Knowledge, Attitudes and Practices on Antibiotic Use among Older Adults in Sri Lanka: A Cross-Sectional Study

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Antibiotics save millions of lives but their misuse leads to antimicrobial resistance (AMR). Appropriate antibiotics use among geriatric patients is essential to prevent resistance and ensure effective treatment outcomes. In Sri Lanka, evidence regarding knowledge, attitudes and practice of older adults on antibiotic use remains limited. This study aimed to assess the knowledge, attitudes, and practices regarding antibiotic use among geriatric patients at a tertiary hospital in Sri Lanka. A cross-sectional, interviewer-administered survey was conducted at the Outpatient Department of Teaching Hospital, Peradeniya. Using convenience sampling method, 200 geriatric patients aged above 60 years were recruited. A brief introduction about antibiotics was provided before data collection. Patients who had no idea of antibiotics even after the introduction were excluded. Descriptive and comparative data analyses were performed. The fisher's exact test was applied to identify significant associations. Knowledge and practice scores were calculated on scales of 20 and 7 respectively. Majority of participants (61.1%) learned about antibiotics through doctors. 60.5% were educated only up to ordinary level. Out of 200 participants, 194 (97%) scored between 0-14 for the knowledge section indicating poor knowledge about antibiotics [mean:5.4 (SD 3.725); median:5 (IQR 7-3)]. Only 34% respondents correctly identified amoxicillin as an antibiotic while 13.5% and 14.5% misidentified that aspirin and paracetamol were antibiotics respectively. Only 21% respondents had heard the term "antibiotic resistance" and 24% thought resistance develops in human body rather than in bacteria. Out of 200 participants, 170(85%) scored between 0- 4 for practices indicating poor practice level of antibiotics [mean: 4.45 (SD 0.966); median:4 (IQR 5-4)]. Attitudes toward antibiotic use reflected mixed awareness. 32% respondents mistakenly expected antibiotics for colds. 97% of respondents reported using antibiotics as labeled by the pharmacist, indicating high adherence. A significant association was found between poor knowledge level and stopping antibiotics once symptoms improve. ($n = 65\%$ $p \leq 0.05$, Fisher's exact test). This study reveals poor knowledge and unsafe antibiotic practices among older adults, potentially contributing to AMR. Tailored interventions, including awareness programs using visual or digital aids to address literacy barriers, may improve understanding and practices. Future follow-up studies are recommended to evaluate the effectiveness of such interventions.

Keywords: Antibiotics, geriatric patients, antibiotic misuse, AMR, Sri Lanka