

OB/GYN ANTIMICROBIAL PROPHYLAXIS GUIDELINES

The goals of surgical prophylaxis are:

- 1) To prevent postoperative surgical site infections
- 2) To prevent postoperative morbidity and mortality
- 3) To produce no adverse effects
- 4) To have no adverse outcomes on the microbial flora of the patient or the hospital

A variety of sources have been reviewed. Our recommendations represent a summary of these sources, as well as previous practice at this institution for patients with sterile urine at the time of procedure:

Timing for all procedures: The preop dose of antibiotic should be administered within 30 minutes prior to incision for cefazolin. If the elapsed time from the <u>end</u> of administration until the incision is >90 min, the drug should be redosed.

Hysterectomy, abdominal, vaginal and laparoscopically assisted

Organisms:

<u>Vaginal hysterectomy</u>: wide variety of gram positive and gram negative aerobes and anaerobes which colonize the vagina including staphylococci, streptococci, enterococci, lactobacilli, diptheroids, E. coli, anaerobic streptococci, Bacteroides species, and Fusobacterium species. <u>Abdominal hysterectomy</u>: More commonly skin flora: staphylococci and streptococci.

Recommendation:

Cefazolin 2 gm IV x 1 dose within 30 minutes before skin incision.

Alternative if:

Life-threatening allergy to cephalosporins or penicillin – Clindamycin 600 mg IV x 1 dose.

Cesarean section:

Organisms:

<u>Post –op endometritis</u>: Vaginal microflora including aerobic and anaerobic streptococci, enterococci, estaphylococci, enteric gram negative bacilli and anaerobic gram-negatives such as Bacteroides species and Fusobacterium species.

Post-op wound infection: Staph aureus, streptococci, Enterobacteriaciae

Recommendation:

Cefazolin 2 gm IV x 1 dose immediately after clamping umbilical cord

Alternative if:

life-threatening allergy to cephalosporins or penicillin - Clindamycin 600 mg IV x 1 dose.

Gynecologic oncology procedures:

Procedures covered: tumor resection that is more extensive than usual hysterectomy, any procedure involving GI tract.

Recommendation:

Cefazolin 2 gm IV x 1 dose within 30 minutes before skin incision Metronidazole 500 mg IV X 1 dose within 30 minutes before skin incision

Alternative if:

life-threatening allergy to cephalosporins or penicillin Clindamycin 600 mg IV x 1 dose.

<u>Hysterosalpingography and sonohysterography:</u> Recommendation:

Recommendation:

Doxycycline 100 mg BID for 5 days (first dose at least 2h prior to procedure, when possible) Only if:

- Prior history of PID
- Diagnosis of hydrosalpinx on study

Dilatation and Evacuation for termination

Recommendation:

Doxycycline 100 mg > 2hrs prior to the procedure (may be given night before)

and

Doxycycline 200 mg postoperatively in the PACU

Redosing for ALL procedures listed above:

Antibiotic	Intraop dose
Cefazolin	2 gm IV q4h
Clindamycin	600 mg IV q8h
Metronidazole	500 mg IV q6h

- Maximum duration of antibiotics (including pre and intraop doses) is 24 hours. Postop doses are <u>not</u> recommended without evidence of infection (i.e. purulence) noted in the OR.
- If major blood loss, patient will require redosing.

Procedures for which NO antibiotic prophylaxis is indicated:

- Dilatation and curettage, other than D&E for termination
- Endometrial biopsy
- Hysteroscopy
- IUD insertion
- Laparoscopy
- Laparotomy, other than for hysterectomy
- Urodynamics

References

- 1) ASHP Commission on Therapeutics. ASHP Therapeutic Guidelines on Antimicrobial Prophylaxis in Surgery. Am J Health-Syst Pharm 1999;56:1839-88.
- 2) ACOG Committee on Practice Bulletins. Clinical Management Guidelines for Obstetrician-Gynecologists: Antibiotic Prophylaxis for Gynecologic Procedures. 2001, No. 23.
- 3) Mittendorf R, Aronson MP, Berry RE et al. Avoiding serious infections associated with abdominal hysterectomy: a meta-analysis of antibiotic prophylaxis. Am J Obst Gynecol 1993;169:1119-1124
- 4) Spinnato JA, Youkilis B, Cook VD, et al. Antibiotic Prophylaxis at Cesarean Delivery. The Journal of Maternal-Fetal Medicine 2000;9:348-50.
- Noyes N, Berkeley AS, Freedman K, et al. Incidence of Postpartum Endomyometritis Following Single-Dose Antibiotic Prophylaxis With Either Ampicillin/Sulbactam, Cefazolin, or Cefotetan in High-Risk Cesarean Section Patients. Infectious Diseases in Obstetrics and Gynecology 1998;6:220-23.
- 6) Liabsuetrakul T, Lumbiganon P, and Chongsuvivatwong V. Prophylactic Antibiotic Prescription in Cesarean Section. International Journal for Quality in Health Care 2002;14:503-08.
- 7) Rouzi AA, Khalifa F, Ba'aqeel H, et al. The routine use of cefazolin in cesarean section. International Journal of Gynecology and Obstetrics 2000;69:107-12.
- 8) Rizk DEE, Nsanze H, Mabrouk MH, et al. Systemic antibiotic prophylaxis in elective cesarean delivery. International Journal of Gynecology and Obstetrics 1998;61:245-51.
- 9) Mah MW, Pyper AM, Oni GA, et al. Impact of antibiotic prophylaxis on wound infection after cesarean section in a situation of expected higher risk. American Journal of Infection Control 2001;29(2):85-88.
- 10) Hemsell DL, Johnson ER, Hemsell PG, et al. Cefazolin is inferior to cefotetan as single-dose prophylaxis for women undergoing elective total abdominal hysterectomy. Clin Infect Dis 1995; 20:677-684.
- 11) Chongsomchai C, Lumbiganon P, Thinkhamrop J, et al. Placebo-controlled, double-blind, randomized study of prophylactic antibiotics in elective abdominal hysterectomy. Journal of Hospital Infection 2002;52:302-06.
- 12) Kamat AA, Brancazio L, and Gibson M. Wound Infection in Gynecologic Surgery. Infectious Diseases in Obstetrics and Gynecology 2000;8:230-34.