

## **Repeated Reuse of Insulin Injection Syringes and Incidence of Bacterial Contamination among Diabetic Patients in Jimma University Specialized Hospital, Jimma, Ethiopia**

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**Abstract :** Objective: to determine the level of bacterial contamination of reused insulin syringes among diabetic patients. Method: A facility based cross-sectional study was conducted among diabetic patients. Data on socio-demographic variables, history of injection syringe reuse, and frequency of reuse of syringes were collected using predesigned questionnaire. Finally, the samples from the syringes were cultured according to standard microbiological techniques. Result: Eighteen diabetic patients at Jimma University Hospital participated. A total of 83.3% of participants reused a single injection syringe for >30 consecutive injections, while 16.7% reused for >30 injections. Our results showed 22.2% of syringes were contaminated with methicillin-resistant *Staphylococcus aureus*. Conclusion: We conclude reuse of syringe is associated with microbial contamination. The findings that 4/18 syringes being contaminated with bacteria is an alarming situation. A mechanism should be designed for patients to get injection syringes with affordable price. If reusing is not avoidable, reducing number of injections per a single syringe and avoiding needle touching with hand or other non-sterile material may be an alternative to reduce the risk of contamination.

**Keywords :** diabetes mellitus, Ethiopia, subcutaneous insulin injection, syringe reuse

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