

KardiaMobile 6L versus 12L ECG: Effects on clinic utilization time

Gaddam M, et al. Journal of cardiovascular electrophysiology. 2024;8:1691-1693.

Background

The average time for inpatient primary care visits is about 16 minutes. The 12-lead (12L) ECG, which takes 10 minutes to record, worsens time constraints in primary care settings.

This can erode the patient-physician relationship and trigger the delivery of suboptimal patient care. In extreme cases, physicians may forgo the ECG to save time. This can delay the diagnosis and management of cardiovascular diseases.

The KardiaMobile 6L (AliveCor) monitor is an FDA cleared 6-lead (6L) ECG device with the potential to shorten ECG measurement in primary care settings and improve clinic utilization time without compromising the quality of patient care.

Objectives

To compare participants on follow-up visits at the cardiac electrophysiology clinic receiving 12L ECG measurements (control group) versus 6L ECG measurements with the KardiaMobile 6L (intervention group), to assess:

1. Room utilization time (primary outcome).
2. Number of participants requiring a 12L ECG after a 6L ECG (secondary outcome).

• Room utilization time is defined as the time from medical assistant (MA) room entry to exit.

Methods

This non-randomized single-center trial included 100 participants (50 in each arm; age range, 18 to 89 years) presenting to a cardiac electrophysiology clinic in the Northwestern Memorial Hospital (United States) for a follow-up visit. Providers in the KardiaMobile 6L group were allowed to request a standard 12L for participants if they deemed the KM 6L insufficient for patient care.

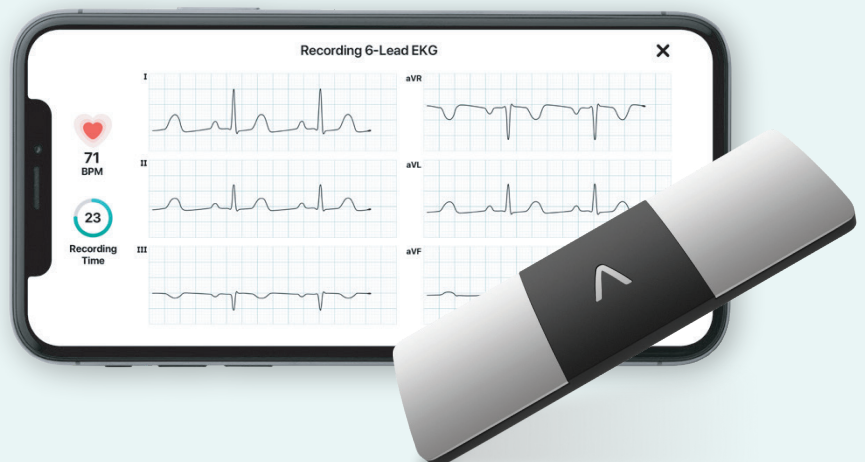
Results

OBJECTIVE 1: Room utilization time

1. Average room utilization time for the 12L group was 10.33 ± 2.20 min, while the average room utilization time for the 6L group was 7.27 ± 1.93 min ($p < .001$).
2. The average time difference between the 12L and 6L groups is 3.07 min.

OBJECTIVE 2: Number of participants requiring a 12-lead ECG after a 6-lead ECG

1. 8 (16%) of participants in the 6L group required an additional 12L.
2. This increased the room utilization time in the 6L group to 8.07 ± 2.28 min.
3. The time difference between the 12L and 6L groups decreased to 2.27 min, but the difference remained significant ($p < .001$).





Conclusion

Overall, approximately 3 min of room utilization time was saved with the 6L compared to the 12L, representing a 30% reduction in ECG acquisition time.

The AliveCor KM 6L monitor saved 3 minutes of room utilization time. It also reduced ECG acquisition time by as much as 30%.

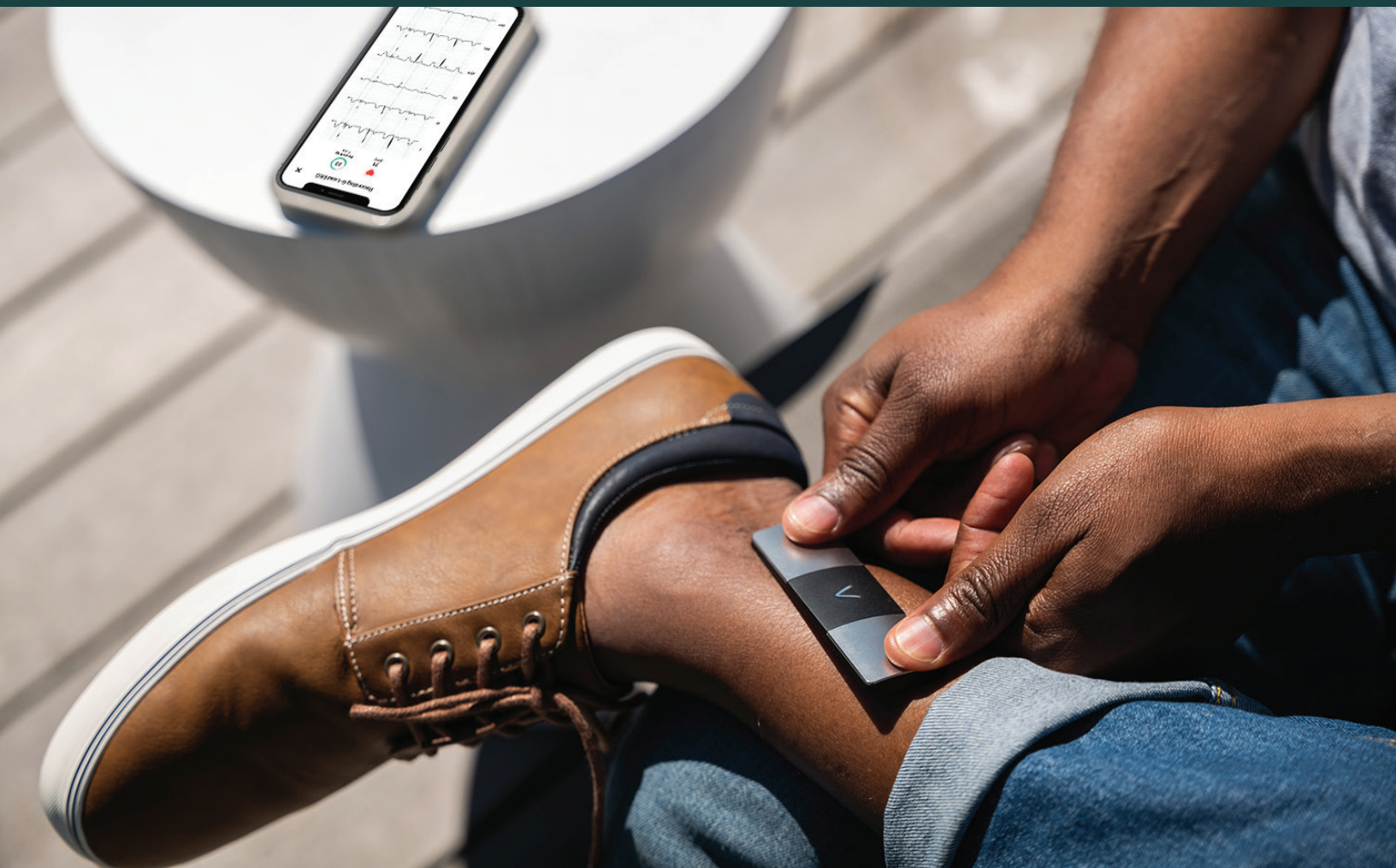
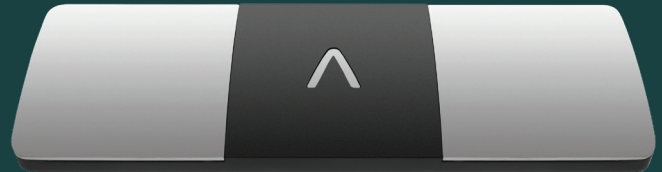
Only 16% of patients required additional ECG measurements with a 12L.

Overall, the saved room utilization time can boost patient satisfaction, and preserve physician-patient relations and the quality of patient-centered care.



Importance to AliveCor

This study shows that the AliveCor KardiaMobile 6L monitor can save room utilization time. With larger control trials, the AliveCor KardiaMobile 6L monitor will prove useful in settings where rhythm and interval measurements are the main priorities.



ALIVECOR®