Background: Knowledge of proper antimicrobial prescription policy of a particular setting is crucial to optimize the management and reduction of the rate of NIs; however, the investigation of causative agents and their antimicrobial susceptibility profile are an essential prerequisite. In Ethiopia, some comprehensive studies were conducted on NIs; none of these include most of the sources of NIs and have not determined the antimicrobial susceptibility pattern of the causative agents. Moreover, a study reported in one region is not necessarily reflecting the pattern of bacteria causing NIs among patients admitted at Hiwot Fana Specialized University Hospital, Eastern Ethiopia.

Method: A cross-sectional quantitative study involving bacteriological analysis was conducted at Hiwot Fana Specialized University Hospital, Harar, Eastern Ethiopia from March 2017 to July 2017. Harar is the political and administrative town of the Harari Regional State and is located at 525 km from Addis Ababa, Ethiopia. ‘eere are six hospitals and eight health centers in this region. Hiwot Fana Specialized University Hospital provides health care services and serve as a referral hospital for eastern parts of our country. It has the largest client load with an average bed occupancy rate of 83% (sources: Hiwot Fana Specialized University Hospital Annual Report of 2016), ‘e hospital consists of six major wards: Medical, Surgical, Obstetrics, Gynecology, Malnutrition, and Pediatric wards.

Results: A total of 394 clinically suspected patients for NIs were included in this study. ‘e majority of study participants were females, 223 (56.6%), with a male-to-female ratio of 0.8 :1. ‘e mean age of participants was 23.9 years (±18.3 standard deviation). A large number of participants were admitted to Obstetrics/ Gynecology (26.1%) followed by Surgical (25.9%), ‘e majority (86.3%) of patients had no previous history of admission, ‘e length of stay of the patients on the admission was 4–7 days (37.3%) (Table 1). ‘e overall prevalence of culture-confirmed NIs was 6.9% (95% CI: 4.3–7.9). A total of 54 bacterial pathogens were recovered. Of these, 30 (55.6%) were Gram-positive bacteria. ‘e most common bacteria were S. aureus (18.5%) followed by E. coli (16.7%) and S. pneumoniae (14.8%). Surgical sites were most frequently infected (31.5%) followed by bloodstream (25.9%). S. aureus (29.4%), P. aeruginosa (17.6%), and CoNS (17.6%) were the most

Abstract

Introduction: A nosocomial infection (NI) (also known as hospital-acquired infection) is a localized or a systemic infection resulting from an adverse reaction to infectious agents or its toxins that develops in 48 hours or more after admission and was not incubating on admission most common type of NIs are urinary tract infections (usually catheter associated) (31%) followed by surgical site infections (SSIs) (17%), primary bloodstream infections (BSIs) (usually associated with the use of an intravascular device) (14%), and pneumonia (usually ventilator associated) (13%) main bacteria associated with NIs are S. aureus, coagulasenegative staphylococci (CoNS), Streptococcus pneumoniae, Escherichia coli, P. aeruginosa, Haemophilus influenzae, Klebsiella pneumoniae, Acinetobacter, and Enterococci transmission within the hospital occurs through cross contamination of the patients via the contaminated hands of health care staffs who come in frequent contact with patients or through contaminated objects emergence of antimicrobial-resistant bacteria has become a public health problem, creating a new burden on modern medical care in hospitals known to cause considerable morbidity and mortality in hospitalized patients consequence of the infection caused by resistant bacteria lies in their ability to not only alter the outcome of critically ill patients but also reduce the chances of the treatment, prolong the duration of the hospitalization, increase the cost of health care, and make the spread of infection easier and the prevention more difficult.

Background: Knowledge of proper antimicrobial prescription policy of a particular setting is crucial to optimize the management and reduction of the rate of NIs; however, the investigation of causative agents and their antimicrobial susceptibility profile are an essential prerequisite. In Ethiopia, some comprehensive studies were conducted on NIs; none of these include most of the sources of NIs and have not determined the antimicrobial susceptibility pattern of the causative agents. Moreover, a study reported in one region is not necessarily reflecting the status of other regions. ‘is study was carried out to assess the prevalence and antimicrobial susceptibility pattern of bacteria causing NIs among patients admitted at Hiwot Fana Specialized University Hospital, Eastern Ethiopia.

Bacterial Nosocomial Infections and Antimicrobial Susceptibility Pattern among Patients Admitted at Hiwot Fana Specialized University Hospital, Eastern Ethiopia

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common types of pathogen isolated from surgical sites, while E. coli (36.3%), Proteus spp. (18.2%), and Enterococcus spp. (18.2%) were from urinary tract. S. pneumoniae (41.6%) and Klebsiella spp. (25%) were the top two pathogens isolated from the upper respiratory tract. 'e most frequently isolated bacteria from the bloodstream were S. aureus (28.6%), E. coli (21.4%), and S. pneumoniae (21.4%)

Biography:
Moti Tolera is working as a faculty member in School of Public Health, College of Health and Medical Sciences, Haramaya University, P.O.B: 235, Harar, Ethiopia.

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