



endoNEWS

Best Practice: Reprocessing of Endoscopes



Dear readers,

Like you, we are facing new challenges in our daily lives. "Never change a running system", as the saying goes – but Dr. Weigert has an innovative streak and a desire for constant optimisation. The weigomatic® system ALPHA X dosing system is the latest example: see page 1. The Jewish Hospital in Hamburg trialled the system for three months and was impressed. You can read all about the field test and the experiences of Arite Thiele from Strategic Purchasing, and David Jesse, Deputy Head of Endoscopy, on page 2.

Innovations and changing requirements are not the only defining elements of our daily lives – the reliable old routines play their part, too. That's why you'll find lots more useful information on hand disinfection in this edition. Nils Andersen, Physician Assistant at the University Medical Centre Hamburg-Eppendorf, explains the daily routines before and during endoscope reprocessing on pages 3 and 4.

Enjoy the newsletter!

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DR. WEIGERT

Systematic Hygiene

neodisher® system ALPHA – Space-saving dosing solution is now even more innovative

Dr. Weigert Dosing System Works Efficiently and Safely

neodisher® system ALPHA stands for innovative dosing technology combined with (highly) concentrated process chemicals and the complete Dr. Weigert service. The space-saving system has been developed by Dr. Weigert in order to offer an optimum solution to the special requirements and daily challenges in automated instrument reprocessing in the CSSD.

Dr. Weigert is constantly evolving

The success of the first generation shows that Dr. Weigert has fulfilled customers' requirements in every respect. These positive results have motivated Dr. Weigert to optimise the system continuously so that the next generation can offer an even larger target group new potential for automated reprocessing.

From January 2022, several versions of the new-generation weigomatic® system ALPHA X dosing system will be available to endoscopy departments and doctor's surgeries for endoscopy in addition to the CSSD.

Impressive field test

The Jewish Hospital in Hamburg was impressed by the concept of the new-generation weigomatic® system ALPHA X, which is also available in an extra-small variant (XS), and agreed to a three-month field test. Now that this field test is complete, we are delighted to report that the endoscope reprocessing team at the Jewish Hospital in Hamburg didn't want to hand the dosing system back! This was a great opportunity for the endoNEWS editorial team to drop by and ask how things have been going. Read more on the next page.



The new-generation weigomatic® system ALPHA XS

weigomatic® system ALPHA X is the right choice in the following cases:

- You want to be absolutely certain that the right process chemicals as per DIN EN ISO 15883 4 are always used.
- You are planning to expand your endoscope reprocessing but don't have enough space for a central dosing unit with drums.
- You want RFID-supported batch documentation for transparent monitoring and to increase quality standards.

Author: Jacqueline Treutner

Fancy a field test?

If you would like to try out the new weigomatic® system ALPHA X dosing technology too, you're welcome to arrange a free consultation with your neodisher® specialist advisor, or contact us at: info@drweigert.de

Testimonial on the use of the weigomatic® system ALPHA XS

Testimonial of the Jewish Hospital in Hamburg



The endoscopy department of the Jewish Hospital in Hamburg (Israelitisches Krankenhaus Hamburg) has been working with a Dr. Weigert dosing system for several years now. Arite Thiele (Strategic Purchasing) and David Jesse (Deputy Head of Endoscopy) are pleased with the neodisher® system ALPHA XS both for economic reasons and in terms of the smooth workflow.

They tell us about their experiences in the following interview.

Mr Jesse, how many endoscopes do you reprocess each day in your unit?

David Jesse (DJ): We reprocess 30 to 40 endoscopes per day. These are gastroscopes, colonoscopes, duodenoscopes and bronchoscopes as well as endoscopes for endosonography.

How many washer disinfectors do you use to reprocess the endoscopes?

DJ: We work with four washer disinfectors and use the process chemicals neodisher endo® CLEAN and neodisher® endo SEPT GA (glutaraldehyde). All four washer disinfectors are supplied by a single dosing system. The storage vessel is located between the first and second machines, and the machines take the process chemicals from the respective buffer tank.

How long have you been using the weigomatic® system ALPHA XS for?

DJ: For about five months.

Ms Thiele, what prompted you to switch from the weigomatic® endoDOS, the first Dr. Weigert dosing system for endoscopy, to the weigomatic® system ALPHA XS?

Arite Thiele (AT): Initially, it was for legal and operational reasons: The main reason is the improved non-interchangeability. With the transponder system, it is impossible to use the wrong process chemicals in the new system. During validation, it also became apparent that the standard DIN EN 15883-4 requires a system that goes beyond colour coding.

We also wanted the canisters to be completely emptied. Residual amounts had to be discarded, causing unnecessary costs. In addition, disposing of the empty containers is more expensive if they still contain process chemical residues.

Are you happy with the handling?

DJ: Work with the weigomatic® system ALPHA XS is smooth. I can give the system 10 out of 10. We never had an “unjustified” error message. Mind you, nor did we ever have a situation where someone triggered an error message by setting the canisters incorrectly.

We particularly like the fact that we can maintain uninterrupted operation of the washer disinfectors even if a canister is empty. In these cases, the dosing system reports an empty canister. However, there is still enough medium left in the buffer tank. So, we have more than an hour until the canister really needs to be replaced. Without the dosing system, we often lost 20 to 25 minutes after an empty alert.

Sometimes, the suction lances drew in air, and we had to run a venting program first. That doesn’t happen anymore.

AT: From an operational perspective, we now have significant process improvement. We don’t have to resign ourselves to lost time after a “canister empty” alert.

A day’s supply of canisters is in place right next to the dosing system, so there is no transit time involved in replacing canisters. This small stock can be replenished once a day with no time pressure.

Are the canisters really completely empty?

DJ: The amount left over is low. We estimate that around 2 to 3 ml remains in each canister. This is much less than before, when we sometimes had 200 to 300 ml remaining.

Does the dosing system take up an acceptable amount of space?

DJ: All four washer disinfectors are supplied from a single dosing system. The dosing system is installed in a base cabinet next to a washer disinfectant, while we have placed the buffer tanks as close to the washer disinfectors as possible. We have positioned the system in such a way that it doesn’t impede our day-to-day work.

The interview was conducted by Guido Merk.

Daily hand hygiene in endoscopy

Performing hand disinfection at the right moment

Against the backdrop of the COVID-19 pandemic, a rise in nosocomial infections and resistance to antibiotics, measures to break the infection chain are more important than ever. Hands are the main mode of transmission of pathogens between medical staff and patients. That's why hand hygiene, and hand disinfection in particular, is so crucial. The main objective of hygienic hand disinfection is to remove transient flora. In everyday clinical practice, this can achieve a 2–3-log reduction in the amount of bacteria on the hands.¹

Knowledge of the situations in daily clinical practice where hand disinfection is required is essential to effective prevention of pathogen transmissions. Due to the wide range of indications, the WHO (World Health Organization) created a model that can be used to assign each everyday patient-care situation to one of 5 groups: “My

5 Moments for Hand Hygiene”² (Sax et al. 2007).

These 5 indication groups are applicable in all areas of healthcare and help to correctly identify situations where hand disinfection is required. The content of the model complies with the hand-hygiene recommendations of the Robert Koch Institute (RKI).³

Hand disinfection should be carried out:

- before putting on disposable gloves
- after removing disposable gloves
- after going to the toilet

In this article, I would like to take you through a normal working day in an endoscopy department and point out the times for hand disinfection as per current recommendations and guidelines.

Start of the working day

Hand washing is recommended before starting work and, if applicable, on finishing work.

Hand disinfection is also advised when entering the department. When performing procedures that require hygienic hand disinfection, none of the following may be worn on the hands or forearms:

- jewellery
- rings, including earrings
- watches
- piercings
- artificial fingernails
- friendship bracelets
- etc.

Fingernails must be short and cut round, and they should not extend beyond the fingertip. Varnished fingernails can jeopardise the success of hand disinfection. That's why a decision on whether to go without nail varnish must be made in the risk assessment.⁴ This recommendation is understandable. For instance, Gupta et al. 2004 demonstrated a link between wearing artificial nails and nosocomial outbreaks.⁵

Taking the endoscope out of the endoscope cabinet

People often ask: “Do I take the endoscope out of the endoscope cabinet with disinfected hands or gloves?”. Regarding this, I'd like to endorse the statement made by Prof. Günter Kampf in the 2 June 2021 edition of endoNEWS: The decision on whether to take out the device with disinfected or gloved hands is made after a local risk assessment. In the case of used gloves, the amount of perforations increases with wear and the number of tasks performed. By implication, even macroscopically impermeable gloves can be permeable to viruses and bacteria. Therefore, hand disinfection is absolutely essential even after wearing medical gloves.



Fig. 1: Graphic representation of the WHO model: “The 5 Indications of Hand Disinfection”, taking into account the immediate and extended patient environment. Based on the WHO “Your 5 Moments for Hand Hygiene”, www.who.int/gpsc/5may/Your_5_Moments_For_Hand_Hygiene_Poster.pdf ©World Health Organization 2009, all rights reserved

CAUTION:

Gloves alone do not provide full protection against hand-borne contamination. Gloves are not completely impermeable and may develop microperforations during use, especially if exposed to heavy mechanical loads. In addition, hands can become contaminated during the process of removing the gloves.⁶ Gloves are therefore no substitute for hygienic hand disinfection.

In the examination room

The WHO model, adapted to procedures in endoscopy, is described in a training article by the Germany-wide hand-hygiene promotion campaign “AKTION Saubere Hände”, based on the example of gastroscopy. For the purpose of clarity, examples are shown in a table here:

Procedure	Indication for hand disinfection according to the WHO
Before welcoming the patient	Possible indication 1: Before patient contact
Before inserting an intravenous catheter	Indication 2: Before aseptic procedures
After disposing of materials for applying the intravenous catheter	Indication 3: After contact with potentially infectious materials
Before applying pulse oximetry and PR cuff	Indication 1: Before patient contact
Before subsequent documentation of figures	Indication 4: After patient contact
Before putting on PPE prior to the examination	Indication 2: Before aseptic procedures
After removing PPE	Indication 3: After contact with potentially infectious materials
If further materials/accessories are required during the examination:	
Before taking items out of the cabinet › remove gloves and disinfect hands	Indication 3: After contact with potentially infectious materials
Before putting on new gloves and handing over the instrument	Indication 2: Before aseptic procedures

If you need to go to the toilet or your hands are heavily soiled during the working day, coarse contaminants must be removed beforehand using a cloth soaked in disinfectant. Then wash your hands thoroughly and dry them very thoroughly before disinfecting them.³

Post-processing and reprocessing of the endoscope

I would like to refer once again to the article in the 2 June 2021 edition of endoneWS by Prof. Günter Kampf entitled “Hand disinfection in the reprocessing of flexible endoscopes”.

Summary

Hands are the main mode of transmission of pathogens between medical staff and patients. Hand disinfection is the easiest and most important method for protecting patients against nosocomial infections with potential pathogens. The hand-disinfection process is easy and takes just 30 seconds. It is not appropriate to make it even shorter. Although it is quick and straightforward, hand disinfection is carried out by medical staff in just half of the requisite situations. There are various reasons for this lack of compliance; however, they mainly stem from the confusion over the many situations in which hand disinfection is required. The WHO model is an effective and practical aid in identifying the 5 main indications here.

Don't be swayed by stress or time pressure – be a role model!

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Dates

November–January 2022
(As at: 08 November 2021)

- **endo-update 2021, Augsburg**
25–27 November 2021
- **Dr. Weigert webinar:** (Language: german)
Safe handling of process chemicals for reprocessing of flexible endoscopes
26 January 2022

Registration is now possible with the adjacent QR code or at:



<https://www.edudip.com/de/webinar/sicherer-umgang-mit-prozesschemikalien-und-minimierung-von-risiken-in-der-endoskopie/1670740>

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