where a human is submerged in an unnatural and constantly changing environment, diving is normally a very safe activity if appropriate training, operating protocols and equipment is used. Serious incidents in diving have been reported as occurring in between 1/10 000, and 1/20 000 dives, with a fatality seen between 1/95000 and 1/200000. Commercial diving is regulated in the UK by the ‘Diving at Work’ Regulations (1995) and monitored by the Health and Safety Executive. However, diving has changed dramatically over the years, with new equipment and techniques deployed all the time. Whilst some of this equipment is advantageous (e.g. Wi-Fi enabled dive computers), some has been less so, such as ‘build your own Hookah’ dive sets. This cheap but bizarre breathing systems, and resulting accidents associated with them in the occupational diving will be explored. Often the Hooka diver does not carry an accessory air source and regulator and the results of an impaired primary air supply precipitate a crisis often in remote and poorly supported working environments. Despite the harvested material from the waters being usually sold at high prices to the consumer more and more the diver’s remuneration is pitiful and the latter are seeking cheaper ways to work underwater. The Hooka system does not rely on complex equipment but is fraught with danger. Figures from the Royal Hobart Hospital show even excluding cases of carbon monoxide poisoning divers using these systems account for 30% of the overall hyperbaric treatments for divers. Recent fatal cases along with increasing chamber treatments will be discussed.

**THE OCCUPATIONAL IMPACT OF THE BROAD PRACTICES OF MODERN TUNNELLING**

A Helix. Hyperbaric Tunnelling and Medical Services- Romford, UK
10.1136/oemed-2018-ICOHabstracts.1066

The term ‘caisson disease’ has generally been replaced by dysbaric illness or decompression sickness (DCS) which represent the spectrum of potential problems experienced by those working under unusual pressure. The design and construction of tunnel boring machines (TBMs) are governed not only by soil conditions but now should cater for working at increased pressure and depth. In the right circumstances these machines have reduced not only the intense physical burden on the ‘miners’ but also limited pressure exposure to interventions into the excavation chamber for inspection and maintenance. Previously to limit ingress of water into the tunnel the whole underground site was kept at pressures above atmospheric. Ground conditions will determine the need for earth pressure balanced or slurry machines. Maintenance on the TBM’s cutter head and tools require hyperbaric conditions in the excavation chamber when pressures can exceed 3.5 bar. Deeper tunnelling uses tables and worker surveillance like those used for saturation diving. Breathing mixture is a non-air respirable mixture, such as oxygen and nitrogen (nitrox); oxygen and helium (heliox) or oxygen, nitrogen and helium (trimix) capable of supporting human life under appropriate hyperbaric conditions. Using examples within Egypt, North America and Europe the operational challenges will be expanded with reference to the practical aspects of safe transfer under pressure. Compressed air worker (CAW) is defined as a person certified medically fit for working in compressed air. Aspects of discussions on high pressure compressed air (HPCA) working by British Tunnelling Society Compressed Air Working Group and the International Tunnelling Association (ITA) will be highlighted. Future developments are likely to attempt to reduce worker exposures to higher pressures by mechanising cutter tool changing.

**THE GLOBAL DRIVE TO TACKLE OCCUPATIONAL CANCER**

S Frost. Institution of Occupational Safety and Health (IOSH)
10.1136/oemed-2018-ICOHabstracts.1067

Introduction This session focuses on the impact of a far-reaching campaign to tackle work-related exposures to carcinogens – and examines what now needs to be done to cut instances of occupational cancer.

Methods Launched by IOSH in 2014, No Time to Lose has raised awareness and understanding of work-related exposure to carcinogens, and helped organisations take action. The campaign has offered free, practical materials for businesses to deliver effective prevention programmes for solar radiation, diesel exhaust emissions and silica dust.

To maximise its impact, IOSH has encouraged organisations to sign the campaign pledge, outlining what they will undertake to manage carcinogenic exposures.

Results Since its launch, the campaign has reached more than 66 million people worldwide through media coverage. More than 200 organisations have formally supported it, with another 100-plus businesses signing up to the pledge. The campaign website has had 2 07 000 visits, with the free resources downloaded 71 000 times.

No Time to Lose has been presented at 139 events around the world, in countries including Bulgaria, Cyprus, Egypt and Ireland.

And in November 2016, IOSH, industry leaders, academics and safety and health experts agreed ‘Tackling respirable crystalline silica together: a cross-industry commitment’, a cross-sector plan of action to reduce exposures to this hazardous substance.

Discussion No Time to Lose has raised awareness and understanding of occupational cancer, but carcinogenic exposure remains a widespread threat – an estimated 7 42 000 people die annually from occupational cancer, according to research findings published in 2017.

There are barriers to progress, such as the long latency period between the disease’s contraction and symptoms, and attitudinal issues prevalent in male-dominated industries.

This session will be a platform for discussing a global, cross-sector approach to tackling occupational cancer, and explore what delegates can do to promote awareness and help manage its risks among their communities and networks.

**MILITARY MEDICINE**

Anthony M Corcoran*. Medical Branch Defence Forces Ireland, Dublin, Ireland
10.1136/oemed-2018-ICOHabstracts.1068

Aim of special session Outline the development of the Military Medicine specialty, and describe the Irish Naval Service experience of the refugee crisis operations.
Abstracts

The Special Session on Military Medicine will be comprised of two parts. The first presentation will outline how the new specialty of Military Medicine has been developed in Ireland, and give details on the modules, competencies and learning outcomes of the specialist training programme. The second presentation will provide an insight into the experiences of the Irish Naval Service involved in the ongoing operational deployment to assist in the Mediterranean refugee crisis, and look at some of the occupational medicine implications of this deployment.

Presenters: 1Lt Col Dr John Paul Hickey, 2Lt Cdr Anthony Geraghty
1Faculty of Military Medicine of Ireland (FMMI), Dublin, Ireland
2Naval Service Defence Forces Ireland, Cork, Ireland

1706a EXPLORING NEW FRONTIERS IN MEDICAL TRAINING: A JOURNEY THROUGH THE DEVELOPMENT AND LAUNCH OF THE HIGHER SPECIALIST TRAINING PROGRAMME IN MILITARY MEDICINE

IP Hickey, Faculty of Military Medicine of Ireland (FMMI), Dublin, Ireland
10.1136/oemed-2018-ICOHabstracts.1069

In July 2017 the Irish Medical Council formally recognised and accredited a new and innovative higher specialist training programme in Military Medicine. The development of this programme was a collaborative project between the Irish College of General Practitioners (ICGP) and the Faculty of Military Medicine Ireland (FMMI). It represents a marriage between the traditional vocational General Practice training pathway combined with a tranche of multi-faceted Military Medicine specific modules, including occupational medicine, designed to competently equip medical practitioners for military service at home and overseas. This dual-specialist training programme, a formal and recognised medical qualification encompassing Military Medicine and General Practice training, is the first of its kind anywhere in the world. This collaboration and the development of the training programme represent the very essence of innovation and forward-thinking in medical education. Military Medicine involved the coming together of a wide number of disparate groups and multi-organisational cooperation to bring this specialty from concept to reality. Through this presentation I will outline the journey from project foundation to specialty recognition leading to the induction of the first trainees onto the specialist training programme on the 10th of July 2017.

1706b NAVAL SERVICE OPERATIONS IN THE MEDITERRANEAN: A MEDICAL BATTLEFIELD?

A Geraghty, Irish Naval Service, Haulbowline, Cork, Ireland
10.1136/oemed-2018-ICOHabstracts.1070

Since early 2015 the Irish state has been deploying Naval Ships to the Mediterranean to conduct humanitarian search and rescue operations in order to assist with the migrant crisis. Three ships are rotated per year and as of 23 Oct 2017, the Irish Naval Service have rescued 17404 migrants, dealt with seventy-eight fatalities and delivered two babies onboard their ships. The scale of the operation is unprecedented for any ship, as are the harsh realities of fatalities, and the shock of delivering a baby onboard a warship. In his presentation, Lt Cdr Geraghty provides an overview of the region, discusses the actors operating in the region. He then describes Irish Naval Service operations along with an overview of medical services provided. Finally, he presents four case studies where he describes: a typical day rescuing migrants, the delivery of a baby by an EMT, a mass casualty event where between 200 and 300 people drowned in front of a ship, and finally he describes how ship crews have to deal with decomposing bodies in sweltering heat. In his presentation Lt Cdr Geraghty argues that, as a battlefield is ‘a place or situation of strife or conflict’, Irish Naval Ships are operating in a medical battlefield. This unique working environment has presented many challenges to the occupational medicine service delivered to the crew of the Irish Naval Ships.

1666 SENTINEL AND ALERT SYSTEMS IN OCCUPATIONAL MEDICINE (MODERNET)

Lode Godderis, Tim Driscoll. KU Leuven, Centre for Environment and Health, Leuven, Belgium; Sydney School of Public Health, Sydney, Australia
10.1136/oemed-2018-ICOHabstracts.1071

Aim of special session Continuous changes in work are followed by the rise of new occupational health risks and possibly new work-related diseases, which remain difficult to detect and prevent. Hence, new agents are constantly being introduced at the workplace, with no clear assessment of long-term health risks. Consequently, the detection of new occupational risks requires specific additional instruments to those already in use for monitoring known work-related diseases. The method of choice might be influenced by the type of disease and its prevalence in the (risk) population. In the case of a rare disease with a high etiological fraction, spontaneous reporting by a large group of physicians or workers in a sentinel or alert system would be a good monitoring instrument. These alert systems can forecast and signal adverse effects on health, providing time for response in order to minimize their impact.

Presenters: Jelena Bakusici, Annet Lenderink, Stefania Curti
1KU Leuven, Centre for Environment and Health, Leuven, Belgium
2Netherlands Centre for Occupational Diseases, Amsterdam, Netherlands
3Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy

1666a OVERVIEW ON SENTINEL AND ALERT SYSTEMS IN OCCUPATIONAL MEDICINE

Jelena Bakusici, Annet Lenderink, Sofie Vandenbroeck; Charlotte Lambreghts, Jos Verbeek, Stefania Curti, Stefano Mattioli, Lode Godderis. Environment and Health, KU Leuven, Belgium; 1Coronel Institute of Occupational Health, AMCUniversity of Amsterdam, The Netherlands; 2DEWE, External Service for Prevention and Protection at Work, Heverlee, Belgium; 3Cochrane Work Review Group, Finnish Institute of Occupational Health, Kuopio, Finland; 4Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy
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