

**ANTIBIOTIC RESISTANCE PATTERN of *Staphylococcus aureus*
ISOLATED FROM COW MILK IN BENDUL MERISI DAIRY FARM in
SURABAYA**

Rini Ramadhanty

ABSTRACT

This study was conducted to determine the pattern of antibiotic resistant of *S. aureus* isolated from cow milk in Bendul Merisi Dairy Farm in Surabaya. Twenty milk samples were used in this study. The isolation and identification of *S. aureus* were done using Mannitol Salt Agar medium, Gram staining, followed by catalase and coagulase test. The antibiotic susceptibility test was done using disc diffusion method according to Kirby-Bauer method, against four antibiotic discs of penicillin, vancomycin, linezolid and tetracycline.

The result showed 14 out of 20 samples were identified as *S. aureus*. None of the *S. aureus* isolates was sensitive to penicillin, 10 (71.4%) were intermediate and four (28.5%) were resistant. The high sensitivity of *S. aureus* isolates was shown 100% to linezolid and 12 (85.7%) to tetracycline. Meanwhile, the sensitivity of *S. aureus* isolates to vancomycin showed only 9 (64.2%) sensitive, 2 (14.2%) resistant, and 3 (21.4%) intermediate.

Key words: *S. aureus*, dairy milk, AMR.