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Safe Supply in Infection Control (SSIC) Initiative: (Strategic Profile)
June 2025

Background

- Healthcare associated infections (HAIs) are the **most frequent adverse outcome in healthcare delivery worldwide**. It continue to be a major problem that endangers patient safety, especially for critically ill hospitalized patients.

- HAIs not only **prolong hospital stays and escalate healthcare costs** but also **contribute to morbidity and mortality rates**.

Background

- The **infection prevention & control supply chain management** plays a critical role in the effectiveness of healthcare systems, particularly in the prevention of healthcare-acquired infections (HAIs).

- **Proper supply chain management** ensures that **essential infection prevention materials are available, accessible**, and **reliable** — directly impacting **patient safety, healthcare workers (HCWs) protection, and overall healthcare outcomes**.

IPC Supply Chain Management

- **Infection Prevention & Control (IPC) supply chain management** refers to the **planning**, **sourcing**, **purchasing**, **storing**, **distributing**, **and monitoring** of all the **supplies** and **equipment** needed to **prevent and control infections** in healthcare settings.

"The consistent availability and accessibility of IPC tools and supplies is a critical enabler for adherence to national standards, protocols, and guidelines"

IPC
Supply Chain Management

- Right products are available.
- At the right time (no delays during outbreaks or emergencies).
- In the right quantity (avoiding shortages or overstock).
- With the right quality (meeting safety and approved specifications).

Right products + Right time + Right quantity + Right quality = IPC Supply Chain Management

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IPC
Supply Chain Management

‘’The best infection control guidelines are useless without the right tools”

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Literature at a Glance

- Approximately 90% of surveyed healthcare professionals reported experiencing shortages of essential medicines and supplies within the Ministry of Health (MOH) supply chain in Saudi Arabia.

- **Conclusion**: **The impact of shortages on patients and healthcare professionals was found to be substantial**. The study also identified several key strategies to reduce shortages that received strong support from the participants.

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Analyzing the causes and impact of essential medicines and supplies shortages in the supply chain of the Ministry of health in Saudi Arabia: A quantitative survey study

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ABSTRACT

Background: Investigating the causes and impact of essential medicines and supplies shortages in the supply chain of the MOH in Saudi Arabia could be the initial step in setting innovative strategies for mitigating this issue. This study aimed to identify the key factors contributing to essential medicines and supplies shortages in the supply chain of the MOH in Saudi Arabia and assess their impact on healthcare delivery.
Methods: A structured questionnaire was designed to collect relevant data on the causes and impact of essential medicines and supplies shortages. A representative sample of healthcare professionals, from various healthcare MOH facilities in Saudi Arabia. The Statistical Package for the Social Sciences (SPSS) software version 26 was used for the data analysis.
Results: A total of 379 respondents participated in the study, 73.7% were males, 51.2% were aged 36-45 years, 23.5% were supply chain professionals, and 32.9% reported an experience of >15 years. 90.0% of the participants reported that they personally have experienced shortages of essential medicines and supplies in the MOH supply chain in KSA. Inadequate planning, forecasting, and procurement were identified as the most significant contributing factors for shortages by about half (48.5%). At least two-thirds of the participants agreed with all strategies adopted for mitigating the issue of shortages.
Conclusions: The impact of shortages on patients and healthcare professionals was found to be substantial. The study also identified several key strategies to reduce shortages that received strong support from the participants.

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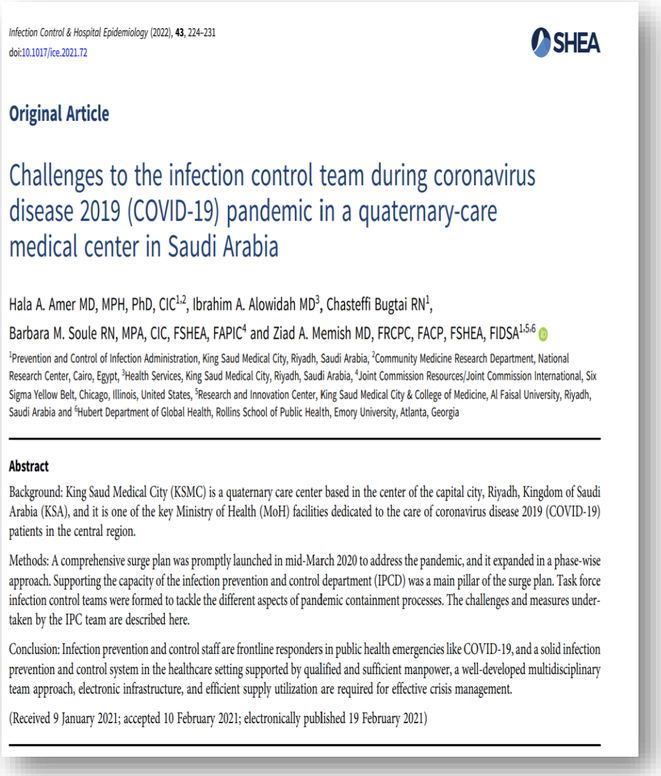
Literature at a Glance

- The study highlights that one of the major challenges faced by the healthcare system during the COVID-19 pandemic was the shortage of essential medical supplies.

- **Conclusion:** Infection prevention and control staff are frontline responders in public health emergencies like COVID-19, and a solid infection prevention and control system in the healthcare setting supported by qualified and sufficient manpower, a well-developed multidisciplinary team approach, electronic infrastructure, **and efficient supply utilization are required for effective crisis management**.



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SHEA

Original Article

Challenges to the infection control team during coronavirus disease 2019 (COVID-19) pandemic in a quaternary-care medical center in Saudi Arabia

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Abstract

Background: King Saud Medical City (KSMC) is a quaternary care center based in the center of the capital city, Riyadh, Kingdom of Saudi Arabia (KSA), and it is one of the key Ministry of Health (MoH) facilities dedicated to the care of coronavirus disease 2019 (COVID-19) patients in the central region.

Methods: A comprehensive surge plan was promptly launched in mid-March 2020 to address the pandemic, and it expanded in a phase-wise approach. Supporting the capacity of the infection prevention and control department (IPCD) was a main pillar of the surge plan. Task force infection control teams were formed to tackle the different aspects of pandemic containment processes. The challenges and measures undertaken by the IPC team are described here.

Conclusion: Infection prevention and control staff are frontline responders in public health emergencies like COVID-19, and a solid infection prevention and control system in the healthcare setting supported by qualified and sufficient manpower, a well-developed multidisciplinary team approach, electronic infrastructure, and efficient supply utilization are required for effective crisis management.

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Evidence-Based Justification

Key Argument	Supporting Evidence
Supplies shortages = High Infections + Higher Costs	CDC & WHO data show that IPC supply shortages increase HAIs and healthcare costs.
COVID-19 Exposed Supply Chain Weaknesses	Local studies (e.g., Informatics in Medicine Unlocked, 2024) reported severe PPE shortages and delayed care.
Global Best Practices	Training and supply use optimization.
Overdependence on Imports	Studies highlighted that reliance on imports led to critical delays in Saudi facilities.

Concluded Best Evidence Approaches

- Create and maintain a national IPC supply management to ensure uninterrupted services during pandemics, infectious disasters, or service required.

- Incentivize domestic production of IPC supplies to reduce dependency on global supply chains and ensure self-sufficiency.

Concluded Best Evidence Approaches

- Addressing IPC supply chain weaknesses will reduce HAIs, minimize treatment costs, and free up ICU resources.
- Implement a national efforts to track IPC inventory across healthcare facilities, improve forecasting, and support data-driven procurement decisions.
- Requires regulatory oversight and capacity building of the IPC practitioners.

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“A safe, efficient IPC supply system is not a luxury—it’s a national security measure. With proper investment, Saudi Arabia can lead the region in healthcare resilience, reduce infection rates, and strengthen its global health position.”

SSIC Objective

- To establish a proactive and sustainable system that guarantees uninterrupted access to high-quality Infection Prevention and Control (IPC) supplies across all healthcare facilities in Saudi Arabia — aiming to prevent healthcare-associated infections (HAIs), optimize resource utilization, and enhance emergency preparedness.

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Initiative Logo

SSIC

Target of the Initiative

All healthcare facilities in the Kingdom of Saudi Arabia.

Initiative Components

Partnership Development

Leadership Support

Evidence Based Approaches

Capacity Building and Professional Development

Performance Tracking and Impact Assessment

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Thank you