

ANTI-INFECTIVE AGENTS IN PREGNANCY AND LACTATION

This list serves as a guide and is only a summary of the antimicrobials listed on the hospital formulary in this special population. The benefit of treatment and the safety profile of the drug to mother and fetus/baby should be considered and discussed individually with each patient. For more information, please contact a clinical pharmacist or Motherisk at (416)813-6780.

As of June, 2015, the original FDA Pregnancy Category system have been replaced by narrative sections in the product labeling.

Antimicrobial Class /Agent	Pregnancy	Breastfeeding
Aminoglycosides <ul style="list-style-type: none"> • Gentamicin • Tobramycin • Amikacin 	<ul style="list-style-type: none"> - Human data suggest low risk - Monitor drug concentrations 	<ul style="list-style-type: none"> - Compatible
Carbapenems <ul style="list-style-type: none"> • Ertapenem • Meropenem 	<ul style="list-style-type: none"> - Limited human data suggest low risk 	<ul style="list-style-type: none"> - Probably compatible
Cephalosporins <ul style="list-style-type: none"> • Cefazolin • Cephalexin • Cefuroxime • Ceftriaxone • Ceftazidime 	<ul style="list-style-type: none"> - Compatible 	<ul style="list-style-type: none"> - Compatible
Clindamycin	<ul style="list-style-type: none"> - Compatible 	<ul style="list-style-type: none"> - Compatible
Daptomycin	<ul style="list-style-type: none"> - Limited human data; animal studies suggest low risk 	<ul style="list-style-type: none"> - Limited human data; probably compatible
Fluoroquinolones <ul style="list-style-type: none"> • Ciprofloxacin • Levofloxacin • Moxifloxacin 	<ul style="list-style-type: none"> - Human data suggest low risk - Data on ciprofloxacin did not suggest an increased risk of major malformations - Limited human data for levofloxacin or moxifloxacin 	<ul style="list-style-type: none"> - Limited human data, but short-term use is acceptable during breastfeeding - No human data in moxifloxacin
Fosfomycin	<ul style="list-style-type: none"> - Compatible 	<ul style="list-style-type: none"> - Limited human data, but probably

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		compatible
Linezolid	- No human data; use safer alternatives if possible	- No human data; use safer alternatives if possible
Macrolides <ul style="list-style-type: none"> • Erythromycin • Clarithromycin • Azithromycin 	- Erythromycin / azithromycin: compatible - * avoid erythromycin estolate (increased incidence of maternal hepatotoxicity) - Clarithromycin: limited human data	- Erythromycin: compatible - Azithromycin / clarithromycin: limited human data, but probably compatible
Metronidazole	- Human data suggest low risk	- Limited human data - If use as single-dose therapy (2g orally), delay breastfeeding for 12 to 24 hours
Nitrofurantoin	- Avoid after 37 weeks (risk of hemolytic anemia in newborns) -	- Limited human data, but probably compatible - Potential risk of hemolytic anemia in newborn
Penicillins <ul style="list-style-type: none"> • Penicillin G / VK • Ampicillin • Amoxicillin ± clavulanic acid • Cloxacillin • Piperacillin tazobactam 	- compatible	- Considered safe
Rifampin	- Compatible - Prophylactic vitamin K1 has been recommended to prevent hemorrhagic disease in the newborn	- Compatible
Tetracyclines <ul style="list-style-type: none"> • Doxycycline • Tetracycline • Minocycline 	- Avoid in 2 nd /3 rd trimesters	- Compatible - Black discoloration of breast milk has been reported with minocycline (iron chelate of drug)
Trimethoprim [TMP] + sulfamethoxazole [SMX]	- Avoid in 1 st trimester and after 32 weeks' gestation	- Avoid if infant has G6PD deficiency, premature infants or neonates with

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(Septra®)	- If use during 1 st trimester is necessary, can give high dose folic acid (4-5mg/day) to minimize neural tube defects	hyperbilirubinemia - TMP alone is compatible
Vancomycin	- Compatible	- Limited human data, but probably compatible
ANTI-FUNGAL AGENT		
Amphotericin B (including liposomal amphotericin)	- Compatible	- No human data
Anidulafungin	- No controlled studies in pregnancy	- No human data
Caspofungin	- No human data - Embryotoxic in animal studies; should be avoided in <u>1st trimester</u> whenever possible	- No human data - Probably compatible
Fluconazole	- May be teratogenic with continuous daily doses $\geq 400\text{mg/day}$ in 1 st trimester - Decreased risk in lower doses -	- Compatible
Voriconazole	- No human data - Animal studies suggest drug is teratogenic and embryotoxic	- No human data (potential toxicity)
ANTIVIRAL AGENTS		
Acyclovir / valacyclovir	- Compatible	- Compatible
Ganciclovir / valganciclovir	- Limited human data and only should be used when benefit outweighs unknown risk to the fetus	- No human data
Oseltamivir	- Compatible based on limited human data	- compatible

References:

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