At first, Dräger could help in Magdeburg with a clear, external view on the processes and, thus, with their consulting services. In a project group with representatives for care, hospital hygiene, quality management and purchasing, the actual situation was analysed in several workshops. The result: The heterogeneity of systems and devices is a disadvantage in the operating theatres in the Hospital Magdeburg and, as another factor, the preparation of reusables ties up capacities and provokes costs. In cooperation with Dräger, an overall concept for the preparation of an anaesthesia workplace was developed for the hospital at the Elbe. The standard defines which replacement procedures and cleaning steps are to be taken at which time. These procedures include the mandatory replacement of the mechanical bacteria filter after each patient, a daily wiping disinfection with enduring disinfectants and a weekly replacement of the hose system, including the breathing bag. The anaesthesia management and hygiene department trained the new preparation concept with the staff and Dräger performed simultaneous, specific product trainings, e.g. on filters, airway conditioning and non-invasive ventilation.

Mighty oaks grow from small acorns: The Hospital Magdeburg is growing continuously and, thus, recently added the dermatology department which needed an operating theatre. This meant the room for the preparation of anaesthesia devices in the OR section of the hospital had to be moved. This raised the question where to prepare the anaesthesia devices for the 735-bed hospital from now on. The internal sterilisation department was already working at full capacity. Another factor was the use of different OR anaesthesia device technologies and systems which led to additional effort for purchasing, handling and hygiene. At the same time, the issue of hygiene was given higher priority in the teaching hospital of the Otto-von-Guericke University - not least because of increasing legal requirements.

„Our initial situation was complex“, Annette Wöllmer, overall management central surgical care, summarises. „The issue was to meet several requirements at once.“

Looking for a solution for the 12 operating theatres, the Hospital Magdeburg consulted Dräger as their supplier. Dr. med. Christiana Hesse, chief physician for anaesthesia: „We gratefully accepted the support and guidance of external suppliers during the past years, as we learned a new perspective on things which helped us to also improve processes in our area."

At your side in
Brigitte Hecht, head of centralised purchasing in the Hospital Magdeburg: „The processes are an important criterion from the purchasing point of view, as new processes and products help to simplify work steps which is an advantage. It is important to stay on top of the events.”

The purchasing manager has also learned from the OR standardisation project that a correct and need-based use of disposables has a positive effect on the overall process which adds up to a positive cost balance. Hecht states: „Disposables are more favourable than reusable products.”

All those involved give a positive summary of the new standards, one year after the implementation in Magdeburg.

As part of the concept, it was planned to monitor and verify the events from the beginning. Nine months after implementation, smear tests at the devices showed a significantly reduced bacterial count, reports Annette Wöllmer, overall management central surgical care.

Hygiene specialist Ute Schultze confirms: „Tests of the surrounding showed very positive results which proved us right to use disposables, with respect to labour organisation and hygienic aspects.”

To her it is clear that the achieved is not the end but has to be proceeded. Further processes shall be analysed and optimised, preferably with multiple benefits.

Key to the new standard on the preparation of anaesthesia workplaces, reusable materials have been replaced by disposables. The accessories of the anaesthesia device have been replaced by a complete portfolio of disposables, such as hose systems and masks, the breathing bag and the CO₂ absorber. The goal of this strategy, from the hospital’s point of view, is to free up the sterilisation department by the increased use of disposables and also to meet the requirements on hygiene. As further advantage of this standardised process, each employee realises the preparation according to the same high standard, irrespective of his experience, which is a gain of safety for both the hospital and patients.

The preparation of anaesthesia devices is subject to strict rules.

The new preparation standard is published on the hospital’s intranet and is attached as a laminated document to the back of each device. It includes a „Maintenance plan“ which needs to be filled in by each employee after having prepared the device.

Chief physician Dr. Hesse: „The patient-related system change has brought great advantages over the past year. We do not need secondary rooms for preparation next to the OR anymore and the sterilisation department is no longer assigned with preparation, as we are able to prepare our anaesthesia devices fast, safely and efficiently on our own.”

Also the purchasing department gives a positive summary of the use of disposables instead of reusable materials in Magdeburg.
About the hospital:
The Hospital Magdeburg sees itself as leading acute care hospital in Saxony-Anhalt. In 21 clinics and institutes, about 1400 employees provide the entire range of medical care. The municipal hospital of Magdeburg also serves as teaching hospital for the Otto-von-Guericke University. It has grown continuously during the past years adding, amongst others, orthopaedics, plastic surgery and dermatology.

Dr. med. Christiana Hesse, chief physician for anaesthesia, underlines the anaesthetists’ planning sovereignty for the operating theatre. Optimised process flows are an important factor to increase the efficiency of the operating theatres. Suggestions and recommendations by suppliers are more than welcome. Christina Hesse attaches high importance to hygiene issues at the anaesthesia workplace, and states that it is as important for the anaesthesist as for the surgeon, as both need a sterile workplace when dealing with the patient.

Brigitte Hecht, head of centralised purchasing, emphasises that the aspects of ergonomics, process and work flows have an influence on purchase decisions of the Hospital Magdeburg. The price is only one criterion amongst others. Hecht states: „The least expensive is not the best.“ She values the use of disposables instead of reusable products with a positive cost balance, as disposables are a release for the employees, optimise the work flows in the units and increase the safety.
Ute Schultze, hygiene specialist, praises that the issue of hygiene is given more importance in the hospital operation due to the latest resolutions of the German Government and the recommendations by the Robert Koch Institute. This also sharpens the employees’ awareness for hygiene which has to be kept up as an issue, regarding the employees’ behaviour as well as the work flows and the product design. She appreciates that the Hospital Magdeburg uses disposables instead of reusable products for anaesthesia, as this improves the safety for employees and patients.

Annette Wöllmer, overall management central surgical care, reports how the Hospital Magdeburg wanted to meet several challenges with a reorganisation. The concept was to develop standardised OR processes for all employees which should shorten the preparation time of anaesthesia devices. Further aspects were the release of the sterilisation department and an improved hygiene. She perceived the project support by Dräger as very helpful, giving valuable information and impulses. The overall project results are very positive. Hygiene tests proved an improved situation and also the other goals to be realised.