**Introduction**

Surgical site infection continues to prove to be a leading factor in both the increase in hospital stay length and increased hospital cost for the patient. It is also an easy factor to mitigate given the proper skin antisepsis agent and proper application. Therefore we have gathered information comparing the effectiveness of Chloraprep and Povidone Iodine in the reduction of surgical site pathogens.

**PICO Question**

**Population**: Pre/Intra/Post operative patients  
**Intervention**: Application of Pre-Op surgical site antisepsis  
**Comparison**: Chloraprep vs. Povidone Iodine  
**Outcome**: Decrease in the number of post operative infections related to the surgical site.

**Question**: Which agent reduces pathogens prior to, during and after surgical procedures.

**Methods**

A literature search was conducted using CINAHL and PubMed databases.

**Keywords**: Pre-Op, skin antisepsis, chloraprep, povidone iodine, decreased post operative infection, comparison.

**Inclusion Criteria**: Articles within 10 years, inpatient hospitals, adult and/or pediatric pre/intra/post operative patients.

The initial search yielded X articles, X were included for this project.

**Discussion**

The circulating nurse plays a key role in the control and prevention of surgical site infections. Proper technique for skin preparation must be utilized to achieve the highest level of protection regardless of the skin antisepsis used. As it stands in HMC’s OR right now the majority of surgeries are performed with Chloraprep being the standard agent used for skin antisepsis with Povidone Iodine being reserved for mostly GU/Gyn cases, surgeries where Chloraprep is contraindicated and lastly surgeon preference.

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**Chloraprep vs. Povidone Iodine efficacy in the decrease of surgical site infection rate of post operative patients.**

Janie Cozzoli BSN, RN, Renee Daughtry RN, Alleigh Dunagan BSN, RN and Kurt Young RN  
Main OR

**Article**


**Methods**

Randomized clinical trial between April 2004 and May 2008 at six university–affiliated hospitals in the United States consisting 897 patients 18 or older who underwent clean-contaminated surgery.

**Results**

The overall rate of surgical-site infection was significantly lower in the chlorhexidine–alcohol group (9.5%) than in the povidone–iodine group (16.1%, P=0.004)


Observational study on 50 surgical operations in which surgical field was prepared with PVI checking established guidelines, and on 50 surgical operations in which chlorhexidine-alcohol (Chloraprep) was employed.

Chloraprep is easier and faster to use than PVI, requires less auxiliary material and has been shown previously to reduce SSI in clean contaminated surgery.

Hibbard, JS. (2005)

Four pivotal and two comparative clinical trials consisting of six randomized, controlled, single-blinded, parallel-group clinical trials conducted to determine which antiseptic is best for use as a patient preoperative skin preparation.

Chloraprep consistently demonstrated the best immediate, residual and cumulative antimicrobial activity suggesting potentially significant effects in reducing surgical site infections and bacteremias associated with intravascular lines.

**Conclusions**

One of the major factors in determining cost and length of hospital stays are the presence of post operative infection. To this end the use of the most effective skin antisepsis would prove to lower both length of stay due to infection and cost of stay due to infection.

The majority of evidence and relevant studies point to chloraprep as the most effective agent in the reduction of surgical site pathogens.

**References**

