2025, Vol. 76 (suppl. 1)

ISSN 1641-9251
eISSN 2081-3252

International Maritime Health, 2025, Vol. 76 (suppl. 1)

INTERNATIONAL MARITIME HEALTH

IMPACT FACTOR 1.6 2023

Special Issue

Official scientific forum of the:

International Maritime Health Foundation

endorsed by

International Maritime Health Association

Indexed/abstracted in: CrossRef, DOAJ, EBSCO, ESCI, FMJ, Google Scholar, Index Copernicus, Medical Journals Links, Medline, Polish Ministry of Education and Science, Polish Medical Bibliography, Scopus, SJR, Ulrich's Periodicals Directory, WorldCat

VIA MEDICA

www.intmarhealth.pl

Preliminary results of the National Medical Hotline for recreational and commercial divers

Konstantin Logunov

Clinic of advanced medical technologies, St. Petersburg University

ABSTRACT

Introduction: The aim of this study was to assess the patterns of illness and injury among Russian-speaking divers.

Methods: An analysis was conducted on requests for medical advice from recreational and commercial divers in distress.

Results: Over 200 requests for advice were analyzed over a 3-year period. Most requests (95%) came from abroad, especially from recreational divers. At least half of all those who sought help participated in multi-day diving trips lasting more than 5 days, including a series of daily dives, often two dives per day. About a third of the requests concerned non-specific (not directly related to diving) diseases affecting the diver or their accompanying person. Of these non-specific illnesses, 60% were caused by colds, 25% by household injuries (cuts, bruises, car accidents, etc.), and 15% by chronic or newly diagnosed illnesses (skin tumors, ischemic heart disease, gastroduodenitis, etc.). Many calls (70%) concerned incidents directly related to diving. Of these calls, 15% were related to injuries sustained during preparation for diving or descent, such as falls on the deck or from the ladder, skin abrasions on equipment elements, etc. All other calls, which accounted for 60% of all hotline inquiries, concern cases related to changes in ambient pressure during diving. Hotline consultants have not yet encountered a single case of arterial gas embolism. Barotrauma of the ear and paranasal sinuses did not exceed 5%. Half of the decompression disorders were represented by mild forms, including skin changes and joint pain, and half by manifestations of inner ear decompression disorders (vertigo, etc.).

Discussion: Health problems in divers generally correspond to the prevalence of modern underwater technology. The widespread use of multiple daily and serial multi-day descents has led to a high frequency of inner ear decompression disorders. The low frequency of ear and sinus barotrauma, a very common diving injury, is probably due to the mild nature of the condition and its widespread awareness. In such cases, qualified help is readily available — not only from general practitioners, but even from experienced diving instructors — making the hotline unnecessary. The fact that in the first three years of operation, the hotline's free consultants have not encountered cases of arterial gas embolism confirms the rarity of these incidents.

Conclusions: The National Medical Hotline for recreational and commercial divers has proven useful. In general, the nature and patterns of calls are not much different from those to the international DAN hotline. The practice of multiple daily diving and the widespread use of breathing gas mixtures increase the relevance of inner ear decompression disorders. Further research into the physiology of repetitive diving is needed.

Keywords: diving medicine; diving telemedicine; diving incidents; diving emergencies