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OPEN PEER REVIEW

Antibiotic Prophylaxis for Simple Traumatic Wounds in the Emergency Department: A Cross-Sectional Study in Abadan and Khorramshahr, Iran

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

3 comments · 21 Jul 2025 – 27 Jul 2025

Referee 1 Reviewer

MAJOR REVISION 21 Jul 2025

The current article provides little more than the percentage of patients who received antibiotic prophylaxis, lacking additional statistical detail. To enhance the value of the findings, it is essential to present more comprehensive data. For instance, were these prophylactic prescriptions clinically indicated? Was there a higher frequency among female or male patients? In which types of wounds were antibiotics most commonly prescribed? Were monotherapy or combination therapy regimens more prevalent in specific scenarios? What significant associations were identified? Addressing these questions would substantially enrich the quality and depth of the study.

Associate Editor

MAJOR REVISION 26 Jul 2025

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Editor-in-Chief

MAJOR REVISION 27 Jul 2025

Major Revision

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Reviewer 1:
The current article provides little more than the percentage of patients who received antibiotic prophylaxis, lacking additional statistical detail. To enhance the value of the findings, it is essential to present more comprehensive data. For instance, were these prophylactic prescriptions clinically indicated? Was there a higher frequency among female or male patients? In which types of wounds were antibiotics most commonly prescribed? Were monotherapy or combination therapy regimens more prevalent in specific scenarios? What significant associations were identified? Addressing these questions would substantially enrich the quality and depth of the study.

Results

A total of 400 patient records featuring uncomplicated traumatic wounds were incorporated into the analysis. **Table 1** provides a summary of the demographic and clinical characteristics of the study cohort. The predominant gender among patients was male (81.0%, n=324), with most individuals falling within the 21-30 year age range. The most commonly observed type of wound was laceration, with injuries to the extremities, specifically the hands and feet, being the most prevalent, representing over half of the total cases.

Table 1. Demographic and Wound Characteristics of the Study Population (N = 400)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	324	81
	Female	76	19
Age Group	≤ 20 years	135	33.8
	21–30 years	150	37.5
	> 30 years	115	28.7
Wound Type	Laceration	340	85
	Abrasion	45	11.2
	Other	15	3.8
Wound Location	Hands & Feet	210	52.5
	Head & Neck	130	32.5
	Trunk	60	15

Prophylactic antibiotics were prescribed in 98.5% of cases (394 out of 400 patients). **Table 2** outlines the details of antibiotic use. Cephalexin was the most frequently prescribed agent. Among patients who received antibiotics, 87.0% were treated with a single agent, while 13.0% received a combination of antibiotics. Statistically significant associations were observed between antibiotic prescription and gender, wound location, and the presence of visible contamination.

Monotherapy was the overwhelmingly prevalent strategy, used in 87% of cases (Table 2, p=0.002). This approach was most common in the 21-30 year old group, in males, and for cuts, though these differences were not statistically significant. In contrast, monotherapy use for hands/feet wounds was significantly higher (p=0.000 for first antibiotic, p=0.008 for second; Tables 4-9, 4-10), possibly due to a perceived higher infection risk.

Monotherapy was also significantly more common in non-contaminated wounds (p=0.003 for first, p=0.021 for second; Table 2). Notably, 87% of these non-contaminated wounds still received prophylaxis, suggesting potential overprescribing. Combination therapy was rare, accounting for only 13% of cases, and was typically reserved for contaminated wounds or complex locations.

Table 2. Antibiotic Prescription Patterns and Associated Factors

Variable	Category / Group	Frequency (n)	Percentage (%)	P-value
Overall Prescription Rate	Prescribed	394	98.5	
	Not Prescribed	6	1.5	
Type of Antibiotic Prescribed[1]	Cephalexin	369	93.6	
	Cefazolin	17	4.3	
	Other	8	2.1	
Number of Antibiotics[1]	Mono therapy	343	87	
	Combination therapy	51	13	
Associated Factors				
Gender	Male vs. Female	–	–	**0.018**
Wound Location	Extremities vs. Others	–	–	**<0.001**
Visible Contamination	Present vs. Absent	–	–	**0.003**

Age Group	–	–	–	0.076
Wound Type	–	–	–	0.081

[1] Percentages calculated based on the 394 patients who received an antibiotic prescription.

Table 3 illustrates the distribution of the primary antibiotic prescribed across key variables among the 394 patients who received antibiotics. Cephalexin was the dominant choice overall (93.7%), with variations by subgroup. For instance, it was most frequently prescribed in the 21–30 years age group (39.3%), males (81.8%), lacerations (53.7%), hands and feet locations (95.7%), and absent contamination (96.7%). P-values indicate statistical significance for associations with gender, wound location, and contamination, but not for age group or wound type.

Table 3. Distribution of Primary Antibiotic by Key Variables (N = 394 prescriptions)

Variable	Category	Cephalexin N (%)	Cefazolin N (%)	Ceftriaxone N (%)	Clindamycin N (%)	P-value
Age Group	≤20 years	105 (28.5)	7 (41.2)	2 (100)	0	0.076
	21–30 years	145 (39.3)	4 (23.5)	0	4 (66.7)	
	>30 years	119 (32.2)	6 (35.3)	0	2 (33.3)	
Gender	Male	302 (81.8)	15 (88.2)	2 (100)	2 (33.3)	0.018
	Female	67 (18.2)	2 (11.8)	0	4 (66.7)	
Wound Type	Laceration	198 (53.7)	2 (11.8)	0	0	0.081
	Abrasion	41 (11.1)	4 (23.5)	0	2 (33.3)	
	Crush	63 (17.1)	4 (23.5)	0	4 (66.7)	
	Fall	35 (9.5)	3 (17.6)	0	0	
	Trauma	18 (4.9)	2 (11.8)	0	0	
	Foreign Body	14 (3.8)	2 (11.8)	2 (100)	0	
Wound Location	Hands & Feet	353 (95.7)	7 (41.2)	2 (100)	6 (100)	<0.001
	Head & Neck	8 (2.2)	4 (23.5)	0	0	
	Trunk	8 (2.2)	6 (35.3)	0	0	
Contamination	Present	12 (3.3)	4 (23.5)	2 (100)	0	0.003
	Absent	357 (96.7)	13 (76.5)	0	6 (100)	

2 Revision 1

2 comments · 27 Dec 2025 – 28 Dec 2025

Associate Editor

ACCEPT 27 Dec 2025

accepted

Editor-in-Chief

ACCEPT 28 Dec 2025

I am happy to announce that your manuscript has been accepted for publication in CHBS.