

## **229: REDUCING THE INFECTIOUS WASTES OF AN INTENSIVE CARE UNIT BY JOB TRAINING AND PATIENT'S FAMILIES EDUCATION**

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### **Objective:**

This study adopted system theory to conduct continuous education for medical staff and patient's family with regard to reducing the infectious wastes in an intensive care unit in order to reduce hospital spending and environmental contamination.

### **Method:**

This study was conducted in an intensive care unit by adopting system theory, medical staff was received job training, and patient's families were also received a related education program.

A pre- and post-test were conducted to measure the effectiveness of the education program in classifying infectious waste. The study was conducted over 1 year, in the period the amounts of the non-infectious and the infectious wastes were monitored and determined to evaluate the outcome after the intervention.

### **Results:**

The results were as follows:

- (1) The scores of pre-test and post-test, for infectious waste classification in medical staff to be  $70 \pm 11$  vs  $98 \pm 4$  ( $t = -19.23$ ,  $p < 0.001$ ) and patient's families,  $55 \pm 14$  vs  $96 \pm 6$  ( $t = -22.48$ ,  $p < 0.001$ );
- (2) Both medical staff and patient's families successfully carried out the infectious waste classification;
- (3) The amount of infectious waste was significantly reduced by, 59% the waste treatment cost could be significantly reduced more than US\$38,000 in one year ( $t = 19.9$ ,  $p < 0.001$ ).

### **Conclusions:**

Through job training and patient's family education, we established a suitable intervention to conduct infectious waste classification to reduce hospital spending and environmental contamination. This approach could be applied to other nursing care programs.