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**Pathogenic bacteria profile and antimicrobial susceptibility patterns of ear infection at Bahir Dar Regional Health Research Laboratory Center Ethiopia**

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Ear infection linked with a frequent antibiotic prescription, hearing impairment, severe disability, and death is a public health threat in developing countries. However, there is a scarcity of documented data in the study area. Therefore, this study aimed at determining bacterial etiologic agents and their antimicrobial susceptibility patterns among patients of all age groups referred to Bahir Dar Regional Health Research Laboratory Center. Retrospective data recorded on culture and antimicrobial susceptibility profile were retrieved for analysis. Pus swabs from discharging ears collected and processed for aerobic bacterial culture and susceptibility testing. Of the total 368 pus swab samples processed, 296 (80.4%) were culture positive. Of which, 289 (97.6%) were bacteria and 7 (2.4%) were yeast cells. The proportion of ear infection was higher in males (92.7%) than females (65%) ( $P=0.014$ ). The frequency of ear infection below 21 years of age was 65.2%. The predominant isolate was *Pseudomonas aeruginosa* (29.7%) followed by *Staphylococcus aureus* (26.3%) and *Proteus* spp. (21.9%). High level of antimicrobial resistance rates was observed for amoxicillin/clavulanic acid, ampicillin, and penicillin whereas ciprofloxacin, ceftriaxone, chloramphenicol, cotrimoxazole, gentamicin, and amikacin were found effective against the isolated bacteria. Aerobic bacterial otitis media linked with high levels of resistance against amoxicillin/clavulanic acid and ampicillin is a major health problem in the study area. Moreover, a considerable level of oxacillin-resistant *S. aureus* suggests the diffusion of methicillin-resistant *S. aureus* in the community. Therefore, treatment of otitis media in the study area needs to be guided by antibiotic susceptibility testing of isolates.

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