Alekhwa Center for Training and Human Development



Rebuilding a Resilient Healthcare System

The First IPC Conference

REBUILDING HEALTHCARE SYSTEMS AND ENHANCING THEIR RESILIENCE THROUGH INFECTION PREVENTION AND CONTROL STRATEGIES

**Quality of Care Begins with Infection
Prevention**



+971545223217



elekhwacenter@gmail.com



www.alekhwacenter.com

