



## SUMMARY REPORT

### Marmoleum vs Norovirus : Test Results

Content Test methodology, results and conclusions

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## FOREWORD

Following on from last years successful testing which confirmed the effectiveness of Forbo Marmoleum as a weapon in the fight against MRSA in hospitals, further tests have been undertaken under my instruction at BluScientific, Glasgow designed to test the antimicrobial attributes of Marmoleum that would be of assistance in the pursuit of reduced levels of hospital acquired infection (HAI).

A handwritten signature in black ink, reading 'Curtis G. Gemmell'.

*Emiritus Professor of Bacterial Infection and Epidemiology, the University of Glasgow*

## INTRODUCTION

Reduction of environmental survival of the pathogens responsible for the high incidence of hospital acquired infection (HAI) in UK hospitals should be viewed as an important component of the 'bundle' of measures that need to be implemented in order to achieve any success. We have looked at the survival of one viral pathogen, Norovirus, which is currently on the increase and is the causative agent of the increasingly prevalent winter vomiting disease. A surrogate virus (as is standard practice) - feline calicivirus was chosen for these experiments.

## METHODOLOGY

50 million virus particles were placed on the surface of a sample of Marmoleum and a polystyrene control surface and their viability followed over 2 hours, 4 days and 11 days. These time points represent reality in which norovirus, or its surrogate, survive normally in the hospital environment. Feline calicivirus survived for up to 11 days in the control experiment whereas at least a 5-log diminution in virus viability took place within 4 days and a 2 log difference in viability after only 2 hours.

## RESULTS

These are highly significant results and prove that use of Marmoleum as hospital flooring can contribute to reduction in norovirus levels and therefore chances of this source acting as a cause of HAI are greatly reduced.

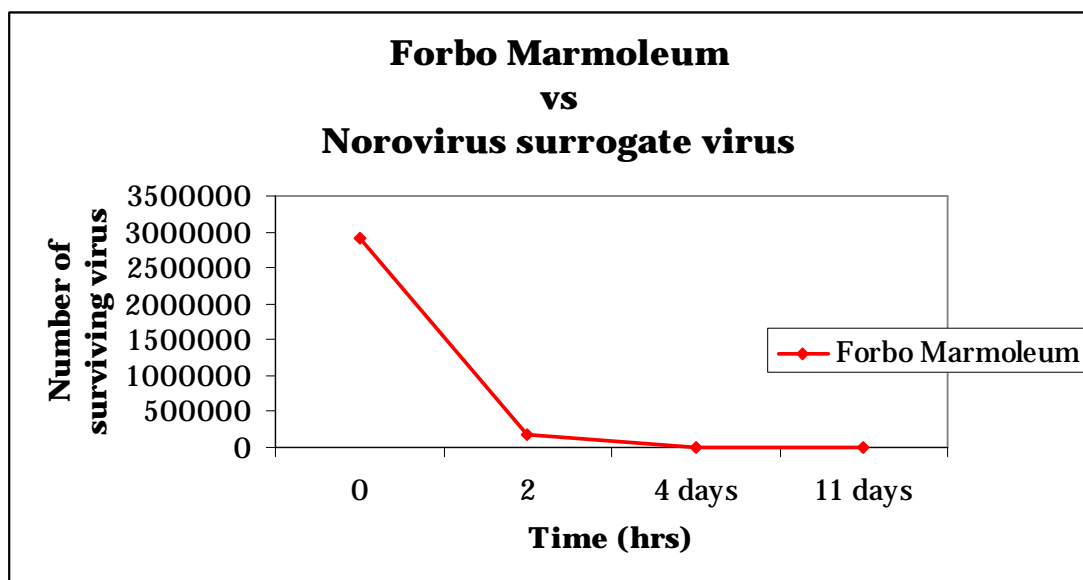


Figure 1: Inhibitory effect of Forbo Marmoleum flooring on surrogate virus feline calicivirus

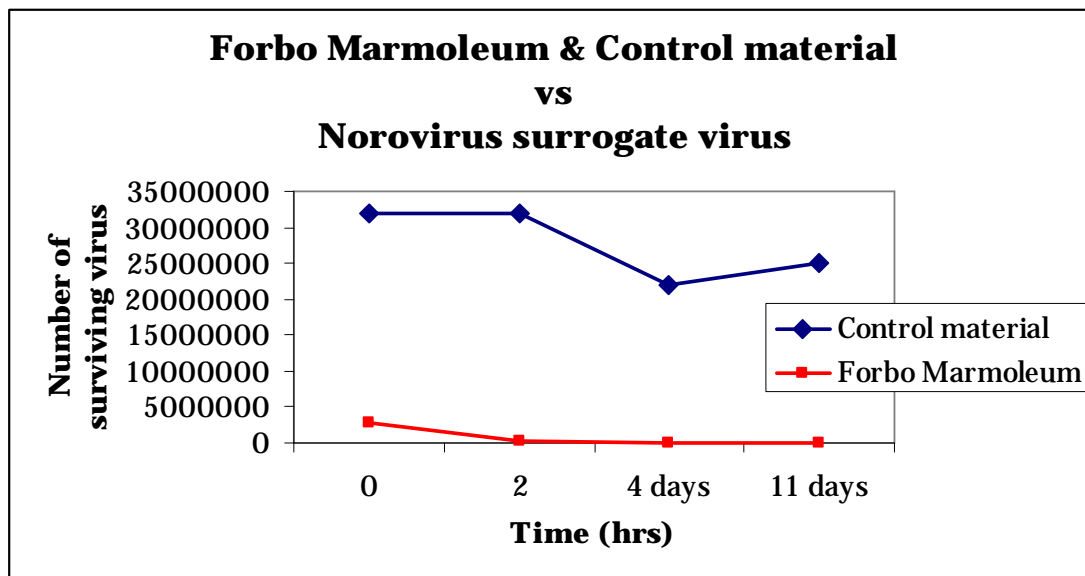


Figure 2: Inhibitory effect of Forbo Marmoleum flooring and control material on surrogate virus feline calicivirus

## CONCLUSION

The finding that a surrogate for Norovirus is significantly killed on the surface of Marmoleum is important in the fight against Norovirus in our hospitals and should be a significant factor in flooring choice for the health sector. This virus causes outbreaks of acute gastroenteritis every year in hospitals necessitating disruption to normal activity and ward closures as well as causing great discomfort and inconvenience to those patients affected.