

Oasis Sharp Counter

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ABSTRACT

Objective: To invent a new sharp counter device call “OASIS Sharp Counter” and evaluate the performance of the OASIS sharp counter for medical operations.

Methods: We invented a new sharp counter device called “OASIS Sharp Counter” made from inexpensive and unused materials. The device was evaluated with a satisfactory questionnaire.

Results: From the satisfactory questionnaire of 30 nurses who used this new device to count the sharps without any equipment, the statistics analysis indicate that the safety of using and the time saving in the counting process is ranked in the “Very Good” level.

Conclusion: OASIS Sharp Counter is convenient, safe, and inexpensive.

Keywords: Device; satisfaction; sharp counter

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Sharp counting is one of the important roles for scrub nurses, besides submitting the operation, checking the accuracy of numbers of swab and operating instruments.^{1,2} For standard procedures, there has to be 3 counting processes, which happen 1) before the operation, 2) before closing the wound, and 3) after completion³. This is for the highest safety of the patient.

In the case of a major medical operation, utilizing numbers of tools and operating appliances could have many sharps to count. The problem is counting numbers of things in a short time.

As an operating room nurse, the inventor is aware of the importance of this problem, and thus has invented a new device for counting sharps. It will help reduce the counting processes and also separate the sharps to prevent mixing up with other equipments, which could be dangerous to related operators. This OASIS Sharp Counter is created from inexpensive and unused materials in the department.

Purpose:

To invent a new inexpensive sharp counter device and evaluate the performance of the OASIS Sharp Counter for medical operations.

MATERIALS AND METHODS

There are some inexpensive and unused materials in operating theaters which are needed to prepare.

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Fig 1. The floral foam (2.5x7x1 cm³) was wrapped with filter paper.

1. Floral foam
2. Used filter paper
3. Unused paper from suture box
4. Double-sided adhesive tape & glue
5. Ruler, scissors & cutter

The floral foam was cut to be 2.5 cm (W) X 7 cm (L) X 1 cm (H). Then, it was wrapped with filter paper (Fig 1). A piece of paper from the suture box was cut to be 3.5 cm x 9 cm. Then, measure 1 cm on each side in order to fold it as side and underneath bases. This would



Fig 2. A table with 20 cells divided equally for the needles and leave 2 cm on the right side for the blade was placed on the front of wrapped floral foam.

prevent any danger from the sharp punching through the paper. The glue was applied onto the paper base and then attached to the wrapped floral foam. Double-sided adhesive tape was applied under the base for attaching it with the operating table. A table with 20 cells was divided equally for the needles and 2 cm on the right side was left for the blade and this was placed on the front of the wrapped floral foam (Fig 2). Then sterilization with steam was done before using in a medical operation. OASIS Sharp Counter was punctured by needles and blades during the process of sharp counting. After using, it was easy to put all into the sharp container (Fig 3).

RESULTS

The invented OASIS Sharp Counter has been used in the Division of General Surgery, Department of Surgery, Faculty of Medicine Siriraj Hospital. Between September to November 2006, the information has been collected from 30 scrub nurses who have never used the Sharp Counter for medical operations. The results from the questionnaire for performance evaluation of the device can be separated into 4 levels: very good (4), good (3), fair (2), and improvement needed (1) (Table 1). Analyzing from the questionnaire's statistics, average, standard



Fig 3. OASIS Sharp Counter was punctured by needles and surgical blades during the process of sharp counting. The used device was put into the sharp container.

TABLE 1. The questionnaire using for the satisfactory evaluation.

Satisfaction Criteria	Very Good (4)	Good (3)	Fair (2)	Improvement needed (1)
1. Easy to use and Convenience				
2. Safe to use				
3. Capability of OASIS Sharp Counter				
4. Save time for counting sharps				
5. Proper size				
6. The device is useful				

deviation, and percentage, the average value of performance is determined into 4 levels: very good (3.5 - 4.0), good (2.5 - 3.49), fair (1.5-2.49), and improvement needed (≤ 1.49).

After the collection and analysis of the data regarding the usage of the OASIS Sharp Counter, the satisfaction level of all criteria were in the very good level (Table 2).

TABLE 2. The results of the user satisfaction on OASIS Sharp Counter.

Satisfaction Criteria	X \pm S.D.	Level
1. Easy to use and Convenience	3.7 \pm 0.6	Very Good
2. Safe to use	3.7 \pm 0.6	Very Good
3. Capability of OASIS Sharp Counter	3.8 \pm 0.5	Very Good
4. Save time for counting sharps	3.9 \pm 0.4	Very Good
5. Proper size	3.6 \pm 0.6	Very Good
6. The device is useful	3.8 \pm 0.5	Very Good

DISCUSSION

The sharp counter device can prevent the sharps from remaining in the operative field, reduce the danger and risk of being hurt by the sharps, save time, increase the accuracy and the convenience of the sharp counting process used in medical operations.

We invented a new sharp counter device called "OASIS Sharp Counter" made from inexpensive and unused materials. From the satisfactory questionnaire of 30 nurses who used this new device to count the sharps without any equipment, the statistics analysis indicate that the safety of using and the saving time in counting process is ranked in the "very good" level. However, these results may have some bias between investigators and the nurses who completed the questionnaire.

CONCLUSION

In summary, the satisfaction level of the nurses in the operation room toward the OASIS Sharp Counter is in the "Very Good" level. This reveals that the new device is easy to use, convenient, safe, effective, and saves time for the sharp counting process.

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