Cotrimoxazole prophylaxis for malaria and bacterial infections in people with HIV

Factsheet

1 December 2014

Key facts

- Globally, there were an estimated 35 million people living with HIV, of whom 13 million were on antiretroviral treatment (ART) at the end of 2013. A large number of people living with HIV in developing countries present very late for diagnosis and treatment, suffering from advanced stages of AIDS due to other opportunistic infections.
- Cotrimoxazole (CTX) prophylaxis has been used from the early days of the HIV response to prevent infections such as *Pneumocystis jirovecii pneumonia* (PCP) in people living with HIV, to reduce HIV-associated deaths in people with low CD4 counts.
- New evidence has emerged that, in addition to its traditional morbidity and mortality benefits, CTX prophylaxis prevents malaria and severe bacterial infections in adults and children taking ART.
- CTX is a well-tolerated, cost-effective fixed-dose drug, which consists of two antimicrobial drugs: sulfamethoxazole and trimethoprim. It prevents and treats a variety of bacterial, fungal and protozoan infections. CTX is an off-patent drug and is widely available in resource-limited settings.

Why guidelines are needed

- Since the early years of the HIV epidemic, CTX prophylaxis has been considered a feasible, well tolerated and cost effective intervention to prevent opportunistic infections and comorbidities in people living with HIV.
- Despite policies on CTX prophylaxis that are consistent with WHO recommendations in most countries, full implementation of CTX prophylaxis policies has been a challenge. The reasons for the incomplete implementation are many and include barriers from the service delivery side and from the patient side.
- Based on new evidence, WHO now recommends CTX prophylaxis as an integral part of the HIV care in resource-limited settings.

WHO response

- In December 2014, WHO releases an update which includes a new set of recommendations for CTX prophylaxis. This update is the second supplement to the *WHO consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection, released in 2013.*
The new CTX prophylaxis recommendations cover different epidemiological contexts and all population groups (including adults, pregnant women, adolescents and children).

**Key recommendations**

*Adults and pregnant/breastfeeding women:*

1. **When to start:** CTX prophylaxis is recommended for adults (including pregnant women) with severe or advanced HIV clinical disease (WHO stages 3 or 4) and/or with CD4 ≤350 cells/mm³.
   
   a. In settings where malaria and/or severe bacterial infections (SBIs) are highly prevalent, CTX prophylaxis should be initiated regardless of CD4 cell count or WHO stage.

2. **When to stop:** CTX prophylaxis may be discontinued in adults (including pregnant women) with HIV infection who are clinically stable on ART, with evidence of immune recovery and virologic suppression.
   
   a. In settings where malaria and/or SBIs are highly prevalent, CTX prophylaxis should be continued regardless of CD4 cell count or WHO stage.

*Children and adolescents:*

3. **When to start:** CTX prophylaxis is recommended for infants, children, and adolescents with HIV, irrespective of clinical and immunological conditions. Prioritization should be given to all children less than 5 years old regardless of CD4 cell count or clinical stage, and children with severe or advanced HIV clinical disease (WHO clinical stages 3 or 4) and/or those with CD4 ≤350 cells/mm³.

4. **When to stop:**
   
   a. In settings where malaria and/or SBIs are highly prevalent, CTX prophylaxis should be continued until adulthood irrespective of ART provision.

   b. In settings of low prevalence for both malaria and bacterial infections, CTX prophylaxis may be discontinued for children 5 years of age and older who are clinically stable and/or virologically suppressed on ART for at least 6 months and with CD4 >350 cells/mm³.

*HIV exposed infants:*

5. **When to start and stop:** CTX prophylaxis is recommended for HIV-exposed infants from 4-6 weeks of age and should be continued until HIV infection has
been excluded by an age appropriate HIV test to establish final diagnosis after complete cessation of breastfeeding.

**HIV/TB coinfection:**

6. Routine CTX prophylaxis should be administered in all HIV-infected patients with active TB disease regardless of CD4 cell counts.