

**Students' Corner**  
**Letter to the Editor**

**Glance at the management of contaminated wounds**

Madam, unfortunately we live in an era where the amount of wounds inflicted in humans is very high and with the current situation of violent outbreaks as well as natural calamities there exist a dire need for the medical students, doctors and all health care professionals to understand the basics of rapidly evolving and constantly changing guidelines for wound management.

Wound care through the ages have ranged from good to bad and there is extensive evidence and guidelines for the management of different types of wounds. Majority of civilian traumatic wounds fall in the category of contaminated wounds which are open (avulsive), fresh, accidental wounds or wounds from surgical operations involving major breaks in sterile technique or gross spillage from the gastrointestinal tract.<sup>1</sup> Acute inflammation without pus is encountered.

Contaminated wounds after dirty wounds are the most commonly encountered wounds in surgical health care. Before the use of prophylactic antibiotics the rate of infection of contaminated wounds were 13%-20%.<sup>2</sup> Wound

healing and management have been affected by diabetes and smoking, co morbidities that are very much prevalent in today's world.<sup>3</sup>

With advancement in clinical research and with a significant meta-analysis available, the dimensions of wound management have widened and there is a constant change and update in the management of wounds. Following are the most recent guidelines for the management of both acute and chronic contaminated wounds.

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**Table.**

|   | <b>Debridement</b>   | <b>Antibiotics</b>   | <b>Wound Closure</b>   | <b>Follow Up</b>   |
|---|--|--|--|--|
| Acute Contaminated Wounds. <sup>4</sup>   | 1. Mechanical/sharp/enzymatic (collegenas)<br>2. Irrigation (high pressure for heavy contamination); Pulsatile copious lavage,<br>EXCEPTIONS (may leave he wound open):<br>Heavy bacterial inoculums (human bites), Long time lapse, Crushed or severe injury & sustained high level steroids ingestion. | Systemic antibiotic are of use only if therapeutic tissue levels can be reached within 4 hrs of debridement or wounding.<br>Topical antibiotics for heavy contamination. | Buried sutures should be used to provide minimum tension (Minimum sutures should be used since they are a foreign body). | 1. Contaminated traumatic wounds should be checked for infection within 48 hrs after closure.<br>2. If doubt exist it is always safe to delay closure. |
|   | <b>Debridement</b>   | <b>Antibiotics &amp; Topical Antibacterial Creams</b>  | <b>Biological Dressings</b>  | <b>Final Closure</b>   |
| Chronic Contaminated Wounds. <sup>5</sup> | 1. Excision (scalpel & scissors)<br>2. Frequent dressing changes<br>3. Enzymatic (seldom indicated)  | Topical antibacterial creams, antiseptics are used (Suphthiazene & mafenide acetate).  | (Allograft, Xenograft, some synthetic dressing), debride wound, decrease pain.   | 1. With a delayed flap. Skin graft or flap.<br>2. Convert the chronic contaminated wound bacteriologically into a clean acute wound.                   |

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