

The iCRF Generator

- Generate Interoperable CRFs -

Sander de Ridder

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When designing a new electronic CRF...



Researcher A

When designing a new electronic CRF...

In my new study my crf will look like this:

- 4.1 Rare disease's diagnosis
 - ☐ Maffucci syndrome
 - ☐ Vascular tumor with associated anomalies



Researcher A

When designing a new electronic CRF...

I will use:

0 = Maffucci syndrome

1 = Vascular tumor with
associated anomalies



Researcher A

When designing a new electronic CRF...

I will use:
0 = Maffucci syndrome
1 = Vascular tumor with
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Researcher A



Researcher B

When designing a new electronic CRF...

I will use:

0 = Maffucci syndrome
1 = Vascular tumor with
associated anomalies



Researcher A

In my new study my crf
will look like this:

- 4.1 Rare disease's diagnosis
 - ☐ Maffucci syndrome
 - ☐ Vascular tumor with associated anomalies



Researcher B

When designing a new electronic CRF...

I will use:

0 = Maffucci syndrome
1 = Vascular tumor with
associated anomalies

I will use:

"A" = Maffucci syndrome
"B" = Vascular tumor with
associated anomalies



Researcher A



Researcher B

When designing a new electronic CRF...

I will use:

0 = Maffucci syndrome
1 = Vascular tumor with
associated anomalies

I will use:

"A" = Maffucci syndrome
"B" = Vascular tumor with
associated anomalies



Researcher A



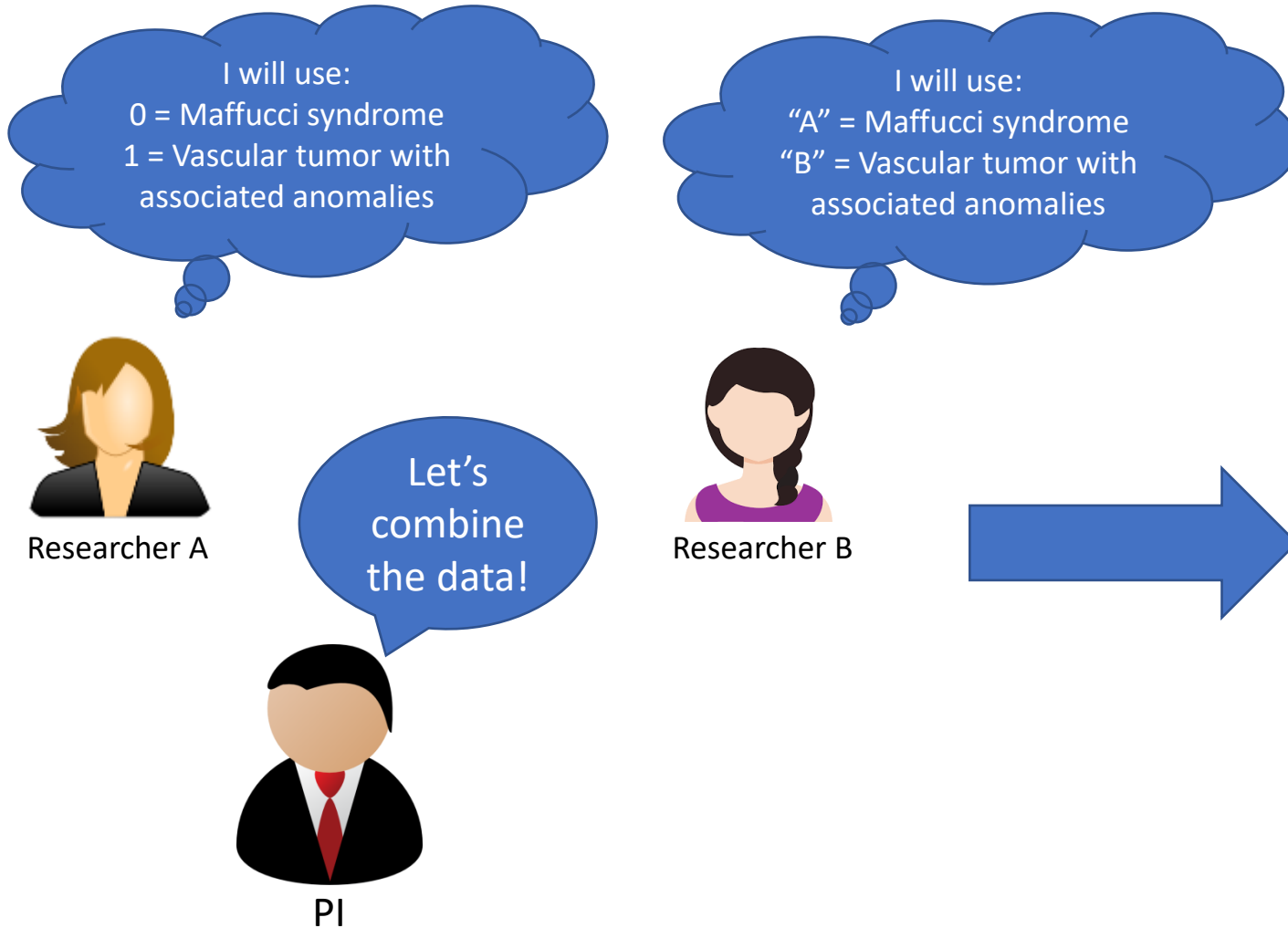
Researcher B

Let's
combine
the data!



PI

When designing a new electronic CRF...



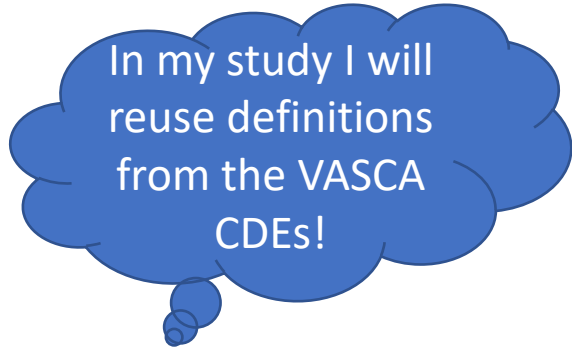
It's a mess!
Data not interoperable!

Let's try again, but a bit more interoperable...



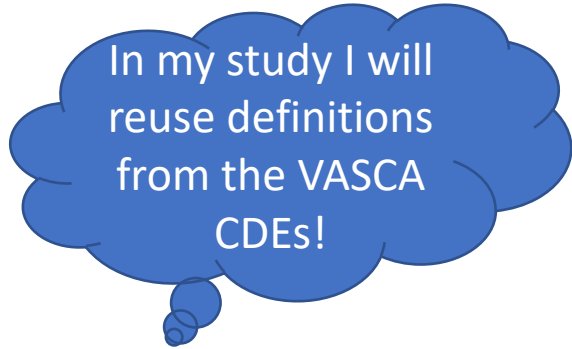
Researcher A

Let's try again, but a bit more interoperable...



Researcher A

Let's try again, but a bit more interoperable...



Researcher A

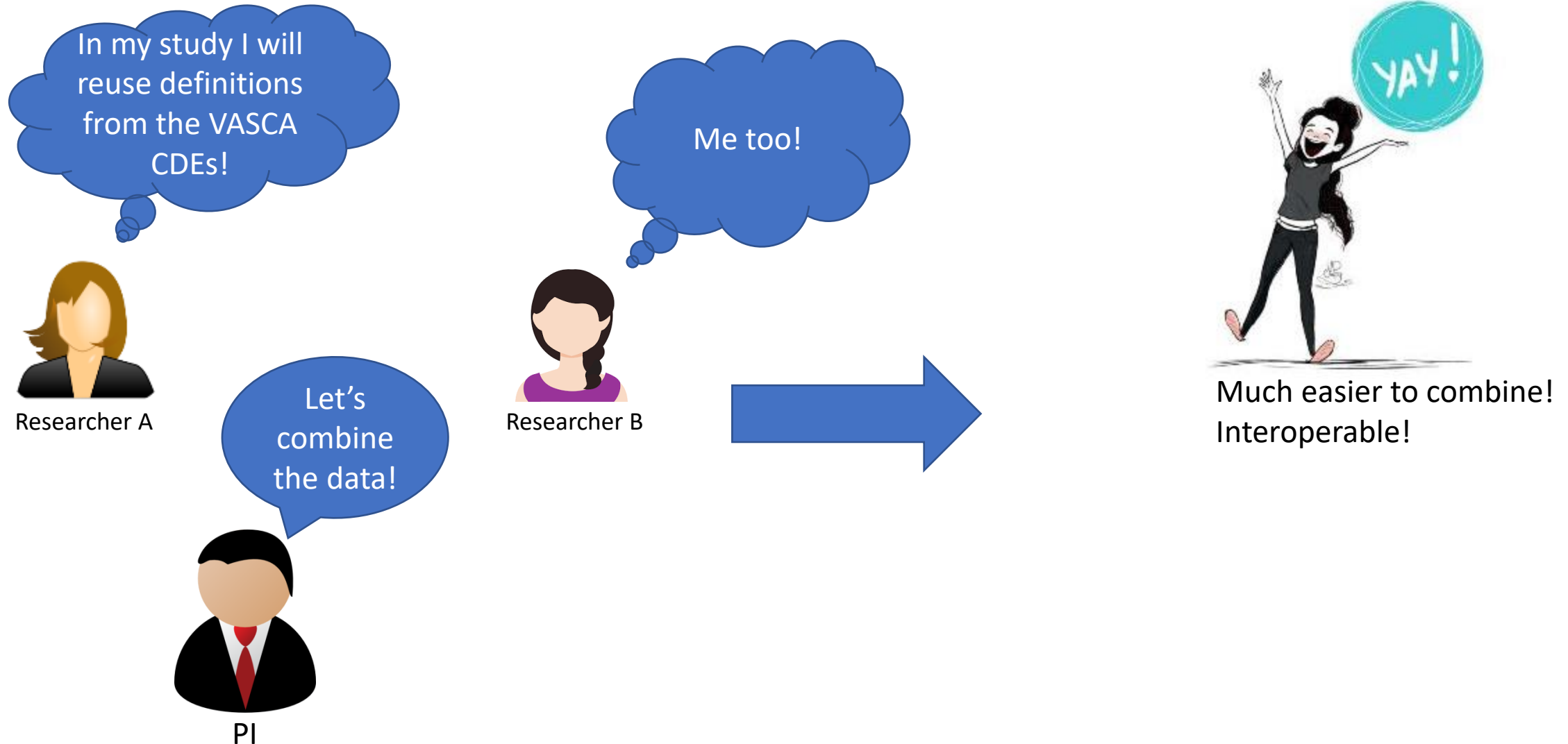


Researcher B

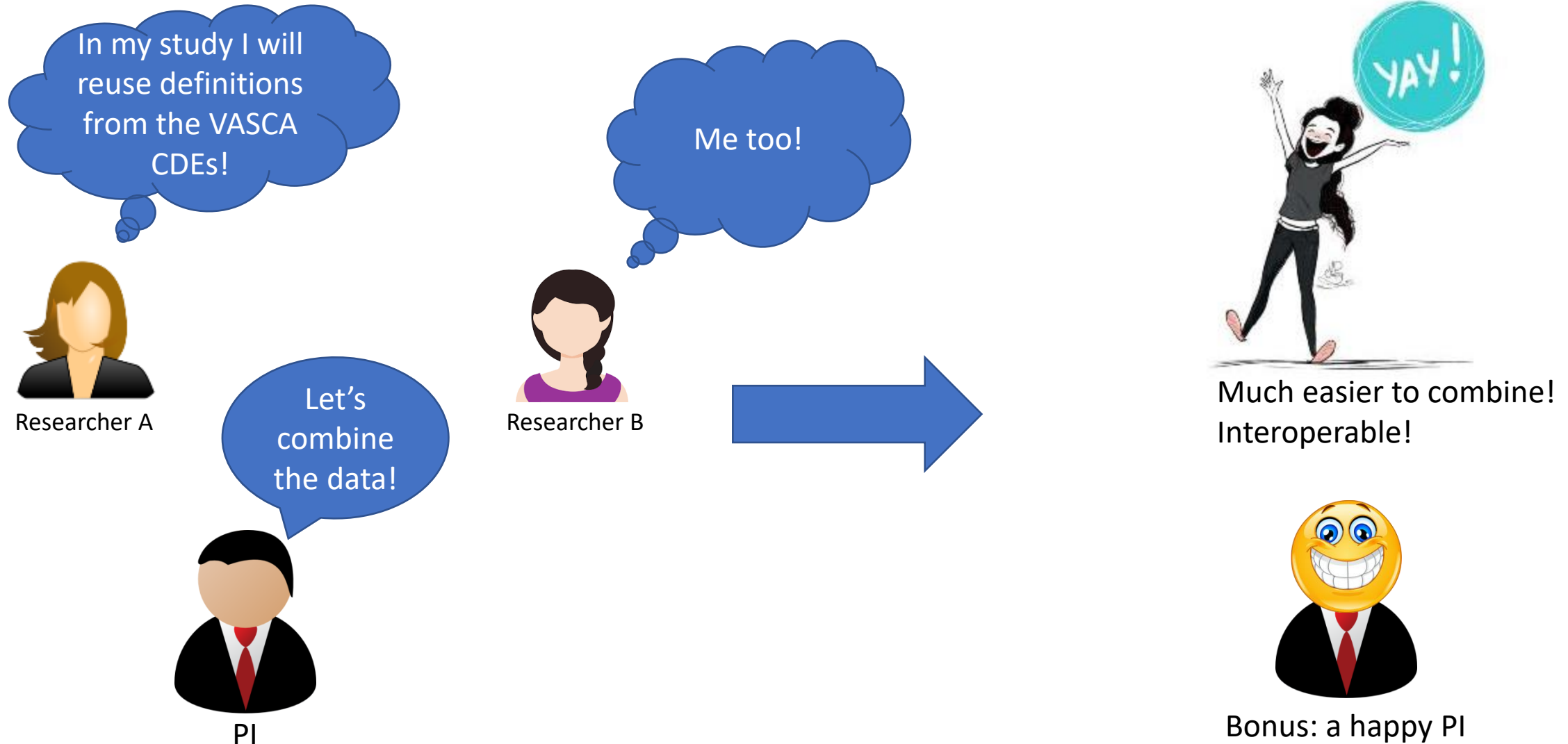
Let's try again, but a bit more interoperable...



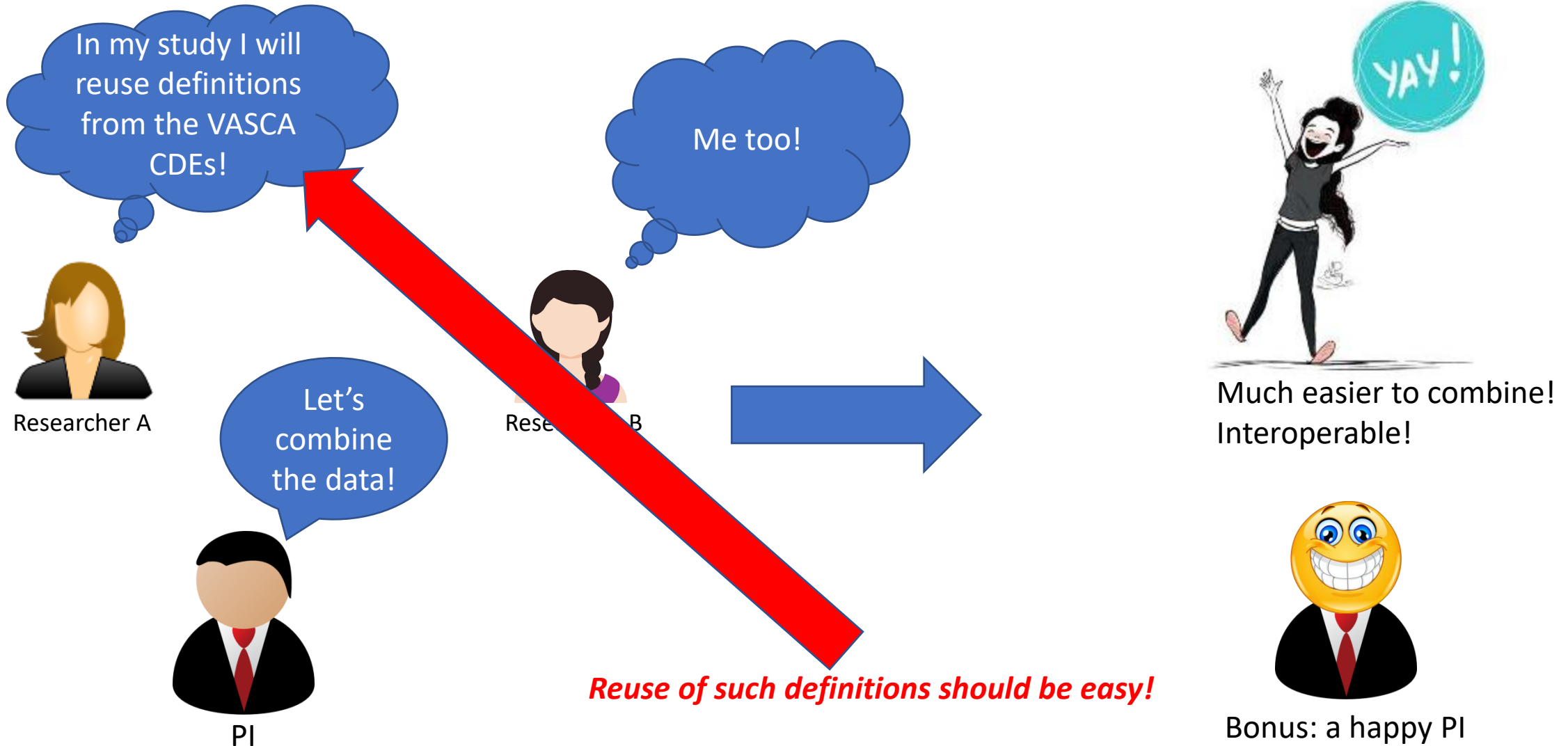
Let's try again, but a bit more interoperable...



Let's try again, but a bit more interoperable...

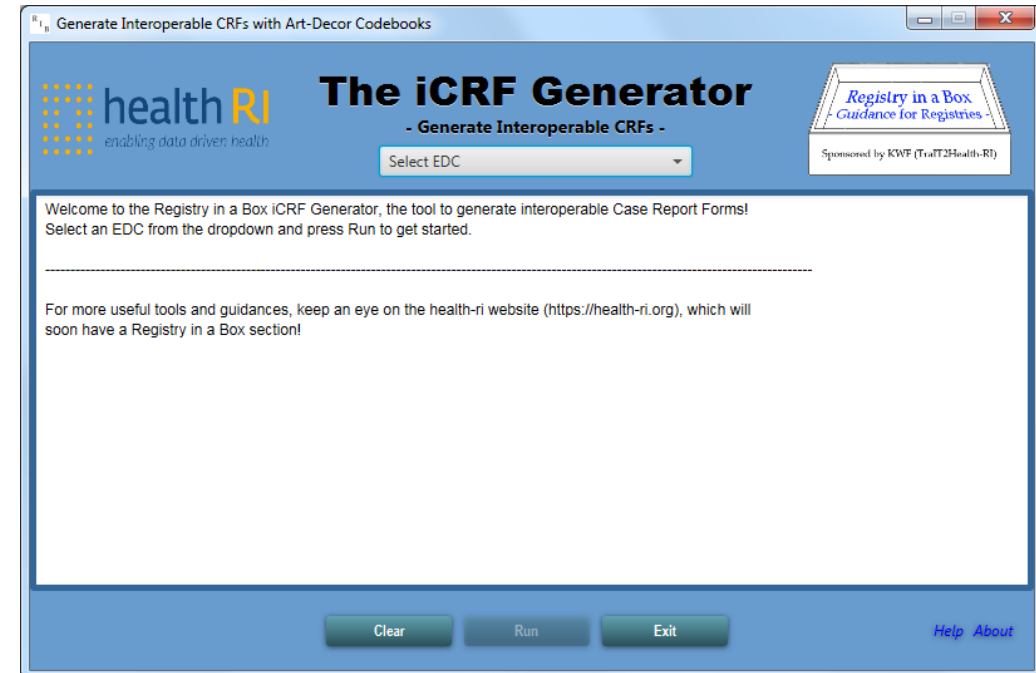


Let's try again, but a bit more interoperable...



The iCRF Generator

- Easy to use tool to generate Interoperable Case Report Forms
 - Uses codebooks stored in ART-DECOR, e.g.
 - Basic Health Data Set (Basisgegevensset Zorg)
 - Clinical Building Blocks (Zorginformatiebouwstenen)
 - RIVM population screening
 - [VASCA](#)
- Currently supports
 - OpenClinica 3
 - Castor (Step, Report, Survey)
 - REDCap



The iCRF Generator Flow

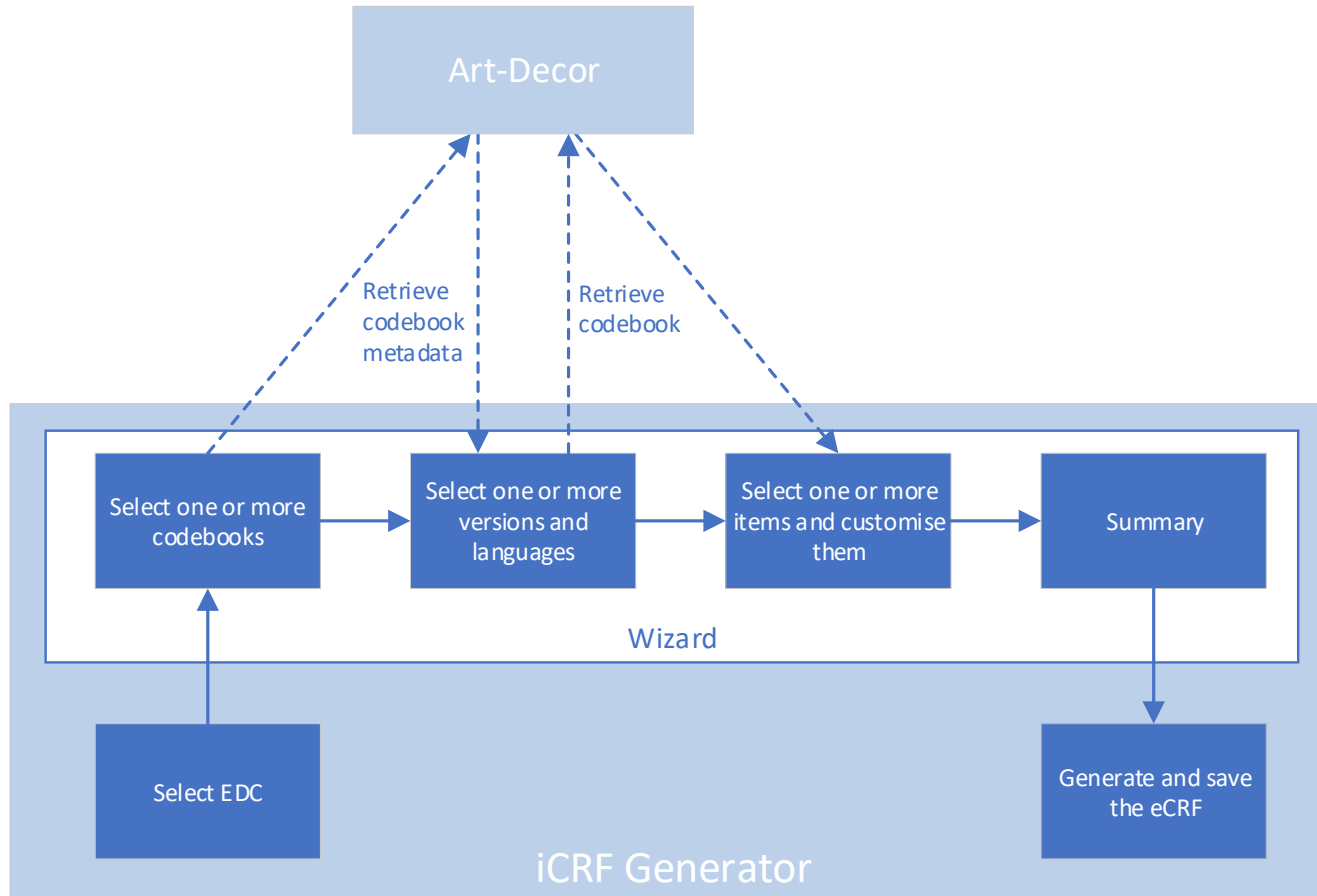


Illustration of the flow inside the application. Dark blue steps are further illustrated with screenshots in the next slides.

Recently Added Features (v1.1)

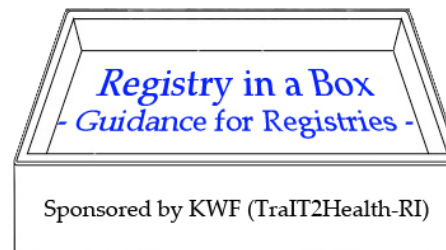
- Support for Castor Reports & Surveys
- Support for ART-DECOR custom properties
- Support for custom ART-DECOR codebooks

Future work

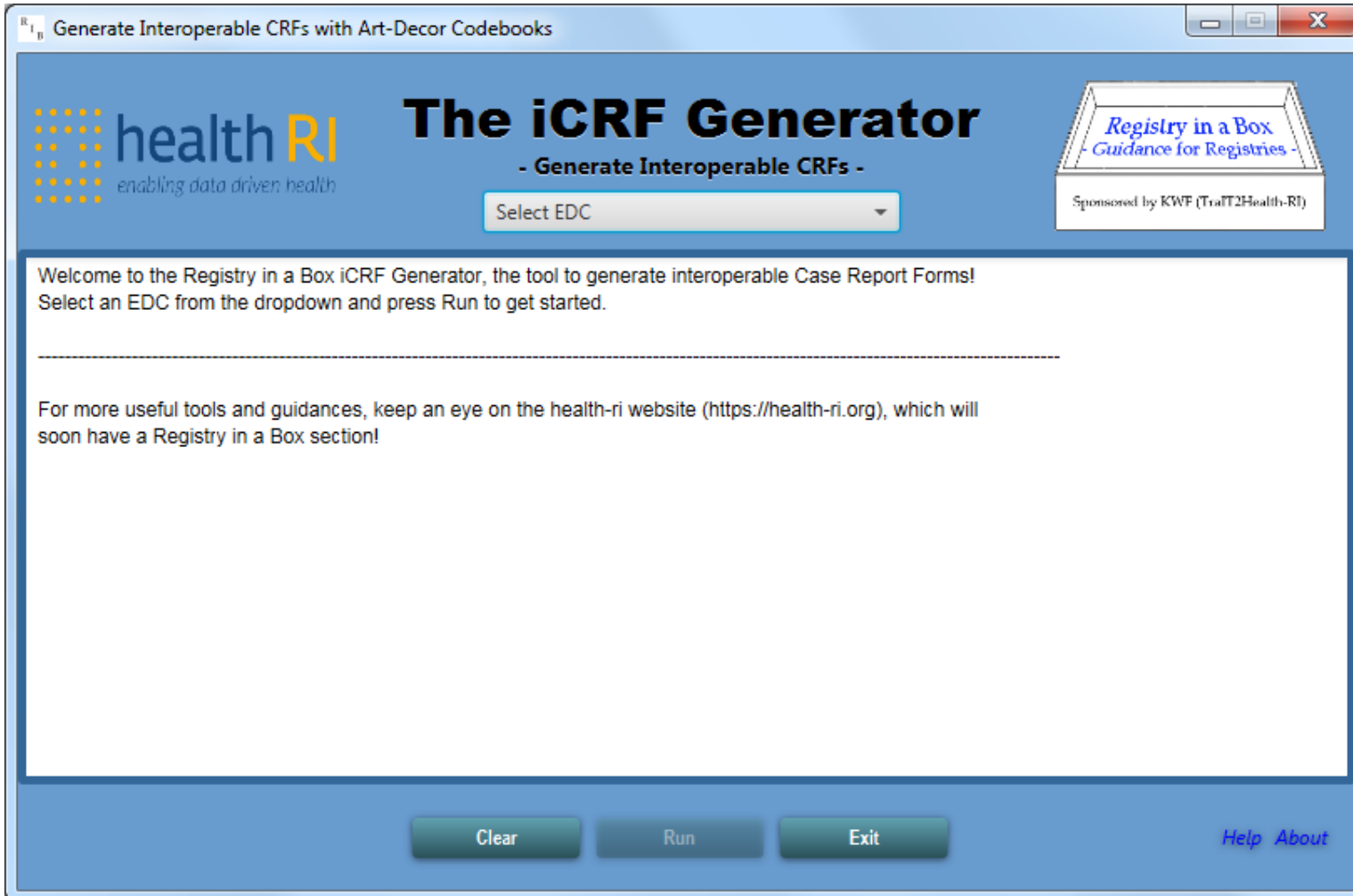
- New features and necessary improvements
 - Include Research Manager and Molgenis EMX
- Add more codebooks when available and if they have added value

To schedule a demo or learn more

- Contact us:
 - Sander de Ridder - a.deridder1@amsterdamumc.nl
 - Jeroen Beliën - jam.belien@amsterdamumc.nl
- Read the paper:
 - <https://f1000research.com/articles/9-81>
- Download the tool and give it a try:
 - Tool - <https://github.com/aderidder/iCRFGenerator/releases>
 - Source code - <https://github.com/aderidder/iCRFGenerator>



The iCRF Generator - Usage



The screenshot shows a web browser window titled "Generate Interoperable CRFs with Art-Decor Codebooks". The main header area is blue and contains the "health RI" logo on the left, the title "The iCRF Generator" in large bold letters, and a subtitle "- Generate Interoperable CRFs -". Below the subtitle is a dropdown menu labeled "Select EDC". To the right of the header is a box graphic with the text "Registry in a Box - Guidance for Registries -" and "Sponsored by KWF (TraTT2Health-RI)". The main content area is white and contains a welcome message: "Welcome to the Registry in a Box iCRF Generator, the tool to generate interoperable Case Report Forms! Select an EDC from the dropdown and press Run to get started." Below this is a dashed line and another message: "For more useful tools and guidances, keep an eye on the health-ri website (<https://health-ri.org>), which will soon have a Registry in a Box section!". At the bottom of the window is a blue bar with three buttons: "Clear", "Run", and "Exit". To the right of these buttons are links for "Help" and "About".

health RI enabling data driven health

The iCRF Generator

- Generate Interoperable CRFs -

Select EDC

Registry in a Box
- Guidance for Registries -

Sponsored by KWF (TraTT2Health-RI)

Welcome to the Registry in a Box iCRF Generator, the tool to generate interoperable Case Report Forms!
Select an EDC from the dropdown and press Run to get started.

For more useful tools and guidances, keep an eye on the health-ri website (<https://health-ri.org>), which will soon have a Registry in a Box section!

Clear Run Exit

[Help](#) [About](#)

1. *Select the EDC of your choice*
2. *Click Run*

The iCRF Generator - Usage

Select codebooks for your Castor CRF...

<input checked="" type="checkbox"/> Basisgegevensset Zorg 2017	<input type="checkbox"/> Cancer Core Europe
<input type="checkbox"/> PALGA Colonbiops Protocol	<input type="checkbox"/> PALGA Colonrectum Carcinoom Protocol
<input type="checkbox"/> RIVM bevolkingsonderzoeken	<input type="checkbox"/> Zorginformatiebouwstenen 2017

3. *Select one or more codebooks*
4. *Click next*

Select Codebook versions and languages for your Castor CRF...

Basisgegevensset Zorg 2017

<input checked="" type="checkbox"/> Basisgegevensset Zorg 2017 (BgZ) - 2017 (01-Jan-2018)	<div><div>nl-NL, en-US</div><div><input checked="" type="checkbox"/> nl-NL</div><div><input checked="" type="checkbox"/> en-US</div></div>
---	--

5. *Select version(s) and language(s)*
6. *Click next*

The iCRF Generator - Usage

Select items for your Castor CRF...

Basisgegevensset Zorg 2017 (BgZ) 2017

nl-NL en-US

▼ Basisgegevensset Zorg 2017

- ▼ Demographics and identification
 - ☐ NameInformation
 - ☐ AddressInformation
 - ☐ ContactInformation
 - ☐ PatientIdentificationNumber
 - ☐ DateOfBirth
 - ☒ Gender
 - ☒ MultipleBirthIndicator
 - ☐ DeathIndicator
 - ☐ DateOfDeath
 - ☐ MaritalStatus
- ▶ Financial information
- ▶ Treatment Directives
- ▶ Contact persons
- ▶ Functional Status
- ▶ Complaints and diagnoses
- ▶ Social anamnesis
- ▶ Alerts
- ▶ Allergies
- ▶ Medication
- ▶ Medical devices
- ▶ Immunizations

Item: Gender
Description: Patient's administrative gender.
Ontology: Logical Observation Identifier Names and Codes - 46098-0
Code Description: Sex

Field type: Required: ☐
Min: Max:
Width:

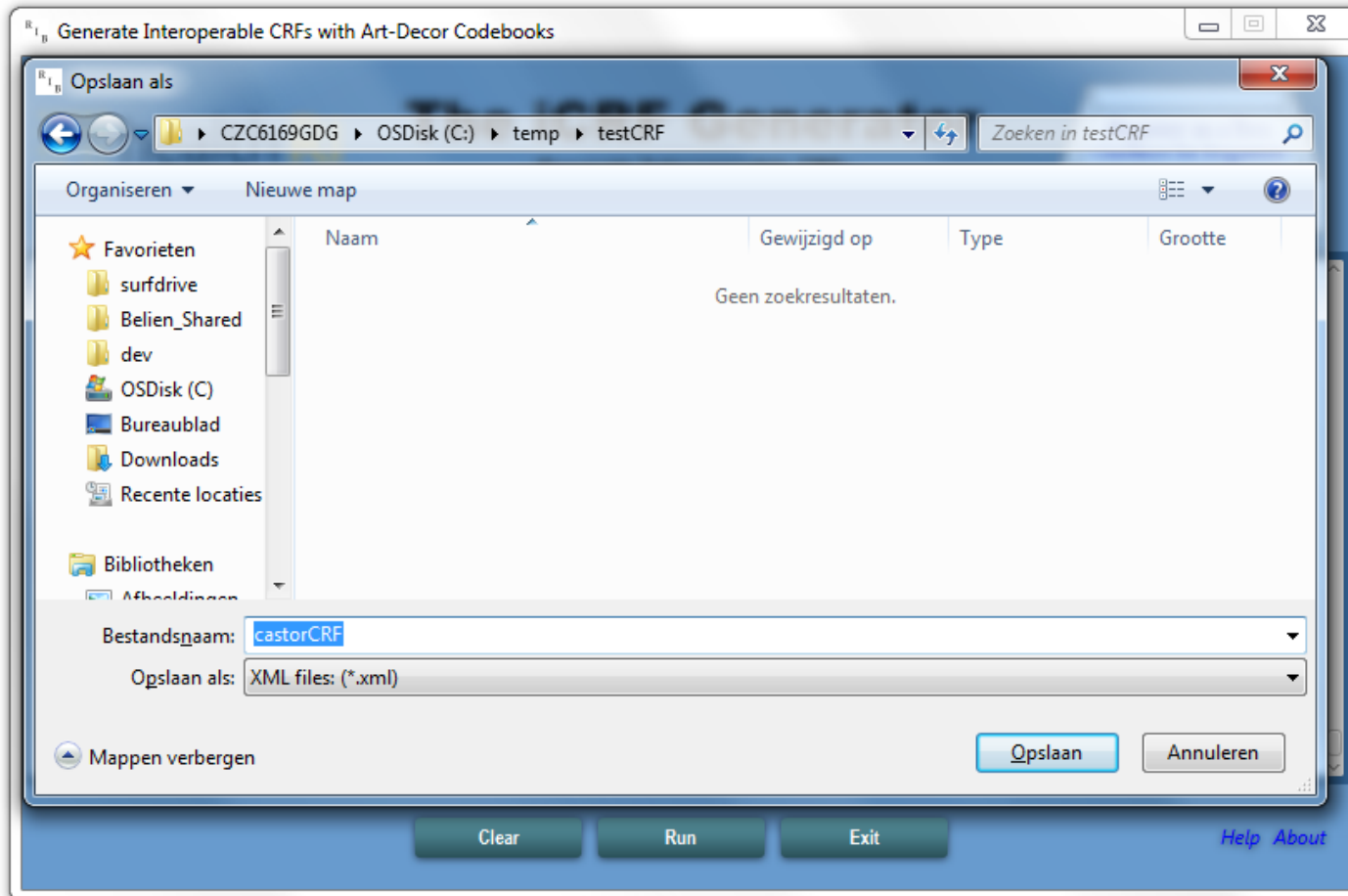
Code	Codesystem	Label
<input checked="" type="checkbox"/> F	AdministrativeGender	Female
<input checked="" type="checkbox"/> M	AdministrativeGender	Male
<input type="checkbox"/> UN	AdministrativeGender	Undifferentiated
<input checked="" type="checkbox"/> UNK	NullFlavor	Unknown

all none

Previous Next Cancel

7. *Select the items and codes for your CRF*
8. *Click next*

The iCRF Generator - Usage



9. *Finish the Wizard and Save your CRF*
10. *After saving, import the CRF into your EDC of choice or edit the CRF with a suitable editor*