

## **Continuous trending of vital signs, as compared to threshold alerts, generally reduces nursing workload, reduces alarm fatigue, and can improve response times in hospitalized patients**

Continuous monitoring systems automate the collection and documentation of vital signs, significantly decreasing the time nurses spend on manual measurement and charting. For example, continuous wireless monitoring has been shown to reduce the time required for vital sign monitoring by more than half compared to manual assessments, with median time savings of approximately 10 minutes per patient per day. This reduction in routine workload allows nurses to focus more on direct patient care and clinical assessment.<sup>[1]</sup>

Continuous trending also mitigates alarm fatigue by reducing the frequency of non-actionable threshold alerts. When trend analysis replaces or supplements threshold-based alarms, nurses report fewer unnecessary interruptions and a more manageable workflow, as demonstrated in studies where regular trend review was feasible and preferred over frequent threshold alarms.<sup>[2]</sup> This approach enables earlier recognition of patient deterioration, as subtle changes in trends can be identified before static thresholds are crossed, supporting more timely and effective clinical responses.<sup>[3-4]</sup>

1. [Workload Associated With Manual Assessment of Vital Signs as Compared With Continuous Wireless Monitoring](#). Sigvardt E, Grønbaek KK, Jepsen ML, et al. Acta Anaesthesiologica Scandinavica. 2024;68(2):274-279. doi:10.1111/aas.14333.

2. [Feasibility of Wireless Continuous Monitoring of Vital Signs Without Using Alarms on a General Surgical Ward: A Mixed Methods Study](#). Leenen JPL, Rasing HJM, van Dijk JD, et al. PloS One. 2022;17(3):e0265435. doi:10.1371/journal.pone.0265435.

3. [Effectiveness of Remote Patient Monitoring Equipped With an Early Warning System in Tertiary Care Hospital Wards: Retrospective Cohort Study](#). Lakshman P, Gopal PT, Khurdi S. Journal of Medical Internet Research. 2025;27:e56463. doi:10.2196/56463.

4. [Comparing Continuous With Periodic Vital Sign Scoring for Clinical Deterioration Using a Patient Data Model](#). Peelen RV, Eddahchouri Y, Koeneman M, et al. Journal of Medical Systems. 2023;47(1):60. doi:10.1007/s10916-023-01954-z.