

### **C.1 - Deletion of amoxicillin for the empiric treatment of lower urinary tract infections from the WHO Model List of Essential Medicines and WHO Model List of Essential Medicines for Children**

MSF strongly supports the deletion of amoxicillin as a first-choice option for the empiric treatment of lower urinary tract infections both in adults and children from the section 6.2.1 Access group antibiotics of the WHO Model List of Essential Medicines (EML) and WHO Model List of Essential Medicines for Children (EMLc). **Amoxicillin should stay in both the EMLs for all other recommended indications.**

As amoxicillin is an affordable and widely available antibiotic (aminopenicillin group) with a broad spectrum of activity against many bacteria including *Escherichia coli*, the most frequent pathogen responsible of lower urinary tract infections, amoxicillin has been included in 2017 in the AWaRe classification as a first-choice option for the empiric treatment of these infections.

Currently, the EML and EMLc include four other alternatives to amoxicillin, as first choice options, in the Access Group antibiotics: nitrofurantoin, sulfamethoxazole-trimethoprim, trimethoprim and amoxicillin + clavulanic acid.

According to the several guidelines and reports, amoxicillin as a first choice for the empiric treatment of lower urinary tract infections both in adults and children should be no longer considered, as the widespread resistance of *Escherichia coli* to amoxicillin would lead to a high rate of treatment failures.

The following guidelines are not recommending amoxicillin as first choice for the empiric treatment of lower urinary tract infections:

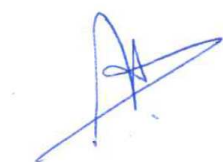
- The 2020 Infectious Diseases Society of America “Guidance on the treatment of antimicrobial resistant Gram-negative infections” states that the preferred treatment in cystitis is nitrofurantoin or trimethoprim-sulfamethoxazole and that if first-line options are not available or tolerated amoxicillin-clavulanate, single-dose aminoglycosides, fosfomycin, ciprofloxacin are alternative options.

- The 2019 European Association of Urology guidelines state that aminopenicillins are no longer suitable for antimicrobial therapy in uncomplicated cystitis because of negative ecological effects, high resistance rates and their increased selection for extended spectrum beta-lactamase (ESBL)-producing bacteria.
- The 2018 National Institute for Health and Care Excellence (NICE) guidelines “Urinary tract infection (lower): antimicrobial prescribing” recommend for children aged 3 months and over, for men, and for non-pregnant women nitrofurantoin and trimethoprim as first choices, pivmecillinam or fosfomycin as second-choice. Amoxicillin is a second choice for pregnant women or for children aged 3 months and over and only if culture results are available and susceptible.
- The 2015 Société de Pathologie Infectieuse de Langue Française (SPILF) “Guidelines for the treatment of community-acquired urinary infections in adults” state that amoxicillin is not indicated due to a high rate of resistance.
- The 2011 Infectious Diseases Society of America (IDSA) “Guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women” recommend that amoxicillin or ampicillin should not be used for empirical treatment given the very high prevalence of antimicrobial resistance to these agents worldwide.

MSF does not recommend amoxicillin as a first choice for the empiric treatment of lower urinary tract infections neither in adults, nor in children, in its programs.

In light of these elements, MSF urges the 23<sup>rd</sup> Expert Committee on the Selection and Use of Essential Medicines to delete amoxicillin as a first-choice option for the empiric treatment of lower urinary tract infections both in adults and children from the section 6.2.1 Access group antibiotics of the WHO Model List of Essential Medicines and WHO Model List of Essential Medicines for Children.

For Médecins Sans Frontières



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