

# **CHRIS Study**

## **Interview – Circulation**

Version 1.1

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## 1. Introduction

This module stores information related to the circulation diseases of the participant, that was collected at the interview.

Participants book a morning appointment at the CHRIS study center, ranging from 7.45 to 8.45 a.m. Each study participant is assigned a workflow at the reception. If there are ten study participants (maximum capacity), there are ten different workflows, marked with the letters from “A” to “K”. The current workflow is as follows: A-B-C-D-E-F-G-H-I-K. All the workflows can be found in the documentation of CHRIS Baseline/General information/Administrative data, in the file named “Workflows at baseline assessment”. The interview occurs always after the spiralography and the blood drawing, for most as the last session, after the ECG assessment and the self-administered questionnaire (workflows B, C, E, F, H, I, L). For the remainder, the interview occurs after breakfast and just before the self-administered questionnaire (workflows A and G) or in between the blood drawing and the anthropometry (workflow D).

The interview full text and its corresponding answer lists are available at CHRIS Baseline/Interview. This module is based on the MICROS questionnaire, the PhenX Toolkit Pheripheral Arterial Disease Protocol, the PhenX Toolkit Pulmonary Embolism Protocol, and the PhenX Toolkit Deep Venous Thrombosis Protocol. The PhenX (consensus measures for Phenotypes and eXposures) aims at promoting standard measurement protocols and to enhance collaborative research merging multiple studies. The PhenX Toolkit offers high-quality, well-established protocols to measure phenotypes in studies with human participants.

## 2. History version changes

This module version was not present since the beginning of the CHRIS study, in August 2011. Indeed, its Version 1 was in use between November 5<sup>th</sup>, 2012 and December 7<sup>th</sup>, 2012, whereas the Version 2 was in use since December 10<sup>th</sup>, 2012.

### Version 1 to Version 2

**question filtering criteria changed:** x0ci06a (only if x0ci06=1), x0ci06b (only if x0ci06=1)

## 3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The variables on peripheral arterial disease, varicose veins, phlebitis on the legs, pulmonary embolus, and on diagnosis of deep venous thrombosis, x0ci01, x0ci03, x0ci04, x0ci05, x0ci06, had their observations transformed into:
  - a) “Not in use” (-98) if they were missing and the questionnaire version x0civer was missing (i.e. the module was not yet present),
  - b) “Unexpected missing” (-89) if they were still missing,
  - c) “Don’t know” (-88) if the participant chose the answer option “I do not know”.
3. The variables on treatment of peripheral arterial disease, x0ci02a, x0ci02b, x0ci02c, had their observations transformed into:

- a) “Not in use” (-98) if they were missing and the questionnaire version x0civer was missing (i.e. the module was not yet present),
  - b) “Missing by design” (-99) if they were missing and no peripheral arterial disease was reported (i.e. x0ci01= “No”, “Don’t know” or “Missing by design”),
  - c) “Unexpected missing” (-89) if they were still missing,
  - d) “Don’t know” (-88) if the participant chose the answer option “I do not know”.
4. The variables on treatment and outpatient tests of deep venous thrombosis, x0ci06a and x0ci06b, had their observations transformed into:
  - a) “Missing by design” if they were missing and no deep venous thrombosis was reported (i.e. x0ci06= “No”, “Don’t know” or “Missing by design”),
  - b) “Unexpected missing” if they were still missing,
  - c) “Don’t know” (-88) if the participant chose the answer option “I do not know”.
5. The variables storing the notes additional information on venous diseases and arterial diseases, x0cin1, x0cin2, and x0cinote, were translated and categorized when possible.
6. The baseline dataset was saved.

#### 4. Advices for the analysis

The content of the nurse’s notes, referring to circulation diseases, can include information on circumstances around the diagnosis, its timing and treatment, and occurrences of vein thrombosis in parts of the body other than legs. The generic notes variable also reports other circulation diseases that were not mentioned elsewhere.

The current medications can be looked at in the drugs module x0dd, where the participant let their current medication packages be scanned by the nurse at the study center. Specifically, the variable x0dd36 describes the current use of antithrombotics.

Finally, the analyst should always take into account that the operator in charge of carrying out the interview might have influenced how the participant reported their answers. The analyst should therefore adjust for the operator variable, x0\_opintc, when possible.

#### 5. References

Pattaro C, Marroni F, Riegler A, Mascalzoni D, Pichler I, Volpato CB, et al. The genetic study of three population microisolates in South Tyrol (MICROS): study design and epidemiological perspectives. BMC Med Genet. 2007 Jun 5;8:29. DOI: [10.1186/1471-2350-8-29](https://doi.org/10.1186/1471-2350-8-29)

Hamilton CM, Strader LC, Pratt JG, Maiese D, Hendershot T, Kwok RK, et al. The PhenX Toolkit: get the most from your measures. Am J Epidemiol. 2011;174(3):253-60. DOI: [10.1093/aje/kwr193](https://doi.org/10.1093/aje/kwr193)

PhenX ToolKit Peripheral Arterial Disease: <https://www.phenxtoolkit.org/protocols/view/40901>

PhenX ToolKit Pulmonary Embolism: <https://www.phenxtoolkit.org/protocols/view/41301>

PhenX ToolKit Deep Venous Thrombosis: <https://www.phenxtoolkit.org/protocols/view/41201>