Impact of a community pharmacy based information program on type 2 diabetic patients' adherence to their oral treatment

| Submission date | Recruitment status No longer recruiting | Prospectively registered | |
|------------------------------|--|--------------------------------|--|
| 03/03/2017 | | ☐ Protocol | |
| Registration date 25/04/2017 | Overall study status Completed | Statistical analysis plan | |
| | | [X] Results | |
| Last Edited | Condition category | [] Individual participant data | |
| 01/05/2020 | Nutritional, Metabolic, Endocrine | | |

Plain English summary of protocol

Background and study aims

Diabetes is a lifelong (chronic) condition that causes a person's blood sugar level to become too high. A survey found that although 80% of patients with type 2 diabetes say they are well informed, 71% would like other additional information. Only 17% of the same patients report receiving instruction in addition to their treatment. Pharmacists could exert a major effect on treatment adherence in chronic disease. The aim of this study to assess the impact of information provided by community pharmacists on patients' adherence to treatment.

Who can participate?
Patients aged over 18 with type 2 diabetes

What does the study involve?

Participants are randomly allocated to one of two groups. Participants in one group attend interviews with a pharmacist three times over 6 months (once every 2 months) covering diet, drug treatment and the complications of diabetes. Each interview lasts about thirty minutes and involves general monitoring of the patient and then giving the patient a brochure which is an opening for a discussion between the pharmacist and the patient. Participants in the other group receive treatment as usual. The impact on treatment adherence is assessed in both groups after 6 months by the pharmacist counting the tablets remaining in the treatment packs delivered to the patient during the previous visit.

What are the possible benefits and risks of participating?

The benefits for the patient are a better knowledge of diet and the complications of diabetes, as well as better management of their treatment. There are no expected risks for the participants.

Where is the study run from? 182 pharmacies in France

When is the study starting and how long is it expected to run for? March 2014 to December 2016

Who is funding the study? Merck (USA)

Who is the main contact? Dr Yves Michiels

Contact information

Type(s)

Scientific

Contact name

Dr Yves Michiels

Contact details

1 rue Guynemer Longvic France 21600

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers 012014

Study information

Scientific Title

Impact of a community pharmacy based information program on type 2 diabetic patients' adherence to their oral treatment (IPhODia): a randomized cluster study vs usual practice

Acronym

IPhODia

Study objectives

Diabetes is a prime example of a chronic disease which is increasingly prevalent in France (38% in 7 years) and accounts for nearly 10% of our health spending. The many complications associated with diabetes contribute substantially to this spending and occur when diabetes is insufficiently controlled. The current therapeutic objective of the treatment is measured by the level of Hba1C which should be < 7% as defined by NHANES.

In France, despite significant improvements in the follow up of type 2 diabetes patients, the last results of Entred 2007-2010 are showing an insufficient level of control with too many patients with HbA1C>7%. This epidemiological study points to improved control of cardiovascular risk

factors (lipid profile, high blood pressure) but still inadequate control of glycaemia. Some 41% of people with type 2 diabetes have HbA1c levels above 7% and 15% have levels above 8%.

These figures, testifying to failed therapy, are the source of many hospitalizations especially as glycaemic balance is not achieved. Alongside this, the costs of cover are proportional to this absence of control. The annual cost of a diabetic patient rises from \$2 792 for an HbA1c < 7% to \$6 759 for an HbA1c of 10%. Several additional measures should be contemplated to make therapy more efficacious. Adherence or rather non-adherence is inherent in chronic drug treatment and for diabetes, many studies are increasingly highlighting adherence as a factor for successful or unsuccessful drug treatment. Adherence seems to be one of the key points for the successful treatment of a chronic diseases like diabetes.

General practitioners remain the prime point-of-contact for diabetic patients, in spite of regular controls, physicians encounter difficulties correctly informing their patients mainly due to a lack of time and means. Diabetic patients must, in the majority (90%) of cases, go to the pharmacy for their treatment to be renewed and dispensed. This should be a useful opportunity for detecting and correcting any decline in adherence. Pharmacists, who are par excellence specialists in medication, are an essential actor and thanks to their expertise, their large number and their accessibility, pharmacists could play a beneficial role in patient adherence.

The IPhODia study aims to assess the impact on adherence of specific information provided by community pharmacists.

Ethics approval required

Old ethics approval format

Ethics approval(s)

In France a clinical trial such as IPhODia does not require ethics approval

Study design

Prospective multicentre randomised controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Community

Study type(s)

Other

Participant information sheet

Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied

Diabetes

Interventions

The intervention consists of three different pharmaceutical interviews during 6 months (one every 2 months) covering thematic information on diabetes, namely diet for diabetics, monitoring drug treatment and the complications of diabetes. Each interview is composed of two parts and lasts about 30 minutes. It involves first general monitoring of the diabetic patient and then giving the patient a thematic information brochure which is an opening for a discussion between the pharmacist and the patient.

In order to demonstrate the effectiveness of this intervention, a randomised study is performed with two groups of patients, one receiving information from the pharmacists according to the program, the other receiving treatment as usual. Impact on adherence will be assessed using the Medication Possession Ratio (MPR) at 6 months.

Intervention Type

Other

Primary outcome measure

Medication Possession Ratio (MPR), measured by the pharmacist by counting tablets remaining in the treatment packs delivered to the patient during the previous visit, at 6 months

Secondary outcome measures

- 1. HbA1c level, measured by laboratory analysis at 6 months
- 2. Adherence, measured by a specific questionnaire (TOP) at 6 months
- 3. Patient's knowledge acquisition, measured by a specific questionnaire developed by the scientific committee at 6 months
- 4. Patient's satisfaction, measured by a specific questionnaire developed by the scientific committee, for the patients in group A at 6 months

Overall study start date

01/03/2014

Completion date

31/12/2016

Eligibility

Key inclusion criteria

- 1. Men or women
- 2. Age >18 years
- 3. Diabetics with less four oral antidiabetics medications
- 4. HbA1c> 6.7%
- 5. Patient present at pharmacy for more than 6 months

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Sex

Both

Target number of participants

800

Key exclusion criteria

- 1. Cancer
- 2. Patients with insulin treatment or anti-diabetics injectables

Date of first enrolment

01/03/2014

Date of final enrolment

01/09/2016

Locations

Countries of recruitment

France

Study participating centre PHARMACIE NGHIEM

France 91600

Study participating centre PHARMACIE BONNET

France 34000

Study participating centre PHARMACIE GOULET

France 76620

Study participating centre PHARMACIE SUEUR

France 80230

Study participating centre PHARMACIE HENRY

France 18120

Study participating centre PHARMACIE BOUDON

France 15120

Study participating centre PHARMACIE BERTHOLOM

France 29910

Study participating centre PHARMACIE LAIR-MARTIN-LONGUESSERRE

France 31260

Study participating centre PHARMACIE STAHL

France 88290

Study participating centre PHARMACIE BERTOUX-FORESTIER

France 80134

Study participating centre PHARMACIE BERA

France 38114

Study participating centre PHARMACIE DERAM

France 62220

Study participating centre PHARMACIE RENUCCI

France 84210

Study participating centre PHARMACIE SCHAUB

France 73230

Study participating centre PHARMACIE GERMES-CANEPA

France 35300

Study participating centre PHARMACIE LOUBRIEU

France 49240

Study participating centre PHARMACIE OSTER-HILD

France 67400

Study participating centre PHARMACIE LAFORTUNE

France 91390

PHARMACIE BIZON

France 49280

Study participating centre PHARMACIE VAURY

France 91670

Study participating centre PHARMACIE THOUVEREY

France 71500

Study participating centre PHARMACIE MINGEAU

France 58150

Study participating centre PHARMACIE BOUTINET-DJILANI

France 17650

Study participating centre PHARMACIE VITOUX-GILLET

France 59550

Study participating centre PHARMACIE MOUTIER-DUMAS

France 87130

PHARMACIE LEPINE

France 87220

Study participating centre PHARMACIE DRIOUT

France 41500

Study participating centre PHARMACIE TROUSSELLE

France 49000

Study participating centre PHARMACIE TARODO DE LA FUENTE

France 81240

Study participating centre PHARMACIE RAYMOND-TAUGOURDEAU

France 49112

Study participating centre PHARMACIE BEGLIA JOEL

France 13200

Study participating centre PHARMACIE SCHAUB

France 73230

PHARMACIE BREYSSE

France 81200

Study participating centre PHARMACIE MALLIS

France 62440

Study participating centre PHARMACIE BONCHRISTIANI-ANDREANI

France 13013

Study participating centre PHARMACIE BERGEZ-BEVALOT

France 25000

Study participating centre PHARMACIE RODIER CABANIS

France 30420

Study participating centre PHARMACIE DODIN-MOTTE

France 95290

Study participating centre PHARMACIE DECLOITRE

France 33000

PHARMACIE MILLERET-VERNAY

France 21250

Study participating centre PHARMACIE DOUCET

France 45260

Study participating centre PHARMACIE BEL

France 31340

Study participating centre PHARMACIE GIRARD-PLANTE-VIEITEZ

France 31660

Study participating centre PHARMACIE LHOYER

France 60160

Study participating centre PHARMACIE SENEZ VANGHELUE

France 60840

Study participating centre PHARMACIE COUFFIGNAL-BONNY

France 94370

PHARMACIE AATEF-VINAY

France 26000

Study participating centre PHARMACIE HENRY

France 18120

Study participating centre PHARMACIE EDUS

France 90170

Study participating centre PHARMACIE BIZON

France 49280

Study participating centre PHARMACIE CHARTIER SEBASTIEN

France 62660

Study participating centre PHARMACIE LECUGY-VINCENT

France 45420

Study participating centre PHARMACIE NOLL

France 67280

PHARMACIE BLAISE-GRASMICK

France 54220

Study participating centre PHARMACIE BERA

France 38114

Study participating centre PHARMACIE COGNARD-LOURADOUR

France 87920

Study participating centre PHARMACIE GUILLEBOT-VERGARA

France 31160

Study participating centre PHARMACIE DERAM

France 62220

Study participating centre PHARMACIE DESERICOURT-PEREZ

France 13100

Study participating centre PHARMACIE LOUBRIEU

France 49240

PHARMACIE KARAYAN

France 60700

Study participating centre PHARMACIE GUILLEBOT-VERGARA

France 31160

Study participating centre PHARMACIE DODIN-MOTTE

France 95290

Study participating centre PHARMACIE LE BAIL

France 95610

Study participating centre PHARMACIE GIANNECCHINI

France 13124

Study participating centre PHARMACIE VIVIEN-MINIGHETTI

France 13200

Study participating centre PHARMACIE BERA

France 38114

PHARMACIE MAGNIEN

France 21240

Study participating centre PHARMACIE FABERT

France 23350

Study participating centre PHARMACIE MAGNIEN

France 21140

Study participating centre PHARMACIE PENNE-LESPIAU

France 40230

Study participating centre PHARMACIE DERAM

France 62220

Study participating centre PHARMACIE VIVIEN-MINIGUETTI

France 13200

Study participating centre PHARMACIE HAMON-PALLU

France 56800

PHARMACIE OSTER-CHILD

France 67400

Study participating centre PHARMACIE LAFORTUNE

France 91390

Study participating centre PHARMACIE DESACHY-DAVERAT

France 40360

Study participating centre PHARMACIE TIVOLLIER-GOBILLOT

France 51000

Study participating centre PHARMACIE VIVIEN-MINIGHETTI

France 13200

Study participating centre PHARMACIE FACQ

France 60160

Study participating centre PHARMACIE MALLIS

France 62440

PHARMACIE BROUSSEAU

France 44100

Study participating centre PHARMACIE OSTER-HILD

France 67400

Study participating centre PHARMACIE GABRIELLNI-DURAND-BRESSAC

France 13012

Study participating centre PHARMACIE POTHELUNE

France 72190

Study participating centre PHARMACIE PERONNE-DETRIN

France 80000

Study participating centre PHARMACIE FRANCK

France 93220

Study participating centre PHARMACIE LEBAIL

France 95610

PHARMACIE AUCLAIRE

France 45390

Study participating centre PHARMACIE MATHEVET

France 85250

Study participating centre PHARMACIE TROUILLOT-MAURIN-FAURY-VAZQUEZ

France 33190

Study participating centre PHARMACIE MOUTIER-DUMAS

France 87130

Study participating centre PHARMACIE RETAILLEAU

France 85600

Study participating centre PHARMACIE LEFEBRVRE-RICQUEBOURG

France 95710

Study participating centre PHARMACIE POLETTI-REPELLIN

France 73200

PHARMACIE PERONNE-DETRIN

France 80000

Study participating centre PHARMACIE BONCHRISTIANI-ANDREANI

France 13013

Study participating centre PHARMACIE HAMON-PALLU

France 56800

Study participating centre PHARMACIE MEUNIER

France 42100

Study participating centre PHARMACIE PENICAUT-BECHADE

France 87800

Study participating centre PHARMACIE CAMY

France 34070

Study participating centre PHARMACIE LE BAIL

France 95610

PHARMACIE AGRA

France 49510

Study participating centre PHARMACIE SICARD

France 51000

Study participating centre PHARMACIE POTHELUNE

France 72190

Study participating centre PHARMACIE LECUGY-VINCENT

France 45420

Study participating centre PHARMACIE MIR-RABILLER

France 65170

Study participating centre PHARMACIE CHAU

France 92160

Study participating centre PHARMACIE MALLIS

France 62440

PHARMACIE CHIEP

France 91160

Study participating centre PHARMACIE LAIR-MARTIN-LONGUESSERRE

France 31260

Study participating centre PHARMACIE GIMENO-BUSSON

France 41210

Study participating centre PHARMACIE OSTER-HILD

France 67400

Study participating centre PHARMACIE DE GRAEVE-MASSIP

France 31600

Study participating centre PHARMACIE COUTINHO DE ALMEIDA

France 85000

Study participating centre PHARMACIE FAURY

France 17610

PHARMACIE BORDAT

France 84300

Study participating centre PHARMACIE LEPINE

France 87220

Study participating centre PHARMACIE ROUSSEAU

France 45250

Study participating centre PHARMACIE LAFFLY

France 1000

Study participating centre PHARMACIE CORGNE

France 81800

Study participating centre PHARMACIE COUTINHO DE ALMEIDA

France 85000

Study participating centre PHARMACIE STAHL

France 88290

PHARMACIE BAFFOUX - ROUET

France 86000

Study participating centre PHARMACIE LE BAIL

France 95610

Study participating centre PHARMACIE BOUCHARD

France 78610

Study participating centre PHARMACIE VAURY

France 91670

Study participating centre PHARMACIE BORDAT

France 84300

Study participating centre PHARMACIE MONTAGNY-WELLHOFF

France 92270

Study participating centre PHARMACIE VAURY

France 91670

PHARMACIE BAUDIN-CIMETIERE

France 71520

Study participating centre PHARMACIE LAFORTUNE

France 91390

Study participating centre PHARMACIE THOMAS

France 79380

Study participating centre PHARMACIE LEFEBVRE-RICQUEBOURG

France 95710

Study participating centre PHARMACIE SCHREVEL

France 94400

Study participating centre PHARMACIE GERMES - CANEPA

France 35300

Study participating centre PHARMACIE THOUVEREY

France 71500

PHARMACIE LOUBRIEU

France 49240

Study participating centre PHARMACIE OSTER-HILD

France 67400

Study participating centre PHARMACIE ENJALBERT - LAMASSIAUDE

France 82130

Study participating centre PHARMACIE LEFEBVRE-RICQUEBOURG

France 95710

Study participating centre PHARMACIE SAHUGUET

France 54110

Study participating centre PHARMACIE COGNARD - LOURADOUR

France 87920

Study participating centre PHARMACIE HENRY

France 18120

PHARMACIE HAMON - PALLU

France 56800

Study participating centre PHARMACIE SEGUIN

France 69290

Study participating centre PHARMACIE BONNIN - JOUANNIN

France 23320

Study participating centre PHARMACIE LAIR -MARTIN -LONGUESSERRE

France 31260

Study participating centre PHARMACIE SOL-GIRAL

France 43110

Study participating centre PHARMACIE DECLOITRE

France 3300

Study participating centre PHARMACIE COGNARD - LOURADOUR

France 87920

PHARMACIE BARBE - LECLERCQ

France 89110

Study participating centre PHARMACIE VIVIEN - MINIGHETTI

France 13200

Study participating centre
PHARMACIE TIVOLLIER - GOBILLOT

France 51000

Study participating centre PHARMACIE LEYENDECKER

France 67130

Study participating centre PHARMACIE SEGUIN

France 69290

Study participating centre PHARMACIE BOUREL - EQUINET

France 80090

Study participating centre PHARMACIE DOUCET

France 45260

PHARMACIE LESOIF-GRIMAULT

France 53500

Study participating centre PHARMACIE BEGLIA JOEL

France 13200

Study participating centre PHARMACIE MOUSSLY

France 51230

Study participating centre PHARMACIE BOURDY-DUBOIS-CHANEL

France 58640

Study participating centre PHARMACIE VIVIEN - MINIGHETTI

France 13200

Study participating centre PHARMACIE HENRY

France 18120

Study participating centre PHARMACIE COHARD

France 86540

PHARMACIE LESOIF-GRIMAULT

France 53500

Sponsor information

Organisation

Observia

Sponsor details

Pépinière Paris Santé Cochin 29, Rue du Faubourg Saint Jacques Paris France 75014 +33 (0)1 81 80 24 50 laura.romengas@observia-group.com

Sponsor type

Research organisation

Organisation

MSD France

Sponsor details

34 Avenue Léonard de Vinci Courbevoie France 92400

Sponsor type

Industry

Funder(s)

Funder type

Industry

Funder Name

Merck

Alternative Name(s)

Merck & Co., Inc., Merck & Co.

Funding Body Type

Government organisation

Funding Body Subtype

For-profit companies (industry)

Location

United States of America

Results and Publications

Publication and dissemination plan

Planned publication in a high-impact reviewed journal.

Intention to publish date

31/12/2017

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Laura Romengas (laura.romengas@observia-group.com).

IPD sharing plan summary

Available on request

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|-----------------|---------|--------------|------------|----------------|-----------------|
| Results article | results | 01/06/2019 | 01/05/2020 | Yes | No |