



STRENGTHENING HEALTHCARE OUTCOMES THROUGH A RIGOROUS AND SUSTAINABLE INFECTION PREVENTION TRAINING PROGRAM IN A SECONDARY HOSPITAL IN SAUDI ARABIA

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BACKGROUND

The Basic Infection Control Skills License (BICSL) program, initiated by the Saudi Ministry of Health (MOH), plays a crucial role in elevating the knowledge of healthcare workers (HCWs) in infection prevention and control (IPC).

Its primary objective is to educate HCWs on fundamental IPC principles, mitigating the risk of infection transmission within healthcare facilities, and promoting patient safety.

This study explores our experience implementing the BICSL program and its impact on improving healthcare outcomes.

OBJECTIVES

01

Highlight the importance of the Basic Infection Control Skills License (BICSL) program in Saudi Arabia.

02

Explore our experience in implementing the BICSL program at our facility.

03

Demonstrate the statistical significance of improved healthcare workers (HCWs) compliance with BICSL training and its impact on healthcare outcomes.

METHODS

In a prospective analysis, we examined the compliance of HCWs with the BICSL training and its correlation with the improvement in the infection control audit (ICA) score by MOH and overall hand hygiene (HH) compliance rate at our secondary care hospital in Saudi Arabia.

Descriptive statistics and Z-tests were utilized for outcome comparison, with a significance level set at $p < 0.05$.

From 2021 to 2023, a targeted intervention scheme was implemented, encompassing a comprehensive and sustainable educational approach, evaluation of training quality, meticulous administrative follow-up, thorough review of training records, and personalized follow-up by the IPC team.

RESULTS

During 2021, the initial compliance with the BICSL program stood at 20.1%, accompanied by an overall HH compliance rate of 70% and an ICA score of 86% as assessed by the MOH as we see in the table (1). However, following the implementation of our targeted training program, which encompassed all HCWs, we witnessed a remarkable improvement in BICSL training compliance, reaching 99.7% by the end of 2023 ($p < 0.05$) as explained in chart (1) Additionally, the HH rate experienced a substantial increase of 21.4%, as explained in chart (2) while the ICA score improved by 9.3% by the conclusion of 2023, as explained in chart (3).

TABLE -1

| INDICATORS | YEARS | | | DIFFERENCE 2021-2023 |
|-----------------------------------|----------------|-----------------|-----------------|--|
| | 2021 | 2022 | 2023 | |
| HCW's compliance with BICSL | 20.1% (88/438) | 75.7% (310/409) | 99.7% (392/393) | 99.7% The result is significant at $p < 0.05$ |
| Hand hygiene compliance rate (HH) | 70% | 75% | 85% | 21.4% increase |
| audit of MOH -ICA Score | 86 | 88 | 94 | 9.3% increase |

CHART-1 : BICSL COMPLIANCE FOR THREE YEARS

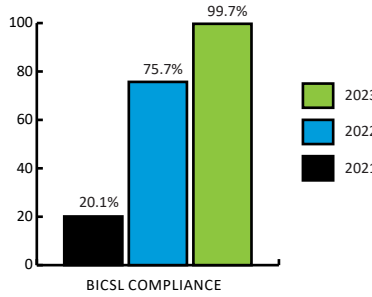


CHART-2 : RATE OF HAND HYGIENE

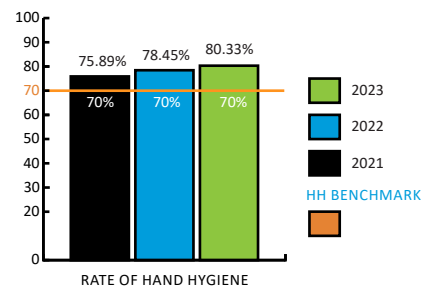
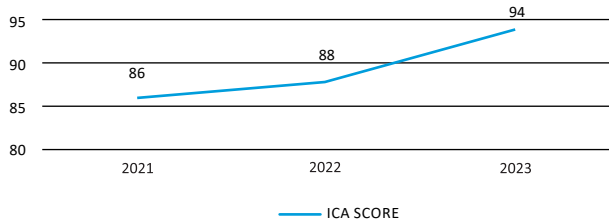


CHART-3 : ICA SCORE FOR THREE YEARS



CONCLUSION

Implementing targeted interventions significantly enhanced compliance with the BICSL program among our HCWs, leading to a notable improvement in their IPC knowledge and skills. The implementation of a rigorous and sustainable IPC training scheme yielded enhanced healthcare outcomes.

ACKNOWLEDGEMENT

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STATISTICAL TOOLS USED

For Z-test calculation : <https://www.socscistatistics.com/tests/ztest/default2.aspx>

For percentage change calculation : <https://www.calculatorsoup.com/calculators/algebra/percent-change-calculator.php>

REFERENCES

<https://gdipc.sa/Training-Education-Department.html>

CONTACT INFORMATION

