

Abstract

Purpose: This study aims to identify prevention strategies at the individual, community, and social levels to reduce the risk of neck lacerations in ice hockey, as there is no official mandate for all ice hockey players regarding neck protection.

Methods: Case summaries from the National Center for Catastrophic Sport Injury Research (NCCSIR) were reviewed to describe factors including the mechanism of injury, use of neck protection, and the outcome. The Haddon Matrix informed preventative strategies across pre-event, event, and post-event phases as they relate to the athlete, agent (skate, puck, stick) and environment.

Results: There were 15 ice hockey laceration injuries from 1985 to 2023 captured by NCCSIR; 11 (73%) were caused by skates, 1 by the puck, 1 by the stick, and 2 by unknown causes. 11 (73%) were neck lacerations, 2 were wrist and forearm lacerations (13%), and 2 (13%) that were other neck injuries. Out of the 11 neck laceration injuries, 8 athletes were wearing neck protection. 10 athletes survived (66%) and 5 athletes died (33%). Out of the 5 athletes that died, 4 athletes were not wearing neck protection and out of the 10 athletes that survived, 4 athletes were not wearing neck protection.

Discussion: The study aims to minimize future injury caused by lacerations and provides other prevention strategies. These strategies include education, emergency training, neck protection mandate, and securing a safe space for emergency personnel within the environment. Further research should investigate the effectiveness of the strategies proposed by the Haddon Matrix.