

Abstract

Despite major leaps forward in hospital-based trauma care on land over the past 20 years the level of care on board of merchant ships has remained low when compared to levels of care on land, with medical practices that sometimes are a 'blast from the past' and are sub-optimal given the current standards in hospitals on shore. Most of this is a result of the fact that most (if not all) decisions regarding legislation are consensus-based with both scientific and political input, which often results in compromises being made. It has now been established that working at sea is more dangerous than working on land, and in case of trauma the evacuation to shore-based medical facilities can take considerable time – requiring the possibility of prolonged care on board to be developed. This work discusses the 3 most common injuries that occur on board, being a massive hemorrhage, hypothermia and polytrauma. For each, pathology - physiology and traumatology was discussed, covering potential injuries that are more prone to happen on board of ships operating in international waters. We then evaluated the currently in-place approach to these trauma's as described in the WHO's Medical guide for ships (third edition, 2007) and compared them to current practices in hospitals on land, which revealed the guide contains outdated practices that might even contribute to increased mortality. For each trauma, a new approach following the most recent developments in trauma care, based upon the ATLS-protocol, was created. This allows for streamlined and uniform levels of care on board of each ship. Together with these new protocols, recommendations for an update to the medical inventory on board was made, both concerning medication and equipment. All of this to increase survivability of severe injuries and trauma on board of vessels that lack access to professional healthcare while at sea.