ABSTRACT

Microbial Stability of Reuse Parenteral Infusion Manitol 20%
(Research Conducted in SMF Neurology Dr. Soetomo General Hospital)

Background: Single dose unit is a medication intended for parenteral administration (injection or infusion) that is meant for use in a single patient for a single procedure. If single dose unit is opened or punctured in an environmet with air quality worse than ISO class 5, the beyond use date is one hour. Improper use of parenteral medication may result in microbial contaminations which is a potential cause of different avoidable infections. We aimed to investigate the prevalence of microbial contamination of reuse single dose unit manitol 20% in SMF Neurology Dr. Soetomo General Hospital

Methods: In a period of 1 month, reuse of manitol 20% from 3 wards in SMF neurology were collected by a nurses. Information was recorded about the medication, labeling of vials, storing temperature, wards and date of opening. Remained contents of each sampel were tested for aerobic bacteri and fungal. Microbial contamination was confirmed by microbiologic methods.

Results: Microbial contamination was identified in 1 of 24 (4,167%) of manitol 20%.
Conclution: Although sterility test results the majority of samples are sterile (only one is contaminated by Pseudomonas aerogenes), infection control practice should be emphasized considering this potential source of nosocomial infection.

Key words: single dose unit, manitol 20%, reuse infusion, microbial contamination