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Acceptability of Azithromycin Mass Treatment for Trachoma Elimination in Injibara Town and Adjacent Banja Woreda of Awi Zone, Amhara Region

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Background: Trachoma is the leading cause of infectious blindness worldwide. Globally 1.2 billion people live in endemic areas. In Ethiopia, approximately 67 million people are at risk for trachoma. The Amhara National Regional State of Ethiopia is the most trachoma-endemic regional state with TF prevalence of 62.6%. Azithromycin mass treatment is one arm of the SAFE strategy. In this regard, the trachoma elimination program would be successful if and only if the coverage is as high as possible with full community participation. Otherwise, the trachoma infection will return to the baseline prevalence.

Aims: The aim of this study was to assess the acceptability of the azithromycin mass treatment and its determinants in urban and rural areas of Amhara Region, North West Ethiopia.

Methods: A community based cross sectional survey with both quantitative and qualitative methods was employed from July 7-25, 2013. Households' survey with structured questionnaire, FGDs and key informant interviews were used for data collection.

Results: A total of 5826 eligible household members from 897 rural and 370 urban households were enrolled in the survey. The 2012 annual azithromycin mass treatment coverage was 92.9%. From the total 6 rounds of azithromycin mass treatment, only half (50.6%) of the community members took for more than three times. On average, each illegible person in the community had taken the drug for 3.6 times. The rural residents were at better performance in taking the treatment as compared to the urban residents (AOR=2.35; 95%CI [1.80-3.06]). Azithromycin uptake status of female household heads was less than the corresponding males (AOR=0.41; 95% CI [0.24-0.720]). Household heads awareness about trachoma (AOR=2.55; 95% CI [1.19-5.44]) and azithromycin mass treatment (AOR=7.19; 95% CI [3.27-15.82]) had significant association with acceptability.

Conclusion: The overall coverage documented in the present study was 60%. The communities' acceptability had increased in the recent campaigns. There is low coverage and acceptability of the treatment in the urban community as compared to the rural residents. Supplementary benefits of azithromycin, awareness about trachoma and the drug, willingness and being old are some of the factors positively related with acceptability. Strengthen the program in the urban area and consideration of additional campaigns is recommended

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Characterization and bio-control potent of *Streptomyces* species isolated from the rhizosphere of saharien legume in Algeria

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The antimicrobial activity, phyto-stimulating effect and mechanism of action of rhizobacteria isolated from three endemic legumes in Algeria (*Ononis angustissima*, *Astragalus gombo* and *Calobota saharae*) were evaluated. Phenotypic and genotypic identification of isolates with high antimicrobial activity revealed the strains *Streptomyces* sp. 21, 2A26, 1B10 and 2C34. The four *Streptomyces* sp., solubilize phosphate and produce extracellular fungal cell-wall degrading enzymes chitinase and protease as well as a marked production of acid- β -indoleacetic (AIA). The *In vivo* results have revealed that the four strains of *Streptomyces* sp. significantly stimulate growth and reduce the disease incidence caused by *Fusarium oxysporium* in chickpea (*Cicer arietinum* L.). These results indicate that the strains of *Streptomyces* sp. isolated from rhizosphere of *Ononis angustissima* could be an interesting source of bioactive substances with a high potential for biological control.

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