

Efficacy of an oral probiotic (Symprove) on motor and non-motor symptoms in Parkinson's disease: a novel randomised, double-blind, placebo-controlled study (SYM-PD)

PATIENT INFORMATION SHEET

Latest research has focused on the role of the gut in Parkinson's and recent studies have shown that the intestinal microbiota (bacteria that protect us from absorbing harmful products we ingest and maintain our "gut health") can be abnormal with a deficiency of protective bacteria in people with Parkinson's. This leads to a "leaky-gut" that can absorb harmful material from the gut to the brain via the vagus nerve and even lead to inflammation as well as abnormal alpha-synuclein (the protein that is abnormally deposited in the cells in Parkinson's) formation and deposition. Recently, in line with other disorders where gut microbiota may be abnormal, faecal transplantation has been proposed as a possible treatment strategy in Parkinson's; however, the process is difficult and needs many regulatory approvals and safety checks. Symprove is an oral probiotic (live microorganisms that are similar to beneficial microorganisms found in the human gut that are taken as food supplement), which unlike other commercial probiotics, can reach the lower gut and improve symptoms in gastrointestinal diseases. From our experience at the Parkinson's Centre of Excellence at King's College Hospital, some people with Parkinson's showed an improvement in motor and non-motor symptoms of Parkinson's after intake of Symprove for a variable period. We believe that the rationale behind this observation is that Symprove regulates the gut microbiota. However, to date, no studies have addressed the possible beneficial effect of Symprove in Parkinson's. Consequently, this research project, if successful, can have an impact on the quality of life for people with Parkinson's. This is a world-first UK-led randomised, double-blind, placebo-controlled study comparing 60 people with Parkinson's with constipation to either oral Symprove or placebo for 3 months.

What is the purpose of the study?

You are being invited to take part in this study and it will provide the possibility of improving our delivery of care for Parkinson's patients. We will employ routinely used scales/questionnaires as well as wearable sensor recordings to evaluate non-motor symptoms, motor impairment and quality of life in people with Parkinson's. We aim to investigate whether the food supplement, Symprove, can have an impact on the Parkinson's symptoms. Furthermore, we will examine whether Symprove could have an anti-inflammatory beneficial effect.

Before you decide, it is important for you to understand why we want to do this and what your taking part will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you

would like more information. Please take time to decide whether or not you wish to participate.

Thank you for reading this.

Why have I been asked?

We are approaching all people with Parkinson's reporting constipation who attend our outpatient clinics.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and we will ask you to sign a consent form. You are free to withdraw your participation at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the routine clinical care you receive. You will still receive your planned treatment.

What will happen to me if I take part?

You will be given the information sheet at your routine appointment and you will be free to contact the study researcher who can answer any further questions that you may have about the study. If you decide to express your interest in taking part, the study researcher will arrange a visit at the hospital site and ask you to sign a consent form. Following this, the researcher will do some standard assessments. This will take about 30 minutes. You will also be asked to complete some questionnaires. This will take about 20 minutes. Many of the questionnaires and scales are routinely used in the clinic and it is likely you may have completed some in the past. During the study visit we will take 15 ml of blood to perform basic blood tests and we may ask to wear a Smart Belt during a standardised meal for 30 min. You will also be asked to wear a Parkinson's KinetiGraph Watch for a period six days at home, keep a stool diary and a nutrition questionnaire. Finally, we will ask you to collect a stool sample and send it by post for analysis. Following baseline assessments, you will be dispensed a three-months' supply of either Symprove or a placebo agent to take once daily at home. All assessments performed at baseline visit will be repeated at three months, following completion of Symprove intake. Should you be allocated to the placebo arm of the study, at the end of the study you will be offered Symprove at no cost for the equivalent of the study protocol duration (three months) to take without needing to complete any additional assessments. Study travel costs will be reimbursed.

What are the possible disadvantages and risks of taking part?

We do not expect you to be harmed in any way by taking part in this study. Symprove is a food supplement which has been well tolerated in previous studies on gastrointestinal disorders without any serious adverse events. Should any side effects occur (diarrhoea, nausea, vomiting, bloating), this will be treated by a medically qualified person. Blood sampling may cause brief discomfort and can occasionally lead to localised bruising and (rarely) infection at the puncture site.

What are the possible benefits of taking part?

The proposed intervention, if effective, has the potential to have an impact on the health and well-being of study participants.

What if something goes wrong?

It is unlikely that you will come to any harm by taking part in this study. The oral probiotic Symprove, which is a food supplement, has been well tolerated in previous studies without any serious adverse events. However, if you do, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for a legal action but you may have to pay for it. Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal National Health Service complaints mechanisms are available to you: ask to speak to the complaints manager of the hospital. If you have concerns about any aspect of this study you should ask to speak to the researcher who will do their best to answer your questions. If you remain unhappy and wish to complain formally you can contact your local PALS group.

Will my taking part in this study be kept confidential?

All information collected in the study will remain strictly confidential in the same way as your other medical records. The information will be put into a computer and analysed, but you will not be identifiable when the results are reported. Also, we would like your permission to tell your GP that you are taking part in the study. You may still take part in the study, if you do not wish us to contact your GP.

What will happen to my data?

Data will be pseudo-anonymised (a unique study identifier number will be provided to every participant). Your personal/identifiable data, such as name, date of birth, and hospital number will be deleted and data obtained during the medical evaluation will be reported on a paper case report form which will be stored at King's College Hospital site in a double locked cupboard, fire secured and password protected cupboard.

What will happen to the results of the research study?

It is expected that the results of the study will be published in medical journals after the study has been completed but you will not be identified in any report or publication. The results will also be discussed in patient group meetings, international meetings on Parkinson's.

What happens if I become incapacitated during the study?

If you become incapacitated during the study, you will be withdrawn from the study and we will not contact you again. We will keep the information you have already provided and it will be used in the results of the study.

Who is organising and funding the research?

This study is supported and funded by Parkinson's UK, Biomedical Research Centre (BRC) and Symprove industry.

Who has looked at the research?

All research in the NHS is looked at by an independent group of people called a Research Ethics Committee to protect your safety, rights, well being and dignity. This study has been reviewed and given a favourable opinion by xxx Research Ethics Committee.

General Data Protection Regulation

King's College Hospital (KCH) is the sponsor for this study based in the United Kingdom. We will be using information from [you and/or your medical records] in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. KCH will keep identifiable information about you for 5 years after the study has finished.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information

<https://www.kch.nhs.uk/about/corporate/data-protection>

KCH will collect information from you and your medical records for this research study in accordance with our instructions.

KCH will use your name, NHS number and contact details to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Individuals from KCH and regulatory organisations may look at your medical and research records to check the accuracy of the research study. The only people in KCH who will have access to information that identifies you will be people who need to contact you to arrange any follow up appointments or audit the data collection process. The people who analyse the information will not be able to identify you and will not be able to find out your name, NHS number or contact details.

KCH will keep identifiable information about you from this study [for 5 years after the study has finished.

Contact for Further Information

Should you want further information about the study please contact:

Professor K Ray Chaudhuri

Neurology Department

King's College Hospital

Tel: 0203 299 8336

Email: ray.chaudhuri@nhs.net

King's Patient Advice and Liason Service (PALS)

Hambledon Wing

Kings College Hospital

Tel: 020 3299 3601

Email: kch-tr.pals@nhs.net

(Service is available 09:00 -17:00 Monday to Friday)

If you decide to take part in this study, you will be given a copy of this information sheet and a signed consent form to keep.

Thank you for taking the time to read this information sheet.