

HALtime[®]: A novel clinician-led strategy for reducing healthcare associated infections (HAI) on every ward round

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Introduction

- Healthcare associated infections (HAI) are among the most frequent adverse patient events worldwide.¹
- Hand hygiene and medical device management are critical areas where healthcare staff can assume responsibility for infection prevention.²
- Doctors have lower rates of hand hygiene than other healthcare staff.³ Despite the accompanying risks of infection and falls, consideration of removal of invasive medical devices such as intravascular devices and indwelling urinary catheters is frequently overlooked.
- Hand hygiene and timely removal of potentially infected or unnecessary devices are integral to embedding infection prevention practices into daily clinical work.

Objectives

- This study uses the innovative HALtime[®] app, a real-time tool that actively engages healthcare staff and students to prevent healthcare associated infections on ward rounds.

Methods

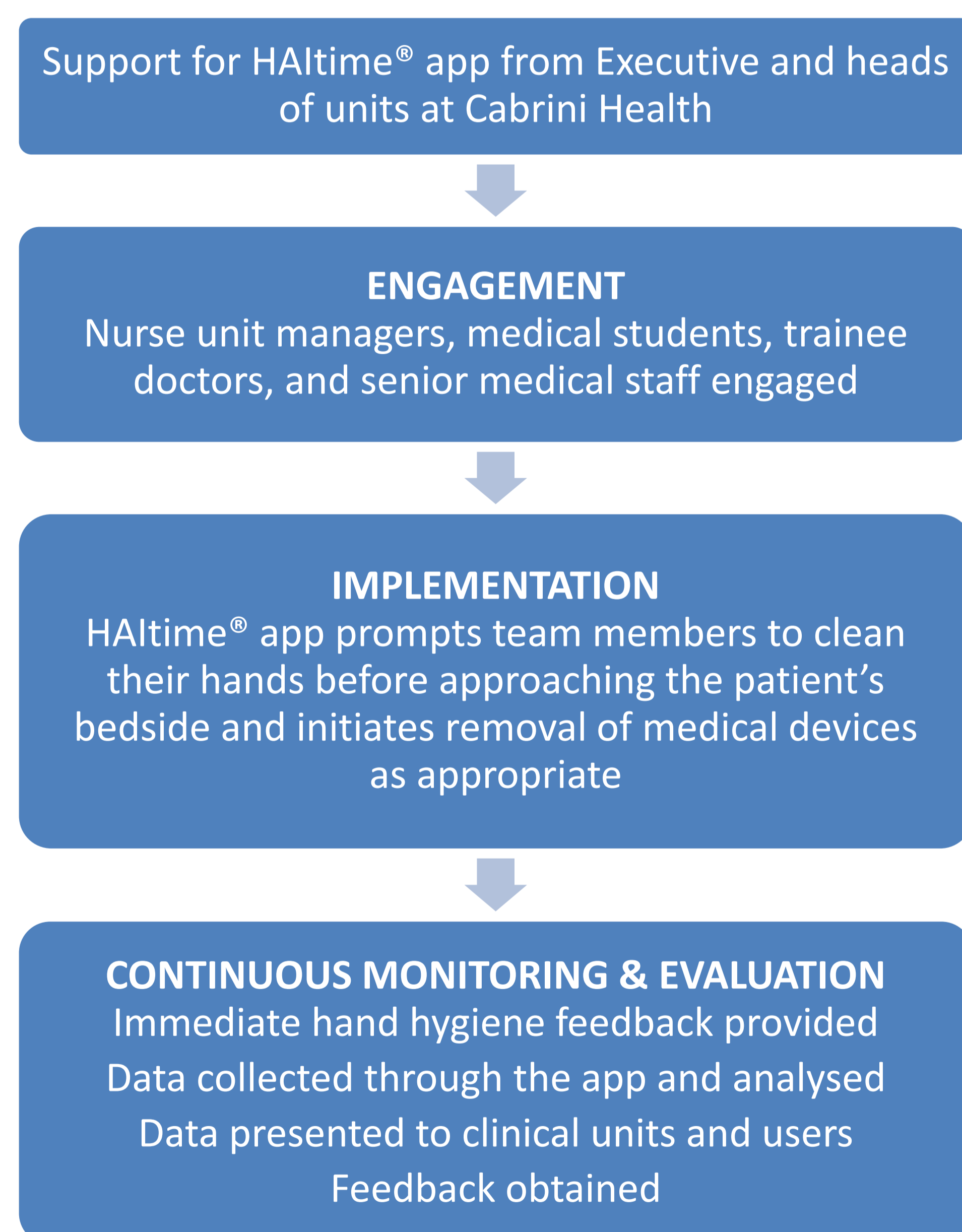


Figure 1: Engagement and implementation of HALtime[®] in a single tertiary hospital

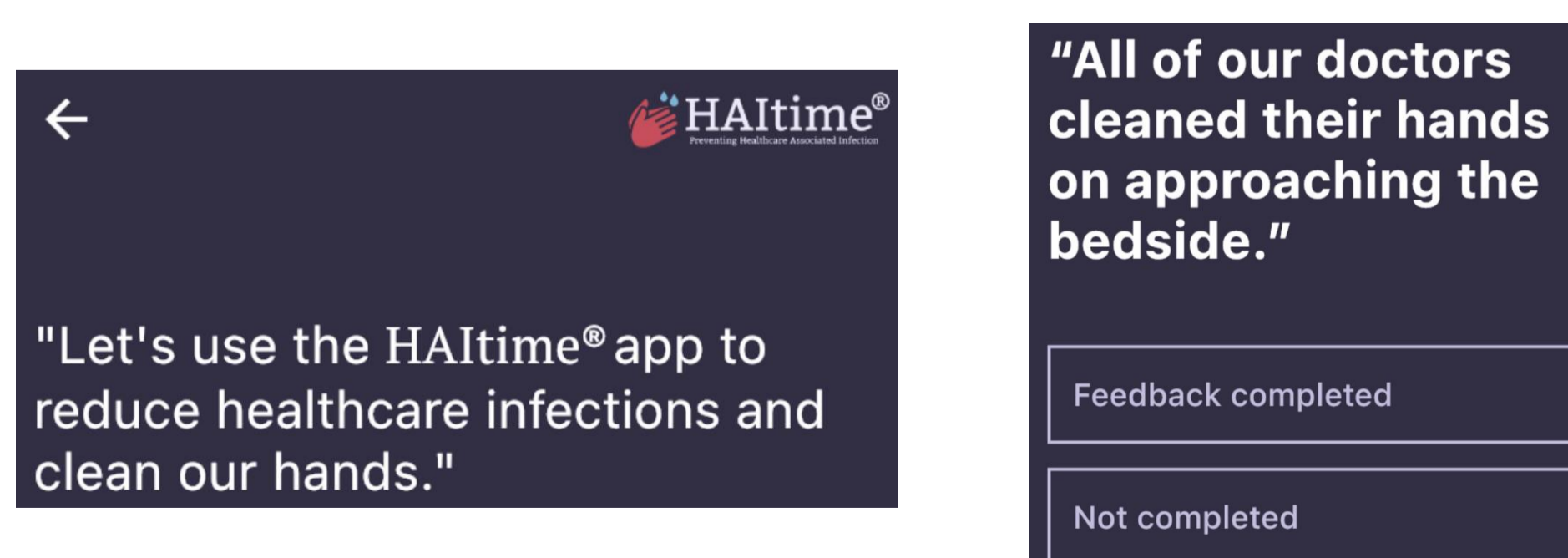


Figure 2: Examples of prompts using the HALtime[®] app

Results

	Number
HALtime [®] interactions	360
Hand hygiene opportunities for participants	599
Devices assessed	328
Devices removed	54
	Potentially infected 19
	Not needed 35

Table 1: Number of HALtime[®] interactions in the four-month period February - May 2023, devices assessed and removed

	Percentage
% hand hygiene compliance	83%
Immediate feedback provided	99%

Table 2: Rates of hand hygiene compliance and feedback

Discussion

- Ten clinical units have been engaged since mid-2022, led by Infectious Diseases specialists, advanced trainees and nurse unit managers. Heads of units have a mentoring role for trainees.
- Results across four months captured 360 HALtime[®] interactions, assessing 328 indwelling devices. Of these, 54 devices were removed (19 potentially infected; 35 not needed).
- 599 hand hygiene opportunities were assessed with 83% compliance, above the hospital baseline. Clinician-led feedback on hand hygiene rates was very high (99%).
- These high rates of compliance could be due to increased awareness and the effect of direct observation, an intended component of the intervention.
- The HALtime[®] app may have served as a reminder for participating doctors to perform hand hygiene themselves, and the immediate feedback may have encouraged other doctors on the ward round to adhere to best practice.
- 8 of 15 feedback sheets were returned. Questions related to the usefulness of the app and the comfort of participants receiving and giving feedback. Participants rated the HALtime[®] app 4.8 out of 5 (agree to strongly agree) for usefulness and were comfortable with receiving feedback with a score 4.9 out of 5, and giving feedback scored 4.4 out of 5 (agree to strongly agree).
- **Implications:** This study supports that individual patient care can be improved via implementation of the HALtime[®] app.
- **Limitations** of this study are acknowledged, including the small sample size and four month period of data presented. Ongoing HALtime[®] app utilisation to enable further data collection is underway to address these issues, and data from the entire study period will be assessed.

Conclusion

- The HALtime[®] app has life-saving potential, integrating sustainable hand hygiene and infection prevention processes into every patient interaction.

Acknowledgements

Cabrini Health
Cabrini Foundation
Cabrini heads of units and consultants, advanced trainees (registrars), Nurse Unit Managers, Clinical Dean of Cabrini Clinical School, medical students

References

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