



# Application of PDCA in Improving Goods Management in Outpatient Area

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**Abstract:** Objective — To discuss the application value of PDCA cyclical management in improving the standard rate of goods management, which is capable of improving the experience of patients, and thus improving the work efficiency and sense of comfort of medical staffs by investigating the non-standard management of goods in the outpatient area of our hospital. Methods — All the diagnostic areas were evaluated, and the evaluation results showed that the standardized rate stood at 53.3%. According to the analysis results, PDCA cyclical management mode was adopted to take effective intervention measures. Results — The standard rate of goods management (after intervention) increased to 78.3%, achieving the desired effect. Conclusion — PDCA proved to generate significant effect on the management of the standard rate of outpatient goods management, which can effectively improve the comfort level of the environment and improve the nursing quality.

**Keywords:** outpatient, area management, PDCA cycle

PDCA cyclical management is A standardized and scientific management system, which is mainly divided into four parts: Plan (P), Do (D), Check (C) and Act (A). Currently, it has been widely used in clinical management with initial results.[1] In recent years, with the gradual development of society and the attention paid by social groups to health, people's understanding of health has expanded from the traditional cognition to include the overall concept of body and mind[2]. The standardization of goods management in the outpatient area is conducive to creating a good environment for medical treatment, which is conducive to creating a reliable, safe and calm psychological perception in the waiting area[3-4] and e patients' satisfaction with medical treatment can be improved. Management of standardized office environment in the clinic can enable medical staff to carry out their work quickly and orderly. However, there are some management based problems in the clinic, such as disordered public goods arrangement, irregular countertop in the office area and disordered file management. It is urgent to take effective measures and means to improve the standard rate of the clinic goods management.

## 1. Objects and methods

### 1.1 Objects

Our hospital is a large grade A hospital, with a total of 15 areas and 202 consulting rooms and the maximum number of visits can reach 22,000 person times. Outpatient clinic is an important medical place for medical activities. The quality of its environment directly affects the quality of nursing, and the quality of nursing is directly related to patients' understanding of medical services. Outpatient clinic is taken as the object of this PDCA cyclical system.

### 1.2 Methods

We investigated 15 outpatient areas by means of on-site scoring of self-made questionnaire, and intuitively felt the disorderly and unclassified items in the area. The total score of the self-made item management evaluation table was 100 points, and 80 ~ 100 points means very standardized goods layout (namely excellent). 80 ~ 60 signifies relatively standardized goods (that is, well organized layout of goods); < 60 points shows poorly standardized goods layout (i.e. poor). The results of the survey showed that the standard management of goods in 3 districts was "excellent", the management of goods in 4 districts was "good" and the management of goods in 8 districts was "poor", and the non-standard goods accounted for 53.3% of all districts. The survey results showed that the items in the clinic were disordered, with ambiguous classification and identification of items and the information file management was disordered, the utilization rate of space proved to be at low level, and the waste management was not standardized. A good environment can improve the experience of patients, improve the work efficiency and work comfort of medical staff. This project aims

to standardize the management of goods in the outpatient area through the improvement of nursing quality, in order to improve the standard rate of goods management in the outpatient area and optimize the environment of the outpatient area of our hospital.

**1.2.1 Plan (P)**

Date \ Steps	March	April	May	June	July	August	September	October	November	December
Topics	→									
Proposed plans	→									
Status quo	→	→								
Reasons & Analysis		→	→							
Countermeasure		→	→							
Implementation				→			→			
Results check							→			
Consolidated measures							→			
Data summary								→		
Publishing results									→	

**1.2.2 Do (D)**

In this activity, Plato determined 5 important factors affecting the standard rate of item management in the diagnostic area, and sorted the 5 importance levels in order: "No standardized standard of item placement", "No standardized shift system", "No category of item placement", "Insufficient supervision" and "No exact positioning of item placement".

There is no standardized standard for the placement of articles. To develop standards for the placement of articles in the clinic area, covering the announcement area of the nurse's station. To make a fixed logo on the detailed map of the area where the items are placed and paste it in the area where it needs to be optimized.

No standardized system for shifting of duty. To formulate the shift management system of goods in the clinic, and make the handover list of goods in the nurse station and the clinic in form of a table to facilitate the shift handover of nurses in the clinic.

(3) There is no category for the placement of articles. Documents, first aid items, office supplies and epidemic prevention and control materials should be classified and placed at designated points.

The drawers in the office area are labeled and placed in categories. To add shelves, storage boxes, hooks and other classified placement documents for convenient use for nurses. The supplies in the clinic were placed in fixed positions and neatly arranged.

Insufficient supervision. To set up the management team of the clinic area [5], with the head nurse as the leader and the person in charge as the deputy leader. Formulating the inspection table of the clinic area, and guide nurses carry out the inspection of the clinic area irregularly (goods management, maintenance) to improve the attention of staff.

Visual management without positioning of items[6]. Comprehensive optimization: Identification method, color method, marking method and the area, place, materials and equipment are represented with eye-catching font colors and lines, and the original identification system is replaced by strong contrast colors. Map method and direction method were adopted to express the department layout and safety line in the form of map, and indicate the direction of action.

**1.2.3 Check (C)**

Business training: To organize regular study on the management of articles in the clinic, and organize guide nurses to visit and study in the standardized clinic, and evaluate the standardized clinic regularly.

Direct observation: To set up a supervision group for the management of items in the clinic area, with the head nurse as the leader and the person in charge as the deputy leader to conduct random inspection in the clinic area.

### 1.2.4 Act (A)

The management team comes to the diagnosis area for on-site scoring, and conducts evaluation on the scoring results of the diagnosis area, scores the assessment criteria, to correct the problems in time, and make public of the departments if they are not on duty.

## 2. Results

(1) After the intervention: After the project improvement team was established, we made a summary calculation based on the different ability values of team members, and concluded that the group's ability was 66.6%, which reached the expected goal and increased to 78.2%.

(2) Developing the standards and standard signs for the management of articles in the clinic, which facilitated the management of nurses' articles in the clinic, developed the standardized shift management system and process for the management of articles in the clinic, and made the shift management system more perfect.

(3) It increases the work comfort of outpatient medical workers, improves the work efficiency of nurse guides, and improves the patients' experience of medical treatment environment.

(4) Through this improvement activity for nursing quality, the comprehensive quality of nursing staff was improved, including the ability to solve problems, the ability of teamwork, the ability to use methods, communication skills, the confidence of activities and the sense of team honor.

The standardization rate of articles management was higher after PDCA cyclical management than before, which proved the high efficiency and application value of PDCA management system. In terms of nursing staff's management of the diagnosis area, the number of outpatient patients in our hospital is at a large quantity, and so as the number of guiding nurses in shifts and the number of visiting doctors. From the aspect of goods management, the main factor is that there is no standard in the clinic area. PDCA cyclical management can motivate medical staff to participate in the management of goods. Systematic and multifaceted intervention will improve the standard rate of goods management more effectively. Therefore, the author believes that this activity is worth promoting.

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