Global NEWS
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"NAMASTE"

[GREETINGS WITH FOLDED HANDS AND OPEN HEARTS]

from the land of "Unity in Diversity": India

India is one of the world's oldest civilizations. Over the centuries, there has been significant fusion of cultures between Buddhists, Hindus, Muslims (Sunni, Shia, Sufi), Jains, Sikhs and various tribal populations in India. India is one of the most religiously and ethnically diverse nations in the world, with some of the most deeply religious societies and cultures.

India is the second most populated country in the world with nearly a fifth of the world's population and is projected to become the world's most populous country by 2022. Not only does it have a rich cultural background, but also one of the most ancient histories of medical practice.

Growing Need for Medical Services

Due to the ever growing Indian population, the need for medical services is growing but unfortunately, as there is no state-run insurance, the expenses incurred for medical reasons are at times beyond the means of a common Indian. The popularity of health insurance in India is low by international standards. Also private health insurance schemes, which most insurances are based on, used by the population, do not cover costs of consultation or medication. Even though there are various state-run university hospitals as well as charity hospitals which have world-class doctors, experts and facilities, the poor are left with only few options to access healthcare services.

According to the National Family Health Survey, the private medical sector remains the primary source of healthcare for 70% of households in urban areas and 63% of households in rural areas. The reliance on public and private healthcare sectors varies significantly between states. Most of the public healthcare caters for rural areas; the poor quality arises from the reluctance of experienced healthcare providers to visit rural areas.

The Private Healthcare Sector

With the help of numerous government subsidies, private healthcare providers have entered the market. The opening of the market in the 1990s gave further impetus to the development of the private health sector in India. Most of the healthcare capacity added after 2005 has been either in the private sector or in partnership with the private sector. Following the 2014 election, which brought Prime Minister Narendra Modi to office, his government unveiled plans for a nationwide universal healthcare system known as the National Health Assurance Mission, intended to provide all citizens with free drugs, diagnostic treatment, and insurance for serious ailments.

Private healthcare providers in India typically offer high quality treatment but there is no regulatory authority or statutory neutral body to check for medical malpractices. India has 28 JCI (Joint Commission International) accredited hospitals. Medical tourism is a growing sector in India: It is projected to grow to $ 7–8 billion by 2020. According to the Confederation of Indian Industries (CII), the primary reason that attracts medical value travel to India is cost-effectiveness, and treatment from accredited facilities at par with developed countries at much lower cost. The Medical Tourism Market Report 2015 found that India was "one of the lowest cost and highest quality of all medical tourism destinations, it offers a wide variety of procedures at about one-tenth the cost of similar procedures in the United States."

Reprocessing of Instruments in India

The first hospital opened in India was in 1664: The Madras General Hospital (popularly called GH). The first Central Sterile Supply Department (CSSD) was established in 1965 in Safdarjung Hospital, Delhi. In the meantime, many of the private as well as public sector hospitals have a CSSD. Though, not all of these institutes have a CSSD as in most of the hospitals; the cleaning of the instruments is done within the Operation Theatres (OTs). The majority of cleaning is done using manual processes, either a soaking tray or ultrasonic systems in such set ups. With the advancement of technologies and the introduction of the Hospital Accreditation systems, the private sector is marching towards automation in terms of washer disinfectors. A lot of work is done by the hospital managements, infection control committees, CSSD managers as well as by the major players like Johnson & Johnson, 3M, and Dr. Weigert in spreading the importance of hygiene and cleaning amongst hospital staff. This is usually done by organizing Continuing Medical Education Events (CMEs), arranging demonstrations and having departmental get-togethers.

By now, CSSDs have started working towards achieving global standards. Lately, 3 CSSDs in India got honoured by the Asia Pacific Society of Infection Control. Improvement is notable. Nevertheless, there is still a long way to go.

DR. WEIGERT
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Preventing Deposit Formation due to Inadequate Process Water

A secure and reproducible reprocessing of medical devices is only possible when considering the entire treatment cycle. Preventing corrosive impacts, residues, deposits, stains etc. is only possible if all parameters (especially water qualities) are considered for both manual and automated reprocessing.

All kinds of natural water contain solved salts. Share and type of the compounds fluctuate and depend on the origin and extraction of water. Different qualities of drinking water can, depending on the water hardness, lead to tenacious limescale, for example.

The process water in use has a high impact on the quality of reprocessing and is important with regard to medical health protection and hygiene. Compounds of the water can be the reason for deposits, discoloration, as well as for corrosive surface alterations on the washed items and the washer disinfector. Thus, our technical recommendations for achieving optimal cleaning results always take into account the quality of the water used and a responding treatment of it if needed, besides other factors such as process chemicals, program cycles, and program parameters.

The working group for instrument reprocessing (AKI) recommends the following minimal requirements for water quality in the scope of pre-rinsing, cleaning, and interim rinse steps:

- total hardness: ‹ 3 °d
- total salt content / salinity: ‹ 500 mg/l
- chlorine content: ‹ 100 mg/l
- pH value: 5–8

For the final rinse, the use of demineralised water is recommended, while the values should meet the DIN EN 285 (sterilization – steam sterilizers – large sterilizers) requirements for feed water. An electrical conductivity up to 15 µS/cm counts as tolerable here.

EN 285-Requirements for feed water for steam sterilizers

Substance	Feed Water
evaporation residue	≤ 10 mg/l
silicate	≤ 1 mg/l
iron	≤ 0.2 mg/l
cadmium[a]	≤ 0.005 mg/l
lead[a]	≤ 0.05 mg/l
heavy metal residues except iron, cadmium, lead	≤ 0.1 mg /l
chloride[b]	≤ 0.5 mg/l
phosphate	≤ 0.5 mg/l
electrical conductivity (at 20 °C/68 °F)[c]	≤ 5 µS/cm
pH value (20 °C/68 °F)	≤ 5–7.5
appearance	Colorless, clear, no deposits
hardness (∑ of alkaline earth ions)	≤ 0.02 mmol/l

a The limit values correspond with the requirements for drinking water.
b The maximum concentration of chloride in the feed water in combination with high temperatures causes corrosion.
c Cf. European Pharmacopoeia.

In the field of water analysis, Dr. Weigert is the competent point of contact for hospitals, medical practices, and manufacturers of washer disinfectors when it comes to questions of cleaning, disinfection, and sterilization in the scope of reprocessing surgical or minimally invasive instruments as well as endoscopes. Besides the quality of water used in the field of cleaning and disinfection, there are also numerous samples of feed water and condensates from the area of steam sterilization being examined within the analytical laboratory to determine the ingredients.

Our water laboratory is accredited according to DIN EN ISO/IEC 17025. The quality of results at Dr. Weigert is secured by a competent and committed laboratory team with long-time experience working in a modern chemical laboratory equipped with state-of-the-art technology.

BEST PRODUCTS

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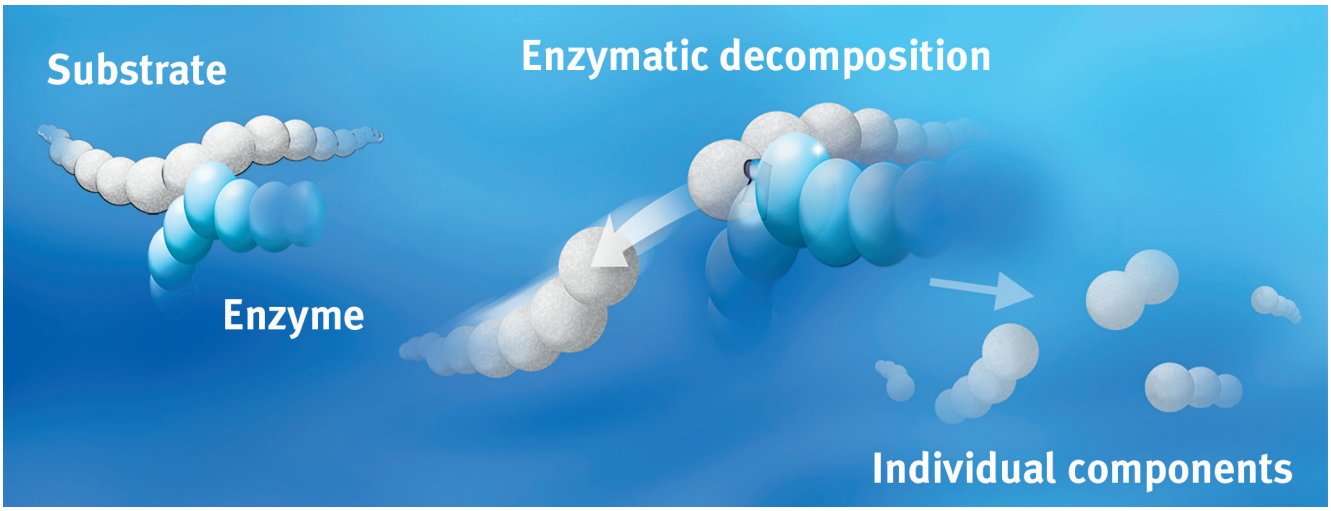

Active enzymes for manual instrument reprocessing

Enzymes work in accordance with the 'lock and key' principle:
each enzyme cleaves one specific substrate. Like a key, the enzyme's structure 'fits' one particular type of substance.

Our formula for success

The formula of **neodisher® MultiZym** combines three classes of enzymes, thus guaranteeing maximum cleaning power with a synergistic effect for all types of residue: protease breaks down proteins from protein residues, lipase removes fat-containing contaminants and amylase removes polysaccharides, for example from bronchial mucus.
The multi-enzymatic detergent is suitable for the manual cleaning of thermostable and thermolabile instruments, including laparoscopic and micro-instruments, dental instruments, flexible endoscopes, anaesthetic equipment, containers and other medical utensils in immersion baths and ultrasonic baths.

Application recommendation

Manual cleaning with normal levels of contamination:
1–2.5 ml/l, 15–50 °C, 2–10 min

Manual cleaning with high levels of contamination:
10–30 ml/l, 15–50 °C, 2–10 min

Manual cleaning in ultrasonic baths:
1–30 ml/l, 15–50 °C, 2–10 min

neodisher® MultiZym – the multi-enzymatic detergent for reprocessing thermostable and thermolabile instruments

Our **Competence** – Your **Benefit**

- first-class, residue-free cleaning performance
- multi-enzymatic formula with protease, lipase and amylase
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For further information on products and application please refer to the product data sheet (www.drweigert.com).

FURTHER INFORMATION

Exploring Latin America: Dr. Weigert in Santiago de Chile

Worldwide leading manufacturers in the hygiene and sterilization sector contribute to the organization and lectures that will be given. The conference aims to "teach and train the local CSSD staffs on the best practices in the reprocessing of medical devices," says Matias Pilasi, one of the organizing heads.

From Dr. Weigert, the microbiologist Verona Schmidt, head of the microbiological department and laboratory, is going to give one presentation about disinfection, and another about water quality, showing German practices and standards in this field. Other designated topics in the scope of the general programme will be cleaning and disinfection, material sciences of medical devices, surface changes of medical devices, care and maintenance of medical devices, local regulations, sterilization (steam and low temperature), sterile barrier systems and their properties, reprocessing of medical devices in the supply chain including process design (local adaptation), the quality of water and its influence on the reprocessing process, quality management and documentation in CSSDs and the validation of processes. Participants will additionally have the chance to visit a local CSSD structure in a reference point.

The event is seen as a perfect opportunity to get closer to the international state of the art concerning practices on the reprocessing of medical devices, because several European speakers will be present as well as attendants from Chile and other South American countries such as Brazil and Peru.

Further information: www.grupopye.com

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Please contact us if you have any questions or suggestions that you are interested to read about – we will gladly take your ideas into consideration!

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