

MSQC 2021 Hysterectomy QI Project
Appropriate Antibiotic Measure Abstraction Tip Sheet

Appropriate IV Prophylactic Antibiotics for Hysterectomy (administered within 60 minutes before incision)⁶
Cefazolin/Ancef, Kefzol 2 g (3 g if weight ≥ 120 kg) AND metronidazole/Flagyl 500 mg ¹
Cefazolin/Ancef, Kefzol 2 g (3 g if weight ≥ 120 kg) ²
Cefotetan/Cefotan 2 g ²
Cefoxitin/Mefoxin 2 g ²
Ampicillin-sulbactam/Unasyn 3 g (ampicillin 2 g/sulbactam 1 g) ^{2,*} <small>*Due to increasing resistance of Escherichia coli to fluoroquinolones and ampicillin–sulbactam, local population susceptibility profiles should be reviewed prior to use.</small>
⁶ Excludes cases with Exception answered for <i>Prophylactic IV Antibiotics administered before incision?</i> and <i>Hysterectomy Care Pathway QI rationales</i> of: not an elective Hysterectomy or not a Hysterectomy Care Pathway QI Case; Allergy; Shortage; or Other MSQC-approved reason
¹ Till SR, Morgan DM, Bazzi AA, et al. Reducing surgical site infections after hysterectomy: metronidazole plus cefazolin compared with cephalosporin alone. <i>Am J Obstet Gynecol</i> 2017;217:187.e1-11. (https://www.ncbi.nlm.nih.gov/pubmed/28363438)
² Bratzler DW, Dellinger EP, Olsen KM, et al. Clinical practice guidelines for antimicrobial prophylaxis in surgery. <i>Am J Health-Syst Pharm</i> . 2013; 70:195–283. The Clinical Practice Guidelines from the American Society of Healthcare Pharmacists (ASHP) can be viewed here . MSQC Hysterectomy Care Pathway (2019)

Abstraction Guidelines

To abstract the hysterectomy project antibiotic measure:

1. Assign the *Prophylactic IV Antibiotics administered before incision [Surgery Start Time]?* as you would with any other case, regardless of the antibiotic agent or dose that was administered, only look at timing. If case does not meet Exception criteria as defined in Program Manual, and an antibiotic agent was administered within two hours prior to surgery start time, you would answer “Yes” then enter the antibiotic information into the antibiotic tab.
2. If value is “Yes”, then the subsequent variable *If participating in Hysterectomy Care Pathway QI: What is the rationale if Appropriate ABX [were] or were not administered?* will be enabled. To answer this, you will need to determine if the antibiotic agent(s) administered was (were) one of the 5 antibiotic recommendations in the measure definition: cefazolin/metronidazole combination; cefazolin; cefotetan; cefoxitin; or ampicillin-sulbactam. At this point, do not consider dosing or timing; MSQC will account for that on the analytic side.
 - a. If one of the 5 antibiotic recommendations was administered, then answer “Appropriate Antibiotic was administered” (regardless of dose or administration within 60-minute window).
 - b. If an antibiotic administered is not on the recommendation list (e.g., due to allergy, limited supply, other situations in which an alternative is required such as antibiotic resistance, or the surgeon chose to administer an alternative for other reasons), to pass the measure, **it must be documented that the patient is receiving an alternative antibiotic(s) with the specific rationale for the decision**. This can be documented by the surgeon/anesthesia/other staff in the order, H&P, or the operative report or note. Specific documentation is required that links an allergy (or other situation) and administration of the alternative antibiotic selection; if unavailable, you would need to select “reason not approved by MSQC”.
 - For example, the surgeon can order their chosen antibiotic when there is an allergy, but it would need to be documented why the alternative was given in order to be approved by MSQC as “Allergy”. One or more of the 5 antibiotic recommendations in the patient allergy list alone will not suffice to answer “Allergy”.

MSQC 2021 Hysterectomy QI Project: Appropriate Antibiotic Measure Abstraction Tip Sheet, continued

Some abstraction scenarios:

Scenario	Prophylactic Antibiotics administered before incision [Surgery Start Time/Incision]? (120 minute threshold)	Hysterectomy Care Pathway QI: What is the rationale if Appropriate ABX [were] or were not administered?	QI Measure determination (MSQC will factor in abx timing and weight-based dosing during analysis)
Cefazolin 2 gm (pt wt <120 kg): 12:36 Surgery start: 13:00	Yes & Enter medication into antibiotics tab	Appropriate Antibiotic was administered	Numerator pass (timing and dosing is correct)
Cefazolin 2 gm (pt wt <120 kg): 05:30 Surgery start: 07:00	Yes & Enter medication into antibiotics tab	Appropriate Antibiotic was administered	Numerator fail (> 60 minutes prior to incision)
Cefazolin 2 gm (pt wt 95 kg): 05:53 Surgery start: 06:15 metronidazole 500 mg: 06:30	Yes (but only for cefazolin) & Enter cefazolin into antibiotics tab. Do not enter metronidazole, since it was started after incision (programming will not allow this).	Appropriate Antibiotic was administered (cefazolin alone is on Appropriate Antibiotics list)	Numerator pass (cefazolin alone is on Appropriate Antibiotics list, <u>and</u> dosing is correct for patient weight)
Cefazolin 2 gm (pt wt 130 kg): 05:53 Surgery start: 06:15 metronidazole 500 mg: 06:30	Yes (but only for cefazolin) & Enter cefazolin into antibiotics tab. Do not enter metronidazole, since it was started after incision (programming will not allow this).	Appropriate Antibiotic was administered (cefazolin alone is on Appropriate Antibiotics list)	Numerator fail (cefazolin alone is on Appropriate Antibiotics list, but dosing is incorrect for patient weight)
Cefazolin 2 gm (pt wt 55 kg): 04:00 Metronidazole 500 mg: 05:30 Surgery start: 06:15	Yes (but only for metronidazole) Enter metronidazole into antibiotics tab. Do not enter cefazolin, since it was given more than 2 hours prior to incision (programming will not allow this).	Reason not approved by MSQC (metronidazole alone is not on Appropriate Antibiotics list)	Numerator fail
Cefazolin 2 gm (pt wt 123 kg): 09:13 Metronidazole 500 mg: 09:13 Surgery start: 09:30	Yes & Enter both medications into antibiotics tab	Appropriate Antibiotic was administered (cefazolin/metronidazole combination is on Appropriate Antibiotics list)	Numerator fail (cefazolin dosing is incorrect for patient weight)
Clindamycin 900 mg: 15:00 Aztreonam 2 gm: 15:20 Surgery start: 15:30 H&P shows allergy to PCN. Physician documents "Will use clindamycin and aztreonam due to the PCN allergy"	Yes & Enter both antibiotics into antibiotics tab because both were started prior to incision time	Allergy (physician clearly documents that alternative antibiotics were selected due to patient's PCN allergy)	Measure exclusion due to Allergy
Clindamycin 900 mg: 15:00 Aztreonam 2 gm: 15:20 Surgery start: 15:30 H&P shows allergy to PCN. No specific rationale documented regarding alternate abx selection.	Yes & Enter both antibiotics into antibiotic tab because they were both started prior to incision time	Reason not approved by MSQC (no specific documentation in record addressing the alternative antibiotic selection due to patient allergy was available.)	Numerator fail
Cefazolin 3 gm (pt wt 144 kg) started 4 minutes after incision	No (antibiotic administered after incision) No antibiotics tab entry	Variable will not be enabled	Numerator fail
Surgery start: 22:35 No antibiotic administered	No (no antibiotic was administered)	Variable will not be enabled	Numerator fail