## HYGIENE REGULATIONS AND SPECIFIC TASKS TO BE PERFORMED TO ENSURE THE SURGERY IS OPERATIONALLY EFFICIENT AFTER A PROLONGED PERIOD OF CLOSURE



Before a prolonged period of closure it is good practice to perform a specific set of pre-closure tasks. If, for whatever reason, they have not already been performed, it is recommended that they be carried out, in any case, before re-opening the surgery.

As you are aware, the goal of surgery hygiene is to prevent the transmission of infectious diseases from one patient to another, to surgery/dental lab staff, and vice versa.

These suggestions aim to make this goal as achievable as possible by ensuring the workplace is, upon reopening (when a further set of tasks is performed), ready and efficient from day one.

The main goal of these few tasks is to empty the tubing, making sure no water is left inside dental units and circuits.

Doing so prevents the formation of biofilm in the internal circuits of the equipment, thus limiting any proliferation of bacteria.

### WHAT HAPPENS WHEN A SURGERY OR CLINIC HAS TO BE CLOSED FOR A PROLONGED PERIOD?

Dental surgeries are considered biohazardous workplaces.

Numerous studies have demonstrated that dental unit water hoses/pipes are microbial agent (biofilm) reservoirs. The dental unit and its water system must therefore undergo several operations designed to reduce bacterial load, especially before prolonged periods of inactivity.

For these reasons, preventing contamination of the water in dental units and preventing any formation of biofilm in them is particularly important; this is equally true for autoclaves, which must therefore have their tanks emptied.

The goal is the same: to prevent proliferation of bacterial flora inside machines as much as possible, especially before prolonged periods of closure.



# LET'S NOW LOOK AT THE BASIC TASKS NEEDED TO ENSURE SAFE CLOSURE.

HERE'S A 10-STEP PLAN FOR SAFEGUARDING OUR EQUIPMENT



## Where dental units have automatic, semi-automatic or manual sanitization/disinfection systems, carry out the respective cycles as indicated in the user's manual.

If the dental unit is equipped with an independent spray feed tank (i.e. not connected to the mains water supply), it is recommended that it be emptied completely at the end of any cycle.

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Perform all the cleaning and maintenance tasks usually performed in the surgery at the end of the day; make sure **all surfaces are disinfected properly**.

As for the dental unit, always use products that comply with the manufacturer's instructions and ensure they are used correctly as per the instructions in the user's manual.

It is essential to respect the contact time shown on the disinfectant package and, once this time has elapsed, remove the disinfectant with a clean damp cloth before drying.

This minimises any potential on-surface aggression by the product, especially in the event of prolonged interruption of work, while ensuring effective sanitisation.





**Clean the suction filters** and, using the product recommended by the manufacturer, flush the suction circuit abundantly with lukewarm water by drawing from the "bucket" container.

Where there is an **automatic cannulae flush system** it is advisable - after completing the previous tasks - to empty the specific liquid from the tank, replace it with water and proceed with an additional flush cycle. Once the cycle is over, empty the tank.







**Lastly, run dental unit surgical suction for at least 3 minutes** to completely drain and dry the suction system.



Bring the patient chair to a position high enough to allow easy floor cleaning and assist discharge of the liquids in the internal dental unit tubing.



Switch off the osmosis system and drain it completely, if present. It is important to completely empty the storage tank and disinfectant tank (if the system is equipped with them).





**Close the water shut-off tap** for the **individual surgery**, if present:

- Run all the dynamic instruments and syringes to drain the water in the pipes/hoses until there is none left.
- Activate delivery of water to the cup until there is none left.
- Activate delivery of water to the cuspidor bowl until there is none left. Then pour in the water-liquid solution for surgical suction, diluted as per the manufacturer's instructions; this is to reduce the bacterial load in the discharge pipes inside the dental unit.



Close the main water tap.



**Drain the water system by opening all the basin taps** in individual treatment rooms and/or ancillary rooms.



#### Turn off the ELECTRICAL panel for each individual room.

It is advisable to leave the main surgery panel on to ensure operation of any other devices you wish to leave on (e.g. fridges for storage of compounds and medicines).



# HOW SHOULD I PROCEED WITH AUTOCLAVES?

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Proceed so that the tanks are empty, clean and dry (whether they contain clean or dirty water). To do this follow the **instructions** in the **use and maintenance manual.** 

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Clean the door seal.



Empty the ultrasound tank.



Empty the decontamination tank.

#### **OTHER TASKS.**

- 1. SWITCH OFF THE COMPRESSORS CONTROL UNIT.
- 2. FULLY DISCHARGE THE AIR COMPRESSORS IN THE TANKS.
- 3. SWITCH OFF THE SUCTION DEVICES CONTROL UNIT.

# TASKS TO BE PERFORMED WHEN REOPENING THE CLINIC

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#### IT'S TIME TO REOPEN THE SURGERY OR CLINIC.

How should I return water to the ducts and proceed with disinfection? We can answer this by applying the **5 minute rule**.

#### Disinfection must cover the following aspects:

Bear in mind that the dental unit water system could be contaminated by oral bacteria or germs in the water (generally known as pseudomonas aeruginosa or legionella pneumophila).

The germ population, already held in check by the tasks performed prior to closure, can be reduced further. How? Let water flow from all taps for at least 5 minutes.

LET'S NOW GO INTO MORE DETAIL **AND LOOK AT THE SEQUENCE OF TASKS TO BE PERFORMED AT** THE REOPENING PHASE AFTER A **PROLONGED PERIOD OF CLOSURE.** 

#### **SURGERY AND DENTAL UNITS**

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Turn on the main electrical panel in each surgery.

Switch on the compressors control unit.

Switch on the suction devices control unit.



Open the main water tap and individual surgery taps (if any).



If there is a centralised osmosis system, after turning it on and filling the tank with disinfectant (if it is part of the system), run water from the cuspidor bowls of all the units simultaneously for at least 5 minutes. Then proceed with reopening of the storage tank.



Run plenty of water into the basins.



Switch on each dental unit again and operate the cuspidor bowl and cup fountain, letting the water run abundantly.



Operate all dynamic instruments and syringes so fresh water arrives from the tubing.



Where the dental unit has automatic, semi-automatic or manual sanitization/disinfection systems, empty the tanks of their respective liquids, fill the tanks with fresh liquid and activate the processes as per the instructions in the use and maintenance manual.





Oil the hinges of the autoclave doors and fill the tank with clean water. If there is no water inlet treatment system, fill the tank with water having a conductivity of less than 15 µS/cm.



Check the door seal is not worn.



Perform a Vacuum Test cycle, an Helix Test cycle and a Bowie & Dick cycle, in compliance with local regulations.



Check that the expiry date (shown on the labels attached to the instrument pouches after the sterilization cycle is still valid.

# **INTRAORAL X-RAY UNITS**

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After prolonged non-use of the equipment, it is recommended that you carry out, on first start-up, a series of brief emissions (0.01-0.02 seconds) and, subsequently, take some X-rays with longer emission times of 0.1 second.

Doing so helps improve stabilisation of the X-ray tube before routine use.

## OBSERVING THESE PRECAUTIONS WILL ENSURE A QUICK, SAFE, EFFICIENT RETURN TO WORK.

