PATTERNS OF β-LACTAM ANTIBIOTIC RESISTANCE IN *Escherichia coli* ISOLATED FROM DAIRY FARMS IN SURABAYA

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ABSTRACT

Milk is a good media for development of pathogenic bacteria that easily contaminated from environment. One species of bacteria widely studied is *Escherichia coli*. These bacteria is a bacteria that normally grow in the digestive tract, but in certain circumstances may be pathogens that cause gastrointestinal diseases in both humans and animals with clinical symptoms of diarrhea. *Escherichia coli* infection performed an act of treatment with antibiotics, and the use antibiotics making a problem of bacterial resistance to antibiotics. The aim of this research was determine *Escherichia coli* contamination in milk and its antibiotic resistance pattern to β-lactam antibiotics. Milk samples were taken from milk cans belong to the farmers at 4 dairy farms in Surabaya. 40 samples of milk can there were 20 positive samples contained *Escherichia coli* tested for 4 antibiotics that had been planted in the EMBA media and was confirmed by Indol test. These isolates were identified as *Escherichia coli* tested for antibiotic Ampicillin, Cefpodoxime, Aztreonam and Cefepime resistance by diffuse disc method. The isolates of *Escherichia coli* from Kaliwaron dairy were resistance to Ampicillin, Cefpodoxime, and Aztreonam. The isolates of *Escherichia coli* from Kenjeran dairy were resistance to Ampicillin and Cefpodoxime. The isolates of *Escherichia coli* from Wonocolo dairy were resistance to Ampicillin and Cefpodoxime. The isolates of *Escherichia coli* from Kebraon dairy were resistance to Ampicillin.

Key words : *Escherichia coli*, Ampicillin, Cefpodoxime, Aztreonam, Cefepime