

Transwab[®] best for *Streptococcus pneumoniae*!!

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***Streptococcus pneumoniae* – a fussy traveller!**

Streptococcus pneumoniae is a significant human pathogen estimated to cause annually the deaths of around one million children under five. The death toll is particularly high in developing countries. Even in developed countries the organism is a leading cause of childhood illness. Most children become carriers during their first year. Many of these will have episodes of otitis media, but others will develop more serious invasive infections including bacteraemic pneumonia and pneumococcal meningitis. It is the major cause of cause of nonepidemic childhood meningitis in Africa and other parts of the developing world. In the USA seven million cases of otitis media, mostly in children, are attributed to *Streptococcus pneumoniae*. The elderly are also vulnerable, particularly to pneumococcal pneumonia, which accounts for at least 30% of hospital admissions for community-acquired pneumonia, with a mortality rate of 10 – 30%.^{1,2}

The development of good vaccines in recent years should in time greatly reduce the incidence of serious disease, but for now *Streptococcus pneumoniae* remains a significant threat to many.

An organism of this importance clearly requires effective means of collection and transport. The samples normally tested will be blood and sputum, but swabs are often required to sample from inaccessible sites, and for monitoring of treatment. Selection of target body site is important, and will differ according to age group³. Swabs are also often required for transfer of samples from remote clinics, and between laboratories. Although such a common organism, it is in fact rather fastidious when being transported, and many commonly used swab transport devices are unsuitable.

A recent article has reported that a leading brand of gel transport swab device (designated as an “M40-device”) was unable to keep *Streptococcus pneumoniae* viable for more than 6 hours at ambient temperatures⁴. The study was repeated three times, with the same outcome. A number of other studies have also shown significant loss of viability by 24 hours at room temperature, refrigeration temperature, or both^{5,6,7}. There has been considerable interest in the new so-called “flock swabs” with liquid medium, but a study with these presented last year showed a significant loss in viability of *Streptococcus pneumoniae* after 6 hours⁵.

In contrast the same study which showed the M40-designated swab unable to maintain viable *Streptococcus pneumoniae* for more than 6 hours showed that of the brands tested, Medical Wire's transport swab (Transwab® MW170) gave the best recovery at 24 hours and 48 hours⁴. In a separate study, a Medical Wire transport swab (Transwab® MW171) has been selected for a project requiring the international air transportation of *Streptococcus pneumoniae* after having been shown to keep the organism viable for at least 32 days, and with the lowest incidence of experimental contamination when compared with other devices and methods⁸.

In addition to these reports, a further study presented at this year's ECCMID showed that significantly better zero-time release of *Streptococcus pneumoniae* than another leading brand at both refrigeration temperature and room temperature.

Streptococcus pneumoniae is indeed a fussy traveller, and for the best results choose Transwab® from Medical Wire.

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