

Group A streptococcal meningitis: emm type distribution and theoretical vaccine coverage in children.

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Abstract

As group A Streptococcus (GAS) meningitis is seldom reported in children, emm-type distribution data are scarce. We report eight cases of GAS meningitis in Belgium (2008-2013) and compare molecular characteristics of our strains with a further 55 cases previously reported with their corresponding emm-types. emm1 type was the most frequent (24%) followed by emm6 (11%), emm12 (11%) and emm3 (6%). Together these four emm-types accounted for 52% of the cases, while the rest of the cases are due to 24 different emm-types. These 28 emm-types associated with GAS meningitis belonged to 16 different emm-clusters suggesting that there is no propensity for particular emm-types or emm-cluster to cause meningitis. Theoretical coverage of the 30-valent vaccine candidate would be 77.8% (49/63 isolates) among children with GAS meningitis.