

## Discharge Guidelines

### Procedures for Upper Extremity Infected Joint Implants

**Please note:** These are general guidelines to help answer the most common questions after surgery. The photos in these guidelines WILL NOT necessarily match your exact surgical site. Your surgeon/team may ADAPT these guidelines depending on YOUR SPECIFIC NEEDS and/or current research.



Infected left humerus/elbow implant.



Removal of the metal implant with placement of an antibiotic cement spacer.



Removal of antibiotic cement with reconstruction of left humerus using an allograft (cadaver bone) and custom metal elbow implant.

#### General Points of Care

- You will have visiting nurse services (RN, OT, home health aide) in addition to a home infusion company that delivers your antibiotics.
- The visiting nurse will evaluate your PICC line site and change the dressing weekly. The nurse can assist you to trouble shoot with any issues regarding antibiotic administration (sluggish or clotted infusion).
- You will have weekly surveillance labs drawn and sent to your infectious disease physician. Sometimes the dose of your antibiotic must be adjusted based on the lab results.

#### Daily Incision Care

- Look at your incision and check for openings, drainage, swelling, redness, changes in color, or bleeding. If you detect any of the above problems, contact the surgeon's office.
- Sometimes patients are discharged with a drain at the incision site. You will be instructed on how to care for the drain until your post-operative visit. Drains will be removed when the output is less than 30 mLs per day.
- Change your dry dressing every day or leave uncovered if the staples do not stick to your clothing.
- You may shower (four days after surgery) if you have assistance because now that the joint implant has been removed, you do not have normal range of motion or strength. Safety and avoiding a fall is imperative. If you do not have assistance, sponge bathe.
- Staples will be removed 2 weeks after surgery.

#### Activity

\*These tips are simply guidelines. Your activity level will vary. Overall, you will have limited use of your arm because you have no joint. The joint will be reconstructed in about 3 months.

- An occupational therapist (OT) will come to your house to help you learn how to perform activities of daily living.

- Braces are usually required to give support to the area without the metal joint.
- You cannot bear weight (non-weight bearing) on the operated extremity. This means no motion of the arm and no lifting objects
- Avoid allowing your arm to dangle by your side. This causes excessive swelling.
- Continue daily exercises as instructed by OT to other areas of the body to keep your muscles conditioned.
- It is recommended that you find time to rest during the day. Pace yourself.
- Take precautions to avoid falling. Wear low, non-skid sole shoes. Watch out for electrical cords, wet or uneven floors, floor mats/rugs that may slide. Use night-lights to keep rooms lit, especially if you get up during the night to use the bathroom.

## **Diet**

- Your appetite may be less than normal after surgery and due to the antibiotics.
- Incorporate proteins and plenty of fluids into your diet, both will help in the healing process.
- If you are taking narcotics, you should take some type of laxative to prevent opioid-induced constipation.
- Incorporating supplemental drinks (e.g. Ensure, Boost, and Carnation Instant Breakfast) into your diet may be helpful. Replacing large meals with several smaller meals spread throughout the day may also be helpful.

## **Medication**

- Continue to take your regular medications.
- Administer your antibiotics as directed.
- If necessary, take prescribed pain medication (narcotics) as directed.
- DO NOT drink alcohol or drive while taking narcotic pain medication.
- If you are taking narcotics, you should take some type of laxative to prevent opioid-induced constipation.
- You most likely will be discharged on a blood thinner to prevent clots, usually aspirin or Lovenox (subcutaneous injection) for 2-4 weeks (no blood tests are necessary). Newer, direct oral anti-coagulation medications may be prescribed, or continued if you came to the hospital already taking these types of medications (Eliquis, Plavix, Pradaxa, Xarelto).
- If you took Coumadin before surgery, you will resume this for your anti-coagulation regimen. Blood tests are necessary for Coumadin; the INR range needs to be between 1.5 and 2.0.

## **Pain**

- Your surgical team understands that you will experience different levels and types of pain following your surgery. You will be prescribed a narcotic, if you wish. Some patients decline a narcotic due to the current opioid crisis and request milder pain medications (tramadol), and/or just take Tylenol alternating with anti-inflammatory medications (Advil, Motrin, Aleve), if tolerated. When we prescribe narcotics, we must do so per current state and federal regulations, which includes a narcotic contract.
- Because of the current focus on opioid addiction, we recommend a multitude of cognitive behavioral techniques, such as imagery, mindfulness, psychotherapy, deep breathing exercises, virtual reality for distraction, journaling, video games, TENS unit (muscle stimulators that can be used at home) and all other integrative care therapies (physical therapy, acupuncture, chiropractic, massage, lymphedema treatment, reiki).

## **Common Problems**

- Sluggish or inability to infuse antibiotics (clotted) via your PICC line needs to be reported to your visiting nurse. Usually, the nurse can administer a clot-busting drug that will open the line.
- It is normal to feel tired after you are discharged, especially since it takes more energy to move around with an extremity that has no joint and feels heavy. Pace yourself.
- If you are nauseated or have excessive diarrhea from your antibiotics, contact your surgeon's office. Some patients take various forms of Probiotics (pills, yogurt, drinks) to help combat these symptoms.
- If you experience pain and/or swelling, try elevating the site for relief or apply ice – use caution not to leave on more than 20 minutes to prevent frost burn.

- If you develop a firm lump in the incisional area, and your overlying skin looks black and blue, you may have developed a postoperative hematoma (blood collection at the operative site where the mass was removed). Notify your surgeon's office.
- Your operative extremity may seem heavy after surgery. This will lessen over time, but your extremity will still feel abnormal due to the missing joint.
- You may experience numbness at your incision site. This is normal and usually decreases in time.
- For constipation (not being able to move your bowels), drink plenty of water and non-carbonated fluids, and eat foods that are high in fiber (e.g. bran, prunes, fruit, whole wheat breads). There are numerous over-the-counter medications available to help relieve constipation such as Dulcolax, Magnesium Citrate, or Miralax. Ask your local pharmacist to assist you in finding one that is right for you.
- If you smoked cigarettes before the surgery, **DO NOT START SMOKING AGAIN!** Smoking (the nicotine) causes constriction of blood vessels preventing adequate blood flow to the operative area and can delay healing. If you need assistance with this, please contact the MGH Quit Smoking Service at 617-726-7443.

### **Returning to Work/School**

- You will be totally disabled during your antibiotic treatment, unless you can work or study from home.
- Most patients apply for short term disability and/or complete FMLA paperwork for the duration of antibiotics (6-8 weeks), the re-implant surgery hospital stay, and their postoperative rehabilitation (3-6 months).
- Handicap placard applications will be completed if necessary. Forms can be obtained by the Registry of Motor Vehicles and then mailed to our office.

### **Preventing Infection**

- Prior to any dental work, you must take an antibiotic to protect against infection. We will give you a letter, which can be passed on to other doctors specifying which antibiotics are needed.
- Call your primary care physician if you think you have an infection (sinus, urinary tract, respiratory, cellulitis of the skin) so that he/she can determine whether you need antibiotic treatment. If you have had chemotherapy and suspect an infection, call your oncologist.

### **Follow-up**

- You will have regularly scheduled appointments with your surgeon and infectious disease physician.
- Usually an aspiration of the joint area is done upon completion of the antibiotic regimen, and prior to the re-implant surgery to determine if your infection has been eliminated.

### **Questions/Concerns**

- For any questions, call your surgeon/nurse practitioner.
- Drs. Kevin Raskin, Joseph Schwab, Santiago Lozano-Calderon: 617-724-3700
- Doctor of Nursing Practice (DNP) Anne Fiore: 617-724-7630

**These instructions are basic post-procedure guidelines. Your surgeon/nurse practitioner may give you more specific instructions. Refer to our website for more information: <http://www.massgeneral.org/orthoncology/education>**

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