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| ORIGINAL ARTICLE |

**Critical Appraised Evidences for Initial Management of Patients with Multiple Trauma and Major Bleeding in Emergency Department; a Systematic Review Study**

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| Abstract |  |
| **Introduction:** Multiple trauma may cause major bleeding will result in adverse clinical outcomes in the absence of proper and on time initial management in emergency department. In the present study, we aimed to synthesis the critical appraised evidences for initial management of patients with multiple trauma and major bleeding in emergency department. **Methods:** This was a systematic review study. Following formulating of PICOs for clinical questions in the study, Search strategy selected to gather related evidences in Google scholar, Pubmed, Cochrane, and Trip database in English language from original articles, between 2008 to 2018.The key words were “Multiple trauma, hemorrhage, emergency treatment, therapy”. The Prisma flowchart was used to check the quality of evidences. The strength of evidences reported according to Oxford classification. **Results:** Out of 502 articles, 44 original articles were selected for final evaluation based on the search strategy criteria. Results indicated the favorable effects and safety of permissive hypotension resuscitation, using tourniquet, applying early blood transfusion, prescription of transamine, fibrinogen and factor VII on clinical outcomes of patients with multiple trauma and major bleeding in the emergency room. **Conclusion:** Based on the study, applying permissive hypotension resuscitation, tourniquet, early blood transfusion, prescription of transamines fibrinogen and factor VII in special patients with multiple trauma and major bleeding in emergency department are recommended. |
| **Key words:** Emergency treatment, Multiple trauma, Hemorrhage, Therapy |