

# Analysis of the Effectiveness of a General Medicine Management Model in Treating Chronic Coronary Syndrome

Yingxin Zhao\*

Department of Cardiovascular Medicine, Affiliated Hospital of Hebei University, Baoding 071000, Hebei Province, China

\*Corresponding author: Yingxin Zhao, hdfzyx@163.com

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**Abstract:** *Objective:* To analyze the effects of a general medicine management model in the treatment of chronic coronary syndrome. *Methods:* The study included 100 patients with chronic coronary syndrome admitted to the hospital between April 2022 and May 2023. Patients were divided into an observation group and a control group to compare the outcomes of the general medicine-based management model with those of the conventional management model. *Results:* The incidence of adverse cardiovascular events in the observation group was significantly lower than in the control group ( $P < 0.05$ ). Anxiety and depression scores in the observation group were also significantly lower than those in the control group ( $P < 0.05$ ). Quality-of-life scores and patient satisfaction in the observation group were significantly higher than those in the control group ( $P < 0.05$ ). *Conclusion:* Implementing a general medicine-based management model for patients with chronic coronary syndrome effectively reduces the incidence of adverse cardiovascular events, significantly improves patients' emotional well-being and quality of life, and has notable clinical significance for wider adoption.

**Keywords:** General medicine management model; Chronic coronary syndrome; Application effect; Analysis

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## 1. Introduction

In recent years, the incidence of coronary heart disease in China has steadily increased, imposing a substantial burden on patients. The severity of coronary heart disease varies across its developmental stages, necessitating different treatment approaches. Chronic coronary syndromes are typically managed conservatively through medication and lifestyle adjustments to control the condition, while acute coronary syndromes often require surgical intervention.

In the clinical management of chronic coronary syndrome, effective strategies are essential to improve cardiac function and stabilize patients' emotions. Adopting a general medicine management model allows for tailored

interventions that address the specific needs of patients. This model integrates patient care with practical solutions, offering effective strategies to stabilize emotional well-being, promote healthier lifestyles, and guide appropriate medication use <sup>[1]</sup>.

This study involved 100 patients with chronic coronary syndrome admitted to the hospital between April 2022 and May 2023. Participants were divided into an observation group and a control group to evaluate the comparative effectiveness of a general medicine-based management model versus the conventional management approach.

## 2. Materials and methods

### 2.1. General information

The control group included 23 males and 27 females, with an age range of 34–78 years and a mean age of (55.27 ± 11.32) years. The observation group included 26 males and 24 females, with an age range of 35–79 years and a mean age of (51.61 ± 11.78) years. There was no statistically significant difference between the two groups ( $P > 0.05$ ).

Inclusion criteria: (i) Consent to participate in the study; (ii) Complete pathological data; (iii) Normal cognitive function.

Exclusion criteria: (i) Natural loss to follow-up; (ii) Infectious diseases; (iii) Cognitive impairment; (iv) Liver and kidney dysfunction; (v) Blood disorders.

### 2.2. Methodology

The control group received conventional interventions. The observation group adopted a general medicine-based management model, which included the following components:

- (1) Establishment of files: Healthcare personnel established patient records, provided personalized guidance, considered patients' actual conditions, analyzed changes in their conditions, and tailored interventions accordingly <sup>[2]</sup>. A trustful relationship between healthcare personnel and patients was prioritized. Regular follow-ups were conducted to improve patients' behaviors and habits.
- (2) Health education: Healthcare personnel provide health education to enhance patients' understanding of the disease and improve their self-management abilities <sup>[3]</sup>. Educational methods included videos, brochures, and public resources. Questions raised by patients were actively addressed.
- (3) Medication guidance: Healthcare personnel guided patients on proper medication use, recorded their medication regimens, explained the functions of prescribed drugs, and discussed potential adverse reactions <sup>[4]</sup>. The efficacy of the medication was monitored, and any issues were promptly managed.
- (4) Exercise guidance: Patients were guided on appropriate exercise routines based on their endurance levels. Healthcare personnel developed individualized exercise plans, primarily focusing on simple activities such as walking or jogging, and adjusted these plans as needed <sup>[5]</sup>. Regular monitoring ensured the intensity of exercise was suitable for improving cardiac function and supporting recovery.
- (5) Regular follow-up: Follow-up plans were established prior to patient discharge. Adjustments to management plans were made based on patients' compliance, blood pressure, heart rate, and other relevant factors. Life and dietary habits were tailored to individual needs, and preventive measures were implemented for any comorbidities <sup>[6]</sup>.

### 2.3. Observation indicators and assessment criteria

- (1) Incidence of adverse cardiovascular events in the two groups;
- (2) Anxiety and depression scores of patients in the two groups;
- (3) Quality-of-life scores of patients in the two groups;
- (4) Patient satisfaction with the intervention.

Anxiety, depression, quality of life, and satisfaction were evaluated using their respective scales to assess recovery and the effectiveness of the intervention.

### 2.4. Statistical analysis

SPSS 25.0 statistical software was used for data analysis. Continuous data expressed as (mean  $\pm$  SD) were compared using the *t*-test, while categorical data expressed as percentages (%) were analyzed using the  $\chi^2$  test. A *P*-value  $< 0.05$  was considered statistically significant.

## 3. Results

### 3.1. Comparison of the incidence of adverse cardiovascular events

The incidence of adverse cardiovascular events in the observation group was significantly lower than that in the control group ( $P < 0.05$ ). Detailed results are shown in **Table 1**.

**Table 1.** Comparison of the incidence of adverse cardiovascular events [*n* (%)]

Groups	<i>n</i>	Heart failure	Acute myocardial infarction	Angina pectoris	Total incidence
Observation group	50	1 (2.00)	2 (4.00)	1 (2.00)	4 (8.00)
Control group	50	2 (4.00)	3 (6.00)	3 (6.00)	8 (16.00)
$\chi^2$	--	2.234	2.131	4.021	8.124
<i>P</i>	--	0.096	0.097	0.04	0.004

### 3.2. Mood scores of patients in both groups

The anxiety and depression scores in the observation group were significantly lower than those in the control group after the intervention ( $P < 0.05$ ). Detailed results are provided in **Table 2**.

**Table 2.** Psychological status scores of patients in both groups (mean  $\pm$  SD, points)

Groups	<i>n</i>	Anxiety scores		Depression scores	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Observation group	50	67.51 $\pm$ 5.53	40.15 $\pm$ 1.69	69.31 $\pm$ 5.71	40.26 $\pm$ 2.15
Control group	50	67.64 $\pm$ 5.74	49.24 $\pm$ 1.58	69.26 $\pm$ 5.46	48.57 $\pm$ 3.24
<i>t</i>	--	0.864	9.564	0.745	8.515
<i>P</i>	--	0.387	0.001	0.568	0.003

### 3.3. Quality-of-life scores of patients in both groups

The quality-of-life scores in the observation group were significantly higher than those in the control group after

the intervention ( $P < 0.05$ ). Detailed results are presented in **Table 3**.

**Table 3.** Changes in patients' quality-of-life scores pre- and post-intervention (mean  $\pm$  SD, points)

Groups	n	Sleep quality		Self-monitoring		Physiological function		Social function	
		Before	After	Before	After	Before	After	Before	After
Observation group	50	55.55 $\pm$ 5.12	82.52 $\pm$ 2.57	59.24 $\pm$ 5.11	81.33 $\pm$ 3.44	60.24 $\pm$ 5.36	83.15 $\pm$ 4.78	61.34 $\pm$ 6.61	81.61 $\pm$ 3.10
Control group	50	55.11 $\pm$ 5.24	72.54 $\pm$ 3.41	59.84 $\pm$ 5.67	68.27 $\pm$ 3.64	60.28 $\pm$ 5.11	72.31 $\pm$ 3.16	61.76 $\pm$ 6.28	70.03 $\pm$ 2.86
<i>t</i>	-	0.647	10.574	0.978	13.152	1.078	11.021	1.145	11.152
<i>P</i>	--	0.568	0.001	0.297	0.001	0.261	0.001	0.252	0.001

### 3.4. Comparison of patient satisfaction with the intervention

The satisfaction of patients in the observation group was significantly higher than that in the control group after the intervention ( $P < 0.05$ ). Results are detailed in **Table 4**.

**Table 4.** Comparison of patient satisfaction with the intervention [*n* (%)]

Groups	n	Very satisfied	Generally satisfied	Unsatisfied	Overall satisfaction
Observation group	50	42 (84.00)	5 (10.00)	3 (6.00)	47 (94.00)
Control group	50	32 (64.00)	10 (20.00)	8 (16.00)	42 (84.00)
$\chi^2$	--	19.897	10.015	10.131	10.131
<i>P</i>	--	0.001	0.001	0.001	0.001

## 4. Discussion

In the clinical management of patients with chronic coronary syndrome, it is essential to prioritize the patients' actual circumstances. The development of chronic diseases is closely associated with lifestyle habits, making it crucial for relevant administrators to rigorously implement management plans and promote positive lifestyle changes among patients<sup>[7]</sup>. In managing chronic coronary syndrome, the gradual implementation of hierarchical diagnosis and treatment models, alongside lifestyle improvements and comprehensive family-centered healthcare services, is recommended<sup>[8]</sup>. Management should be standardized, with a cooperative model involving patients and their families to enhance disease management, improve medication adherence, and optimize health outcomes<sup>[9]</sup>.

The analysis of results indicates that the incidence of adverse cardiovascular events in the observation group was significantly lower than in the control group. The rates of heart failure, acute myocardial infarction, angina pectoris, and total incidence in the observation group were 2.00% (1/50), 4.00% (2/50), 2.00% (1/50), and 8.00% (4/50), respectively, compared to 4.00% (2/50), 6.00% (3/50), 6.00% (3/50), and 16.00% (8/50) in the control group ( $P < 0.05$ ). Anxiety and depression scores were also significantly lower in the observation group ( $P < 0.05$ ). Post-intervention quality of life scores were higher in the observation group compared to the control group ( $P < 0.05$ ). Satisfaction levels post-intervention in the observation group—84.00% (42/50) very satisfied, 10.00% (5/50) generally satisfied, 6.00% (3/50) dissatisfied, and 94.00% (47/50) job satisfaction—were higher than those in the control group, which showed 64.00% (32/50), 20.00% (10/50), 16.00% (8/50), and 84.00% (42/50), respectively ( $P$

< 0.05).

The application of a general medicine-based management model in patients with chronic coronary syndrome enables general practitioners to develop tailored, long-term care plans. This approach not only reduces the incidence of adverse cardiovascular events but also improves patients' self-management abilities and adherence to preventive measures<sup>[10]</sup>. Both conventional and general medicine-based management models enhance clinical outcomes by effectively controlling patients' conditions, dynamically managing lifestyle adjustments, and employing therapies such as drug treatment and hemodialysis to mitigate disease progression.

Effective management of chronic coronary syndrome must account for individual patient conditions, prognostic factors, and disease progression. Engaging both patients and physicians in standardized disease management can improve patients' active participation, confidence, and overall quality of life. Chronic disease management in its early stages necessitates learning from international practices, building professional teams, optimizing medical processes, and addressing potential challenges in patient management. A focus on grassroots bidirectional referrals and continuous patient monitoring is crucial for achieving sustainable outcomes.

Chronic coronary syndrome predominantly affects middle-aged and elderly individuals, demanding substantial medical resources for its treatment and management. Integrating clinical, rehabilitation, and preventive medicine offers a comprehensive approach to maintaining overall health. Long-term care tailored to patient-specific factors, such as comorbidities, physical status, and lifestyle, can improve outcomes. The use of general medicine-based management facilitates dynamic patient care, prevents deterioration, ensures safety, and minimizes adverse events. Early diagnosis and intervention are pivotal for addressing psychological challenges and slowing disease progression.

Implementing the general medicine-based management model for chronic coronary syndrome improves cardiac function through dynamic assessment tools such as echocardiography, allowing for timely intervention and effective control of disease progression. Adjusting intervention programs based on patient assessments ensures the achievement of management goals.

## 5. Conclusion

In conclusion, adopting a general medicine-based management model in chronic coronary syndrome patients significantly reduces the likelihood of adverse cardiovascular events, improves emotional well-being, enhances quality of life, and demonstrates substantial clinical value for broader implementation.

## Disclosure statement

The author declares no conflict of interest.

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