Summary of the differences between the WHO AWaRe antibiotic book and new WHO guidelines for sexually transmitted infections (STIs)

New WHO guidelines:

1. Updated recommendations for the treatment of *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Treponema pallidum* (syphilis) and new recommendations on syphilis testing and partner services

   Link: https://www.who.int/publications/i/item/9789240090767
2. Recommendations for the treatment of *Trichomonas vaginalis*, *Mycoplasma genitalium*, *Candida albicans*, bacterial vaginosis and human papillomavirus (anogenital warts)

   Link: https://www.who.int/publications/i/item/9789240096370

Date of publication of new WHO guidelines: July 2024

Contents	**Relevant AWaRe antibiotic book chapter**

Table 1. Gonococcal infection

Indication	2022 WHO AWaRe antibiotic book	2024 WHO STI guidelines	Comment on new recommendations
Treatment			
First choice	Ceftriaxone 250 mg IM plus azithromycin 1 g PO Monotherapy only if local resistance data available to confirm susceptibility: Cefixime 400 mg PO or Ceftriaxone 250 mg IM or Spectinomycin 2 g IM	Ceftriaxone 1 g IM	- Monotherapy recommended - Dose of ceftriaxone increased to 1 g due to increasing minimum inhibitory concentrations (MICs)
Second choice	Cefixime 400 mg PO plus azithromycin 1 g PO as single doses	Cefixime 800 mg PO (with test of cure) only if ceftriaxone unavailable or patient refuses it Cefixime 800 mg PO plus azithromycin 2 g PO only if test of cure not possible or for oropharyngeal infection	- Monotherapy recommended unless test of cure not possible or for oropharyngeal infection - Dose of cefixime increased to 800 mg due to increasing MICs - Dose of azithromycin increased to 2 g due to increasing MICs
In case of resistance/ allergy/ unavailability of cephalosporins	Monotherapy only if local resistance data available to confirm susceptibility: Spectinomycin 2 g IM	Spectinomycin 2 g IM plus azithromycin 2 g PO or Gentamicin 240 mg IM plus azithromycin 2 g PO	- Dual therapy with an aminoglycoside and azithromycin recommended if cephalosporins cannot be used
Retreatment after treatment failure	Cefixime 800 mg PO plus azithromycin 2 g PO or Ceftriaxone 500 mg IM plus azithromycin 2 g PO or	One of the following regimens with test of cure: Ceftriaxone 1 g IM plus azithromycin 2 g PO (only if ceftriaxone was not used previously)	- Recommendation to use a different WHO regimen with test of cure for retreatment

	Gentamicin 240 mg IM plus azithromycin 2 g PO or Spectinomycin 2 g IM plus azithromycin 2 g PO	or Spectinomycin 2 g IM plus azithromycin 2 g PO or Gentamicin 240 mg IM plus azithromycin 2 g PO	

Table 2. Chlamydial infection

Indication	2022 WHO AWaRe antibiotic book	2024 WHO STI guidelines	Comment on new recommendations
Treatment			
Uncomplicated chlamydial infection – genital, anorectal and oropharyngeal			
First choice (all except in pregnant/breastfeeding women)	Doxycycline 100 mg PO q12h for 7 days or Azithromycin 1 g PO as a single dose	Doxycycline 100 mg PO q12h for 7 days	- Doxycycline is recommended as first choice in all uncomplicated cases of chlamydial infection (except for pregnant and breastfeeding women) when adherence is not a concern - Azithromycin is first choice only in pregnant women or when compliance adherence is a concern (given doxycycline requires 7 days of treatment) or if doxycycline is not available - Alternative options provided if neither doxycycline nor azithromycin are available
Second choice (all except in pregnant/breastfeeding women)	Not addressed	Azithromycin 1 g PO as a single dose only when adherence is a concern or if doxycycline is not available	
If doxycycline and azithromycin are not available	Not addressed	Erythromycin 500 mg PO q6h for 7 days or Ofloxacin 200-400 mg PO q12h for 7 days or Tetracycline 500 mg PO q6h for 7 days	
Pregnant/breastfeeding women	Azithromycin 1 g PO as a single dose	Azithromycin 1 g PO as a single dose	- No change
If azithromycin is not available	Not addressed	Amoxicillin 500 mg PO q8h for 7 days or Erythromycin 500 mg PO q6h for 7 days	- Alternative options provided for pregnant/breastfeeding women if azithromycin is not available

Table 3. Syphilis

Indication	2022 WHO AWaRe antibiotic book	2024 WHO STI guidelines	Comment on new recommendations
Diagnosis			
Testing approaches	- Direct detection from skin or tissue lesions - Serological tests: both treponemal and non-treponemal tests	In addition to existing recommendations for serological testing, additional approaches are now recommended: - Dual treponemal/non-treponemal rapid diagnostics tests (RDTs) - Syphilis self-testing	- Additional testing approaches recommended
Treatment			
Early syphilis in pregnancy			
First choice	Benzathine benzylpenicillin* 2.4 million units IM as a single dose	Benzathine penicillin G* 2.4 million units IM as a single dose	- No change
Second choice	Not addressed	Procaine penicillin 1.2 million units IM q24h for 10 days	- Alternative treatment options provided when benzathine penicillin G cannot be used
When penicillin cannot be used or is not available	Not addressed	Ceftriaxone 1 g IM q24h for 10-14 days or Erythromycin 500 mg q6h for 14 days^	
Late syphilis or unknown stage in pregnancy			
First choice	Benzathine benzylpenicillin* 2.4 million units IM once weekly for 3 consecutive weeks	Benzathine penicillin G* 2.4 million units IM once weekly for 3 consecutive weeks	- No change
Second choice	Not addressed	Procaine penicillin 1.2 million units IM q24h for 20 days	

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When penicillin cannot be used or is not available	Not addressed	Erythromycin 500 mg q6h for 30 days^	- Alternative treatment options provided when benzathine penicillin G cannot be used

* Benzathine benzylpenicillin and benzathine penicillin G are slightly different names for the same antibiotic.

^ Use with caution. There have been increasing rates of resistance to erythromycin reported since the guidelines were last updated. Erythromycin also insufficiently crosses the placenta; newborns should be treated if this drug is used in pregnancy.

Table 4. Trichomoniasis

Indication	2022 WHO AWaRe antibiotic book	2024 WHO STI guidelines	Comment on new recommendations
Treatment			
First choice	Metronidazole 400 mg or 500 mg PO q12h for 7 days or Metronidazole 2 g PO as a single dose	Metronidazole 400 mg or 500 mg PO q12h for 7 days	- Single dose regimen no longer recommended unless adherence is an issue - Alternative treatment options provided when adherence is an issue or metronidazole cannot be used
Second choice	Not addressed	When adherence is a concern: Metronidazole 2 g as a single dose or Tinidazole 2 g PO as a single dose (except in pregnancy)	
When metronidazole or tinidazole are not available (except in pregnancy)	Not addressed	Secnidazole 2 g PO as a single dose or Ornidazole 1.5 g PO as a single dose	