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3 **Need of the hour: finding alternatives to a centralized Emergency**
4 **Medical Services (EMS) system in Pakistan**

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11 The World Health Organization (WHO) recognizes Pakistan to be one of the top
12 contributors in deaths related to accidental and road traffic injuries, mostly in the age
13 group of 15-29.¹ Even though preventing road accidents and investing in road safety
14 has shown to benefit economy significantly, Pakistan spends only a minute fraction,
15 approximately \$0.07 per capita on road safety, which is around 0.2% of its military
16 budget.¹

17 The reason behind these alarming numbers and statistics is the lack of awareness and
18 education in the general population and lack of adequate training about Basic Life
19 Support (BLS) and trauma management in healthcare professionals in Pakistan.²
20 Moreover, Pakistan, also lacks organized Emergency Medical Services (EMS) system
21 and pre-hospital care; thereby, the injury gets further aggravated by the time it reaches
22 to the nearest healthcare facility.¹

23 Statistics also reveal that Developed countries – with better safety protocols, organized
24 emergency medical services and improved awareness in the general population – have
25 been able to diminish this problem and limit the extent of disabilities associated with
26 trauma.³ Meanwhile, in the developing countries, an increasing trend of the number of
27 injuries related to mortality is reported.³

28 The establishment of a formal EMS system appears to be the most plausible permanent
29 solution to reduce the morbidity and mortality associated with trauma in Pakistan. Being
30 a developing country, a shortage of financial and infrastructural resources hinders the
31 development of a centralized EMS system for the foreseeable future; however, prospects
32 of achieving the desired goal have not faded away. A pilot program carried out in the
33 West African country of Ghana is a prime example of how training laypersons,
34 particularly those most likely to come across injured patients, can improve pre-hospital
35 trauma care, even in the setting of an absent EMS system.⁴

36 Accidental injuries have altered the course of life for many; some succumb to death,
37 some flounder against irreversible, physical, and psychological trauma. Immediate and
38 cost-effective interventions to improve the outcome of trauma patients in Pakistan are a
39 need of the moment. Nationwide efforts to properly train laypeople as first responders,
40 proficient in entry-level protocols like BLS and on-site stabilization of patients should
41 be the key priority for policymakers. Simulation, proven to be critical in emergency
42 medical training⁵, can also be adopted as an adjunct learning tool. Facilitating the
43 existing ambulance services and improving current informal mechanisms of care are
44 additional strategies which can ensure safe transfer to hospitals and thus, increase
45 chances of patient survival.

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52 **References**

- 53 1. World Health Organization RO for the EM. Eastern Mediterranean Status Report
54 on Road Safety: Call for Action. [Internet]. 2010. Available from:
55 <https://apps.who.int/iris/handle/10665/119908>.

- 56 2. Irfan B, Zahid I, Khan MS, Khan OA, Zaidi S, Awan S, et al. Current state of
57 knowledge of basic life support in health professionals of the largest city in
58 Pakistan: a cross-sectional study. BMC health services research. 2019 Dec
59 1;19(1):865.
- 60 3. WHO | Injuries and violence: the facts 2014 [Internet]. Who.int. 2014. Available
61 from:
62 http://www.who.int/violence_injury_prevention/media/news/2015/Injury_violence_facts_2014/en/
63
- 64 4. Mock CN, Tiska M, Adu-Ampofo M, Boakye G. Improvements in prehospital
65 trauma care in an African country with no formal emergency medical services.
66 Journal of Trauma and Acute Care Surgery. 2002 Jul 1;53(1):90-7.
- 67 5. Abellsson A, Rystedt I, Suserud BO, Lindwall L. Mapping the use of simulation
68 in prehospital care—a literature review. Scandinavian journal of trauma,
69 resuscitation and emergency medicine. 2014 Dec 1;22(1):22.

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