

Occupational and public health aspects of ship and yacht medicine chests: the 2026 Italian Maritime Research Group position paper

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BACKGROUND

According to the ILO Maritime Labour Convention (MLC 2006), vessels must carry an approved medicine chest, medical equipment, and a medical guide.

This setup is essential not only for treating injuries and emergencies at sea, but also for managing infectious disease outbreaks onboard and providing adequate healthcare for seafarers with chronic conditions.

AIM

We present the position paper of the **Italian maritime research group (ISMMPH**) concerning ship and yacht medical chests addressing crucial public health / occupational medicine updates needed for future revisions of guidelines and flag legislations



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METHODS

A comprehensive literature and regulatory review was conducted to identify and compare

1) Existing flag state regulations (USA, Cayman Islands, UK, EU, France, Spain, Greece, Italy).

2) International guidelines governing ship medical chest contents which were systematically evaluated, including:

- WHO International Medical Guide for Ships (3rd ed.)
- ICS/IMHA International Medical Guide for Seafarers and Fishers (2023)
- Academic literature on medical operations in expedition vessels
- ACEP Health Care Guidelines for Cruise Ship Medical Facilities (2023).

RESULTS

The position paper identifies five core innovative pillars for updating global ship medicine chest standards:

1. Contextual Correlation: Tailoring contents to crew/passenger size, voyage length, distance from shore, cargo carried and navigation in remote or polar areas.
2. Occupational Health Integration: Aligning pharmacy stocks with crew pathologies, pre-sea medical assessments, and strategic vaccine storage.
3. Biological Safety: Enhanced mandates for Personal Protective Equipment (PPE)
4. Early diagnosis of infectious diseases: Advanced onboard diagnostic equipment (e.g. point-of-care, PCR and rapid tests).
5. Operational Management: Pharmacy organization, standardizing digital medicine databases, multilingual leaflets, controlled drug security, and expired medicine disposal protocols

Regulatory Comparison Chart: Maritime Medical Chest Standards

Standard / Regulation	Contextual Correlation *(Voyage/Crew size)*	Occupational Health *(Pathologies/Vaccines)*	Public Health Assets *(PPE/PCR & Rapid Tests)*	Digital & Operational *(Databases/Disposal)*
WHO Guidelines (3rd Ed.)	**Standard** categories (A, B, C) based on distance	**Basic** occupational health focus	**Limited** pandemic countermeasures	**Paper-based** logbooks & traditional management
ICS / IMHA (2023)	**Updated** geographic and duration metrics	**Moderate** alignment with seafarer fitness	**Enhanced** PPE; basic rapid tests	**Digital** transition recommended
ACEP (Cruise Ships)	**High** passenger-to-crew scalable requirements	**Advanced** clinical & specialist registry	**Full** outbreak/PCR infrastructure	**Integrated** electronic health records (EHR)
EU / Flag States *(IT, FR, UK, etc.)*	**Strict** compliance by vessel category	**Variable** pre-sea medical check links	**Basic** infectious disease kits	**Strict** controlled drug registries
ISMMPH Proposal (2026)	**Dynamic** scaling (Polar/Remote routes)	**Direct** link to crew medical histories	**Mandatory** Point-of-Care PCR & outbreak packs	**Multilingual** database & expired medicines tracking

CONCLUSION

An adequate Ship Medicine chest is very important to ensure adequate public health measures and occupational medicine onboard.

A specific item should be considered in the future revision of guidelines and flag state legislations.

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