



GA N° 668353

H2020 Research and Innovation

## Deliverable N°: D4.3

### Title: Translated patient surveys for the web-based intensive monitoring system

WP N° and Title: **WP4 - Clinical implementation and evaluation of pre-emptive PGx**

Lead beneficiary: **P1-LUMC**

Type: **Report**

Dissemination level: **Confidential**

Start date of project: 01/01/2016

Duration: 60 months

**Due date of deliverable:** Month 8

**Actual submission date:** Month [to be filled in by coordinator]

Comment: -



## Introduction

Included patients in the PREPARE study will have the possibility to report adverse events during research nurse contact (at four weeks and twelve weeks after index drug or subsequent drug initiation) or through the Lareb Intensive Monitoring (LIM) survey (at two weeks and eight weeks after index drug or subsequent drug initiation). See Figure 1. The benefit of adverse event data collection through the LIM system is that patients report directly to the system, without intervention of a health care provider. Therefore patients may feel more inclined to report adverse drug events. The LIM system is a web-based methodology developed by Netherlands Pharmacovigilance Center Lareb. This web-based intensive monitoring system has previously been validated by several clinical trials as a feasible and accurate method to collect adverse drug event data.

## PREPARE: Data Collection

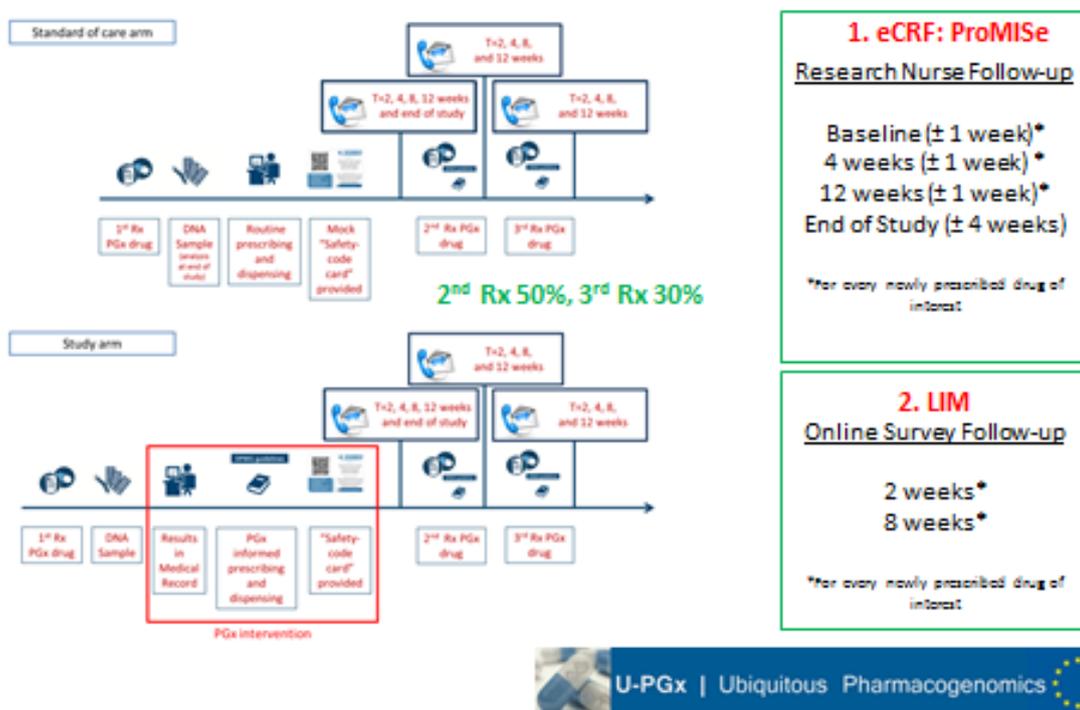


Figure 1 The LIM survey will be used to capture adverse event data at two weeks and eight weeks after index/subsequent drug initiation

## Results

### LIM questionnaire

The LIM questionnaire was developed in collaboration with Lareb and encompasses four domains:

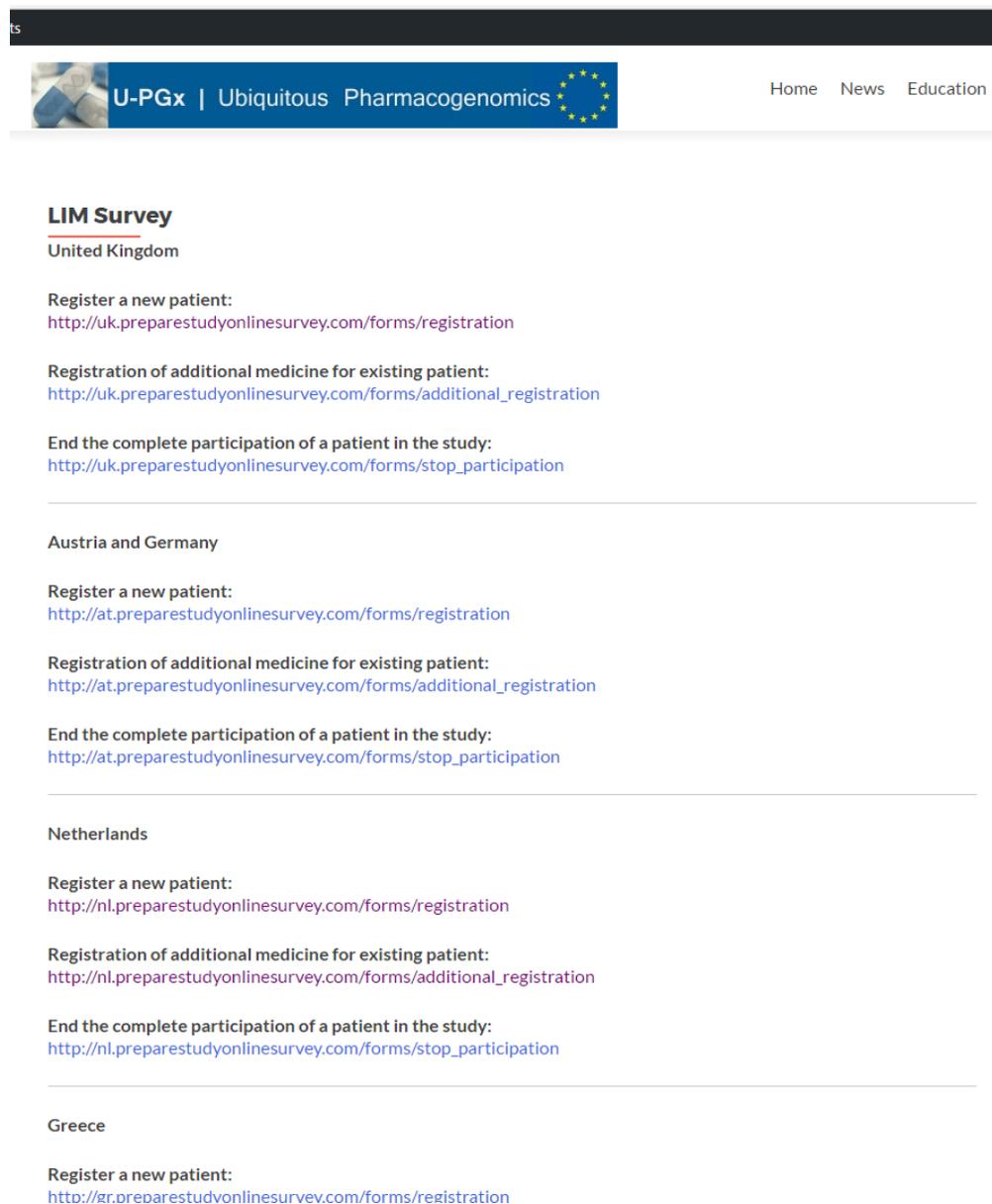
1. Side-effects
2. Quality of life
3. Attitudes towards pharmacogenomics
4. Side-effect related healthcare costs

See Appendix 1 for the complete question list in English.

The questionnaire was translated into seven languages (Dutch, Spanish, English, German, Greek, Slovenian and Italian) by the local research team.

## Registration of patients in LIM

Research nurses are able to register patients in the LIM system or withdraw patients from the LIM system through links which are placed on the U-PGx website, see Figure 2.



The screenshot shows the U-PGx website header with the logo and navigation links (Home, News, Education). Below the header, the 'LIM Survey' section is displayed, organized by country. Each country section includes three links: 'Register a new patient', 'Registration of additional medicine for existing patient', and 'End the complete participation of a patient in the study'. The countries listed are United Kingdom, Austria and Germany, Netherlands, and Greece.

**LIM Survey**  
United Kingdom

Register a new patient:  
<http://uk.preparestudyonlinesurvey.com/forms/registration>

Registration of additional medicine for existing patient:  
[http://uk.preparestudyonlinesurvey.com/forms/additional\\_registration](http://uk.preparestudyonlinesurvey.com/forms/additional_registration)

End the complete participation of a patient in the study:  
[http://uk.preparestudyonlinesurvey.com/forms/stop\\_participation](http://uk.preparestudyonlinesurvey.com/forms/stop_participation)

---

Austria and Germany

Register a new patient:  
<http://at.preparestudyonlinesurvey.com/forms/registration>

Registration of additional medicine for existing patient:  
[http://at.preparestudyonlinesurvey.com/forms/additional\\_registration](http://at.preparestudyonlinesurvey.com/forms/additional_registration)

End the complete participation of a patient in the study:  
[http://at.preparestudyonlinesurvey.com/forms/stop\\_participation](http://at.preparestudyonlinesurvey.com/forms/stop_participation)

---

Netherlands

Register a new patient:  
<http://nl.preparestudyonlinesurvey.com/forms/registration>

Registration of additional medicine for existing patient:  
[http://nl.preparestudyonlinesurvey.com/forms/additional\\_registration](http://nl.preparestudyonlinesurvey.com/forms/additional_registration)

End the complete participation of a patient in the study:  
[http://nl.preparestudyonlinesurvey.com/forms/stop\\_participation](http://nl.preparestudyonlinesurvey.com/forms/stop_participation)

---

Greece

Register a new patient:  
<http://gr.preparestudyonlinesurvey.com/forms/registration>

**Figure 2** Links used by research nurses to register an index drug, or subsequent drug(s) or withdrawal of a patient

The links are country specific, since the registration is performed in the local language, and the resulting registration is communicated in the local language.



The registration of a patient's index drug is shown in Figure 3. This must be done once the patient is included in the PREPARE study. Registration of a patient for a certain index drug will result in automated surveys being sent to patient after two weeks and eight weeks. When a patient does not fill in the survey, reminders are also automatically sent. The surveys expire at four weeks and ten weeks, respectively.

## Registration

Please fill in this registration form to make your patient participate in this PREPARE Study.

Unique patient studynumber: \*  
ⓘ This number is generated in ProMise

Patient date of birth \*

Medicine: \*

Startdate medicine: \*  
ⓘ You can only register the patient if the startdate is not more than 14 days ago

Email Address: \*  
ⓘ Please fill in the emailaddress of the patient

Password: \*  
ⓘ Please fill in the surname of the patient

Please be aware after clicking the send button below, your patient has to confirm his or her account with the web link in the email message that your patient will receive after clicking the send button below. It may take a few minutes before your patient receives this message.

Figure 3 Registration form for an index drug in English

The registration of a patient's subsequent drug is shown in Figure 3. This must be done once the patient reports having initiated a subsequent drug during follow-up. Registration of a patient for a certain subsequent drug will result in automated surveys being sent to patient after two weeks and eight weeks. When a patient does not fill in the survey, reminders are also automatically sent. The surveys expire at four weeks and ten weeks, respectively.



## Additional registration

This form allows you to add a medicine to an existing participant. Please fill in this form and submit this form by pushing the send button below.

Unique patient studynumber: \*

**i** This number is generated in ProMise

Medicine: \*

Start date medicine \*

**i** You can only register the patient if the startdate is not more than 14 days ago

Send

Study PREPARE: [www.upgx.eu](http://www.upgx.eu)

Figure 4 Registration form for a subsequent drug in English

If a patient withdraws from the study, the research nurse must also withdraw them from the LIM system, as shown in Figure 4.

## Stop participation

This form allows you to stop a participation in this study. Please fill in this form and submit this form by pushing the send button below.

Unique patient studynumber: \*

 This number is generated in ProMise

Figure 5 Withdrawal of a patient from the LIM system

## LIM website

Once a patient has been registered, they receive an email (in their local language) including a link, their username and password (their surname). Patients are redirected to the LIM survey once they click on the link and log in using their provided username and password (Figure 6). Each log in page has been translated into the local languages. Patients are asked to change their password the first time they log in. The figures below (Figure 6-8) show the display of the survey in English.

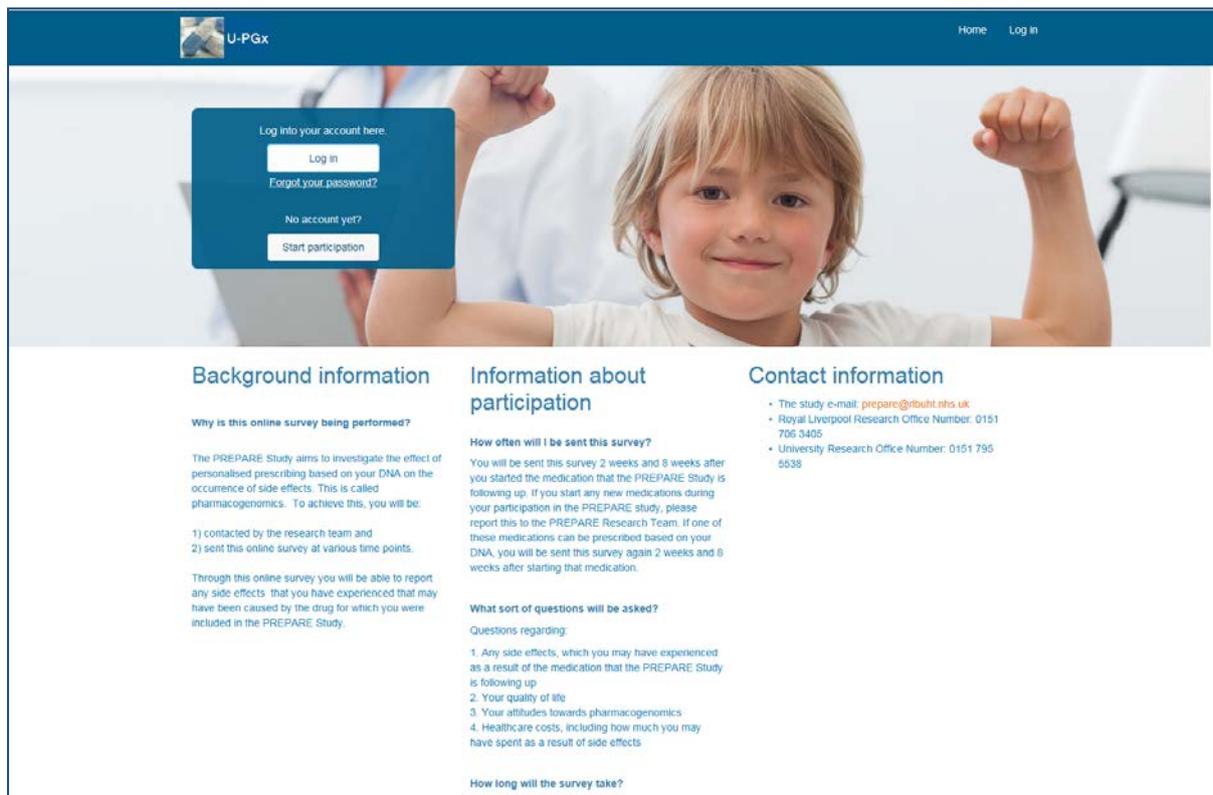


Figure 6 Log in page to LIM survey

See Appendix 2 for an overview of the questions (in English) and the user interface for the LIM survey.

The user interface of the question domains is shown in Figure 7. This interface shows the patient how many chapters are included in the survey and therefore gives the patient a sense of structure.



Welcome

Side-effect

Quality of life

Attitudes towards pharmacogenomics

Completion

**\* All questions are mandatory**

**Welcome to the PREPARE Study online survey!**

This survey will pose questions regarding your experiences with the drug: {{U-PGx medicine.surveymedicine}}, which you have started using 2 weeks ago. If you have stopped using this medication, please still fill in this survey.

The survey consists of 2 short sections. Please answer all questions before continuing to the next section.

Figure 7 The LIM survey user interface

## Summary/Conclusions

The LIM survey has been developed in collaboration with Lareb. Both the questionnaire and the user interface have been successfully translated in seven languages. Research nurses have been provided with their personal log in codes. In conclusion, the LIM system is ready for use in the PREPARE study.



## Appendix 1: LIM questionnaire

Primary list	ENGLISH QUESTIONS	ENGLISH ANSWERS
<b>1.</b>	<b>1. Side-effects related to your medication ([UPGXDRUG])</b>	
<b>Instructions</b>	In this section, you will be asked questions regarding side effects. These questions only relate to the side effects caused by medication for which you were included in the PREPARE Study. Please answer all questions to the best of your ability before you proceed to the next section.	
1.1	Are you still using the medication that was prescribed to you ([UPGXDRUG])?	Yes
		No
		I don't know
	<i>When yes: continue to 1.2</i>	
1.1.1	<i>When no:</i> What was the reason for stopping this medication?	It did not work
		It gave me side effects
		I don't know
1.1.2	Did someone recommend for you to stop this medication?	Yes, my doctor
		Yes, another health care professional
		Yes, someone else (please specify) -> <i>Text field</i>
		No
		I don't know
1.2 (2 weeks / 8 weeks)	Since starting your new medication/Since the last online survey, did you experience any side effects from this medication?	Yes
		No
		I don't know
1.2.1	<i>When yes:</i> Which side effect did you experience? (If you experienced more than one side effect, please describe only one side effect at a time)	Text field
		I don't know
1.2.2	How long after start of [UPGXdrug] did the side effect start?	
		I don't know
1.2.3	Has the side effect stopped yet?	Yes
		No
		I don't know
1.2.3.1	<i>When yes:</i> How long ago did it stop?	
		I don't know
1.2.4	Did you undertake any actions when you experienced this side effect?	Yes
		No
		I don't know
1.2.4.1	<i>When yes:</i> What actions did you undertake?	Text field
		I don't know
1.2.5	Did you report this side effect to a health care professional?	Yes
		No
		I don't know



1.2.5.1	When yes: Who did you report this to?	A general practitioner
		A pharmacist
		A medical specialist
		A nurse
		Other (please specify)-> text field
		I don't know
1.2.6	Did you report this side effect to the PREPARE Research Team?	Yes
		No
		I don't know
1.2.6.1	<i>When no:</i> Are you planning on reporting it during your next scheduled interview/visit?	Yes
		No
		I don't know
1.2.7	Since starting your new medication/Since the last online survey, how often did you have this side effect?	Once
		Rarely
		Occasionally
		Frequently
		Almost constantly
		I don't know
1.2.8	Since starting your new medication/Since the last online survey, what was the severity for this side effect at its worst?	None
		Mild
		Moderate
		Severe
		Very severe
		I don't know
	Since starting your new medication/Since the last online survey, how much did the side effect interfere with your usual daily activities?	Not at all
		A little bit
		Somewhat
		Quite a bit
		Very much
		I don't know
1.2.9	Did you experience any more side effects caused by the [UPGXDRUG]?	Yes
		No
		I don't know
1.2.9.1	<i>When yes: repeat from 1.2</i>	
	<i>When no: forward to section 2</i>	
	<i>When I don't know: forward to section 2</i>	
<b>2.</b>	<b>2. Quality of life</b>	
<b>Instructions</b>	In this section, you will be asked questions regarding your quality of life. Please answer all questions to the best of your ability before you proceed to the next section.	
2.1	How do you rate your health today (from 0 worst health state-100 best health state)?	
		I don't know



2.2	Imagine that you have 10 years left to live and that you are given the option to trade off some life years for a shorter period of life in full health. How many years of full health do you think are of equal value to 10 years in your current health state?	
		I don't know
<b>3.</b>	<b>3. Attitudes towards pharmacogenomics</b>	
<b>Instructions</b>	In this section, you will be asked questions regarding your attitudes towards pharmacogenomics. Please answer all questions to the best of your ability before you proceed to the next section.	
3.1	Did you ever experience side effects of a prescription drug?	Yes
		No
		I don't know
3.1.1	<i>When yes:</i> Did you stop taking the drug?	Yes
		No
		I don't know
3.2	Did you ever stop taking a drug due to ineffectiveness?	Yes
		No
		I don't know
<b>Instructions</b>	Pharmacogenomics is the study of genetic variability affecting an individual's response to a drug. Please indicate whether you agree or disagree with the statement provided.	
3.3	I am familiar with pharmacogenomics.	Disagree
		Agree
		I don't know
3.4	I would you like to be tested on my pharmacogenomics profile before prescription of a drug.	Disagree
		Agree
		I don't know
3.5	Pharmacogenomic testing contributes to reduce frequency and severity of adverse drug events.	Disagree
		Agree
		I don't know
3.6	I would like to learn more about pharmacogenomics.	Disagree
		Agree
		I don't know
<b>4.</b>	<b>4. Healthcare costs [this section will only be shown if they have reported at least one side effect in section 1]</b>	
<b>Instructions</b>	In this section, you will be asked questions regarding the healthcare costs related to all the side effects which were reported in Section 1. Please answer all questions to the best of your ability.	
<b>Instructions if no side effect was reported in 1.</b>	Since no side effects were reported, you are not required to complete this section.	
4.1	Did you buy any over the counter medication (i.e. drugs that do not require a doctor's prescription) to treat the side effect(s)?	Yes
		No



		I don't know
<b>4.1.1</b>	<i>When yes:</i> Please indicate how much you spent on over the counter medication. Round off to the nearest euro/pound	<i>Number with 0 decimal places euros/pounds</i>
		I don't know
<b>4.2</b>	Did you encounter any productivity loss (i.e. were not able to work)?	Yes
		I am unemployed/retired
		No
		I don't know
<b>4.2.1</b>	<i>When yes:</i> Please indicate how many days you were not able to work.	<i>Number with 0 decimal places</i>
		I don't know
	Were you admitted to hospital due to the side effect(s)?	Yes
		No
		I don't know
<b>4.3</b>	<i>When yes:</i> Please indicate how many days you were admitted to hospital.	<i>Number with 0 decimal places</i>
		I don't know



## Appendix 2: LIM Survey Interface

### Welcome

2:

Page: Welcome

Welcome to the PREPARE Study online survey!

This survey will include questions regarding your experiences with {{U-PGx medicine.surveymedicine}}, which you have started using 2 weeks ago. Even if you have stopped using this medication, please still complete this survey.

The survey consists of 3 short sections. Please answer all questions before continuing to the next section. If you have any questions regarding the survey, please do not hesitate to contact the PREPARE Research Team.

Kind regards,

The PREPARE Research Team

The study e-mail: [prepare@rlbuht.nhs.uk](mailto:prepare@rlbuht.nhs.uk)  
Royal Liverpool Research Office Number - 0151 706 3405  
University Research Office Number – 0151 795 5538

8:

Page: Welcome

Welcome to the PREPARE Study online survey!

This survey will include questions regarding your experiences with {{U-PGx medicine.surveymedicine}}, which you have started using 8 weeks ago. Even if you have stopped using this medication, please still complete this survey.

The survey consists of 3 short sections. Please answer all questions before continuing to the next section. If you have any questions regarding the survey, please do not hesitate to contact the PREPARE Research Team.

Kind regards,

The PREPARE Research Team

The study e-mail: [prepare@rlbuht.nhs.uk](mailto:prepare@rlbuht.nhs.uk)  
Royal Liverpool Research Office Number - 0151 706 3405  
University Research Office Number – 0151 795 5538



## Side-effects related to your medication {{U-PGx medicine.surveymedicine}}

Page: Bijwerkingen gerelateerd aan uw medicatie ({{U-PGx medicine.surveymedicine}})

In this section, you will be asked questions about side effects. These questions only relate to the side effects caused by medication(s) that the PREPARE Study is following up. Please answer all questions to the best of your ability before you proceed to the next section.

Are you still using the medication that was prescribed ({{U-PGx medicine.surveymedicine}})? \*

- Yes
- No
- I don't know

Reason stopping

What was the reason for stopping the medication? \*

- It did not work
- It gave me side effects
- I don't know

Did someone recommend that you stop this medication? \*

- Yes, my doctor
- Yes, another health care professional
- Yes, someone else (please specify):
- No
- I don't know

2:

Since starting your new medication, did you experience any side effects from this medication? \*

- Yes
- No
- I don't know

8:

Since the last online survey, did you experience any side effects from this medication? \*

- Yes
- No
- I don't know



## Side-effects

What side effect(s) did you experience? \*

 If you experienced more than one side effect, please describe one at a time.

How long after starting your {{U-PGx medicine.surveymedicine}} did the side effect occur? \*

 day(s) 

Has the side-effect now stopped? \*

- Yes  
 No  
 I don't know

## Stopdate

How long ago did it stop? \*

 day(s) 

Did you do anything about this side effect? \*

- Yes  
 No  
 I don't know

## What actions

What actions did you undertake? \*

Did you report this side effect to a health care professional? \*

- Yes  
 No



## ▼ Report to

Who did you report it to? \*

 You can select multiple answers

- A general practitioner
- A pharmacist
- A medical specialist
- A nurse
- Other (please specify):
- I don't know

Did you report this side effect to the PREPARE Research Team? \*

- Yes
- No
- I don't know

## ▼ Report HCP next visit?

Are you planning to report it during your next scheduled interview/visit? \*

- Yes
- No
- I don't know

2:



Since starting your new medication how often did you have this side effect? \*

- Once
- Rarely
- Occasionally
- Frequently
- Almost constantly
- I don't know

Since starting your new medication, what was the severity for this side effect at its worst? \*

- None
- Mild
- Moderate
- Severe
- Very severe
- I don't know

Since starting your new medication how much did the side effect interfere with your usual daily activities? \*

- Not at all
- A little bit
- Somewhat
- Quite a bit
- Very much
- I don't know

8:



Since the last online survey how often did you have this side effect? \*

- Once
- Rarely
- Occasionally
- Frequently
- Almost constantly
- I don't know

Since the last online survey, what was the severity for this side effect at its worst? \*

- None
- Mild
- Moderate
- Severe
- Very severe
- I don't know

Since the last online survey how much did the side effect interfere with your usual daily activities? \*

- Not at all
- A little bit
- Somewhat
- Quite a bit
- Very much
- I don't know



Did you buy any over the counter medication (i.e. drugs that do not require a doctor's prescription) to treat the side effect? \*

- Yes
- No
- I don't know

## indicate\_cost\_OTC

Please indicate how much you spent on over the counter medication. Round off to the nearest euro/pound \*

 euro 

Did you encounter any productivity loss (i.e. were not able to work)? \*

- Yes
- I am unemployed/retired
- No
- I don't know

## Days productivity loss

Please indicate how many days you were not able to work. \*

 day(s)

Were you admitted to hospital due to the side effect(s)? \*

- Yes
- No
- I don't know

## Days in hospital

Please indicate how many days you were in hospital: \*

 day(s)

Did you experience any more side-effects caused by {{U-PGx medicine.surveymedicine}}, please use the additional function (button below)



## Quality of life

In this section, you will be asked questions about your quality of life. Please answer all questions to the best of your ability before you proceed to the next section.

How do you rate your health today on a scale from 0 (the worst health state) to 100 (the best health state)? \*

From 0 worst health state-100 best health state

\_\_\_\_\_●\_\_\_\_\_

Imagine that you have 10 years left to live and that you are given the option to trade off some life years for a shorter period of life in full health. How many years of full health do you think are of equal value to 10 years in your current health state? \*

\_\_\_\_\_●\_\_\_\_\_



## Attitudes towards pharmacogenomics

Page: Attitudes towards pharmacogenomics

In this section, you will be asked questions about your attitudes towards pharmacogenomics. Please answer all questions to the best of your ability before you proceed to the next section.

Have you ever experienced side effects from a prescription drug? \*

- Yes  
 No  
 I don't know

If Yes

Did you stop taking the drug due to the side effect? \*

- Yes  
 No  
 I don't know

Did you ever stop taking a drug due to it not working well enough for you? \*

- Yes  
 No  
 I don't know

Pharmacogenomics is the study of genetic variability affecting an individual's response to a drug. Please indicate whether you agree or disagree with the following statements.

I am familiar with pharmacogenomics: \*

I would like to be tested on my pharmacogenomics profile before prescription of a drug \*

Pharmacogenomic testing contributes to reducing the frequency and severity of adverse drug events \*

I would like to learn more about pharmacogenomics \*



## Completion

2:

▼ Page: Completion 



You have almost completed the survey. Please send your questionnaire to us by clicking the send button below.

Thank you for completing the 2 week survey for {{U-PGx medicine.surveymedicine}}! You will receive an invitation for the second (8 week survey) in 6 weeks time.

8:

▼ Page: Completion 

You have almost completed the survey. Please send your questionnaire to us by clicking the send button below.

Thank you for completing the 8 week survey for {{U-PGx medicine.surveymedicine}}!

