

Surgical Preps- Skin Antisepsis

While the process of surgical site preparation has remained virtually unchanged over the years, the variety and delivery of solutions has not. Today's solutions range from aqueous/non-aqueous isodophor and isopropyl alcohol to iodine, chlorhexidine and chloroxylenol and gel compounds, all of which come in multi-use bottles, or pre-measured single-use applications.



In addition to meeting the primary goal of surgical skin preparation — to remove dirt, oil and reduce microbial count as quickly as possible with as little irritation as possible — the selection of scrub solutions should also be based on:

- Compatibility with the items it comes in contact with, including gloves and draping materials
- Flammability
- Whether or not it is inactivated by organic material
- How easily it can be removed from the skin surface
- The area being prepped, procedure being performed and the patient's condition

Use of single use preps-key benefits are:

- They are faster to apply, less messy, cleanse more effectively, dry faster and enhance drape adhesion, thus preventing the sterile surface from being compromised while speeding prep time.
- They reduce cross-contamination.
- Pooling between patient and equipment is reduced since application is controlled, thereby reducing the risk of skin irritation and providing for a “quicker” post-procedure clean-up.

Surgical Prep Solutions:

- ❖ Betadine scrub
- ❖ Betadine solution
- ❖ Betadine swabs
- ❖ 5% Betadine Opth solution
- ❖ Chlorhexidine-Chloraprep
- ❖ 2% Iodine
- ❖ Acetone
- ❖ Alcohol
- ❖ Chloraprep
- ❖ Duraprep

Considerations:

Allergies, Age of Patient, Size/Location, Time, Shaving, Skin Assessment
Surgical site must be marked
Prepping from the incision site out vs. back and forth method*

PREP	
SKIN PRE - OP <input type="checkbox"/> CLEAR	

SOLUTIONS	
<input type="checkbox"/>	BETADINE SCRUB
<input type="checkbox"/>	BETADINE SOLU (SPRAY)
<input type="checkbox"/>	BETADINE SWABS
<input type="checkbox"/>	5% BETADINE OPHTH SOLU
<input type="checkbox"/>	CHLORHEXIDINE
<input type="checkbox"/>	2% IODINE
<input type="checkbox"/>	PHISOHEX
<input type="checkbox"/>	NAOI
<input type="checkbox"/>	ANTIBIOTIC IRRIGATION
<input type="checkbox"/>	LRS
<input type="checkbox"/>	OTHER _____

FLAMMABLE PREP SOLUTIONS	
<input type="checkbox"/>	ACETONE
<input type="checkbox"/>	ALCOHOL
<input type="checkbox"/>	CHLORAPREP
<input type="checkbox"/>	DURAPREP
<input type="checkbox"/>	ALL FLAMMABLE PREP SOLUTIONS ARE NOT ALLOWED TO SOAK INTO THE PATIENT'S HAIR AND OR LENSES.
<input type="checkbox"/>	ALL FLAMMABLE PREP SOLUTIONS ARE INSPECTED TO ASSURE THEY ARE COMPLETELY DRY PRIOR TO DRAPING.
<input type="checkbox"/>	TIME _____ MIN
<input type="checkbox"/>	BY _____
HAIR REMOVAL	
<input type="checkbox"/>	BY _____
<input type="checkbox"/>	HAIR CLIPPED <input type="checkbox"/> HAIR SHAVED
<input type="checkbox"/>	HAIR SAVED <input type="checkbox"/> YES <input type="checkbox"/> NO

Special Considerations for Surgical Prep Solutions

Solution	Use on eye or ear	Genital Area	Meninges	Use on mucous membranes	Flammable
Alcohol / Acetone	No, can cause corneal damage. Can cause deafness if in contact with inner ear	No	No	No	Yes
Povidone-iodine- Betadine Ophthalmic (5%)	Yes				
Povidone-iodine- Betadine solution (10%)	Yes, moderate ocular irritant	Yes		Yes	No
Povidone-iodine- Betadine scrub (7 ½ %)	No	Yes		Yes	No
Chlorhexidine-Chloraprep	No, can cause corneal damage. Can cause deafness if in contact with inner ear	Yes	No	No	Yes
Chlorhexidine gluconate- Exidine	No, can cause corneal damage. Can cause deafness if in contact with inner ear	No	No	Use with caution	No
Iodine Povacrylex-Duraprep	No, can cause corneal damage. Can cause deafness if in contact with inner ear	Yes		No	Yes

Both Chloraprep & Duraprep should not to be used on: children less than 2 months of age, for open wounds, in emergency situations where there is not time for the prep to dry.