The Optimized Design and Application of Sterilization Effect Monitoring Trace
Record Sheet of Steam Sterilizer

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Application 1 of Record Sheet
- The safety check of sterilizer: includes checking time, the flexibility of safe lock of cabinet door, smooth and no damage of seal ring of cabinet door, whether the pointer of pressure gauge point to the zero, the flexibility of safety valve, the situation of drain, the smooth of exhaust pipe. The record sheet is completed before turning the sterilizer.

Application 2 of Record Sheet
- B-D test
  - B-D indicator strip
  - B-D test equipment

B-D test is used for the effect of air-removal of pre-vacuum sterilizer.

Application 3 of Record Sheet
- Physical monitor
  - The key parameters are monitored by automatically control system in sterilizer.
  - Temperature: 132℃~134℃
  - Time: 4min
  - Pressure: 0.05 Mpa

If the item can’t be released if the physical monitor is not qualified.

Application 4 of Record Sheet
- Chemical monitor
  - The chemical indicator monitoring is the most common method used by hospital, determine the result by the color change of indicators.

Application 5 of Record Sheet
- Biological monitor
  - Biological monitoring is a kind of monitoring technology that uses live microorganisms spores to monitor and challenge the sterilizer, which can directly reflect the sterilization equipment and sterilization quality. The aim of sterilization is to kill the microorganisms, the biggest challenge during sterilization is from the most resistant spores.

Conclusion
- Sterilization effect monitoring is the only method which evaluate the sterilization equipment function, the sterilization cycle option, and the sterilization quality. According to the requirement of WS310.3-2009, the monitoring information should be kept for over 3 years. The previous separated monitoring information is hard to be kept and checked.

- The opposite of the record sheet is the registering record of sterilized items of every load, once the sterilization failed, the unused item can be returned rapidly by the sterilized item registered record and sterilized again. Also the patient who used the unqualified item can be traced, clearly observed and medical treated, which reduce the risk to the minimum level.

- Double people check the sterilization quality to ensure the quality of every working step.

Result
- After used for 2 years, it is convenient to record, and the monitoring information is complete, easy to check. The monitoring that can improve the sterilization quality is the assurance of the sterilization quality, which is why it’s popular with practical nurses.

Application 4 of Record Sheet

The method and content of design
- Put the multiple monitoring record on the one record sheet for the daily monitoring record of sterilizer, the record sheet has two sides:

1. The record on the front side:
   - Daily safety check of sterilizer
   - B-D test
   - Physical monitor
   - Chemical monitor
   - Biological monitor

2. The record on the reverse side:
   - The department, name and quantity of sterilized items of each load