

NURSING CARE FOR PATIENTS WITH CARDIOVASCULAR DISEASES

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Abstract

Cardiovascular diseases are among the most common health problems worldwide and require timely diagnosis, continuous monitoring, appropriate treatment, and comprehensive nursing care. Nurses play an important role in the care of patients with cardiovascular diseases by monitoring vital signs, assessing the patient's general condition, administering prescribed medications, providing appropriate nutrition and physical activity recommendations, and preventing possible complications.

Keywords: Cardiovascular diseases, nursing care, patient care, nursing interventions, blood pressure, heart rate, hypertension, heart failure, coronary artery disease.

Introduction

Cardiovascular diseases (CVDs) constitute a major group of disorders affecting the heart and blood vessels and remain the leading cause of death globally. According to the World Health Organization (WHO) fact sheet published on 31 July 2025, an estimated 19.8 million people died from cardiovascular diseases in 2022, representing approximately 32% of all deaths worldwide. WHO also reports that about 85% of CVD deaths were attributable to heart attack and stroke. Many cardiovascular diseases can be prevented or their progression reduced through management of modifiable risk factors, early detection, appropriate treatment, and continuous patient support.

MAIN PART

Cardiovascular diseases include disorders of the heart and blood vessels, including coronary heart disease, cerebrovascular disease, rheumatic heart disease, heart failure, and other cardiovascular conditions. WHO identifies CVDs as the leading global cause of death. The organization reports that important modifiable risk factors include unhealthy diet, physical inactivity, tobacco use, harmful alcohol use, obesity, elevated blood pressure, elevated blood glucose, and abnormal blood lipids.

The management of cardiovascular diseases requires continuous cooperation between physicians, nurses, patients, pharmacists, dietitians, and other healthcare professionals. The WHO HEARTS technical package specifically promotes team-based care as part of cardiovascular disease management in primary healthcare. Its team-based-care module was officially published on 2 May 2018 and includes guidance on multidisciplinary care and task-sharing in cardiovascular disease management.

Nurses have direct and frequent contact with patients and therefore have an important role in observing changes in clinical condition, implementing prescribed interventions, supporting treatment adherence, and providing health education. Contemporary cardiovascular nursing also involves



patient-centred care, prevention, monitoring, rehabilitation, and coordination of care. The European Society of Cardiology (ESC) maintains a dedicated cardiovascular nursing programme and scientific resources for cardiovascular nurses and allied healthcare professionals.

Cardiovascular Diseases and Their Major Risk Factors

Cardiovascular diseases develop through multiple interacting biological, behavioural, and environmental factors. WHO identifies unhealthy diet, physical inactivity, tobacco exposure, harmful alcohol use, and air pollution among important risk factors. These factors may contribute to increased blood pressure, elevated blood glucose, abnormal blood lipid levels, overweight, and obesity.

Hypertension is particularly important because elevated blood pressure contributes to cardiovascular and cerebrovascular complications. The 2025 AHA/ACC Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults, published on 14 August 2025, identifies high blood pressure as a major modifiable cardiovascular risk factor and emphasizes accurate measurement, lifestyle intervention, appropriate pharmacological treatment, home blood-pressure monitoring, and multidisciplinary care.

The 2021 ESC Guidelines on Cardiovascular Disease Prevention in Clinical Practice, published on 27 August 2021, emphasize cardiovascular risk assessment and prevention based on individual patient characteristics. The guidelines also emphasize shared decision-making between healthcare professionals and patients.

Initial Nursing Assessment of the Cardiovascular Patient

Nursing assessment should be systematic and should establish the patient's current clinical condition and identify changes that require medical attention. The nurse should obtain relevant information about the patient's symptoms, medical history, prescribed medicines, allergies, previous cardiovascular events, lifestyle factors, and current functional status.

Particular attention should be given to symptoms such as chest discomfort or pain, shortness of breath, palpitations, dizziness, weakness, syncope, peripheral oedema, fatigue, and changes in exercise tolerance. The nurse should document the characteristics, duration, frequency, severity, and circumstances associated with symptoms and promptly communicate clinically significant changes to the responsible healthcare professional.

Vital-sign assessment is an essential component of cardiovascular nursing. Depending on the patient's condition, this includes measurement and documentation of blood pressure, pulse rate and rhythm, respiratory rate, body temperature, and oxygen saturation. Changes from the patient's baseline should be recorded and communicated according to clinical protocols.

For patients with hypertension, accurate blood-pressure measurement is particularly important. The current NICE guideline on hypertension, originally published on 28 August 2019 and updated on 26 February 2026, recommends standardized blood-pressure assessment, including measurement in both arms during assessment for hypertension. When appropriate, ambulatory or home blood-pressure monitoring can be used to confirm the diagnosis.





Nursing Care for Patients with Hypertension

Hypertension requires long-term management because persistently elevated blood pressure increases the risk of cardiovascular complications. Nursing care includes accurate blood-pressure measurement, documentation of readings, observation for symptoms and complications, support for medication adherence, and education concerning lifestyle modification.

The nurse should ensure that blood-pressure measurements are performed using appropriate technique and equipment. Patients who monitor their blood pressure at home should receive clear instructions concerning measurement technique and recording of results. The American Heart Association recommends keeping a record of blood-pressure measurements because repeated measurements provide more useful information than a single reading.

Patient education should address diet, physical activity, weight management, tobacco cessation, medication adherence, and stress management. WHO's HEARTS: Technical Package for Cardiovascular Disease Management in Primary Health Care—Healthy-Lifestyle Counselling, published on 2 May 2018, identifies lifestyle counselling as one of the core components of cardiovascular disease prevention and management.

The 2025 AHA/ACC hypertension guideline similarly emphasizes healthy dietary patterns, sodium reduction, physical activity, weight management, stress management, and reduction or elimination of alcohol intake as components of blood-pressure management.

Nursing Care for Patients with Coronary Heart Disease

Patients with coronary heart disease require careful observation because myocardial ischemia may present with chest discomfort, shortness of breath, sweating, nausea, weakness, or other symptoms. Nursing assessment should include observation of the patient's general appearance, vital signs, symptoms, activity tolerance, and response to prescribed treatment.

When chest pain or other potentially serious symptoms develop, the nurse should follow the institution's emergency protocol and immediately inform the responsible healthcare professional. The patient's symptoms, vital signs, interventions performed, and response to treatment should be documented accurately.

Medication administration should be performed strictly according to the prescribed treatment plan. Nurses should verify the medication, dose, route, timing, patient identity, and relevant precautions according to institutional medication-safety procedures. The nurse should also observe for therapeutic effects and possible adverse reactions and report clinically significant findings.

Patient education is important after acute cardiovascular events. Patients should receive understandable information about prescribed medicines, follow-up appointments, physical activity, diet, smoking cessation, and symptoms that require urgent medical attention.

Nursing Care for Patients with Heart Failure

Heart failure requires regular assessment because the patient's condition can change as a result of fluid retention, reduced cardiac function, infection, medication changes, or other factors.





CONCLUSION

Nursing care for patients with cardiovascular diseases is a continuous, systematic, and multidisciplinary process. It includes initial assessment, monitoring of vital signs and symptoms, medication management, prevention of complications, health education, lifestyle counselling, psychological support, documentation, discharge planning, and follow-up.

Current international guidance supports an integrated approach to cardiovascular care. WHO's HEARTS initiative, first published as a technical package in 2016 and subsequently expanded through specific modules in 2018–2021, emphasizes cardiovascular risk assessment, healthy-lifestyle counselling, evidence-based treatment, essential medicines, team-based care, and monitoring.

The 2021 ESC cardiovascular prevention guidelines, the 2025 AHA/ACC hypertension guideline, and current NICE recommendations provide additional evidence-based frameworks for prevention, monitoring, treatment, and patient participation in cardiovascular care.

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