

**ANALISIS POPULASI KUMAN PADA TANGAN PETUGAS KESEHATAN ICU
DAN POPULASI KUMAN PASIEN ICU
DI RUMAH SAKIT “X” SURABAYA
BERNADETTA INDAH MUSTIKAWATI**

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ABSTRACT

Healthcare Associated Infections in ICU “X” Hospital Surabaya marked by changes in bacteria population in 2009 and 2010. Allegedly one of the causes is the hands of health workers as a source of infection that can affect changes in the bacteria population of patients in the ICU. This study was conducted to analyze the population of bacteria of ICU HCW's hands and ICU patients, also to analyze population of bacteria alteration of ICU HCW's hands was arrived, after patient contact and 1 hour after hand washing with alcohol based hand-rub

Research carried out two stages with cross-sectional design was continued pre & post test study design using quantitative approach. Sampling at 18 ICUs at the hands of health care workers arrived, after patient contact and 1 hour after hand washing and patient specimens of blood, urine, pus, sputum while being treated in the study period. The subject is taken from the population by incidental sampling. The independent variable is a population study of germs on the hands of the ICU health care workers. Variable depending on the population of germs ICU patients.

The population distribution of germs on the hands of healthcare workers gram-negative 93.54% (n = 29) gram-positive 6.45% (n = 2), the distribution of ICU patient populations gram-negative bacteria 78.26% (n = 36) and 21.73 % (n = 10). WHONET result the population of germ when HCW arrived is 92% (n=12) gram negative & 7% (n=1) gram positive antibiotic resistant with permutation of spesies *Acinetobacter sp*, *Klebsiella pneumoniae ss pneumoniae*, *Pseudomonas*, *Enterobacter aerogenesa*, after patient contact 100% (n=17) gram negative antibiotic resistant with permutation of spesies *Enterobacter aerogenesa* *Acinetobacter sp*, *Pseudomonas sp*, *Klebsiella pneumoniae ss pneumoniae*, and one hour after hand washing with alcohol based-hand rub 90% (n=10) gram negative & 9% (n=1) gram positive antibiotic resistant with permutation of spesies *Enterobacter aerogenesa* *Pseudomonas sp*, *Klebsiella pneumoniae ss pneumoniae*, *Acinetobacter sp*, *staphylococcus sp*.

The conclusion is distribution of germs population on the hands of HCW and ICU's patients dominated by gram negative with antibiotic resistant. There was alteration in germs population on hands when HCW arrived, after contact with patient and one hour after handwashing. Suggest to do handwashing immediately before and after contact with patients and the environment.

Key Words: Handwashing, Germs Population of ICU Patient, Germs Population of ICU HCW Hands

ABSTRAK

Infeksi yang didapat di Rumah sakit di ICU RS "X" Surabaya ditandai dengan perubahan populasi kuman pada tahun 2009 dan 2010. Diduga salah satu penyebab adalah tangan petugas kesehatan sebagai sumber penularan yang dapat mempengaruhi perubahan populasi kuman pasien di ICU. Penelitian ini dilakukan untuk menganalisa populasi tangan petugas kesehatan ICU dan populasi kuman pasien di ICU serta perubahan populasi kuman pada petugas kesehatan ICU saat datang, setelah kontak pasien dan 1 jam setelah cuci tangan

Penelitian dilaksanakan 2 tahap dengan rancangan *cross sectional dilanjutkan pre & post test study design* menggunakan pendekatan kuantitatif. Pengambilan sampel pada 18 tangan petugas kesehatan ICU saat datang, setelah kontak pasien dan 1 jam setelah cuci tangan dan spesimen pasien darah, urine, pus, sputum saat dirawat pada periode penelitian. Subjek diambil dari populasi dengan cara *incidental sampling*. Variabel bebas penelitian adalah populasi kuman pada tangan petugas kesehatan ICU. Variabel tergantung populasi kuman pasien ICU

Distribusi populasi kuman pada tangan petugas kesehatan yaitu gram negatif 93,54% (n=29) gram positif 6,45% (n=2), distribusi populasi kuman pasien ICU gram negatif 78,26% (n=36) dan gram positif 21,73% (n=10). Hasil analisa program whonet populasi kuman tangan petugas pada saat datang ditemukan gram negatif 92% (n=12), gram positif 7% (n=1) dengan urutan spesies terbanyak spesies *Acinetobacter sp*, *Klebsiella pneumoniae ss pneumoniae*, *Pseudomonas sp*, *Enterobacter aerogenes*. Setelah kontak pasien, jenis kuman gram negatif 100% (n=17) dengan urutan spesies *Enterobacter aerogenes*, *Acinetobacter sp*, *Pseudomonas sp*, *Klebsiella pneumoniae ss pneumoniae*. Satu jam setelah cuci tangan, jenis kuman gram negatif 90% (n=10) dan gram positif 9% (n=1) dengan urutan spesies *Enterobacter aerogenes*, *Pseudomonas sp*, *Klebsiella pneumoniae*, *Acinetobacter* dan *Staphylococcus sp*.

Kesimpulan dari penelitian ini adalah distribusi populasi kuman pada tangan petugas kesehatan dan pasien ICU didominasi oleh gram negatif yang memiliki resistensi terhadap beberapa antibiotik. Ada perubahan populasi kuman pada tangan petugas saat datang, setelah kontak dan 1 jam setelah cuci tangan. Oleh sebab itu, disarankan cuci tangan dilakukan setiap akan kontak dan setelah kontak dengan pasien dan lingkungan sekitar.

Kata Kunci : Cuci Tangan, Populasi Kuman Tangan Petugas Kesehatan ICU, Populasi Kuman Pasien ICU.