

showering (spraying off the burn) or immersion (soaking in a tub) at least once a day. Immersion hydrotherapy is becoming less common and is being replaced by shower hydrotherapy. The water acts to loosen and remove sloughing tissue, exudate, and topical medications. Any loose tissue is carefully trimmed away before the burn is redressed. Hydrotherapy helps to cleanse not only the burn, but also the entire body and aids in maintenance of range of motion.

### Topical antimicrobial agents.

Methods used for managing the burn include:

- **Exposure:** Burns are left open to air; crust forms on partial-thickness burns, and eschar forms on full-thickness burns.
- **Open:** Topical antimicrobial agent is applied directly to the burn surface and the burn is left uncovered.
- **Modified:** Antimicrobial agent is applied directly or impregnated into thin gauze and applied to the burn; gauze or net secures the area.
- **Occlusive:** Antimicrobial agent is impregnated in gauze or applied directly to the burn; multiple layers of bulky gauze are placed over the primary layer and secured with gauze or net.

All of these methods provide burn wound coverage and use some type of topical agent. Topical agents do not eliminate organisms from the burn but can effectively inhibit bacterial growth. To be effective, a topical application must be nontoxic, capable of diffusing through eschar, harmless to viable tissue, inexpensive, and easy to apply. A topical ointment should not encourage the development of resistant strains of bacteria and should produce minimal electrolyte derangement. A variety of specific agents are available; examples include bacitracin, silver sulfadiazine (Thermazene), collagenase (Santyl), and mafenide acetate (Sulfamylon). Some topical agents are packaged and prepared on fine-meshed gauze that allows ease of application. The gauze provides necessary protection for the burn, maximizes patient comfort, increases rate of healing, decreases the necessity for frequent dressing changes, and is cost effective. Examples include a nanocrystalline film of pure silver (Acticoat), a hydrofiber with ionic silver (Aquacel Ag), a silicone foam dressing with silver