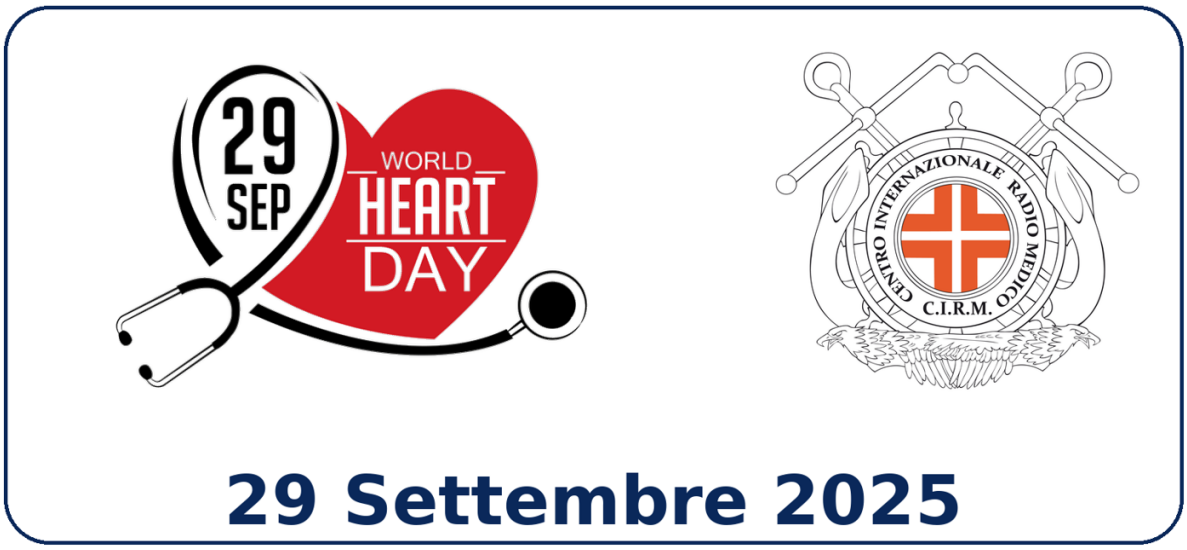

PROJECTS AND INITIATIVES
OF THE INTERNATIONAL MEDICAL RADIO CENTER (C.I.R.M)
FOR WORLD HEART DAY 2025

As per tradition, the International Medical Radio Center (C.I.R.M.) participated in World Heart Day (WHD), held on September 29, 2025. It isa global event dedicated to raising awareness about the prevention of cardiovascular and cerebrovascular diseases, which are still the leading cause of hospitalization and death today.

These diseases also affect seafarers, who are generally more severely involved than the general population. Cardiovascular diseases (CVD) are one of the leading causes of illness and mortality among seafarers. Between 2010 and 2024, the C.I.R.M. assisted 4,564 patients with cardiovascular diseases, representing 8.3% of all diseases for which the Center was requested to provide medical advice. The average age of patients with CVD was 43.56 + 11.75 years, and the conditions in question affected, in descending order, seafarers aged 51 years and over [31%, n = 1,416], followed closely by those aged between 41 and 50 years (29%, n = 1,323). Assistance was provided mainly to non-officers (deck crew, engine crew, and service personnel) (57.6%, 2,629 cases) rather than officers (deck officers and engine officers) (40%, 1,826 cases). Hypertension was the condition for which the C.I.R.M. has received more requests (37% of cases), followed by ischemic heart disease (32% of cases). The remaining 31% cases included conditions such as cardiac arrest, arrhythmias, acute pericarditis, cerebrovascular disease, heart failure, and peripheral vascular disorders.

These data should prompt reflection on the need for cardiovascular prevention, especially for populations such as seafarers, for whom access to diagnostic tests is not easy. A winning solution lies in the management of modifiable risk factors through a healthy lifestyle, with the aim of promoting long-term cardiovascular health.

This year**,** our focus was on **heart rhythm disorders: understanding them to avoid damage**. To develop this activity, we created ad hoc informational texts and made free cardiovascular screenings available in the clinics of the Casa della Salute del Navigante (Seafarers' Health Center) at the C.I.R.M. The initiative was a great success among seafarers and shipping company personnel. A success that encourages us to continue our commitment to such an important medical problem.

Despite the growing use of telemedicine, several challenges complicate the effective management of cardiovascular diseases at sea. Ships often lack diagnostic tools such as electrocardiographs, defibrillators, or basic laboratory testing equipment, which can complicate or hinder diagnosis and treatment. Environmental factors such as long working hours, physical exertion, exposure to noise and vibration, and psychosocial stress can increase cardiovascular risk.

Communication barriers, including unstable internet connections or reliance on basic radio channels, can hinder real-time support from shore-based maritime telemedicine centers. In addition, the limited medical skills of crew members, who are often the first responders in an emergency, reduce their ability to effectively manage acute cardiovascular events until professional help arrives. Furthermore, evacuation options are often limited by distance from shore and weather conditions, increasing the risk of delays in treatment and negative outcomes. These challenges highlight the urgent need for better onboard training, more advanced medical equipment, and effective telemedicine systems to protect the cardiovascular health of seafarers.

In this context, it is worth noting that several Italian shipping companies have joined the C.I.R.M.'s **NAVI CARDIOPROTETTE (heart-protected ships)** project, which consists of equipping their vessels with electrocardiographs and tests for the capillary determination of troponin for rapid diagnosis of myocardial infarction. Thanks to the availability of this equipment, the C.I.R.M.'s cardiology service, available 24 hours a day, is able to support the personnel on board by offering indispensable diagnostic support in case of need.

These include, in particular, the oil tankers Mare Doricum, Mare Picenum, and Mare Siculum owned by Fratelli d'Amico Armatori, the multipurpose vessels NG Driller, NG Surveyor, and NG Worker owned by Next Geosolutions, and the research vessel Laura Bassi owned by the National Institute of Oceanography and Experimental Geophysics.

Telemedicine plays an increasingly important role in the treatment of diseases and injuries among remote populations, particularly seafarers. Special appreciation therefore goes to those who have already joined the initiative to combine electrocardiography and troponin testing to diagnose acute coronary syndromes. We hope that this initiative will be extended to as many fleets as possible to ensure more adequate protection of the health of seafarers.