

**PRELIMINARY STUDY ON THE RECOVERY AND
SURVIVAL OF ENTERIC BACTERIA
IN PAPER BILLS**



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ABSTRACT

The study tested for the presence of enteric bacteria in paper bills, and the ability of the enterics to survive on sterilized and non-sterilized bills. The experimental study employed the pretest-posttest control group design. The bills were collected from two markets in Dasmariñas, namely Kadiwa Public Market and WalterMart Supermarket. Bills in the denomination of 20, 100, and 500 were collected. To test the recovery, swabbing technique was used. Only the 20 peso bill was subjected to the survival test. The study showed 16.67% recovery of enterics from paper bills. Twenty-five percent of 100 peso bill and Twenty-five percent of 500 peso bill had enterics. The 20 peso bill had 0% enteric recovery because of its composition of linen and the presence of competition between different organisms. One bill from Kadiwa Public Market and one bill from WalterMart Supermarket had enterics, but the data are not enough to conclude if recovery is affected by source or denomination. The survival test showed that enteric bacteria are capable of surviving on paper bill, but they decrease in number with time because they are inhibited meaning after seven days, significant number of enterics is inhibited. The sterilized bills had higher counts compared to the non-sterilized because of the lack of competition with other organisms. It was also seen in the study that there is a significant difference ($P < 0.05$) between the initial and final count of the enteric bacteria in both the sterilized and non-sterilized bills. The study concluded that enteric are capable of surviving on paper bills, and the significant difference ($P < 0.05$) shows that enteric bacteria are inhibited with time. It is recommended that similar studies be conducted with increasing number of bills to be tested, and the survival test be conducted on all bill denominations. It is also recommended that recovery of enteric bacteria be tested from bills collected from hospitals and restaurants.

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