Transformation of Diving and Hyperbaric Medicine Service in Malaysian Armed Forces

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ABSTRACT

INTRODUCTION: Diving medicine practice started in Malaysia since 1960's with a multiplace chamber left by the Royal Navy at Woodlands Naval Base, Singapore. In 1978, the Army Special Forces Training Centre at Sungai Udang Malacca received a multiplace chamber from Australia Defence Force. Until late 1996, hyperbaric chambers in Malaysian Armed Forces (MAF) were only used for training and treating decompression illness. The installation of the first hospital based hyperbaric chamber in Lumut Naval Base in November 1996 has opened a new era in the practice of this relatively young field of medicine in Malaysia. For the past 20 years, diving and hyperbaric medicine in MAF has developed with procurement of more hyperbaric chambers in the medical service as well as in the navy. Changes in practice of the diving and hyperbaric medicine in MAF have indirectly influenced the development of this field in the civilian side. **CONCLUSION:** Nowadays, MAF Diving and Hyperbaric Medicine Service play an important role in occupational health of not only the divers and submariners in the MAF, but it also benefits other working divers and recreational divers in Malaysia.

Keyword: Hyperbaric Medicine, MAF, submariner

Submarine Medicine: An Advancement in Hyperbaric Speciality

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ABSTRACT

INTRODUCTION: The history of Submarine Medicine began as early as in World War II. A submarine is a steel capsule which encloses submariners as they venture into a completely artificial environment beneath the surface of the ocean. Habitable space, the atmosphere, thermal habitability, the design compartment and noise are the areas of concerned in submarine medicine; the effects to the health of submariner. Malaysian Submarine Force Headquarter in Telok Sepanggar Sabah was completed on 17th August 2009 and our two Prime Ministers' class Scorpene submarines KD TUNKU ABDUL RAHMAN and KD TUN RAZAK were commissioned on 27th Jan 2009 and 5th Nov 2009 which marked the significant development of Submarine Medicine in Malaysia. **RESULT:** Study on US Navy submarine crew, the most common medical events among officers were respiratory illness (primarily upper respiratory infections), followed by injury, musculoskeletal, infectious diseases, symptoms and ill-defined conditions and skin problem. The most common medical conditions among NCOs were an injury, upper respiratory illness, skin problem, symptoms and ill-defined conditions, digestive disorders, infectious diseases, sensory organ problems (ear infections and eye problems), and musculoskeletal problems. The development of deep expertise in Submarine Medicine as part of Underwater Medicine in Malaysia is essential to ensure the way forward of giving the best care to our submariners. **CONCLUSION:** Submarine personnel selection, regular assessment for fitness to dive in submariners, potential medical consequences of submarine escape and to appreciate atmospheric considerations inside submarine are among challenges which need to be addressed and improved gradually.

Keyword: submarine, health, navy