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**STUDENT INFORMATION: *please print clearly***

Student Name: Kimberly Hyatt

Permanent Mailing Address: 6515 Timber Valley Drive Powell, OH 43065

Permanent Phone Number: 614-571-6466 Permanent Email Address: kimberlyhyatt33@gmail.com

**OTHER INFORMATION: *please print clearly***

Poster Title: Group A Strep (GAS)

Program: Master of Science in Nursing Course: NURS 5330 – Advanced Pathophysiology

Keywords: Please list 4-6 keywords or keyword phrases describing your poster.

**Group A Strep Disease Burden Sequelae of Disease**

**Virulence Powerful Pathogen**

**Student Signature: Kimberly Hyatt Date: 7/27/2017**

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*Dr. John D Chovan PhD DNP RN CNP CNS, Course Coordinator*

Abstract

Group A Streptococcal (GAS) bacteria is a common but potent pathogen. GAS is the most common cause of pharyngitis in the world and can be easily treated with the right antibiotic. Left untreated or undertreated, however, GAS is the ninth leading cause of infectious disease mortality, worldwide. Lethality from a GAS infection is 10-30%. The virulence factors of GAS are responsible for the short and long term havoc it wreaks on an individual, and the incredible disease burden of 18.1 million severe cases of GAS, annually, around the globe. In the U.S., each year, GAS pharyngitis, alone, costs $500 million dollars, with 616 million cases of strep pharyngitis worldwide, annually. The short term impact of GAS can cause any one of a dozen suppurative infections, or may create longer term implications with one of the various non-suppurative GAS diseases, such as endocarditis, PANDAS, or toxic shock. Research is discovering genetic factors making some individuals more or less susceptible to GAS infections. Progress is slow but promising as researchers are looking for ways to develop an effective vaccine that can prevent GAS infections and reduce the disease burden of the powerful pathogen that creates an annual death toll of 500,000 – 650,000 lives around the world. The effective practitioner benefits from an acute awareness of signs and symptoms of GAS, including all possible manifestations GAS can take so this pathogen can be identified and arrested quickly, minimizing impact and negative outcomes for patients, populations, and the healthcare system.

*Keywords:* pathogen, virulence, disease burden, genetic factors, vaccine