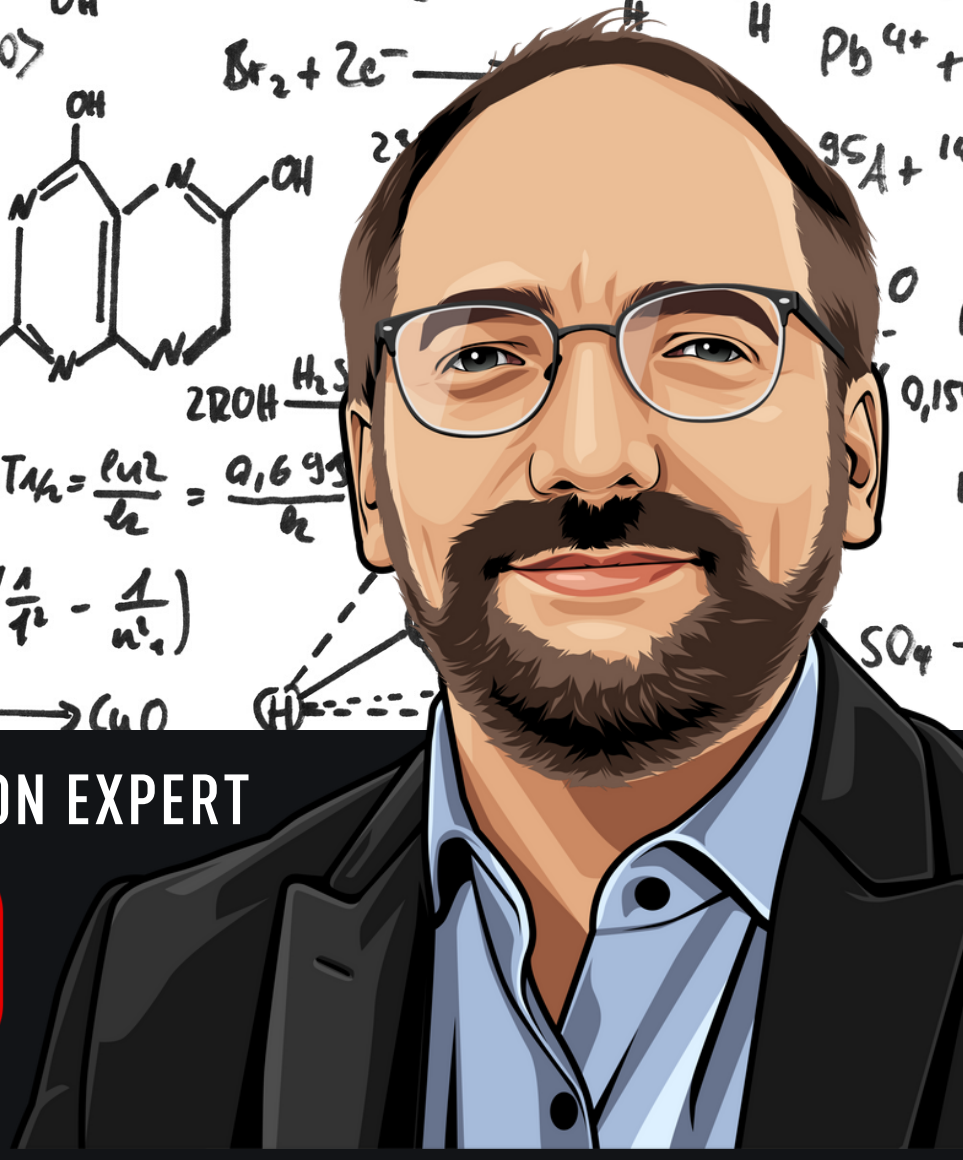
KEEP THE BUGS OUT!



LOW TEMP STERILIZATION EXPERT

BEYOND CLEAN

Jean-Luc Lemyre | Senior Manager R&D | Stryker

Beyond Clean Low Temp Sterilization Expert™:

KEEP THE BUGS OUT!

Jean-Luc Lemyre | Senior Manager R&D | Stryker

Vaporized hydrogen peroxide sterilizers used in SPD perform a terminal sterilization process. It's terminal because the devices processed are packaged to maintain their sterility until opening at the point of use. In comparison, liquid chemical sterilization is not a terminal process and does not result in sterile devices since they can get contaminated by microorganisms from the environment immediately after the cycle.

Sterile packaging systems should allow successful penetration and removal of the sterilant during the process, maintain sterility post-process, and allow for aseptic presentation. What should be used to package devices? Multiple options exist such as rigid containers, wrapped trays, and pouches. Many factors should be considered when selecting a packaging system, such as the organization and protection of the instruments, the workflow, the cost, and the environmental footprint. Another critical factor that should never be neglected is the validated compatibility of the packaging system with the specific sterilizers and cycles in which it's going to be used. Not all packaging systems can go through every sterilization cycle! What could go wrong? For one, packaging construction material or packaging design might reduce the lethality of the cycle by preventing the proper passage of hydrogen peroxide, by absorbing it, or by destroying it. Likewise, if the packaging material gets damaged by the process, the devices could get contaminated before use. Fortunately, sterilizer and packaging system manufacturers collaborate to ensure this is not going to happen by validating the compatibility of their respective products. Both can be contacted to get compatibility information.

The sterile devices may not be needed for a while. No problem. If handled with care, packaging systems can maintain sterility for months or even years. But even if everything was done perfectly during the package lifecycle, visual inspection immediately prior to use remains a best practice to detect any potential breaches that could affect the package integrity and harm the patient.

Have more low temp sterilization questions? Contact Jean-Luc at: jeanluc.lemyre@stryker.com

Beyond Clean Low Temp Sterilization Expert™ Biography:

JEAN-LUC LEMYRE

SENIOR MANAGER RESEARCH & DEVELOPMENT

stryker

Jean-Luc is passionate about science and innovation and has been involved in R&D for two decades, ranging from fundamental academic research to product development. He joined TSO3 in 2016 where he was introduced to low-temperature sterilization of medical devices using hydrogen peroxide and ozone. Today, Jean-Luc is a Senior Manager of R&D at Stryker following the acquisition of TSO3. In this role, he leads a team of scientists and engineers dedicated to innovating for the benefit of sterile processing professionals. During his career, Jean-Luc has been involved in several product improvements along with the associated regulatory clearances. He is also an active member of standards development committees with AAMI and ISO.

Before discovering his passion for sterile processing, he started his career doing R&D in the field of personal protective equipment. He has a PhD in chemistry from Université Laval in the beautiful Québec City, where he still lives with his family.

BEYONDCLEAN