

**Connected Inhaler Service Evaluation Project In The Routine Clinical Assessment Of Severe Asthma**

**(GSK UK Ltd. and Belfast Health and Social Care Trust, University Hospitals Birmingham NHS Foundation Trust, Barts Health NHS Trust, Guy's & St Thomas' NHS Trust, Royal Brompton & Harefield NHS Foundation Trust, Nottingham University NHS Hospitals Trust, University Hospitals Southampton NHS Foundation Trust, Oxford Health NHS Foundation Trust)**

**Executive Summary**

Belfast Health and Social Care Trust, University Hospitals Birmingham NHS Foundation Trust, Barts Health NHS Trust, Guy's & St Thomas' NHS Trust, Royal Brompton & Harefield NHS Foundation Trust, Nottingham University NHS Hospitals Trust, University Hospitals Southampton NHS Foundation Trust, Oxford Health NHS Foundation Trust and GSK UK Ltd. are undertaking Joint Working with the aim of exploring the use of clip on sensor systems in a “real world” usual care setting. This involves significant contributions by all parties, with the pooling of skills, experience and resources. The service evaluation will build on the Medical Research Council Refractory Asthma Stratification Programme UK data on adherence monitoring and biomarker profiling.

The project will run from May 2020 to June 2023

**Costs:**

GSK will provide:

- Clip-on Propeller health adherence devices, training and access to data platform (Approx £150,000) Propeller Health will provide PM support and training on use of the clip on sensors and access to the propeller health platform. (costs included in GSK contribution);
- Nurse & Project management resource to support additional clinics required (0.6FTE per site up to £500k) via Chase Clinical (if required, not all sites will require nurse resource); until April 2022
- GSK project management support 1 day per week (£15,000).

Total GSK cost: potential £665,000

Total GSK cost per site (if nurse resource is required): Nurse and project management £62,500 + GSK PM resource (£1,875) + ~250 sensors (£18,750) = up to £83,125

**Chase Clinical will provide: (costs included from GSK contribution)**

- Band 6/7 Clinical Respiratory Nurse Advisors
- Project Management/Team Management Resource 3 days/week
- Project Director 1 day/week

**Propeller Health will provide PM support and training on use of the clip on sensors and access to the propeller health platform. (costs included in GSK contribution).**

<u>Deliverable</u>
Additional Ellipta sensors (as needed)
Clinical Staff Training <ul style="list-style-type: none"><li>• Content development (slide presentation)</li><li>• Attendance at the first two site training sessions</li></ul>
Program setup & design (5 hrs/week for 6 weeks)
Ongoing management
Data fees and secure file transfers

Each NHS Foundation Trust site will provide for the duration of the project: (no costs have been included that are already routine parts of the clinics e.g. treatment costs).

Role/ Item cost	Week/Annual cost assumptions	Total Annual
Facilities Management – Rooms – this is based on Department of Health Premises Costs	2 clinics per week	£ 3,761
Phlebotomy – Disposables etc – based on government average costing for phlebotomy (standard biochem)	Based on standard biochem figures for 200 patients having 3 visits during this project	£ 7,968
Lung Technician time – based on senior lung technician wages	6 Hours Per Week	£ 7,680
Materials – Printing	Per Year	£ 100
Consultant/Professor Time - based on Consultant time from BMA	6 Hours Per Week	£ 22,969
Senior Nurse Time – based on band 7 NHS agenda for change	5 Hours Per Week	£ 4,266
Administration – based this on salary on NHS jobs	3 Hours Per Week	£ 1,857
<b>Annual NHS Costs per trust:</b>		<b>£48,601</b>

Follow up on patients will be conducted by NHS trust nurses and/or Chase clinical nurses.  
If NHS trust does not require a Chase nurse then the equivalent resource will be supplied by the NHS.

#### Belfast Health and Social Care Trust:

An independent evaluation of the project (as agreed by the 'Joint Working Project Team')  
Cost TBC (subject to number of sites within the JW project)

#### Key Objectives:

- Explore usefulness of connected inhaler systems to improve adherence in routine clinical care
- Explore if these systems improve patient outcomes and efficiency of assessment of patients for biologic eligibility

#### Intended Benefits:

For the Patient	<ul style="list-style-type: none"> <li>• Gives patients an evidence based tool to support their adherence with inhaled medication</li> <li>• The appropriate treatment for the appropriate patient at the right time</li> <li>• Accelerated time to MDT decision for additional biological therapy, if required</li> <li>• Patient control on current therapy enhanced without the addition of biological therapy</li> <li>• Promoting self-management with real time data on app.</li> <li>• Access to another treatment option within the ICS/LABA class</li> </ul>
For the NHS	<ul style="list-style-type: none"> <li>• There is good reason to believe that many patients referred to severe asthma tertiary care are not compliant with their maintenance therapy. The clip-on adherence device for Ellipta™, its support app for patients and dashboard for healthcare professionals gives another option to better support patients to be more compliant with their maintenance therapy inhaler. Other ICS/LABAs with adherence devices are already available and will also be used within the project. Optimising inhaled therapy will ensure that appropriate patients receive biological therapy where required. Should patients' asthma control improve with their improved adherence then their concomitant healthcare utilisation should reduce. Should patients require a biological therapy then the hope is that they would receive it sooner, thus reducing waiting lists.</li> <li>• There is an expected cost saving to the NHS associated with this project should it prove successful</li> </ul>
For GSK	<ul style="list-style-type: none"> <li>• By supporting the availability of the clip-on device compatible with the Ellipta™ inhaler, this will mean that adherence assessments can be performed for GSK inhaler as well as those that already have compatible devices available. (This is not the case currently as the Ellipta™ clip-on device is not commercially available) Successful implementation of the project may lead to appropriate continued prescribing of inhaled medicines and initiation of biologics in appropriate patients, in line with guidelines. This may lead to prescribing of GSK medicines as well as those of other pharmaceutical companies</li> </ul>

