



## Waste Disposal in the Microbiological Laboratory: A Safe and Economic Solution

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### INTRODUCTION

For three years, the Institute of Hospital Hygiene and Microbiology of the Steiermärkische Krankenanstaltengesellschaft (Styrian Hospitals Ltd.) has been treating waste which belongs to category C according to ÖNORM S 2104, with a combined steam-microwave disinfection device (SINTION<sup>®</sup>, CMB Maschinenbau und Handels GmbH, Graz).

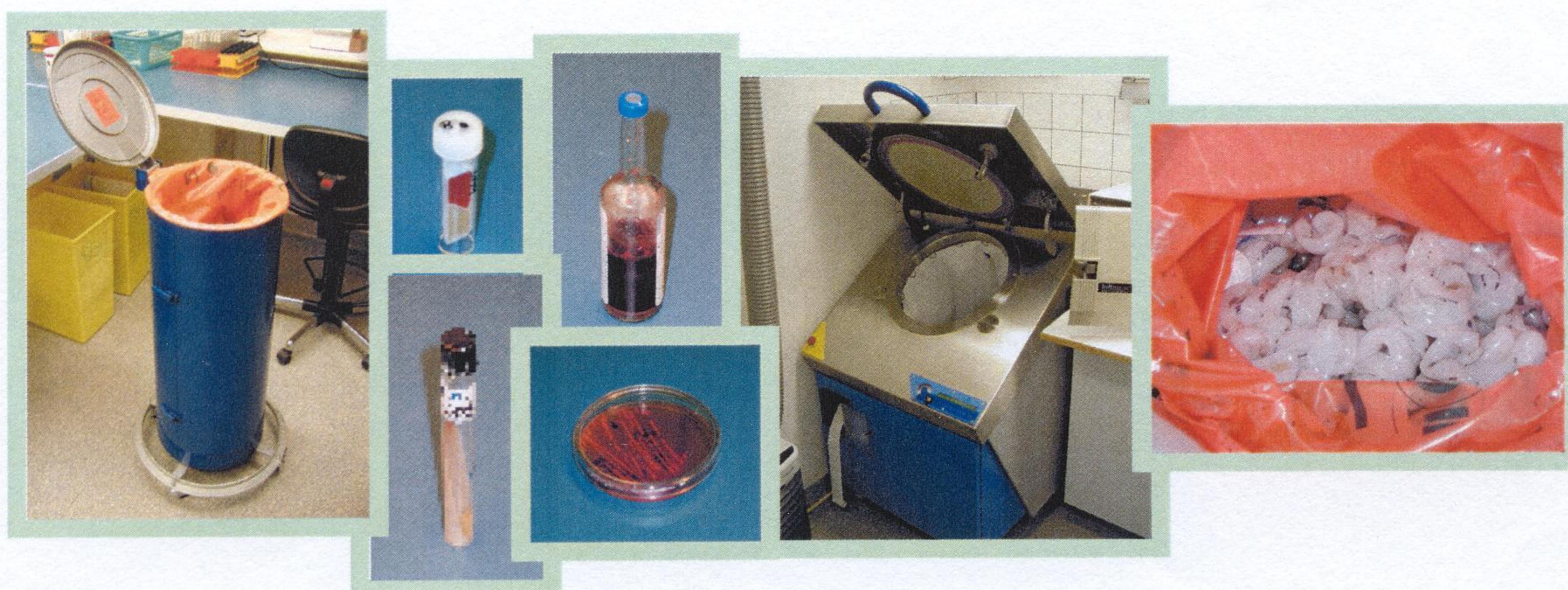
The waste has been transformed hereby into waste of the category A and disposed as tailings afterwards.

### RESULTS

#### A. SAFETY:

The effectiveness of the used device is proved by an expert report of the Institute of Hygiene at the University of Graz. Regular spot checks through the own lab complete the examinations of the effectiveness:

Effectivity group	Number of examinations	Percentage of detected germs after treatment
<b>A</b> (Killing of vegetative bacteria, fungi and spores of fungi)	62	0,0 %
<b>B</b> (Inactivating of viruses)	10	0,0 %
<b>C</b> (Killing of spores of Bacillus anthracis)	3	0,0 %
<b>D</b> (Killing of spores of Clostridium tetani)	4	0,0 %



#### B. ECONOMY:

Costs hazardous waste/kg	Costs tailings/kg	Σ Costs hazardous waste	Σ Costs tailings	Saving
3,42 €	0,26 €	98496 €	7488 €	91008 €

### CONCLUSION

The introduction of the waste disinfection device SINTION<sup>®</sup> at the Institute of Hospital Hygiene and Microbiology of the Steiermärkische Krankenanstaltengesellschaft (Styrian Hospitals Ltd.) led to, besides a safe method of waste disposal which fulfills national and international prescriptions, a considerable cost reduction (about 30.000 €/ year).