



Mongolian Emergency Service Hospital Hygiene Project

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Report on the reprocessing of surgical instruments in CSSDs of local hospitals in Ulan Bator

Second Central Hospital
visited from 14 to 18 September 2015

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Background

As seen in other hospitals of Ulan Bator, Second Central Hospital is confronted with several (partly profound) problems concerning important areas which are crucial for the success of patient-centered care. In earlier visits as well as during the last visit these problems have been identified in the OR and the CSSD:

OR

- Employees do not stick to the regulations concerning hospital hygiene, e.g. the wearing of surgical caps.
- Instruments used for laparoscopic surgery have been repaired utilizing non-medical spare parts or are not-functioning.
- Cables used in combination with laparoscopic instruments for high-frequency surgery have been repaired utilizing non-medical components (in this case cement and duct tape), therefore increasing the risk of an electric shock.
- A contaminated laparoscopic endoscope was cleaned manually after one operation and used unsterile for the next patient.
- Sterilized medical devices are stored openly in the corridor.
- The storage is unorderedly.

CSSD

- Employees do not stick to the regulations concerning hospital hygiene, especially the taking off of jewelry or the using of mobile phones.
- Due to a missing spatial division in cleaning and disinfection area, production/clean area, and sterile/consignment area, the risk of cross-contamination is very high. Moreover, employees use to prepare lunch in highly contaminated areas.
- Chemicals used for manual processing of medical devices are often prepared incorrectly; exposure time for disinfection is seldom complied with.
- The kitchen heat sealing devices are not appropriate devices for sealing pouches.
- Neither an empty cycle nor a Bowie-Dick test is run in the steam sterilizers prior to regular loadings.
- The Textiles and containers used for sterilization of medical devices are not suited for maintaining sterility.



With the above mentioned in mind, a supervision of the processing of medical devices in the CSSD of Second Central Hospital took place from 14 to 18 September 2015, aiming at the establishment of standardized work flows. To help to achieve this goal, donations amounting to €250.000 have been given over to Second Central Hospital. The donations included:

- Surgical Instruments
- Mesh wire and plastic baskets for surgical instruments
- Heat sealing devices
- Medical packaging (sterilization wrapping and pouches)

After conversations with the medical staff, 11 instrument sets have been generated from the donated surgical instruments. Before these were circulated, employees of the CSSD received trainings on process relevant topics.





Trainings

Trainings were conducted to help employees get a better comprehension of the processing of medical devices in a CSSD and to address potential weaknesses in the work flow. Subjects were as follows:

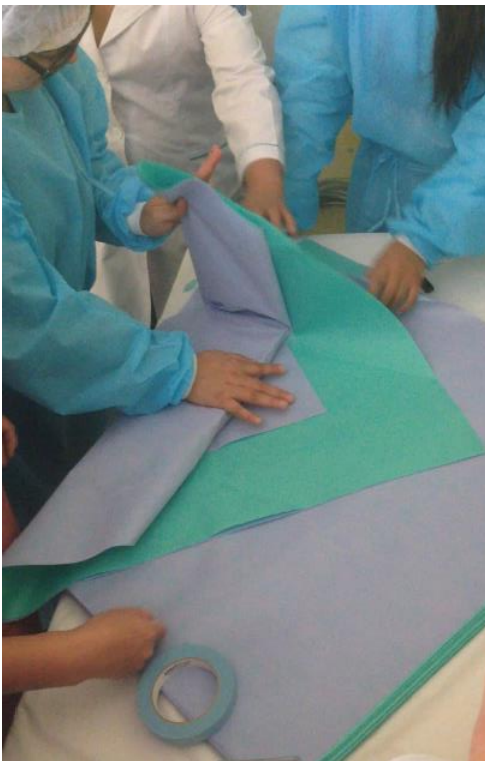
- **Hand disinfection:** as a protection and part of a proper hygienic concept, hand disinfection was trained with the employees. It was stressed that compliance with hygienic regulations (especially concerning the wearing of jewelry and use of mobile phones) is essential.
- **Spatial division:** to prevent cross-contamination during processing, other rooms of the CSSD were converted to achieve spatial division.
- **Manual cleaning and disinfection:** employees were shown how to correctly prepare cleaning and disinfection solutions with cold water in terms of concentration and exposure times.
- **Surface disinfection:** the correct disinfection of surfaces using Incidin was shown. Disinfection intervals were set to the start and end of work, and if necessary.
- **Instruments care:** the punctual use of a suited steam-permeable lubricant was shown.



- **Heat sealing devices:** the proper use of a suited heat sealing device was presented, including specifications for the width of the heat-sealed joint as well as the space between instrument and heat-sealed joint and the space between the latter and the upper edge of the pouch.



- **Daily tests prior to regular sterilization:** employees were told that an empty cycle and a Bowie-Dick test have to be run in advance to regular loadings for the steam sterilization process. By this, it can be ensured that the sterilizer is at operating temperature and the evacuation functions accurately.
- **Medical packaging:** diagonal folding of wrapping as a common folding technique was presented to the employees. Also, the use of disposable production labels for retracing purposes was shown.



Implications and further steps

During the next visit, compliance with the now set-up procedures and more improvements will be examined. Further steps will include training for assembling and disassembling laparoscopic instruments and reprocessing of flexible endoscopes. Besides, handling of surgical instruments in ambulances and preparation for transfer to the CSSD will be looked at.

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