

## International Day of Sterilisation Sciences takes you into the CSSD

CSSD is an important line of defense in the infection prevention of hospital. The disinfection and sterilization work plays an important role in ensuring medical safety and patient health. The nature of its work also determines that it must be completed in a relatively closed working environment. Therefore, it has always been wearing a veil of mystery for the hospital's other medical staffs.

Each year on April 10th was established as the "World Sterilization Science Day" by the World Federation for Hospital Sterilisation Sciences (WHFSS), which calling on all CSSDs around the world to open its department to the outside world. In the context of the current normalization of COVID-19 epidemic prevention and control, in order to prevent the gathering of people and promote the interactive communication between the CSSD and various operating rooms and clinical departments, on the day of "World Sterilization Science Day" in 2021, the CSSD of our hospital recorded a promotional video which vividly presented the entire process of reprocessing of instruments and related sterilization science knowledge, and unveiled the mystery of the CSSD for everyone.

Hello everyone, I am a surgical instrument. I have small body, but I am powerful. I am a powerful weapon for surgeons to overcome illnesses! With the help of the surgeon, I have defeated the sick monsters. Although I am covered in blood, I have made great achievements in the war. On the outer corridor of the operating room, I am going to start a 10-stop journey in the CSSD.

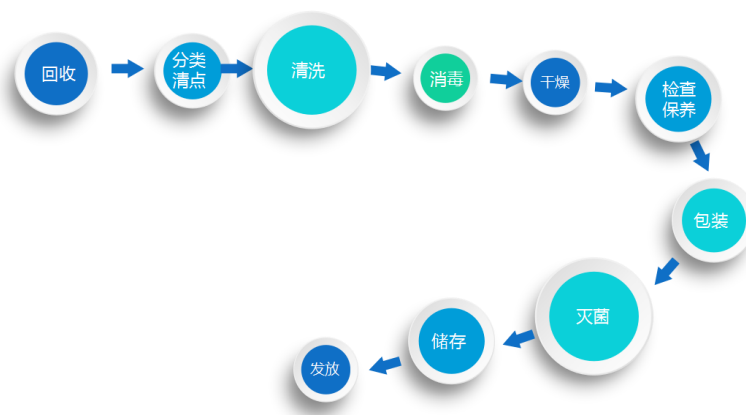


Figure 1

The CSSD staff will personally take the enclosed cart to pick me up. This is a courtesy to the soldier!



**Figure 2**

I am going to the decontamination area of the CSSD and taking off my martial robe. Then I am counted and sorted by a specialist nurse, and the instruments that require manual cleaning and de-rusting are sorted out and processed separately.



Figure 3



Figure 4

In order to ensure the cleaning quality, the hinged instruments are fully unfolded and placed on the T-shaped frame. We have our own basket for each set. Just like war wagons, which are inseparable to the soldiers. We will never be separated from our own baskets, just as we will not go to others' war wagons. Delicate instruments will be placed on silicone pads for protection to prevent us from being damaged during the cleaning process. Small instruments will be placed in a densely covered basket to prevent loss.



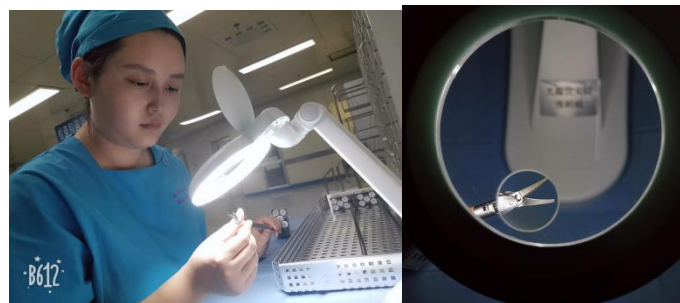
Figure 5-7

Then the nurses in the CSSD will flush us under running water, and at the same time they use a brush to scrub our body, just like taking a shower and massaging. Then a proper cleaning method will be chosen according to the nature of the instruments. No matter which kind of cleaning method is chosen, mechanical cleaning, manual cleaning or automatic ultrasonic cleaning, instruments will go through 6 steps, namely flushing, washing, rinsing, final rinsing, disinfection and drying.



**Figure 8 & 9**

After that, we come to the inspection and packaging area, where the specialist nurses of CSSD will check the cleanliness, integrity and function of our bodies under the lighted magnifying glass, and will spray special instrument maintenance oil for us.



**Figure 10 & 11**



**Figure 12**

After taking a bath and oil maintenance, and our bodies are clean and shiny again, full of confidence and power. The nurses also put on protective covers of suitable size for the delicate instruments, and the covers are really safe and comfortable.



**Figure 13-15**



After that, my war wagon (basket) and I (instrument) will wear one martial robe, namely packing.  
This is my gate pass, namely tracing barcode. All my information can be traced back as long as  
you scan the barcode.



**Figure 16**

After that, the appropriate sterilization method will be selected according to the nature of the instruments, such as high-temperature steam sterilization, hydrogen peroxide plasma sterilization, and ethylene oxide sterilization.



Figure 17

After the sterilization, I will stand quietly in the clean and tidy sterile storage area waiting for the call. As long as an order is given from the operating room, the CSSD nurses will personally send me to the battlefield to start a new journey.

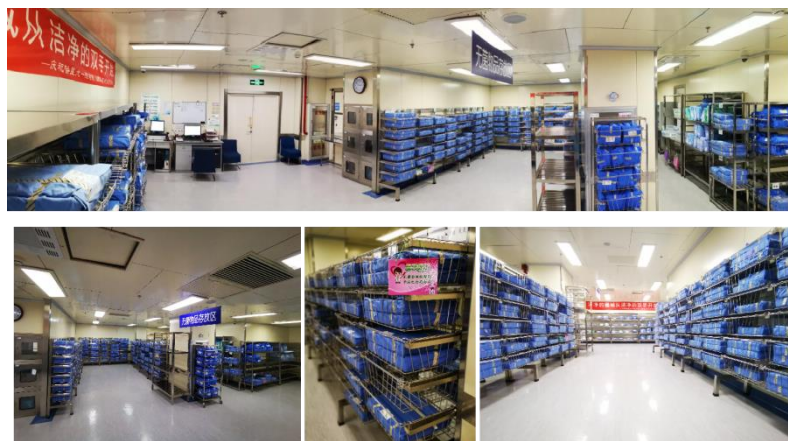


Figure 18

My mission is to cooperate with doctors to overcome the disease, and the mission of the nurses in the CSSD is to ensure my sterility and function. The three barriers, namely physical monitoring, chemical monitoring, biological monitoring are made to ensure sterility and safety.

In this battlefield without gunpowder, we are all the bravest fighters. To fulfill our mission, we stick to it!



**Figure 19**

In the past one year, the CSSD has been working 24/7, completing the task of 37408 times of receiving instruments, 1,694,035 instruments cleaning, 65,619 packages for inspection and packing, 29,003 packages of loaner instruments, 13212 loads of sterilization, 59163 times of instrument delivery and 17,508,087 disposable items distribution. A total of 169,100 non-sterile masks in the hospital were sterilized during the epidemic.







Figure 20-26

On this special day, all the staffs of the CSSD of the First Affiliated Hospital of Harbin Medical University welcome you to come into our work place and care about the safe reprocessing of instruments. Thank you for watching.



Figure 27