

Category : **Cardiovascular: Monitoring**

A79 - Cardiac output change predicts patient outcome

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Introduction:

Cardiac function is known to be negatively impacted by sepsis. Monitoring Cardiac Output (CO) trends over the course of treatment may provide insight into cardiac function and may be used to predict patient outcome. The goal of this study was to explore the relationship between the change in stroke volume and outcome in critically ill patients.

Methods:

The Starling Registry study is an observational registry study evaluating trends in CO and SV (Stroke Volume) over time as related to patient outcome (NCT04648293). Patients that exhibited an overall improvement in CO (first CO measurement compared to last CO measurement) were compared to those who did not exhibit improvement.

Results:

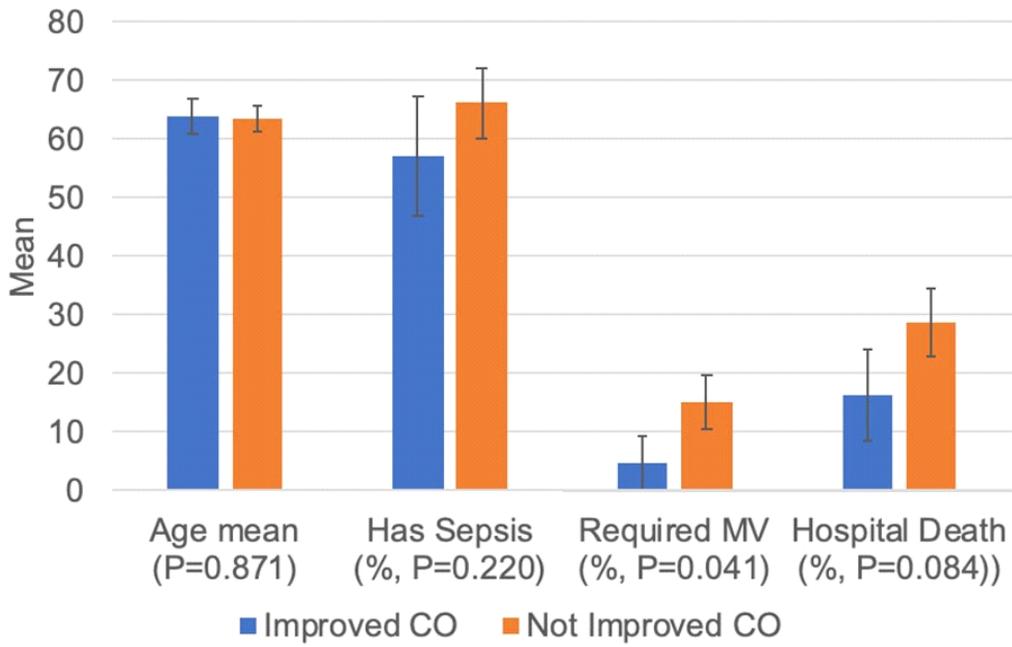
229 critical care patients received hemodynamic monitoring during their ICU stay across three different hospitals. 48 % were female, and the average age was 64 years. 64% of the patients had sepsis, and 17% of patients were positive for COVID. Notably, patients who exhibited an overall improvement in CO exhibited a decrease need for mechanical ventilation (4.8% vs 15%, p=0.041) and a trend toward a decrease in mortality (16.4%) compared to those who did not improve (28.0%, p=0.080)

Conclusion:

We have previously shown that patients who show an improvement in CO in response to the resuscitation exhibited improved outcome. Trending cardiac output over a 1-3 day monitoring period revealed additional usefulness in predicting patients with improved outcome. These results highlight the importance of trending hemodynamics in therapy.

Image :

Characteristics and Outcomes by Improved Cardiac Output



Cardiac Output and Patient Outcome