



Washed Erythrocyte (WE) Bag Bacteria Brevundimonas vesicularis Identification at the Blood Donor Unit PMI DKI Jakarta

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Abstract

A Packed Red Cell (PRC) component known as a washed erythrocyte (WE) has undergone two to three washings with sterile physiological saline to get rid of 99% of the plasma protein, antibodies, and some leukocytes. The goal of this study was to use Bact/alert media to detect the presence or absence of bacteria (anaerobes or aerobes) in WE blood components because there is a chance that germs from the environment could contaminate WE processing because it is still an open system and the manufacturing is still exposed to the elements. Blood samples come from WE blood products that have undergone quality checks for bacterial contamination in a lab dedicated to product quality. Checking for bacterial contamination in the blood involves utilizing the Bact / Alert tool to examine bacterial contamination. Blood product aerobic (BPA) and blood product anaerobic (BPN) media are used in the culture of blood product sample on Bact/alert. Aside from 1 (2.44%) component sample of WE blood that was identified as bacteria in BPA media, the results of the 41 samples examined in 2020 showed that there was aerobic bacterial contamination in BPA media but no anaerobic bacterial contamination in BPN media. This was confirmed by the examination of samples on BPN media, which yielded negative results in 41 samples (100%) and positive results from none of the 41 samples. The results of identification at the Microbiology Laboratory at the University of Indonesia showed that the aerobic bacteria that contaminated washed erythrocyte (WE) blood products on BPA microbiology media were *Brevundimonas vesicularis*.

Keywords

BACT/Alert 3D; Washed Erythrocyte Blood Components; Bacterial Contamination

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