

## COMMENTS FROM POLAND

At the Institute of Maritime and Tropical Medicine, we have the following comments to offer on the interesting paper published in this issue of the IMH journal by Dr Nikolic and co-Authors.

The Authors listed the tools available on board ship which help to provide medical assistance to a sick or injured seafarer, inter alia the medicine chest. But only drugs from that chest will be used also in situations in which the sophisticated diagnostic procedures including USG are not available. Even if we would know more about the condition of the patient, on a ship at sea there is no wider range of treatment than drugs carried in the medicine chest. Therefore, sending from the ship via the satellite the information obtained by the USG examination will not give a better chance for treatment.

The decision whether immediately evacuate the patient to shore to save his life depends on clinical signs and symptoms, and not on the USG picture, the interpretation of which is often difficult, is not always helping to make the diagnosis even in a hospital.

The mandatory training of seafarers in medical matters so far has not covered the technique of the USG examination. This skill is obtained in the course of training physicians or technicians during many days, on a rich material of patients/cases.

Is it useful and justified to train seafarers with the aim to master this difficult technique in such a short period of time, without repetitions and practical re-training? This skill if obtained will be lost after several months, with only an occasional chance to make the USG examination during the ship's voyage.

The Authors are optimistic if they believe that it is possible to train a non-medical person the method of using the USG technique, of „seeing” the organs in the abdomen. I would be surprised if the knowledge and skill obtained during such a short training would remain in the trainee's memory and hands for a long time.

It is doubtful whether the availability of the USG on a ship on which there is no doctor will really contribute to the better protection of health and life of the crew members, because:

- the number of possible interventions is rather not large on a ship in which the USG picture would be used for making the decision,
- the quality of obtained picture, and the diagnosis thus made would be doubtful,
- a short training of a seafarer in the USG technique does not guarantee making proper and useful use of it on board ship at sea,
- students were not trained diagnosing the presence of fluid in the abdominal cavity, aorta aneurysm etc., therefore such cases should be not mentioned in the discussion and in making conclusions.

I agree with Authors that telemedicine offers new diagnostic possibilities on ships. But concluding that the USG on board of a merchant ship will improve the treatment of cases there during the ship's voyage is too optimistic.

The proposed system of training seafarers in the USG technique does not guarantee that it will be useful in practice and economically justified. And making conclusions based on the examination of 3 patients only with simple pathology is also not justified.

Since a long time, the question of the type of medical equipment and the list of medicines which should be carried on board merchant ships, and the scope of medical assistance for their crews and which new technologies should be introduced in the maritime medical practice has continued, at the time of symposia and other international medical meetings. This question was also the subject of a number of papers which were published during several decades in the *International Maritime Health* and in other journals.

The sick bay or a small hospital on a merchant ship or a passenger cruiser will never be an equivalent to a hospital on shore. And the health and medical training of seafarers will never make their knowledge and skills comparable to knowledge of the qualified medical staff. The possibilities of the trained seafarers or deck officers in providing medical assistance to sick or injured seafarers during the ship's voyage will always remain limited.

The paper of Dr Nikolic and Colleagues from Croatia follows previous publications on the same theme, as for instance the paper of Dr Birger Neubauer and Dr Walter G.Green on Automated external defibrillators on merchant ships, published in the *IMH* in 2005.

The Editorial Board of our journal encourage maritime medicine specialists from other countries to conduct more studies on the same problem, and to participation in discussions, on

- the possibility and practicability of introducing new medical technologies and diagnostic methods on merchant, fishing or cruise ships as their mandatory or recommended equipment,
- to discuss the rationale of such proposals, having in mind the costs involved, and the incidence of diseases and injuries which can be diagnosed and treated at sea with their help,
- to assess how introducing such innovations would reduce the incidence of diseases among crews and save their lives when emergencies occur during the ship's voyage.

The discussion on this problem will hopefully continue at the time of the 9th International Symposium on Maritime Health which will be held in Esbjerg in 2007.

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