

CASE STUDY

Weiden Hospital

Cost savings thanks to coordinated processes
and deconex[®] quality products



Weiden Hospital

High quality & expertise: the guarantee of safety and well-being

As the largest medical care provider in the network of hospitals in the Northern Upper Palatinate region and as a teaching hospital to the University of Regensburg since 2002, the hospital consistently strives to deliver high quality and expertise. This is also evident from the facilities in the CSSD and the training given to its employees.

The Northern Upper Palatinate network of hospitals comprises six facilities, two of which have a CSSD, with the largest of these at the hospital in Weiden.

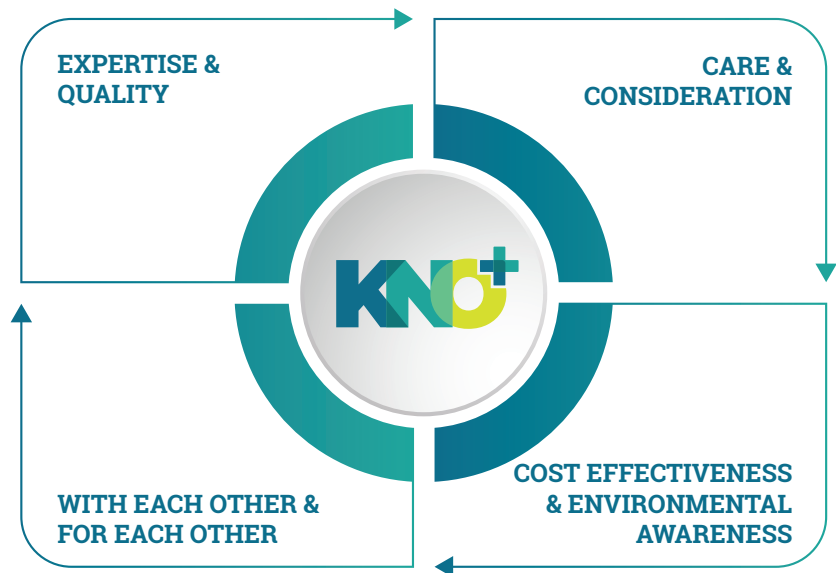
Weiden Hospital has delivered expert medical care since 1889. However, a lot has changed in the more than 130 years since opening: where initially one doctor looked after the patients with the help of two nurses in a 30-bed facility, now the hospital has around 1,800 employees and looks after some 70,000 patients.



Investing in the future

Rising numbers of operations, the introduction of new surgical techniques and contracts with other providers for the reprocessing of medical devices meant that the decision was made in 2018 to refurbish the existing CSSD and equip it with modern equipment, including a chemistry management system. The updated department went into operation in 2020.

With this refurbishment, the hospital was keen to simultaneously break new ground, with new reprocessing processes being put to the test a year earlier. High instrument repair, as well as personnel costs for pre- and post-cleaning drove this change.



Guiding principle

One of the four tenets of the Upper Palatinate hospitals' mission statement is "Expertise and Quality". This is defined in the supply mandate in four points:

- Ensuring and improving the quality of patient care
- Ensuring needs-based, timely deliveries
- Ensuring the quality and availability of the instruments
- Further development of the QM system to ensure and optimise processes

Facts and figures

The CSSD at Weiden Hospital sets itself extremely high standards. With 1,600 sets from different disciplines available in the inventory, about 85,000 STUs (sterilisation units) are produced per year. In addition to reprocessing for the hospitals in the hospital network, together with Kemnath Hospital, which also has its own CSSD, reprocessing is carried out for a further 110 or so external customers (hospitals, medical care centres and practices). This also includes medical devices of the Critical C risk class. Weiden is also the only CSSD in southern Germany that carries out the reprocessing of da Vinci instruments for external institutions.

These objectives can only be realised with a strong team, which is why training and motivation are top priorities. Of the 26 staff members, 22 of whom are full-time employees, both the manager and the head of the department hold the FK (specialist knowledge) III qualification, including endoscopy expertise, two other staff members hold the FK III qualification, eleven hold the FK II and some hold additional qualifications. Other colleagues have completed or are planning to complete FK I course. The head of department at Kemnath holds the FK III, while the department's employees all hold the FK II. An extremely high level of training is thus guaranteed.



As in sport, the team needs strong leadership. Kordula Hoffman started in Kemnath 12 years ago. After one and a half years there, she took over the management and moved to the larger CSSD in Weiden as head of department in 2017. She has been the head of the CSSD there for three years.

Analysis of the current situation and relaunch

Analysis of the current situation

In the course of the refurbishment and procurement of new double-chamber washer disinfectors, including the supply of chemistry via a management system, the entire reprocessing process was analysed.

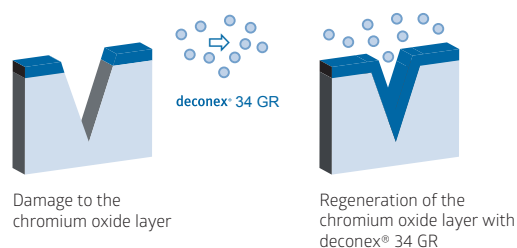
This revealed that instruments repeatedly showed discolouration and stains. Deep cleaning had to be carried out at regular intervals, with correspondingly high personnel costs. Due to the longer waiting times of the instruments from external facilities, a high level of effort was also required in the pre- and post-processing of the instruments. Re-cleaning necessary.

To support this analysis of the current situation, an external partner, Borer Chemie Deutschland GmbH, was brought on board in October 2018. The product and process specialists from Borer Chemie tracked and followed the instruments from the operating theatre to the autoclave. After consultation with all stakeholders, solutions and updated working practices were implemented upon the findings and recommendations of the Borer Chemie team.

It transpired that instruments were repeatedly showing discolouration and stains.

Deep cleaning/passivation

Discolouration/stains on instruments and washer disinfectors can have many causes: the water, the steam, the chemicals, the treatment process or a mix of all of these. From a hygiene point of view, discolouration/stains are not always a primary problem, but an assessment of whether something is clean or not often cannot take place at all and this can present a hygiene risk. For this reason, Weiden has a zero tolerance policy towards this type of contamination. Some of the deep cleaning carried out was very cost-intensive and had no longterm effect or success.



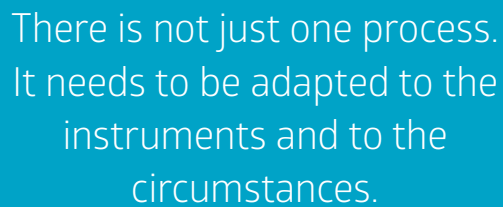
deconex® 34 GR quickly removes all iron compounds and other corrosion-promoting trace metals on the surface of the material.

deconex® 34 GR, as a powerful oxidising agent, promotes the formation and/or reinforcement of the protective layer of chromium oxide and improves corrosion resistance.

The fact that Borer Chemie not only offers a specialist product (deconex® 34 GR) with accompanying, fully optimised process for the deep cleaning of instruments, but that in a second step passivation, and thus protection of the instruments can also take place, was all the more pleasing.

As a first step, this deep cleaning/passivation was the start of a new era at Weiden.

Analysis of the current situation and relaunch



There is not just one process. It needs to be adapted to the instruments and to the circumstances.

Process optimisation

There is not just one process. It must be adapted to the instruments, if necessary to the service life and their contamination, as well as to the chemistry used. Ultimately, there had to be optimised coordination of all the parameters from the Sinner Circle.

Another item on Weiden Hospital's wish list was that the process for all medical devices - whether standard surgical instruments or da Vinci - had to have optimised material compatibility and safety. Moreover, the staff on the "dirty" side should be relieved by workflow optimisations in pre- and post-cleaning.

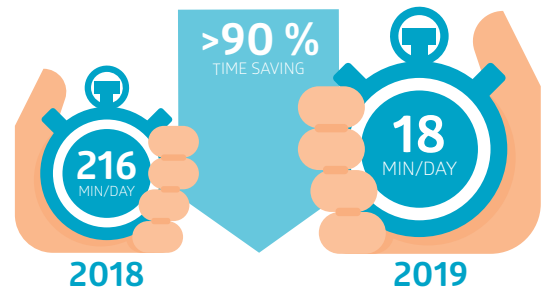
By using the deconex® TWIN PH10/TWIN ZYME 2-component cleaning system in combination with a corresponding process, it was possible to fully meet Weiden Hospital's needs and expectations.

Results after one year

As a certified department, the CSSD at Weiden records many statistics. This includes, amongst others, the allocation of their employees for special activities, repair work, etc.

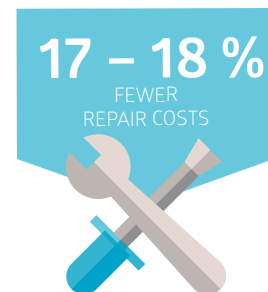
Time saving of > 90%

For pre- and post-cleaning of instruments, a demand of 3:36 hours/day was determined before the process changeover to Borer Chemie. This meant that one half-day employee was fully occupied with these tasks. More than a year after the changeover, the picture is completely different: due to the chemistry and process change and optimisation, the time required is now only 18 minutes/day, a time saving of over 90%. Added to this are the saved costs for the reduced use of manual chemistry.



Reduction of repair costs

As patient safety is one of the primary objectives, there has always been zero tolerance for stains/marks. Instruments were sent to the repair service if there was even the slightest concern about rust. The process of deep cleaning/passivation with simultaneous conversion of the entire reprocessing process reduced repair costs by 17 to 18%.



Customer satisfaction

Internal statistics are one thing, but how do the customers see it? The Weiden CSSD works with 110 facilities for whom instruments are processed every day. In order to get regular feedback from the outside, a customer satisfaction survey is conducted every two years. In 2020, the theme was "Reprocessing quality". The result is first-rate: 81% rated it as very good, 19% (response rate 70%) as good. The department can be proud of this result.



Summary

« We would take this step again at any time. »»

“We would take this step again at any time,” said Kordula Hoffmann. “We opted for a machine-based, 2-component system, which at first glance was almost twice as expensive as our previous chemical setup.

Nevertheless, we are saving on the bottom line. The immense reduction in pre- and post-cleaning of more than 90%, the savings in chemical costs due to less use of the manual cleaning agents and the reduction in repair costs far outweighed these additional costs. And this doesn't even include the costs for the deep cleaning that was originally carried out on a quarterly basis! And there is another added value, namely the motivation of the employees, who are relieved of activities that are hazardous to personnel.”



A strong team: the staff of the CSSD at Weiden Hospital.



Borer Chemie AG
Gewerbstrasse 13, 4528 Zuchwil / Switzerland
www.borer.swiss

