

HIV (human immunodeficiency virus) testing and prevention in the cruise industry

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ABSTRACT

Background. There are no internationally recognized guidelines regarding HIV for employees on cruise ships. The aim of the study was to survey and compare current practices for crews in the cruise industry regarding HIV testing and prevention.

Material and methods. Medical representatives from cruise companies were invited to complete a questionnaire on their company's practices regarding HIV-related issues.

Results. Fifteen of 18 invited representatives completed the questionnaire on behalf of 24 companies with a total of 155 ships. All 8 companies with a medical department had a written HIV policy, versus 4 of 16 companies that handled medical crew issues through independent medical consultant services. Thirteen companies required pre-sea HIV testing, 12 had a written HIV policy regarding HIV testing and prevention, and 18 had free condoms for the crew. A positive HIV test would result in revocation of the employment offer from 5 companies and in another 6 companies establish HIV as a pre-existing condition. Eight companies required HIV+ seafarers to demonstrate stability at regular intervals as a condition for sailing.

Conclusions. Cruise companies have different practices regarding HIV in crew. Large cruise lines with medical departments are more likely to have a written HIV policy than companies using independent medical consultants. About half the companies required pre-sea HIV testing; some to avoid hiring HIV+ seafarers, others to establish HIV as a pre-existing condition or to ensure proper follow-up of their HIV+ seafarers. This report may provide input for company discussions about present or future HIV policies.

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Key words: HIV, policy, prevention, maritime medicine, crew, cruise ships

INTRODUCTION

HIV (human immunodeficiency virus) is a global challenge. Regarding seafarers, the Maritime Labour Convention 2006, title 4, states that "the competent authority should ensure that the health and safety are taken into account, particularly in the following areas: [...] c) HIV/AIDS protection and prevention" [1]. The internationally recognized po-

licy paper 'Health Care Guidelines for Cruise Medical Facilities' by the American College of Emergency Physicians (ACEP), originally published in 1995 and revised in 2010, does not mention HIV or AIDS [2]. At present there are no internationally recognized or common guidelines regarding HIV for employees on cruise ships. The aim of the present report was to survey and compare current

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Table 1. Number (%) of cruise companies with and without mandatory pre-sea HIV testing of crew members, according to a written HIV policy and to written consent for HIV testing

Pre-sea HIV testing	Number of companies	Written HIV Policy		Written consent for HIV testing	
		Yes	No	Yes	No
Test Required	13 (54)	6	7	10	3
Test Not Required	11 (46)	6	5	3	8
Total	24 (100)	12 (50)	12 (50)	13 (54)	11 (46)

practices for crew in the cruise industry regarding HIV testing and prevention.

MATERIAL AND METHODS

Medical representatives from cruise companies were invited to complete a questionnaire on their company's practices regarding HIV-related issues and, if available, provide a copy of their HIV policy. Participating representatives were promised anonymity for themselves and their company. Contact addresses were selected from private e-mail lists and the Medical Directory of ACEP's Section for Cruise Ship and Maritime Medicine [3], a list of companies interested in attracting medical personnel from the North American market for their ships. Companies with ships doing only 1 or 2 day cruises were excluded. The author provided information about the planned study at the annual meetings of the medical facilities working group of Cruise Lines International Association (CLIA) and of ACEP's Section on Cruise Ship and Maritime Medicine in Las Vegas, USA, in September 2010. Present medical cruise representatives were there encouraged to support the study by completing questionnaires, and potential positive and negative aspects of such a study were discussed *in plenum*.

RESULTS

Eighteen medical representatives were invited to participate on behalf of 28 cruise companies. Fifteen representatives completed the questionnaire on behalf of 24 companies with a total of 155 ships. Two representatives politely declined to participate and one did not respond. Fifteen completed questionnaires were from member lines of CLIA, the world's largest cruise association, which is composed of 25 of the major cruise lines serving North America [4]. While 11 representatives answered for only one company, 4 answered for a total of 13 companies. Whenever questionnaires for more than one company were answered by one representative, responses to all questions were the same, even when

the companies had different owners. Eight companies had an in-house medical department at headquarters ashore, while 16 companies handled medical crew issues through independent medical consultant services.

Among the 24 companies about half required pre-sea HIV testing, half asked for written consent, and half (98 ships) had a written HIV policy regarding HIV testing and prevention (Table 1). Four representatives submitted additional details from their companies' HIV policy. Eleven of the 13 companies with mandatory testing wanted their seafarers retested for HIV during regular medical re-examinations, scheduled according to company or flag-state requirements after 1 (n = 4), 2 (n = 6), or 2-5 (n = 1) years.

Mandatory pre-sea testing was not clearly connected either to request for written consent to test or to the presence of a written HIV policy (Table 1). All 8 companies with an in-house medical department had a written policy for HIV prevention and testing, including testing and antiviral therapy following occupational potential HIV exposure, like needle sticks. Among the 16 companies with an independent medical contractor, more than twice as many companies had a written policy for occupational HIV exposure than a general HIV policy for crew (Table 2). A written HIV policy did not ensure that free condoms or written HIV information were available aboard the company's ships (Table 3). Where offered, free condoms were available in or outside the medical centre, and 4 companies made them also available in the crew mess and/or through the crew officer. Individual HIV counselling is done on all ships by the ship's doctor, while general HIV information during familiarization talks is mostly left to the doctor's discretion.

A positive HIV test or refusal to pre-sea testing would result in revocation of the employment offer from 5 companies. In another 6 companies it would establish HIV as a pre-existing condition for insurance purposes (Table 4). Eight companies (4 with and another 4 without mandatory pre-sea testing) required

Table 2. Number (%) of cruise companies with an in-house medical department ashore versus companies using an independent consultant service for medical matters, according to the availability of a written HIV policy, to requirement of written consent for HIV testing, to mandatory pre-sea HIV testing of crew, and to the availability of a policy regarding testing/antiviral therapy following occupational HIV exposure

Company with Medical Department	Number of companies	Written HIV policy		Written consent		Test required		HIV Exposure Policy	
		Yes	No	Yes	No	Yes	No	Yes	No
Department	8 (33)	8	0	4	4	5	3	8	0
Consultant	16 (67)	4	12	9	7	8	8	9	7
Total	24 (100)	12 (50)	12 (50)	13 (54)	11 (46)	13 (54)	11 (46)	17 (71)	7 (29)

Table 3. Number (%) of cruise companies with and without a written HIV policy, according to availability of free condoms and written HIV information aboard for crew

Companies with Written HIV Policy	Number of companies	Free Condoms		Written HIV Information	
		Yes	No	Yes	No
Written HIV Policy	12 (50)	8	4	8	4
No HIV Policy	12 (50)	10	2	6	6
Total	24 (100)	18 (75)	6 (25)	14 (58)	10 (42)

Table 4. Consequences for HIV positive seafarers in 13 companies (5 with an in-house medical department ashore and 8 using an independent medical consultant service) with mandatory pre-sea HIV testing

Companies with Medical Department	Number of companies	Job offer revoked		Pre-existing condition		Demonstrate stability*	
		Yes	No	Yes	No	Yes	No
Department	5	0	5	1	4	4	1
Consultant	8	5	3	1	2	0	3
Total	13	5	8	2	6	4	0

*Note that known HIV+ status in companies without mandatory pre-sea testing also established HIV as a pre-existing condition and required demonstration of stability in 1 company with a medical department and in 3 with a medical consultant service

HIV positive seafarers to present specialist certificates demonstrating stability at regular intervals as a condition for sailing.

Table 5 shows how the companies expected the medical staff to behave if a crew member desired to be HIV-tested.

All 12 written HIV policies addressed confidentiality: The medical staff members of 4 companies were not to reveal test results to anyone, while 8 expected them to divulge the condition to the master or to other appropriate authorities under certain circumstances. However, the representatives for 5 of the 12 companies without an HIV policy also stated unasked that they expected the medical staff to maintain regular patient confidentiality regarding known HIV+ status, but to inform the master if necessary for safety reasons.

DISCUSSION

The present questionnaire survey comprised approximately half the current cruise companies, operating more than half the cruise ships worldwide [5, 6]. The findings reflect the diversity of the cruise industry: There is no uniform HIV policy for crew, but a wide variety of practices, from very detailed policies to none at all. The cruise industry comprises ships with less than 100 and more than 2000 crew members, but even the largest vessels do not have a 'ship's hospital', merely a 'medical centre', and its primary purpose is to stabilize patients until they can be safely transported to a proper medical facility ashore [2]. The Medical Labour Convention 2006 demands that ships with > 99 crew must carry a doctor, but nothing is said about nurses [1]. On some smaller ships the medical staff consists of just one doctor, while on the largest ships it comprises as

Table 5. Recommended procedure for medical staff aboard if a concerned crew member wanted HIV testing in 8 companies with an in-house medical department ashore and in 16 using an independent medical consultant service

Companies with Medical	Number of companies	Do nothing	Test aboard	Draw blood aboard, analyse ashore	Test ashore
Department	8	0	4	1	3
Consultant	16	6	5	2	3
Total	24	6	9	3	6

many as 3 physicians, 6 nurses, and a medical secretary. While larger cruise companies may have proactive medical departments at headquarters, smaller companies often have no in-house medical expertise and leave all medical matters to independent contractor services. The consultants' main duty is to primarily avoid and secondarily to solve medical problems for the company and for the medical staff aboard.

The easiest way to avoid HIV-related problems aboard is to only hire HIV negative seafarers, which 1/5 of the companies consciously did. None of these five companies had medical departments, and they all had small ships. Not to overburden minimal medical staff and confidentiality issues may be legitimate concerns. Explaining the lack of an HIV policy, one representative stated, *'On small cruise ships with no nurse or assistant – and frequent turn-over of ship's doctors – and no lab facilities, written policies are frequently unread and a waste of time.'*

Almost half the polled companies (11/24) did not ask for a pre-sea HIV test. Obvious reasons might be that such testing is not part of the flag state's routine pre-employment medical examination or are not to be done according to national law. Or the company simply does not want to know the HIV status of their crew: an employee fired for poor job performance can hardly claim discrimination because of HIV if the management is unaware of his or her HIV status.

On the other hand, a decision maker from a company that wanted pre-sea HIV testing of all crew commented, *'I of course disagree with any discrimination made on stable patients, but to expect crew from developing countries not to know their HIV status and to subsequently die on board from AIDS when it is totally preventable, is incomprehensible and short sighted. We had a few crew die of AIDS onboard before we decided to routinely test them all and are now able to have well managed HIV cases on our ships.'* The representative strongly advised testing of seafarers according to recommendations for HIV testing in health care settings from Centres for Disease Control and Prevention [7].

A slim majority (13/24) required pre-sea HIV testing, although 4 of these companies pointed out that they only tested seafarers not exempt by country law. All but 3 of these 13 companies would ask for written permission before testing, but test refusal would in some companies exclude hiring and in some others establish HIV legally as a pre-existing condition. Hence, one of their HIV policies reads: *'A positive test will not result in a revocation of an offer of employment. It will, however, establish a pre-existing condition which will mean there will be no coverage for this and related conditions ensuing from the virus. If an employee chooses not to be tested and the virus is subsequently determined to exist in the individual, the illness will be assumed to have been a pre-existing condition and no medical coverage will exist under the contract.'* Furthermore, *'patients who test positively will in no way have their jobs jeopardized, unless their disease process precludes them from performing their job in a satisfactory fashion.'* Consequently, in all companies where HIV positive status did not automatically disqualify from seafaring, known HIV positive status required proof of stability at regular intervals, like yearly specialist certificates including *'last viral load, CD4 count and – if under treatment – absence of side effects'*. The medical facilities of most ships do not have equipment to follow up HIV positive patients, and sending off blood or patients for follow-up in local ports is often considered unsafe and may easily compromise confidentiality.

Hence, it was hardly surprising that practice varied widely among the companies if a concerned crew member wanted to be HIV-tested during a contract. One fourth of the companies did not want their medical personnel to get involved at all, one third would allow or expect testing by the medical staff aboard, and one fourth would let the medical staff draw blood and send it ashore for testing. The remaining 4 companies encouraged concerned seafarers to have the test performed through local public health departments or at port laboratories at their own expense *'to ensure confidentiality and accuracy'*. According to one HIV policy,

the process of sending blood for testing at a shore facility *'involves too many people and may compromise confidentiality despite everyone's good intentions'*.

Confidentiality was a concern in most companies, also in many without a written HIV policy, but only four companies did not expect the medical staff to inform the captain if an HIV-positive individual becomes a threat to others because of his or her actions.

Seventy-five per cent of the companies had free condoms for the crew aboard. One company even noted availability of two different sizes. However, neither a medical department ashore nor a written HIV policy ensured that free condoms or written HIV information were available aboard the company's ships. The reason for not distributing condoms freely may be religious, cultural, or economic. On some ships condom consumption exceeded by far the estimated sexual activity among the crew and the condom boxes outside the medical centres were often empty. It turned out that enterprising crews from countries where condom use was restricted or expensive collected free condoms on board and sold them at home during vacation.

HIV is a sensitive matter at sea where the crewmembers live and work in close proximity. Available HIV policies emphasize that HIV education is provided for all employees *'to help them understand how HIV is spread and to reduce unrealistic fears of contracting HIV'*. Conversely, the known fact that all crewmembers on a ship are regularly tested for HIV may give some a false sense of security regarding unprotected sex with fellow crew members.

Needle sticks from haphazardly discarded passenger syringes often occur on cruise ships, and two thirds of the companies, including some without a written general HIV policy for crew, had a written policy regarding testing and antiviral therapy following occupational potential HIV exposure, like needle sticks. One company referred to CDC guidelines for up-to-date management guidelines in such cases [8]. Note that the 'Cruise Vessel Security and Safety Act of 2010' will ensure that all ships that have sleeping facilities for at least 250 passengers and embark or disembark passengers in the United States *'shall maintain on the vessel adequate, in-date supplies of anti-retroviral medications and other medications designed to prevent sexually transmitted diseases after a sexual assault'* [9].

In conclusion, cruise companies have different practices regarding HIV in crew, and confidentiality is a major concern. Large cruise lines with medical departments ashore are more likely to have a written

HIV policy than smaller companies using independent medical consultants. Half the polled companies had a written HIV policy, more had written instructions regarding testing and antiviral therapy following occupational potential HIV exposure, and 3 out of 4 provided free condoms for the crew. About half the companies required pre-sea HIV testing; some to avoid hiring HIV+ seafarers and others to establish HIV as a pre-existing condition or to ensure proper follow-up of their HIV+ seafarers. This report may trigger – and provide some input for – company discussions about their present or a future HIV policy.

POTENTIAL CONFLICTS OF INTEREST

The author has worked part time for a number of cruise companies as an independent maritime medical consultant and as a ship's doctor. He has not received any financial support or funding of any kind for work connected with this report.

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