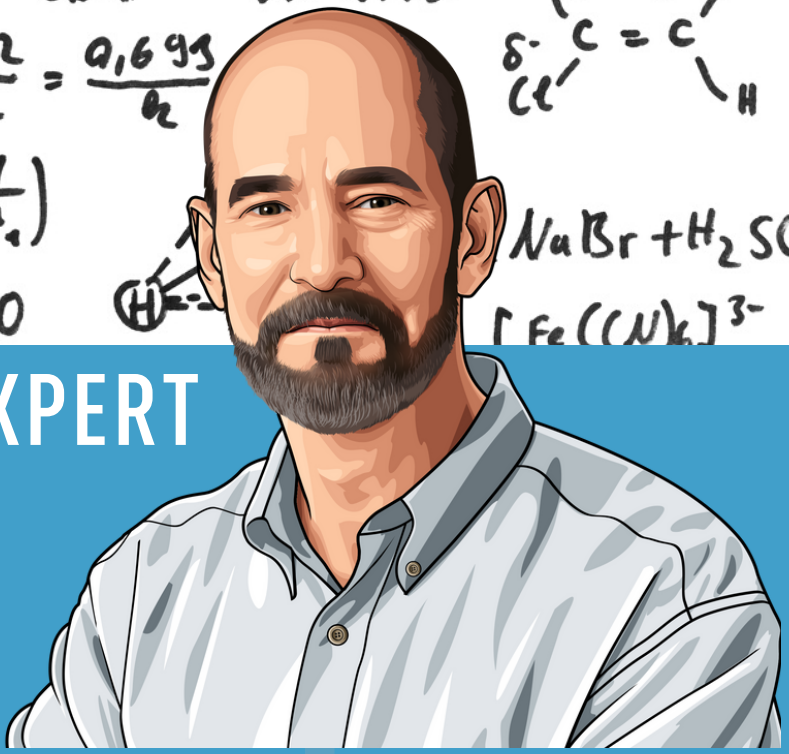
DID SUPERBUGS DISAPPEAR?

GAS STERILIZATION EXPERT

BEYOND CLEAN



A.E. Ted May | Andersen Sterilizers
President & CEO | Andersen Products Division

Beyond Clean Gas Sterilization Expert:

DID SUPERBUGS DISAPPEAR?

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"Superbugs" dominated industry headlines from 2015 onward. But over the past year and a half, COVID-19 has overshadowed the infectious disease news. Did superbugs disappear?

Superbugs are strains of bacteria, viruses, parasites and fungi that are resistant to most antibiotics and other medications commonly used to treat the infections they cause. These classes of antibiotics include carbapenems – which are "last resort" antibiotics used to treat many types of serious infections caused by multidrug-resistant bacteria. (1)

Carbapenem-resistant Enterobacteriaceae – or CRE – are a particularly pernicious family of gram-negative bacteria resistant to these antibiotics. CRE and related superbugs have become a global public health scourge. The mortality rates for patients infected with CRE and certain other superbugs can be as high as 50% – or higher, in some patient subgroups.(2,1)

In February 2015, FDA acknowledged for the first time that reprocessed duodenoscopes could remain persistently contaminated with life-threatening superbugs.(3) Earlier this year, FDA acknowledged other types of flexible endoscopes, particularly bronchoscopes and urological endoscopes, may pose a risk of infecting patients with superbugs and related multidrug-resistant organisms (MDROs).(4,5) Indeed, according to the CDC, more healthcare-associated outbreaks have been linked to flexible endoscopes than to any other type of medical device.(6)

Ratcheting up the stakes, a report published in 2019 linked a duodenoscope to the possible transmission of a superbug carrying the mcr-1 gene, which can confer colistin antibiotic-resistance to the microorganism.(7) Link carbapenems, colistin may be used as a "last line of defense" for treating some types of multidrug-resistant infections. Notably, some colistin-resistant infections may be untreatable.

The FDA has repeatedly (most recently in June) recommended ethylene oxide (EO) gas sterilization over high-level disinfection for reprocessing these endoscopes because of its "greater safety margin."6 Numerous studies have documented that EO sterilization of endoscopes during infectious outbreaks has been associated with terminating these outbreaks. (8)

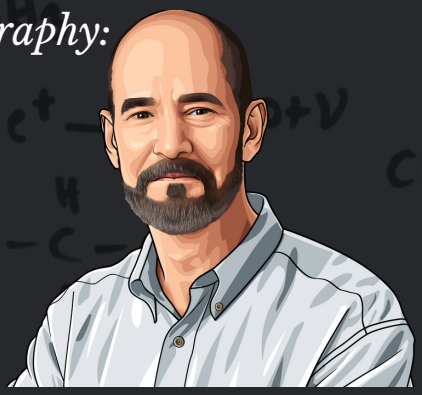
Superbug infections associated with reprocessed endoscopes have certainly not disappeared. They remain a concern, warranting attention and enhanced measures to mitigate risk. Implementation of EO sterilization is an effective tool for terminating endoscope-associated CRE and MDRO outbreaks. A modern EO gas sterilizer has earned its place in a well-equipped SPD.

Have more gas sterilization questions? Contact Ted at: ted.may@sterility.com

Beyond Clean Gas Sterilization Expert Biography:

A.E. TED MAY

ANDERSEN STERILIZERS
ANDERSEN PRODUCTS DIVISION
PRESIDENT & CEO



A.E. Ted May is President & CEO of the Andersen Products Division of Andersen Sterilizers, a North Carolina-based medical device manufacturer specializing in low temperature sterilization equipment and hospital consumables. Ted has over twenty years of experience in the field of infection control. He is an expert on ethylene oxide sterilization, with a particular expertise in EO flexible chamber systems. He is a cleared advisor to the US Federal International Trade Advisory Committee on medical devices (ITAC3), where he is Co-chair of the Life Sciences Sub-committee. Ted serves on a number of AAMI committees and has been a subject matter expert for the US delegation to the international ISO Ethylene Oxide Working Group (ISO TC198 WG1). He is a frequent speaker and writer on the subject of sterilization and infection control.

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