**Study ID 202311_SH**

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**Date of Approval:**
Nov 2023

**Name of study:**
Hormonal replacement therapy in patients with hypogonadotropic hypogonadism (HH) – what should be best practice?

**Summary**
Patients with HH have low levels of reproductive hormones. In men, this leads to underdevelopment of the testicles, and reduced production of sperm, and low levels of testosterone. Without treatment, patients with HH are likely to be infertile. This condition is often present from birth due to a change or error in one particular gene. This study aims to gather data on current treatment of patients with this condition across their lifetime and how they respond to treatment, to assess a number of factors to determine how to best treat patients.

**Inclusion criteria**
Age >11.9 or <35 years with a diagnosis of hypogonadotropic hypogonadism

**Exclusion criteria**
- Functional hypogonadism due to low caloric intake, excessive exercise or chronic disease
- Primary hypogonadism
- Constitutional or self-limited delayed puberty

**Data to be collected for all participating cases:**
Core Data and Longitudinal annual data on DSD assessment between age of 11.9 yrs and 35 yrs.

**Expected outputs**
We anticipate at least 1-2 peer-reviewed publications, one focusing on questionnaire analysis of current practice globally, and a second focusing on the difference in outcomes between patients treated with different regimes, and on predictors of good and poor-response amongst the cohort (such as, lower baseline testicular volume, cryptorchidism history, genetic factors). These will be submitted for presentation in international conferences. We will also use our existing collaborations with patient groups including I am HH and The Pituitary Foundation, to support dissemination of findings amongst patient organisations.

**Publication Plan for authorship in outputs (refer to guidance)**
Authorship on outputs will be based on contribution to the conception, design, acquisition, analysis or interpretation of the work, drafting and revising the work, approving the final version of the work prior to dissemination, accountability for all aspects of the work. For further information, please contact PI.