

# Corioamnionitis

Guías de Perinatología 2015

¿Es tiempo de renovar?

Neonatología

Hospital Barros Luco Trudeau

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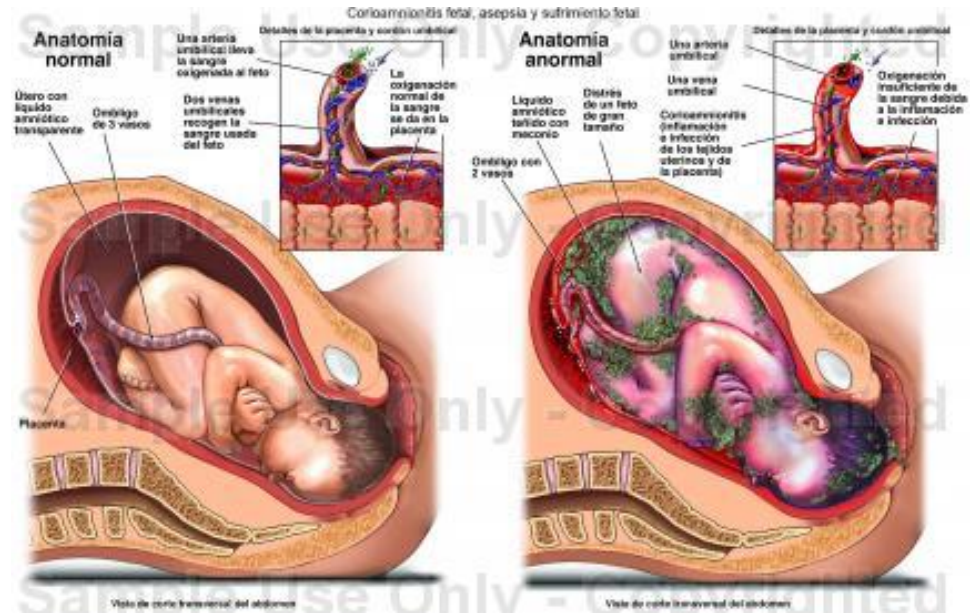
Medicina Materno Fetal

# Corioamnionitis criterios de Gibbs

a)  $T^{\circ} ax \geq 38^{\circ}C$

b) 2 o + criterios:

- i. Aumento de la sensibilidad uterina a la palpación
- ii. Secreción purulenta, turbia o de mal olor por el OCE
- iii. FC materna  $> 100$  lpm
- iv. LCF  $> 160$  lpm
- v. GB  $> 15.000$  leucocitos/mm<sup>3</sup>



# Parto Prematuro

## Uso de Antibióticos

Guías Minsal 2015



- No está indicado el uso de antibióticos en el síntoma de parto prematuro con membranas íntegras. Recomendación A.

- No prolonga la gestación

- Hay tendencia al aumento de mortalidad NN Evidencia 1

Romero 1993, King 2008 Cochrane, Hutzal, 2008.

- AMCT : persistencia /reaparición de DU pese a tocolisis y cérvix <15 mm. Recomendación C. (evidencia 3 )

Vaisbuch, 2010

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# RPM. 24-34-semanas

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1. El uso de **antibióticos** aumenta el período de latencia al parto. Recomendación A.
2. El uso de **corticoides** en embarazos de pretérmino disminuye el riesgo de muerte NN, distress respiratorio, hemorragia intracerebral y ECN. Recomendación A.
3. Los tocolíticos no sirven para prolongar la latencia al parto.

# Antibioticoterapia.

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## Objetivo ATB

1. Aumentan período de latencia
2. Prevenir la infección decidual ascendente
3. Reducir la morbilidad asociada a la edad gestacional
4. Reducir la patología infecciosa del neonato. (7)

*Cochrane, demostró reducción de la corioamnionitis clínica, prolongación del embarazo por al menos 48 horas (hasta 7 días) y la reducción de las morbilidades neonatales (infección, distress respiratorio, hemorragia intraventricular).*

Ampicilina 2 gr/ 6 h +Eritromicina 250 mg IV /6 h, luego 5 días de esquema oral (amoxicilina 500 mg /8 h VO + Eritromicina 500 mg / 6 h VO).

Mercer,Jama 1997; Mercer , Semin Perin 2003 ; Gómez 2007

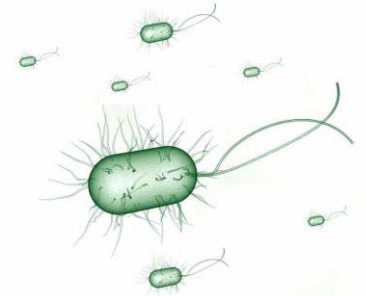
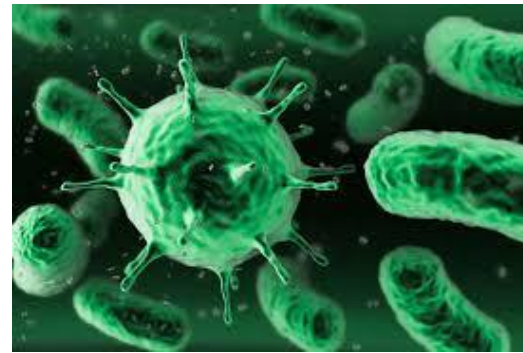
Guías Minsal 2015



# Antibiotic Therapy for Chorioamnionitis to Reduce the Global Burden of Associated Disease

*Clark T. Johnson*<sup>1\*</sup>, *Rebecca R. Adami*<sup>2</sup> and *Azadeh Farzin*<sup>3,4</sup>

- Ureaplasma (47%)
- Mycoplasma (30%)
- Gardnerella vaginalis (25%),
- Bacteriodes (30%)
- Group B Streptococcus (15%)
- Gram negative rods
  - Escherichia Coli (8%)



**TABLE 1 | A selected list of antibiotics and routes of administration, as included in the WHO guide of essential medications (WHO, 2016), with pregnancy category, half-life, and indication of placental passage efficacy.**

Antibiotic class	Antibiotic	Pregnancy category	Route	Half-life (hours)	Placental transfer
Penicillins	Benzyl PCN	B	Injection	0.5	Incomplete
	Benzathine PCN G	B	Injection	30–50	Incomplete
	PCN V	B	Oral	0.5	Incomplete
	Procaine PCN G	B	Injection	20–40	Incomplete
Aminopenicillins	Ampicillin	B	Injection	1	Complete
	Amoxicillin	B	Oral	1.3	Complete
Penicillins: (Pellicinase Resistant)	Cloxacillin	B	Oral, Injection	0.5	Incomplete
Cephalosporins	Cefazolin	B	Injection	2	Complete
	Cephalexin	B	Oral	1	Complete
Cephalosporins: 3rd Generation	Ceftriaxone	B	Injection	8	Complete
	Cefotaxime	B	Injection	1	Complete
	Ceftazidime	B	Injection	2	Complete
Vancomycin	Vancomycin*	C	Injection	4–6	Incomplete



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B-Lactamase Inhibitors	Amoxicillin/Clavulanate	B	Oral	1.0	Complete
Carbapenams	Imipenam+Cilastin	B	Injection	1–2	Incomplete
Aminoglycosides	Gentamicin	C	Injection	2–4	Incomplete
Macrolides	Erythromycin	B	Oral, Injection	1–1.5	incomplete
	Azithromycin	B	Oral	12	Incomplete
	Clarithromycin	C	Oral	5–7	Complete
Chloramphenicol	Chloramphenicol	C	Oral, Injection	1.2	Complete
Lincosamide	Clindamycin*	B	Oral, Injection	2–3	Complete
Fluoroquinolones	Ciprofloxacin	C	Oral, IV	3.7	Incomplete
Nitroimidazole	Metronidazole		Oral, injection, suppository	9	Complete
Nitroheterocyclic	Nitrofurantoin	B	Oral	0.33	Incomplete
	Spectinomycin	B	Injection	2	Incomplete
Anti-Folate Agents	Trimethoprim/Sulfa	C	Oral, Injection	12	Incomplete
	Trimethoprim	C	Oral	12	Incomplete
Tetracycline	Doxycycline	D	Oral	12–16	Complete

Adapted in part from Grayson et al. (2010), Roberts et al. (2008), and WHO (2016).

PCN, Penicillin.

\*Indicates WHO complementary medication, to be considered for specific clinical circumstances.



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## Evaluation and Management of Women and Newborns With a Maternal Diagnosis of Chorioamnionitis: Summary of a Workshop

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Chorioamnionitis Workshop participants\*

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Chorioamnionitis Workshop participants\*

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Review Article

# Intrauterine inflammation, infection, or both (Triple I): A new concept for chorioamnionitis

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Po-Jen Cheng<sup>f,g</sup>, Bai-Horng Su<sup>d,e,\*</sup>, Hsiang-Yu Lin<sup>d,e</sup>,

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The American College of  
Obstetricians and Gynecologists  
WOMEN'S HEALTH CARE PHYSICIANS

# ACOG COMMITTEE OPINION

Number 712 • August 2017

Committee on Obstetric Practice

*The Society for Maternal-Fetal Medicine endorses this document. This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Obstetric Practice in collaboration with R. Phillips Heine, MD; American Academy of Pediatrics member Karen M. Puopolo, MD, PhD; Richard Beigi, MD; Neil S. Silverman, MD; and Yasser Y. El-Sayed, MD.*

## Intrapartum Management of Intraamniotic Infection

Yu Lin <sup>d,e</sup>,

Rose  
Irina  
Choric

**Table 1** Features of isolated maternal fever and Triple I with classification.

Terminology	Features and comments
Isolated maternal fever (“documented” fever)	Maternal oral temperature 39.0 °C or greater (102.2 °F) on any one occasion is documented fever. If the oral temperature is between 38.0 °C (100.4 °F) and 39.0 °C (102.0 °F), repeat the measurement in 30 min; if the repeat value remains at least 38.0 °C (100.4 °F), it is documented fever

## Suspected Triple I

Fever without a clear source plus any of the following:

- 1) baseline fetal tachycardia (greater than 160 beats per min for 10 min or longer, excluding accelerations, decelerations, and periods of marked variability)
- 2) maternal white blood cell count greater than 15,000 per  $\text{mm}^3$  in the absence of corticosteroids
- 3) definite purulent fluid from the cervical os

## Confirmed Triple I

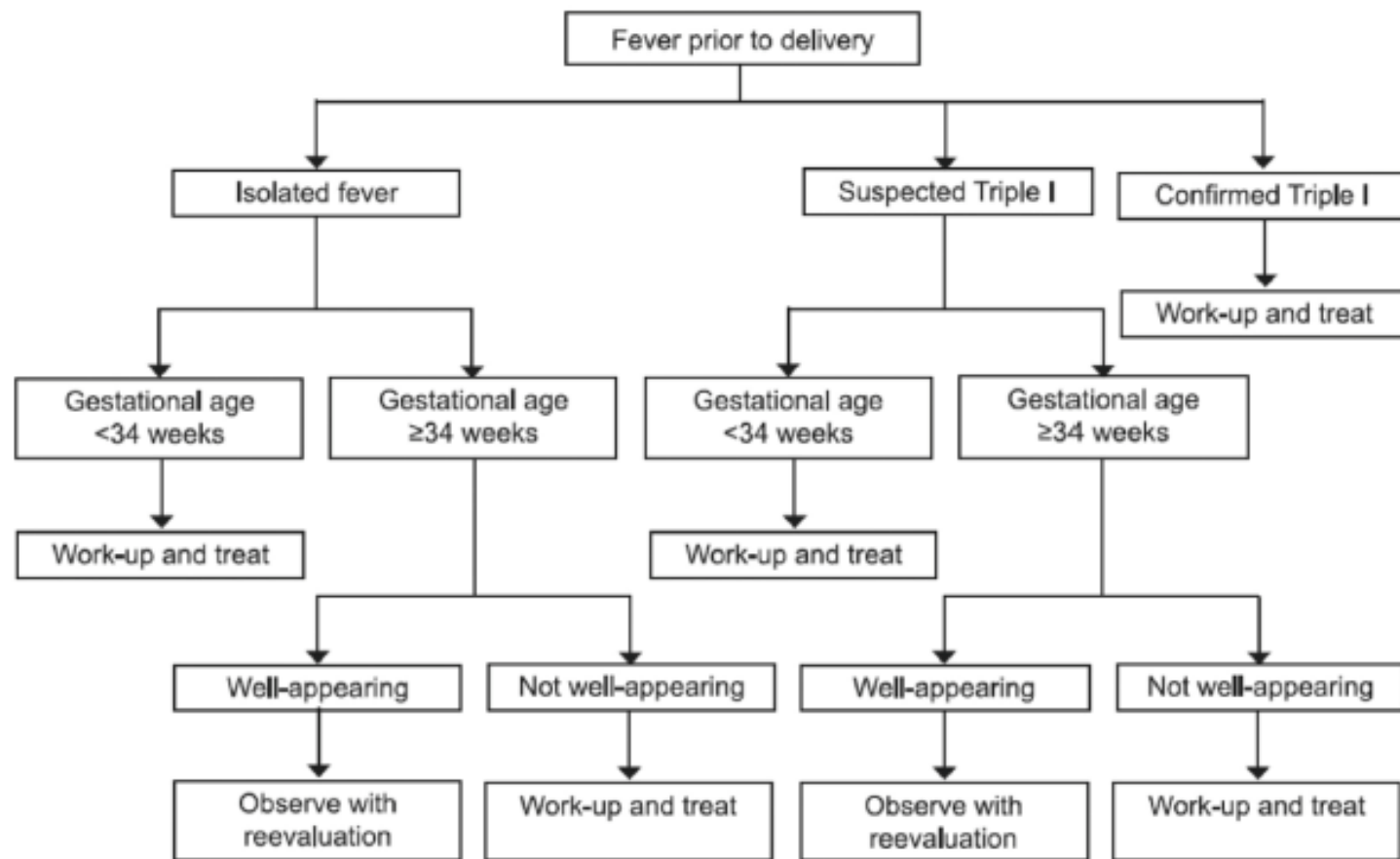
All the above plus:

- 1) amniocentesis-proven infection through a positive Gram stain
- 2) low glucose or positive amniotic fluid culture
- 3) placental pathology revealing diagnostic features of infection

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\*Discontinue the use of the term "Chorioamnionitis." See the text for discussion.

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**Figure 1** Proposed algorithm for neonatal management.

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**Table 1. Recommended Antibiotic Regimens for Treatment of Intraamniotic Infection** ←

Primary Regimen	
Recommended Antibiotics	Dosage
<ul style="list-style-type: none"> <li>• Ampicillin <i>and</i></li> <li>• Gentamicin</li> </ul> 	<p>2 g IV every 6 hours</p> <p>2 mg/kg IV load followed by 1.5 mg/kg every 8 hours <i>or</i> 5 mg/kg IV every 24 hours</p>
Recommended Antibiotics (Mild Penicillin Allergy)	Dosage
<ul style="list-style-type: none"> <li>• Cefazolin <i>and</i></li> <li>• Gentamicin</li> </ul> 	<p>2 g IV every 8 hours</p> <p>2 mg/kg IV load followed by 1.5 mg/kg every 8 hours <i>or</i> 5 mg/kg IV every 24 hours</p>
Recommended Antibiotics (Severe Penicillin Allergy)	Dosage
<ul style="list-style-type: none"> <li>• Clindamycin <i>or</i></li> <li>• Vancomycin* <i>and</i></li> <li>• Gentamicin</li> </ul> 	<p>900 mg IV every 8 hours</p> <p>1 g IV every 12 hours</p> <p>2 mg/kg IV load followed by 1.5 mg/kg every 8 hours <i>or</i> 5 mg/kg IV every 24 hours</p>

*Postcesarean delivery:* One additional dose of the chosen regimen is indicated. Add clindamycin 900 mg IV or metronidazole 500 mg IV for at least one additional dose.

*Postvaginal delivery:* No additional doses required; but if given, clindamycin is not indicated.



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Intrapartum Management of Intraamniotic Infection

## Corioamnionitis



- Infección de las membranas y el líquido amniótico por diversos microorganismos .
- Se asocia a una posible explicación de algunos casos de rotura de membrana, TDP pretérmino, o ambas.

## Alternative Regimens

- |                           |  |
|---------------------------|--|
| • Ampicillin–sulbactam    | 3 g IV every 6 hrs                             |
| • Piperacillin–tazobactam | 3.375 g IV every 6 hrs or 4.5 g IV every 8 hrs |
| • Cefotetan               | 2 g IV every 12 hrs                            |
| • Cefoxitin               | 2 g IV every 8 hrs                             |
| • Ertapenem               | 1 g IV every 24 hrs                            |

*Postcesarean delivery:* One additional dose of the chosen regimen is indicated. Additional clindamycin is not required.

*Postvaginal delivery:* No additional doses required, but if given, clindamycin is not indicated.

Abbreviation: IV, intravenous.

\*Vancomycin should be used if the woman is colonized with group B streptococci resistant to either clindamycin or erythromycin (unless clindamycin-inducible resistance testing is available and is negative) or if the woman is colonized with group B streptococci and antibiotic sensitivities are not available.



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### Intrapartum Management of Intraamniotic Infection

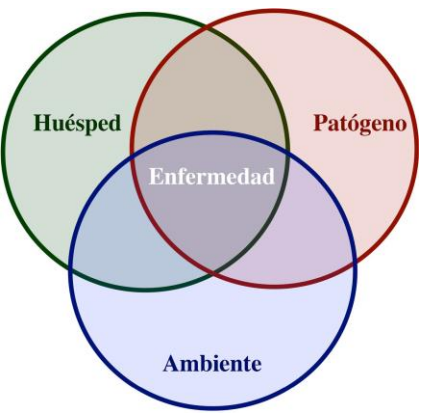
## Box 1. Checklist of items to include in communication between the obstetric and neonatal teams.

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- Gestational age
  - Maternal tachycardia
  - Fetal tachycardia
  - Maternal white blood cell count greater than 15,000
  - Maternal group B streptococci status
  - Duration of rupture of membranes
  - Duration of labor
  - Purulent fluid
  - Amniotic fluid evaluation
  - Highest maternal temperature
  - Epidural anesthesia use
  - Prostaglandin use
  - Antimicrobial agent(s) used
  - Antipyretic used
  - Spontaneous preterm birth
  - Prior spontaneous preterm birth
- 



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# Queda mucho por hacer

- Profilaxis adecuada de infecciones
- Marcadores antenatales de infección accesibles
- Identificación del germen causante
- Estudios de realidad local

