Seafarers' Medical Fitness Examinations as an Opportunity to Address Vaccine Hesitancy and Promote Opportunistic Vaccination

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BACKGROUND

Vaccine hesitancy, defined as a delay in the acceptance or the refusal of vaccination despite the availability of vaccination services(1), is a major concern for public health, including within the maritime sector.

Pre-employment medical examinations, two years periodic examinations and crew visits at the ship's sickbay represent crucial opportunities to intercept vaccine hesitancy among seafarers and promote dedicated immunization pathways



AIM

The aim of this study is to present and evaluate the joint operational plan implemented by the Imperia Health Port Authority and the NHS vaccination service **to promote opportunistic vaccinations during new entrant seafarers' medical fitness examinations.**

METHODS

Starting in 2024, each seafarers **immunization history** —including potential natural immunity and both mandatory and recommended vaccinations received—**is systematically verified** during the initial entry-to-profession medical fitness examination.

In cases of missing vaccinations, a **targeted questionnaire for seafarers** adapted from the Oxford Vaccine Hesitancy Scale (OVHS), is administered to explore the main determinants of hesitancy (beliefs, fears and decision-making processes)..

Based on the results, **specific communication interventions** are implemented according to the guidelines of the European Centre for Disease Prevention and Control (ECDC)(3).

Concurrently, a **dedicated vaccination pathway seafarers** with zero waiting times was activated.

RESULTS

Table 1: Immunization Surveillance and Catch-Up Vaccination Outcomes (N=215)

Category / Target	Monitored Cohort (n)	Identified Gaps / Status	Intervention & Specific Vaccine	Clinical Outcomes (n)
Total Cohort Monitored	**215**	Aspiring Seafarers	Baseline Immunization Screening	**215 Covered**
Immunization Gaps	—	Incomplete Primary Schedule	Facilitated Communication & Pathway	**9 Completed Schedule**
	—	Missing Decennial Booster	Adult Diphtheria-Tetanus (dT)	**6 Boosted**
	—	Fully Susceptible Ship's Doctor	Immediate MMRV Intervention	**1 Vaccinated**
Catch-Up Specifics	**15**	Primary Immunization	MMRV, MenACWY, and Polio	**9 Fully Protected**
		Decennial Booster	dT Booster Administration	**6 Fully Protected**
Travel Prophylaxis	**98**	International Regulations	Yellow Fever Prophylaxis	**98 Valid Certificates**

CONCLUSION

The joint operational plan demonstrates that integrating vaccine screening into routine maritime medical fitness examinations is highly effective at reducing immunization gaps.

This approach should be permanently integrated into the procedures of maritime medical centres and shipping companies.

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DISCLOSURES

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