

Session Summary for August 7, 2018

Didactic: Prosthetic Joint Infections: Prevention. Paul Pottinger, MD, FIDSA

(Notes from the discussion included as well)

* Joint replacements are super common
  + 1 million hips & knee replacements done annually in the US
  + Predicted this will rise to 4 million by 2030
* Prosthetic joint infections are common too
  + 0.5-2% lifetime incidence
  + Risk is highest in the first 2 years; knee is the highest risk site
  + Known risk factors for infection include: obesity, DM, depression, immunosuppression, prior surgery, ASA score >= 3, smoking, alcohol, use of injection drugs, colonization with *Staph aureus*
* **Pre-operative infection prevention:**
  + These are elective cases – opportunity to de-label penicillin allergies prior to surgery
    - 10% of Americans report a PCN allergy, 90% of these are not real
    - 50% increase in surgical site infection risk when using a second line antibiotic (not a beta-lactam) for perioperative prophylaxis
  + Per Dr. Pottinger – “Urine: It’s what NOT to check…”
    - False concern that asymptomatic bacteruria may infect a new joint
    - This is not supported by the data
    - Risk of abx >>> potential benefits
  + Perioperative Antibiotic Choice
    - Cefazolin 2g IV (3g if patient weight > 120kg), redose q4 hours
    - If MRSA colonized/infected – add vancomycin, redose if > 8 hours
    - If true cephalosporin allergy – vancomycin alone
    - Timing is KEY- give antibiotics within 60 minutes of the incision
    - **No evidence to continue antibiotics after the incision is closed** (supported by WHO, CDC, SIS, MSIS)
    - No evidence to support antibiotics for drain prophylaxis
  + Importance of perioperative euglycemia –
    - Many patients with post-op hyperglycemia are not diabetic
    - Hyperglycemia in the immediate perioperative period is a known risk factor for SSI. Data to support better glucose control improves SSI risk.1
    - Goal 110-150 mg/dL for most surgeries
* Are antibiotics needed for patients with joint replacement undergoing dental procedures?
  + No, antibiotics are not recommended. This is guideline supported. 2,3

References:

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2. Watters W, Rethman MP, Hanson NB, Abt E, Anderson PA, Carroll KC, Futrell HC, Garvin K, Glenn SO, Hellstein J, Hewlett A. Prevention of orthopaedic implant infection in patients undergoing dental procedures. JAAOS-Journal of the American Academy of Orthopaedic Surgeons. 2013 Mar 1;21(3):180-9.
3. Sollecito TP, Abt E, Lockhart PB, Truelove E, Paumier TM, Tracy SL, Tampi M, Beltrán-Aguilar ED, Frantsve-Hawley J. The use of prophylactic antibiotics prior to dental procedures in patients with prosthetic joints: evidence-based clinical practice guideline for dental practitioners—a report of the American Dental Association Council on Scientific Affairs. The Journal of the American Dental Association. 2015 Jan 1;146(1):11-6.

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