



Prehospital Hemorrhage Control Using a Novel Flowable Gel: An Initial Case Series With Traumagel



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BACKGROUND AND PURPOSE^{1, 2}

- Hemorrhage is the leading cause of preventable trauma-related deaths.
- Half of these deaths occur before patients reach definitive care.
- Traditional hemostatic methods can be limited by wound location and severity
- Emergency Medical Services (EMS) often combine several hemostatic approaches.
- We present a single-center, retrospective review of an initial experience with Traumagel in 17 patients.

METHODS

- Data obtained through retrospective chart review and structured provider surveys following prehospital use of Traumagel between April and August 2025.
- Data included demographics, hemodynamic status, anticoagulant or coagulopathy history, anatomic wound location, mechanism of injury, and adjunctive hemostatic measures
- Provider-reported variables included time from injury to gel use, time to hemostasis, maintenance of hemostasis during transport, pain during application, and ease of removal at definitive care.
- Primary outcome was hemostasis, defined as cessation of active bleeding within three minutes of application and maintained through transport. Secondary outcomes included ease of use, provider satisfaction, pain, removal characteristics, and immediate complications.



Traumagel is a single-use, hemostatic gel for temporary external use only. It is viscous, opaque, and tan-colored, and is supplied as an individually pouched 30 mL hemostatic gel syringe.

* Not the actual patient

RESULTS

Table 1: Basic demographics and injury details of patients in this case series review.

Patient Demographics	Number of Patients (N)
Total Patients	17
Age (years), mean (SD)	49.4 (18.7)
Age (years), median (range)	45 (21–82)
Sex	
– Male	15 (87%)
– Female	2 (13%)
Location of Traumagel Use	
Lower extremity	7
Upper extremity	3
Head/Neck	7
Hemodynamic Status	
– Normotensive	14 (79%)
– Hypotensive	3 (21%)
Known Coagulopathy	
– Yes	5 (29%)
– No	11 (65%)
– Unknown	1 (6%)

TRAUMAGEL USE IMAGES



Top left: Head laceration with blood thinners.
Top Right: Head laceration
Middle Panel: Extremity injury
Bottom Panel: Extremity Injury.



- 17 trauma patients received Traumagel from trained EMS providers
- Median age was 45 years, 16 were male
- Four patients (22%) were hypotensive in the field
- Injuries included scalp lacerations, extremity wounds, stab wounds, gunshot wounds, crush injuries, and an animal bite
- Gel applied only to external wounds, most commonly on the scalp and lower extremities
- Hemostasis achieved in 16 of 17 cases (94%), with the single failure occurring in a stab wound due to application error
- Providers reported faster application, quicker bleeding control, easier removal, and greater confidence during transport
- No immediate complications were observed.

CONCLUSIONS

- Traumagel demonstrated consistent hemostatic effectiveness, straightforward application, and atraumatic removal in this early EMS case series
- Reliable performance across diverse wound types highlights its potential to address gaps in prehospital hemorrhage control
- These findings are preliminary, and larger prospective studies are needed to validate its clinical impact.

REFERENCES

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CONFLICT OF INTERESTS

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