

1. The abstract could be slightly more detailed. It briefly mentions the role of epidemiology in trauma prevention and planning, but it would benefit from a clearer, more concise summary of the major points discussed later in the letter. For instance, the importance of trauma registries could be highlighted earlier.

Thanks for the comment. Importance of trauma registry elaborated.

The WHO report states that the road traffic deaths lead the list among the young between 5-29 years [1]. The data collected at the trauma centres help in the right understanding of the trauma epidemiology and projects the expected future trends. Use of a trauma registry to record the data would help in estimation of financial burden due to trauma, the identification of specific problems like faulty traffic signals, lack of reserved lanes for cyclists, absence of speed limits, dense traffic zones, etc. This would subsequently initiate measures such as trauma prevention in the form of close scrutiny by traffic police, surveillance by closed circuit television, traffic diversions, speed breaker road blocks and improved availability of trauma care centres [2].

2. Some sentences are a bit long or convoluted, which can affect readability.

Thanks, the manuscript was reviewed to modify the same

3. Consider rephrasing certain sections to improve clarity. For example, “induced the situation of accident proneness” could be changed to “increased the risk of accidents.”

Thanks, the rephrased sentence is given below.

The exponential financial growth around the world has led to widespread availability of high speed motorways paving the way for increased risk of accidents.

4. You mention that epidemiology data helps shape trauma management, but it would be useful to elaborate on how this data can improve outcomes or guide specific interventions. For instance, you could include a brief discussion on how data analytics, predictive models, or machine learning tools are used to interpret this data and anticipate future trends.

Thanks, relevant literature added.

Artificial Intelligence (AI) holds the key to future developments in trauma management. Machine learning has removed the unpredictability of trauma care management. For example in a given trauma centre, based on the available epidemiological data from the registry, admission volume, patient flow and surgical requirements can be predicted to reasonable accuracy using AI. This can translate into provision of optimal man power and other resources ensuring satisfactory outcomes. Thus, the ability of achieving optimal outcomes with limited resources is possible with AI [12].

5. Some claims could be strengthened with additional citations or references. For instance, the claim about summer being a more vulnerable period for trauma could benefit from statistical support or a reference to relevant studies. Similarly, the point about male gender being more affected in trauma could be backed by epidemiological studies.

Thanks for the comment, following changes have been added.

Unsafe driving practices such as drunken driving, speeding beyond safety limits, long distance night driving noted commonly in men make them vulnerable to trauma, especially in developing countries. In developed countries the male female gender differences are noted to be less [3,4].

Sports and outdoor activities generally see a significant rise in the summer season, which increases the trauma risk as evidenced by literature [6,7]

6. While road traffic accidents are a significant focus in trauma management, you may want to briefly mention other causes of trauma (e.g., falls, violence, or industrial accidents) to show that trauma care is a multifaceted issue. This could give a more comprehensive view of trauma epidemiology.

Thanks for the comment, relevant review included.

Trauma includes self falls, domestic injuries, work place accidents in addition to road traffic accidents. Recognising the different trauma types helps in anticipating the injury severity, complexity of injury, instituting suitable management and appropriate preventive strategies. For example work place injury calls for multidisciplinary trauma team capable of handling vascular, orthopaedic and visceral injuries. Injury prevention recommendations would require the data on mechanism of injury patterns [8].

7. Consider adding a concluding paragraph that summarizes the key takeaways and emphasizes the importance of integrating epidemiological data into ongoing trauma prevention and management efforts.

Thanks, brief summary written.

In closing, the need for relevance of epidemiology data in trauma management cannot be over emphasized. The importance of trauma registry and its link to a well-equipped trauma centre is evident. Utility of AI is vital and likely to expand in the future to ensure effective trauma management.

