ACUTE RHEUMATIC FEVER BENZATHINE PENICILLIN G PREFERENCES STUDY

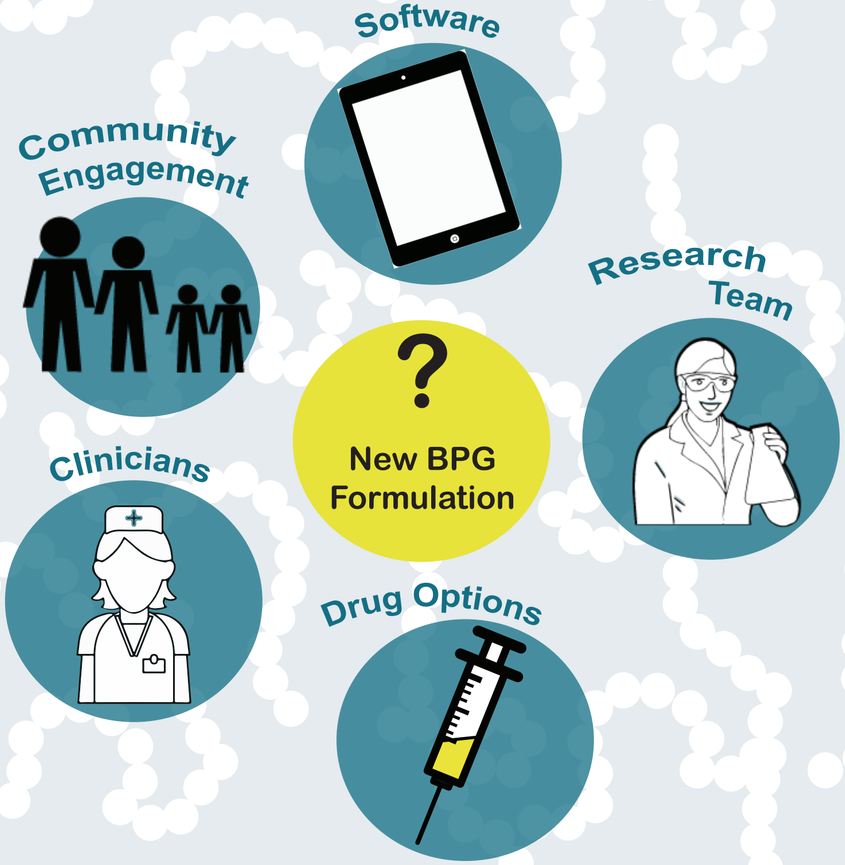
Acute Rheumatic Fever (ARF) is an autoimmune condition caused by untreated Group A Streptococcal (GAS) infection of the upper respiratory tract (and possibly the skin). Multiple or severe attacks of ARF can cause cardiac damage known as Rheumatic Heart Disease (RHD), and lead to premature death1[1].

THE ISSUE

Currently, ARF and RHD management and prevention occurs by giving monthly injections of 1.2 million units of Benzathine Penicillin G (BPG), known as secondary prophylaxis. These BPG injections are administered intramuscularly every 28 days for at least 10 years from the last ARF episode1.
These injections are painful and adherence to ongoing injections schedules can be problematic. A new, less painful and longer acting BPG formulation is required.

THE STUDY

This study aims to recruit children and young adults who receive monthly BPG injections, parents and caregivers and also health professionals who deliver the BPG injections to find out what their BPG reformulation preferences and opinions are. Three software applications have now been developed for this work to explore the experiences of the study participants with secondary prophylaxis for ARF/RHD and also identify their specific preferences for a new BPG formulation. This study is a collaborative effort led by Victoria University in Wellington, New Zealand with Telethon Kids Institute in Perth Western Australia, the University of Otago and Novartis Institute of Biomedical Research. Having a better understanding of the participant perspective concerning BPG reformulation is a key priority for this project work.



ARF/RHD mainly affects school aged children (4-19 years old) and is more prevalent amongst Maori and Pacific Island communities in New Zealand[2]. There are approximately 34 million cases of ARF worldwide. Approximately 60% of these people will develop RHD[3].

THE DRUG OPTIONS

The project team has identified 4 potential medication options for the future; the intramuscular BPG injection (as is currently used), and 3 alternatives. These are presented to the study participants who are asked to indicate their preferred BPG option, delivery method and frequency of dose.

THE SOFTWARE

Each electronic software application has been designed to detect and record responses to predetermined questions about secondary prophylaxis with BPG, and also the specific formulation preferences regarding new BPG options, delivery methods and frequency of dose. Participants are encouraged to expand on their reasoning for their preference responses which are recorded utilising the software applications.

THE OUTLOOK

Understanding the experiences of those who receive monthly BPG injections, their formulation preferences along with the views and preferences of parents, caregivers and health professionals who deliver the BPG injections, is critical to improving adherence to secondary prophylaxis schedules worldwide. Following interviews with the study participants, the project team will evaluate the data obtained that will provide clearer direction for future BPG reformulation studies. It is anticipated a new BPG formulation could be ready for testing within 5-10 years.

THE PROJECT TEAM

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Tia Haira (300337247) and Lynette Lander (300385282) contributed to this project work as part of the Summer Scholarship Programme run through the Victoria University of Wellington Graduate School of Nursing, Midwifery and Health
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