APPENDIX A : INTERNATIONAL COMMITTEE OF THE RED CROSS SURGICAL WOUND MANAGEMENT FLOW CHART



This pathway should be used when conserving resources is a top priority and when evacuation is not possible. DPC, delayed primary closure; S, sign; Sx, symptom.

Notes on wound care according to the ICRC method: The ICRC wound care methods are most applicable for management of war wounds in austere conditions and with limited resources that prohibit serial (follow-on) debridements with associated postoperative care:

- 1. Dirty environment
- 2. Limited supplies
- 3. Limited manpower
- 4. Limited time (mission dictated)
- 5. Wounds older than 24 hours
- 6. Inability to evacuate (includes host-nation patient care where care provided in the austere environment is the definitive level of care available)

Serial debridement every 24–48 hours is not possible in this environment. Therefore, the initial debridement must remove all tissue that is nonviable or questionably viable to remove dead tissue that may act as a culture medium. The wound is then managed with a bulky absorbent dressing that can stay in place for 4–7 days with a low likelihood of infection. Continue antibiotics for 5 days or until delayed primary closure.

Wounds that become infected or have exposed vital structures, such as blood vessels, nerves, or bone, should be treated with more frequent debridement and dressing changes.

After 4–7 days, remove the dressing and evaluate both the dressing and the wound using adequate pain control and sedation, as needed. The bandage and dressing should be dry, stained (greenish-black), and have an ammonia-like odor (good-bad odor), and the dressing should be adherent to the wound. The wound base should bleed slightly and the muscle should contract. Any small area of collagen that was not removed with the dressing can be scraped off with an instrument. This reveals a clean wound that is ready for closure.

If the wound is infected, the dressing may slide easily off the wound without resistance because there is a layer of pus between the dressing and the wound surface. The wound may contain areas of necrotic tissue and the surface of the wound is dull or greyish-red, or may give off the "bad-bad smell" of wound sepsis. Such an infected wound requires further excision and DPC is delayed or the wound is allowed to close by secondary intent. Closure by secondary intent may take several weeks. ICRC recommends a change of dry bulky gauze dressing and gentle washing with normal saline every 4–5 days for closure by secondary intent.

The ICRC dressing change algorithm for closure by secondary intent is as follows:

Question 1: Is the wound clean?
Yes: infrequent (every 4–5 days) dressing with dry bulky gauze.
No: continue
Question 2: Is there erythema and tenderness around the wound?
Yes: antibiotics and continue
No: continue
Question 3: Is there a large volume of exudate?
Yes: daily sugar or honey dressings; this involves rinsing the wound with saline and then filling it with sugar or honey, which is left in place under a dry dressing. This is repeated after 24 hours.
No: infrequent dressing with dry bulky gauze
Question 4: Has there been a response to sugar/honey dressings?
Yes: Continue sugar/honey dressings or convert to infrequent dry bulky gauze.
No: Consider antiseptic solution or further surgical debridement
If the wound exudate continues, consider exploring the wound surgically.