

Section: UTMB On-line Documentation	01.30.04 - Policy
Subject: Infection Control & Healthcare Epidemiology Policies and Procedures	10.29.2021 - Revised
Topic: 01.30.04 - Management of CABG Surgery Patients	2019 - Author

01.30.04 – Management of CABG Surgery Patients

Purpose To prevent surgical site infections in patients undergoing cardiothoracic surgery.

Policy

- A. Elective Surgery Pre-Op Education & Care**
- All patients who will undergo a CABG procedure shall receive skin and nasal decolonization education and training prior to their surgical procedure. Their primary care giver shall also receive this training. The Nurse Practitioner for the Division of Cardiothoracic Surgery shall provide this training in clinic prior to the surgical procedure.
1. Skin Decolonization with Hibiclens Prior to Surgery: During training patients shall be given bottles of Hibiclens (4% chlorhexidine gluconate) and instructed to shower or bathe with Hibiclens once daily for 2 days prior to their surgical procedure. See patient education brochure for instructions.
 2. Skin Decolonization with Hibiclens After Surgery: Patients shall be instructed to shower with Hibiclens following surgery until all surgical wounds have healed.
 3. Nasal Decolonization with Nozin Prior to Surgery: Patients shall be instructed to apply Nozin twice daily per package instructions 2 days prior to their surgical procedure
 4. Nasal Decolonization with Nozin After Surgery: Patients shall be instructed to apply Nozin twice daily after surgery until all surgical wounds have healed.
- B. Emergent Surgery Pre-Op Education & Care**
- Patients undergoing emergent surgery will not have the opportunity to undergo skin and nasal decolonization for 2 days prior to surgery. However, skin and nasal decolonization shall be performed in the area the patient is located prior to surgery as outlined below in item C.
- C. Day Surgery Unit (DSU) or Hospital Ward**
1. Skin Decolonization with CHG Wipes: Patients arriving for CABG surgery shall be provided with a package of CHG wipes and instructed to cleanse their body before changing into a hospital gown. Patients who cannot use the wipes independently shall be assisted by staff.
 2. Pre-Op Nasal Decolonization with Nozin: Nozin shall be applied 2 times prior to going to the OR. See attached instruction
 3. Process:
 - Provider places the Nozin order in EPIC.
 - Nurse retrieves 2 Nozin Ampules
 - Use both ampules consecutively, one after another prior to surgery.
 - Discard after use.
 - If patient did not receive a Nozin bottle to use at home during a pre-operative visit:
 - Nurse retrieves 0.4 ounce multi-use bottle of Nozin from unit supply.
 - Bottle labeled with patient's name and MRN.

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- Bottle placed with patient's belongings to be used at home after surgery and discharge.

D. Intraoperative Skin Preparation & Wound Care

1. Skin preparation for surgery shall be performed using ChlorPrep (2% chlorhexidine gluconate and 70% isopropyl alcohol) unless contraindicated due to allergy.
2. Ioban shall be placed.
3. Apply Dermabond (in conjunction with conventional sutures) to the mid-sternal site wound (unless the chest is left open or staples were used) and then cover the wound with gauze dressing. Allow the Dermabond to dry completely to prevent the dressing from sticking to the wound. This dressing shall remain in place for 24 hours unless the integrity is compromised. If integrity is compromised, see item I1 below.
4. In order to allow the sternal surgical incision site to remain sterile for 24 hours, sternal incision dressings should be applied separately from chest tube site dressings to prevent disruption of the sternal dressing when chest tubes are removed or chest tube dressings are changed.

E. Intraoperative Aseptic Technique

1. Hand scrub shall be used before **each** CABG procedure. Do not use hand sanitizer after the initial hand scrub.
2. Leg harvesting personnel shall change gloves (and preferably gown) prior to assisting at the chest.
3. The scrub person shall not assist or handle instrumentation that has been utilized for vein harvesting.
4. Faculty shall supervise sternotomy closure.
5. Ensure sterile drape is left in place until Ioban removal.
6. If chest is left open, leave sterile drape in place until Ioban is removed.

F. Antimicrobial Prophylaxis

1. Pre-operative antibiotics should reach acceptable tissue concentrations (Above Minimum Inhibitory Concentration) prior to the incision time in order to be effective.
2. Prophylactic antibiotics shall be administered by the Anesthesia Department.
3. Intravenous Cefazolin infusion shall be used for prophylaxis. 2 grams of Cefazolin, and 3 grams of Cefazolin for patients weighing greater than 120 kg must **begin** administration at 15 to 60 minutes before the skin incision.
4. Post-operative prophylaxis administration may not be administered for longer than 48 hours.
5. Vancomycin shall be used for patients with a history of allergy to beta-lactam agents at a dose of 15mg/kg with a maximum dose of 2g. Vancomycin infusion should **begin** at 60-120 minutes prior to skin incision.
6. Re-dosing of Cefazolin should occur for procedures lasting greater than 4 hours.

G. Glycemic Control

- Implement glycemic control pre-operatively, intra-operatively and post-operatively following the Cardiac Surgery Adult Protocol as follows:
- Optimize glycemic control before surgery by maintaining serum glucose levels <180 mg/dL for 2 weeks prior to surgery.
 - Blood glucoses shall be monitored and treated intraoperatively by the Department of Anesthesiology.
 - Postoperatively, proper diabetes education and glucose control shall be

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conducted through a multidisciplinary approach.

- H. Inpatient Post-Op Skin & Nasal Decolonization**
1. Skin Decolonization with CHG: Patients shall be bathed daily with CHG wipes or shower with Hibiclens (if independent) when it is determined safe to do so. Skin cleansing with CHG shall continue until the patient is discharged from the hospital.
 2. Nasal Decolonization with Nozin: Nozin shall be applied intranasally per package instructions twice daily for the duration of the hospital stay by nursing staff or patient.
 3. Process:
 - Nozin ordered by provider in EPIC.
 - Must use the correct order in EPIC for documentation to be available.
 - Patient should arrive from surgery with 4 ounce bottle in belongings.
 - If bottle is missing or new one is needed, Nozin is available from Materials Management. Reference MM# 30030 for 4 ounce bottle.
 - Ensure bottle is labeled with patient's name and MRN.
 - Apply Nozin twice daily.
 - Bottle may be stored in room.
- I. Inpatient Post-Op Wound Care**
1. Mid-sternal dressings shall remain on for 24 hours. If the dressing's integrity is compromised or heavily stained with blood, cleanse the sternal incision with ChloroPrep and redress the incision using sterile technique.
 2. After 24 hours, sternal dressings are to be removed as follows:
 - Clean the incision gently with ChloroPrep daily if Dermabond was not used.
 - If Dermabond was used, leave the incision open to air.
 - If the incision still has some drainage, reapply a dressing using clean technique and change as needed.
 3. With the exception of the wounds closed with Dermabond, all other sternal incision sites shall have a dressing change every 24 hours as follows:
 - Clean the site with ChloroPrep.
 - Apply a dry, sterile dressing with paper tape.
 - Date, time and initials are required on every dressing.
 - Dressing change is placed on the MAR when the patient is admitted to the unit.
 - Dressing change is charted in nursing notes and on the MAR.
 4. Clean chest tube sites and pacing wire sites daily with ChloroPrep. Redress the sites.
- J. Discharge**
1. Patients shall be instructed to bathe daily with Hibiclens until all surgical wounds have healed.
 2. Patients shall be instructed to continue Nozin twice daily until their follow-up appointment with the surgeon and until all surgical wounds have healed.
 3. Patients shall take currently used inpatient bottle of Nozin and remaining clean nasal swabs home with them to continue nasal decolonization.
 4. Verify skin and nasal decolonization patient education with demonstration by patient and document in Epic.

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- K. Home Health Monitoring** If Home Health is involved, the patient's Home Health agency shall monitor the surgical wounds for signs and symptoms of infection and notify the Nurse Practitioner if signs and symptoms of infection are present.
- L. Post-Op Clinic Follow-Up** The patient shall be assessed for infection at each clinic visit. If a surgical site infection or bacteremia is suspected, appropriate cultures shall be obtained and the Department of Infection Control and Healthcare Epidemiology shall be notified by phone call or email.

Instructions



PreOperative Pack How to Apply

Preparation Instructions:

Clean nostrils with a tissue. Discard.



AMPULE 1



Remove ampule from sleeve, flip ampule to expose swab tip and reinsert ampule in sleeve.

Press the blue dot. Use only with sleeve on ampule.

Squeeze repeatedly

Application Instructions:

RIGHT nostril



Ensure swab rotation covers all surfaces, including the inside tip of the nostril.

Rotations per nostril: 16

LEFT nostril



REPEAT cycle with second ampule. Use both ampules consecutively, one after another. Discard after use.

Do not use if you have allergy to citrus oil, or you have nasal bleeding or irritation.

Intended Use: Nozin® Nasal Sanitizer® is a topical antiseptic used to decrease bacteria on the nasal vestibule skin.

Active Ingredient: Alcohol 62%.

Precautions: Use ONLY with sleeve on ampule. Do not extend ampule into nose beyond swab tip. Please also refer to Instructions for Use (IFU), product package and Nozin.com.


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