Sterilization Packaging Error Rate Reduction

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**Method**
- The period was from July 2013 to December 2014.
- 16600 ~ 22000 hospital sterilized items were visually inspected after sterilization every month (ave. 19033 items).
- Error rate was calculated monthly.
- Error rate (%) = (No. of packaging error × 100) / No. of inspected item
- Major problems were indentified and corrective actions were taken every month.

**Background**
- Packaging is one of the key process of medical instrument reprocessing.
- CSSD had new staffs for the packaging service in 2013 and the staffs received an initial orientation and on-the-job training.
- Quality monitoring and performance improving for the packaging service were needed until the new staffs were competent in their work.

**Flow**

1. **Inspection**
   - Visual inspection of the hospital sterilized items
   - 19033 items inspected on monthly average

2. **Identification**
   - Major causes identification
   - No. of packaging error & No. of inspected items

3. **Intervention**
   - Communication meeting, board notice, retraining etc.
   - Process and system improvement

**Result – Major Packaging Errors**

- Packaging contamination, poor pouch sealing, incorrect expiration date and missing label/indicator as major packaging errors.

**Result – Error Rate**

- Initial error rate was 0.75% before intervention. This rate showed decreasing trend since corrective actions had been taken in Aug. 2013. The error rates were kept below 0.3% and fell to 0.01% by Dec. 2014.
- The major problems of errors were packaging contamination, poor pouch sealing, incorrect expiration date and missing label/indicator.
- Effective communication, continued training and monitoring were important to reduce packaging error reduction and to improve CSSD performance.