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Prevention of Infection following Shoulder Replacement

Infection following shoulder replacement is a devastating complication that occurs in approximately 1% of patients requiring reoperation and extended treatment with intravenous antibiotics. Consequently, every effort is made to prevent infection following shoulder replacement.

Over 50% of infections following shoulder arthroplasty are caused by the organism *C. acnes*, bacteria that reside in the sebaceous glands in the shoulder region. For this reason, washing the shoulder region with a solution that decreases the bacterial count of this organism is one recent method that has been recommended to decrease the chance of infection following shoulder replacement.

Topical benzoyl peroxide (BPO), an over-the-counter medication used primarily for the treatment of acne, has been found to be very effective in decreasing *C acnes* presence in the shoulder region. For this reason, I recommend the following protocol for patients undergoing shoulder replacement:

1. *Obtain over-the-counter medication **benzoyl peroxide, 118 mm tube of 5% BPO***
2. *Apply to the operative shoulder and armpit for **3 mornings prior to surgery** (preoperative day #2, preoperative day #1, and on the morning of surgery).*
3. *Apply the solution to the rinsed shoulder for 3 minutes and then wash away.*