

Occupational Medicine for Preventing Traffic-related Injuries in the Workplace



In this special issue, *Acta Medica Philippina* proudly presents a relevant and important issue of traffic accidents/injuries and Occupational Medicine. Traffic injury cannot be separated from Occupational Medicine. Although road traffic crashes are traditionally viewed as a public health concern, they are increasingly recognized as a major occupational health challenge. For workers whose jobs involve operating motorcycles, light vehicles, trucks, or heavy equipment, the road and worksite transportation network constitute an extension of the workplace itself. Consequently, crashes occurring during work-related travel are not merely traffic incidents but occupational events that require both preventive and medical interventions.¹

Jacobsen et al.'s systematic review, fatigue, prolonged working hours, shift work, insufficient recovery time, stressful working conditions, sleep deprivation, and inadequate safety management were identified as determinants of crash risk among professional drivers.² These workplace hazards affect driver alertness, decision-making, and reaction time, increasing the likelihood of collisions and injury. Moreover, the rapid expansion of transportation-dependent industries has increased workforce exposure to road hazards, particularly in low- and middle-income countries where motorcycles play a dominant role in daily mobility and work-related transportation.

We can review in this *Acta Medica Philippina* issue that road traffic injuries remain a leading cause of death and disability among working-age populations worldwide. Occupational physicians routinely manage a spectrum of outcomes ranging from minor musculoskeletal injuries to severe trauma, including fractures, traumatic brain injury, spinal cord injury, and permanent disability. Beyond acute medical care, occupational medicine encompasses functional assessment, rehabilitation, disability prevention, mental health support, and the safe return of workers to productive employment. Importantly, data generated from injury surveillance and clinical practice provide essential evidence for identifying emerging occupational risks and evaluating preventive measures.

The plantation and mining sectors illustrate the vice versa relationship even more clearly. These industries rely heavily on heavy-duty vehicles such as haul trucks, dump trucks, loaders, excavators, tractors, and utility vehicles. Workers often navigate challenging environments with poor road surfaces, steep gradients, limited visibility, adverse weather, and long working hours. Such conditions create a complex risk profile in which vehicle rollovers, collisions, struck-by incidents, equipment failures, and fatigue-related errors are significant contributors to occupational injury and fatality. The growing utilization of aging or poorly maintained vehicles may further exacerbate these risks through mechanical failures, reduced braking efficiency, and compromised operator protection systems.

When injuries occur, occupational medicine addresses the immediate and long-term consequences. When injury patterns reveal recurring hazards, occupational health interventions can be strengthened through improved vehicle maintenance programs, fatigue risk management systems, competency-based operator training, journey management protocols, and engineering controls. Thus, each discipline continually informs and reinforces the other.

As workplaces become increasingly mobile and mechanized, we should take into account that road traffic injuries and vehicle-related incidents are occupational events rather than isolated accidents. This recognition allows organizations to adopt a more comprehensive prevention strategy and offers a powerful framework for reducing injuries, preserving workforce health, and advancing the goal of safe and sustainable work environments.³

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