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# Rapid degradation of *Streptococcus pyogenes* biofilms by PlyC, a bacteriophage-encoded endolysin.

Title	Rapid degradation of Streptococcus pyogenes biofilms by PlyC, a bacteriophage-derived endolysin
Publication Type	Journal Article
Year of Publication	2013
Authors	Shen, Y, Köller, T, Kreikemeyer, B, Nelson, DC
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Abstract	OBJECTIVES: Streptococcus pyogenes, or Group A streptococcus (GAS), is a major cause of bacterial meningitis in children and young adults. The bacteriophage-derived endolysin PlyC has been shown to degrade the cell wall of GAS. METHODS: PlyC was benchmarked against antibiotics for MIC, MBC and bactericidal activity. RESULTS: PlyC and antibiotics had similar MIC (range 0.02-0.08 mg/L) and MBC (range 0.04-0.16 mg/L). PlyC showed a faster bactericidal activity than antibiotics. CONCLUSIONS: Our findings indicate that while streptococcal cells were killed by antibiotics, they were not degraded. PlyC, however, degraded the cells and released DNA. This suggests that PlyC may be a promising alternative to antibiotics for the treatment of GAS infections.
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