# Application of the Plan-Do-Check-Act (PDCA) cycle for standardized nursing management.

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#### Abstract

Nursing quality is a Key Performance Indicator (KPI) for health care management. The Plan-Do-Check-Act (PDCA) cycle is a management strategy used to enhance a company's goods or processes over time. It can be used to standardise nursing management and, as a result, enhance nursing quality and patient survival rates. The effectiveness of the PDCA cycle in standardising nursing care in an Intensive Care Unit (ICU) for patients with severe coronavirus disease was investigated in this study (COVID-19). The current state of the ICU was examined, and issues and countermeasures were suggested. To standardise nursing management in the ICU, the PDCA cycle was used. To improve the management of the COVID-19 ICU, nine measures were proposed and implemented: defining clean and contaminated areas, using self-designed shoe storage cabinets, defining staff roles and responsibilities, establishing the staffing structure, staff training, placing items in fixed locations, improving shift handover, using bulletin boards to list key points, and using reserved drug cabinets. 2 weeks after the above countermeasures were implemented, virus contamination awareness, professional skills, understanding of tasks and obligations, and nursing quality and performance all increased significantly.

Keywords: Intensive Care Unit, COVID-19, Sepsis.

### Introduction

Sepsis is defined as life-threatening organ failure induced by a dysregulated host response to infection, according to the Chinese Guidelines for the Emergency Treatment of Sepsis/ Septic Shock (2018). Sepsis requires prompt diagnosis and treatment, and the World Health Organization recommends that global health systems tackle it as a top priority [1]. The Surviving Sepsis Campaign (SSC) is a collaborative effort between the European Society of Intensive Care Medicine and the Society of Critical Care Medicine with the goal of lowering sepsis and septic shock morbidity and death globally. The main strategy of the SSC guidelines has always been sepsis bundles. It underlines the importance of implementing cluster treatment for septic shock within 1 hour. Many countries have demonstrated that it can improve the prognosis of patients with sepsis and septic shock, and it has been regarded as a cornerstone for enhancing the quality of sepsis and septic shock treatment since 2005 [2]. However, there is still a disconnect between guidelines and clinical practise. The overall compliance rate during cluster therapy is poor, and the accomplishment rate among the elements in the treatment bundles recommended by the guidelines varies greatly. Patients with severe sepsis and septic shock have a 28 percent death rate, which necessitates interdisciplinary knowledge and compliance. The

establishment of departmental medical and nursing teams for sepsis treatment, the use of checklists, training, assessment, and educational supervision are currently used to improve sepsis bundle compliance, but the highest reported rate of adherence to the standard in China is only about 81 percent. The Deming Cycle, also known as the Plan, Do, Check, Act (PDCA) Cycle, can aid clinical staff in proactively identifying problems, tightly linking quality control and management, and optimising workflow [3]. The Deming Cycle, also known as the Plan, Do, Check, Act (PDCA) Cycle, can aid clinical staff in proactively identifying problems, tightly linking quality control and management, and optimising workflow. Through a closed loop system and circular administration of improvement projects in four stages, the PDCA technique continuously enhances the quality of work. Clinical use of PDCA for management can provide not only more rigorous and effective medical and nursing procedures, but also higher medical and nursing quality. The PDCA cycle management method is useful in increasing clinical staff compliance with sepsis bundles [4,5].

## Conclusion

The PDCA cycle management model, in which existing and potential problems in clinical work are identified, a problem-

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based improvement plan is developed, corresponding measures are implemented strictly according to the rectification plan, and the results of implementation and execution are checked, standardised, or process-oriented, and the above links are cycled back and forth to better highlight the advantages of continuous improvement in quality management, continuousl improvement in guality management in guality management in guality management in guality

#### References

 Swenson KE, Winslow DL. Impact of sepsis mandates on sepsis care: Unintended consequences. J Infect Dis. 2020;222(2):S166-73.

- 2. Sun J, Cao W, Yang S, et al. Plan Do Check Act (PDCA) cycle nursing model reduces the risk of hemangioma in hemodialysis patients. Iran J Public Health. 2021;50(12):2560.
- 3. Gao Y, Chen X, Kang L. The effect of Plan-Do-Check-Act cycle nursing management of gynecological surgery: a systematic review and meta-analysis. Ann Palliat Med. 2021;10(7):8072-81.
- 4. Demirel A. Improvement of hand hygiene compliance in a private hospital using the Plan-Do-Check-Act (PDCA) method. Pak J Med Sci Q. 2019;35(3):721.
- 5. Meehan CD, Silvestri A, Street ED. Improving blood glucose monitoring in a hospital setting using the PDCA approach. J Nurs Care Qual. 1993;7(4):56-63.

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