

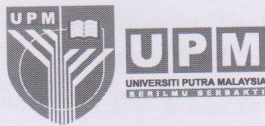
UPDATES in

**MEDICAL
MICROBIOLOGY**

EDITOR
ZAMBERI SEKAWI

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Chapter 2

Pneumococcal Infections

Farida Jamal and Hanani Ahmad Yusuf

INTRODUCTION

Since its discovery in 1881 in Europe and the USA simultaneously, *Streptococcus pneumoniae* has been recognized as a major cause of human infection worldwide. Initially known as *Micrococcus pasteuri*, and later pneumococcus and *Diplococcus pneumoniae*, it acquired its current name in 1974.

HABITAT

Streptococcus pneumoniae, is a part of the normal flora of the upper respiratory tract. Although there is temporal and geographical variation in pneumococcal carriage, about 5–10% adults and 40–60% children carry it in their nasopharynx. In the temperate zone, seasonal variation in pneumococcal carriage has been observed, with higher carriage rates in the winter months (Brooks and Carroll, 2010).

MICROBIOLOGY

Streptococcus pneumoniae is a gram positive coccus, replicating in chains in liquid media and is genetically related to viridians group streptococci. It is catalase negative and grows better in an atmosphere of carbon dioxide. It produces pneumolysin, which breaks haemoglobin, producing a greenish pigment surrounding its colonies on blood and chocolate agar media. This has been described as alpha haemolysis, which is also a characteristic of