

## User manual: SwissCaRe in CardioReport XP

Document	
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### Historique des versions

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## I- SwissCare Form

The **SwissCaRe form** is present as additional tab in CardioReport for all angiographies and PCIs.



The SwissCaRe form summarizes all questions that need to be answered.

In general, all visible fields are mandatory in SwissCaRe.

Missing entries are highlighted: 

**Note:** The questionnaire will vary depending on the procedure (Angio, PCI, Angio & PCI). Additionally, certain answers can cause additional questions to appear (e.g. indication = ACS or CAD).

A double-click on the question brings you to the CardioReport tab in which the question can be filled in.

Most questions can also be filled in the SwissCaRe form.

Criteria	Value
<b>SwissCaRe</b>	
<input checked="" type="checkbox"/> Patient consent ok	
<b>Patient (SWISSCARE: Dummy)</b>	
<input type="radio"/> Patient ID	1162734473
<input type="radio"/> Date of birth	01/01/1950
<input type="radio"/> Gender	Male
<input type="radio"/> First name	Dummy
<input type="radio"/> Surname	SWISSCARE
<b>Patient consent</b>	
<input type="radio"/> Patient consent	Patient consent ok
<b>Baseline characteristics</b>	
<input type="radio"/> Arterial hypertension	
<input type="radio"/> Diabetes requiring medication	
<input type="radio"/> Dyslipidemia	
<input type="radio"/> Smoking	
<input type="radio"/> Family history	
<input type="radio"/> Prior PCI	
<input type="radio"/> Prior CABG	
<input type="radio"/> LVEF	
<input type="radio"/> Intubated	
<input type="radio"/> Cardiogenic shock	
<input type="radio"/> Mechanical support device(s)	
<b>Indication</b>	
<input type="radio"/> Indication	
<b>General Procedural Characteristics</b>	
<input type="radio"/> Date of procedure	28/12/2022
<input type="radio"/> Procedure start time	
<input type="radio"/> Access	

SwissCaRe questions are highlighted in CardioReport.

2) CV risk factors    Comments

<input type="checkbox"/> Smoker..... 4	<input type="checkbox"/> Hormonal risk factor.....
date of cessation <input type="text" value="16/11/2022"/> 7	5 <input type="checkbox"/> Family History.....
Packet-Year <input type="text"/>	
<input type="checkbox"/> THC.....	
<input type="checkbox"/> Electronic cigarette.....	
<input type="checkbox"/> Hypertension..... 1	<input type="checkbox"/> Diabetes..... 2
<input type="checkbox"/> Stabilized hypertension.....	<input type="checkbox"/> Microalbuminuria.....
<input type="checkbox"/> Hypertension treatment.....	HbA1c <input type="text"/> %
<input type="checkbox"/> Overweight.....	<input type="checkbox"/> Hypercholesterolemia..... 3

## II- Patient data / consent

SwissCaRe requires the variables **1-5** for patient information. Patient data is entered under “administrative data” in CardioReport. (PID is a unique code for each patient)

Transfer of personal data requires **patient consent (6)**. Patient consent status is indicated in the SwissCaRe form in CardioReport:

**6-a-** If patient consent is “Patient consent ok” or “Patient consent ?” or “Patient consent, incomplete validation” patient data is transferred to SwissCaRe without anonymization.

**6-b-** If patient consent is “Patient refusal” patient data will be sent to SwissCaRe in an anonymized way:

**5/4-** Last name / First name as “NoConsent”

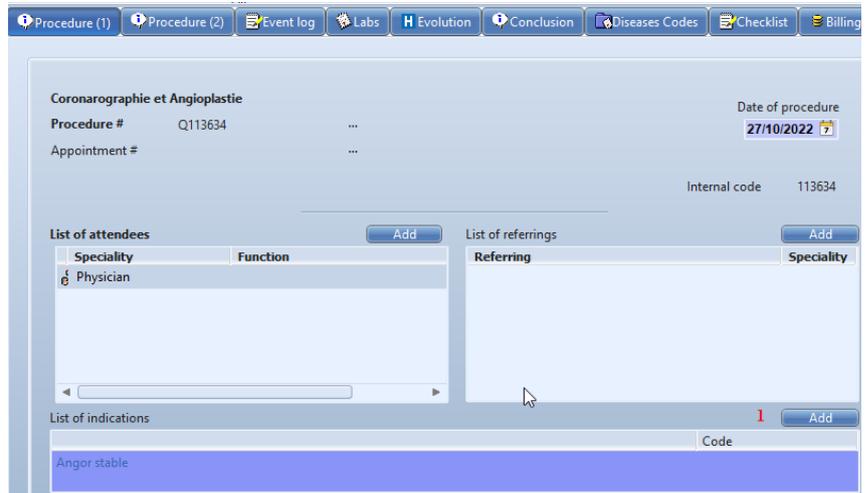
**2-** Date of birth will be in the format 1st January plus the year of birth

### III- Indication

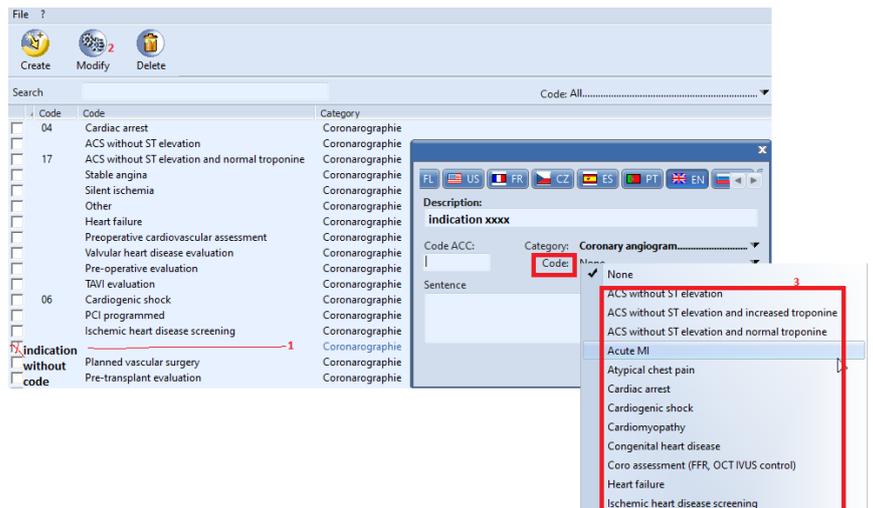
The indication for the angiography or PCI is an important gateway variable in SwissCaRe.

The indication needs to be entered in the Procedure (1) page in CardioReport -> List of indications -> click "add" button (1).

**Note:** In CardioReport several indications can be entered, but only the indication on the top of the list will be transferred to the SwissCaRe form.



**Important:** Indications can be added or modified by each hospital. Therefore, each indication (1) needs to be matched to an indication code (2,3), which are fixed in CardioReport. This should be done once and then modification of indications should be locked by the responsible of the hospital.



Below the SwissCaRe indications are listed with the corresponding indication codes in CardioReport:

- Clinical presentation as ACS**

FR-Description	EN-Description
SCA ST- avec troponine normale	ACS without ST elevation and normal troponine
SCA ST- avec troponine élevée	ACS without ST elevation and increased troponine
SCA ST+ infarctus phase aiguë	Acute MI
Infarctus semi-récent thrombolysé	Subacute MI thrombolysed
Infarctus semi-récent non thrombolysé	Subacute MI not thrombolysed
SCA ECG et troponine normale	ACS without ST elevation

- **Suspected CAD or suspected progression of known CAD**

FR-Description	EN-Description
Dépistage coronaropathie	Ischemic heart disease screening
Douleurs atypiques	Atypical chest pain
Ischémie silencieuse	Silent ischemia
Angor stable	Stable angina
Cardiomyopathie	Cardiomyopathy
Cardiopathie congénitale	Congenital heart disease
Autre ischémie	Other ischemia

- **Planned valvular heart disease intervention**

FR-Description	EN-Description
Bilan valvulopathie	Valvular heart disease evaluation
Bilan pre TAVI	TAVI evaluation

- **Follow-up after HTX**

FR-Description	EN-Description
Bilan transplantation	Post transplantation evaluation

- **Heart failure (LVEF < 40%)**

FR-Description	EN-Description
Choc cardiogénique	Cardiogenic shock
Insuffisance cardiaque	Heart failure

- **Routine follow-up (e.g. after left main PCI)**

FR-Description	EN-Description
Contrôle ATL	PCI control
Coro d'évaluation (FFR, OCT, IVUS contrôle)	Angio assessment (FFR, OCT, IVUS control)
Contrôle ATC post-IDM	PCI control post-IDM

- **Tachy- or bradyarrhythmia**

FR-Description	EN-Description
Trouble du rythme	Rhythm abnormality

- **Planned vascular surgery**

FR-Description	EN-Description
Chirurgie vasculaire programmée	Planned vascular surgery

- **Planned major surgery**

FR-Description	EN-Description
Bilan pré-opératoire non cardiaque	Pre-operative evaluation
Bilan pré-opératoire cardiovasculaire	Preoperative cardiovascular assessment
Bilan pré greffe	Pre-transplant evaluation

## IV- Resting index (iFR/RFR) & FFR

If **intracoronary physiology** is taken it is filled in for each assessed lesion :

Lesions page -> Add/open lesion -> Pressure wire Tab

Which physiologic lesion assessment method is used?.....

Drugs: 6

FFR hyperemia	6	FFR Basal	5
iFR hyperemia		iFR Basal	
CFR hyperemia		CFR Basal	
iMR hyperemia		iMR Basal	
iQFR hyperemia		iQFR Basal	
RFR hyperemia		RFR Basal	

5- Resting index (iFR/RFR) = iFR + CFR + iMR + iQFR + RFR > 0

6- FFR = "FFR hyperemia > 0

## V- IVUS/OCT

If **intracoronary imaging** is performed it is filled in for each assessed lesion :

Lesions page -> Add/open lesion -> IVUS/OCT Tab

Did you perform an IVUS/OCT?.....

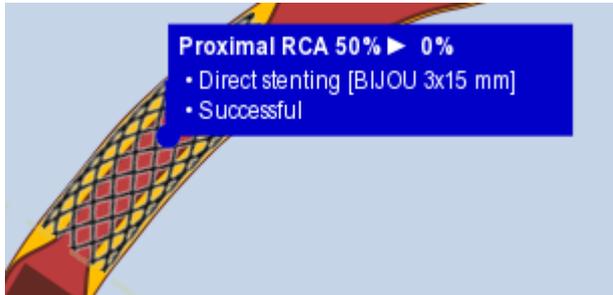
- IVUS/OCT not performed
- IVUS performed 7
- OCT performed 8
- OFDI performed 8

8- OFDI = OCT

## VI- Number of treated lesions & vessels

The **Number of treated lesions & vessels** is automatically derived from entries in the Angioplasty page.

- 1) Number of treated lesions:** All lesions for which a **“successful” treatment result** has been entered are counted.

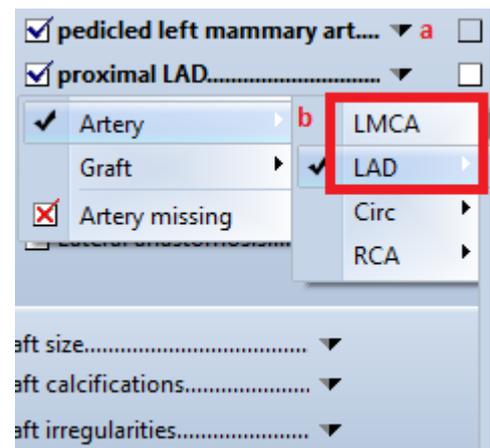


- 2) Number of treated vessels:** All vessels which have been treated are counted and the total number is transmitted to SwissCaRe. In case of bifurcations only the proximal vessel counts.

- 3) Unprotected LM stenosis treated** is “Yes” when an LM lesion without and **LIMA-LAD** graft is treated.

A LIMA-LAD graft is defined as:

- Graft equal to “pedicled left mammary artery graft” or “free left mammary artery graft”
- And artery equal to “LMCA” or “LAD”



## VII- Number of implanted stents & used drug-eluting balloons

The Number of implanted stents / drug-eluting balloons are derived from entries in the Angioplasty page.

Materials entered in Stent or Balloon treatment must be saved in the correct device categories (Stent & Drug-eluting balloons).



## VIII- Restenosis & Stent Thrombosis

In case of interventions for **Stent Failure** the information in the SwissCaRe form is derived from the Lesions and Angioplasty page.

**9- Restenosis** is checked when a lesion is treated with “**Grade**”  $\geq$  50% and “**Previous angioplasty**” is one of the highlighted items (PCI with stent). The Restenosis must be treated as well (successful Result).

The screenshot shows the 'Standard' tab of the SwissCaRe form. The 'Grade' dropdown menu for stenosis is open, with the '50%' option selected. A red box highlights the 'Grade' label. To the right, the 'Previous angioplasty' dropdown menu is open, showing a list of options: 'No previous angioplasty', 'Failure angioplasty', 'Previous balloon', 'Previous Drug eluting balloon', 'Previous BMS', 'Previous DES', 'Previous Stent', 'Previous graft-Stent', 'Previous BVS', 'Previous Rota', 'Previous DCA', 'Previous Laser', and 'Previous Ultrasound'. The 'Previous BMS' option is highlighted with a red box.

**10- Stent thrombosis** is checked when a lesion is treated with “**Grade**”  $\geq$  50% and “**Previous angioplasty**” is one of the items above (see Restenosis) and additionally “**Thrombus**” is selected. The Stent thrombosis must be treated as well (successful Result).

The screenshot shows the 'Thrombus' dropdown menu. The options are: 'No thrombus', 'Haziness', 'Small thrombus', 'Thrombus', 'Progression of thrombus', 'Regression of thrombus', 'Thrombus with distal emboli', and 'Thrombus missing'. The 'Small thrombus' option is highlighted with a red box.

## IX- CTO procedure

In case of a CTO procedure the information is derived from entries in Lesion and Angioplasty page.

CTO is defined as a lesion with 100% occlusion since at least 3 months. The CTO must be treated as well (successful Result).

In the SwissCaRe form the access to the CTO is coded as

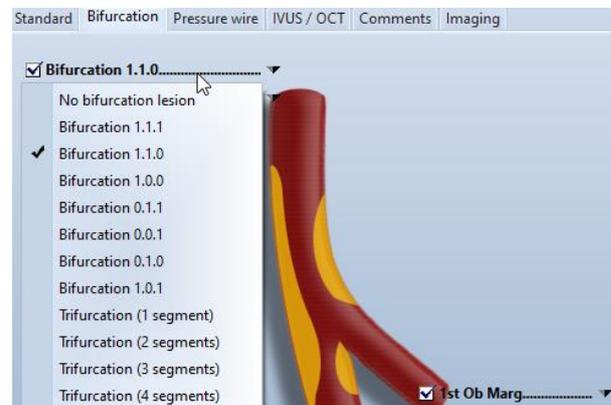
- 1 = Antegrade (default)
- 2 = Retrograde when in the Angioplasty page  
"guidewire used" = "Retrograde intraluminal"



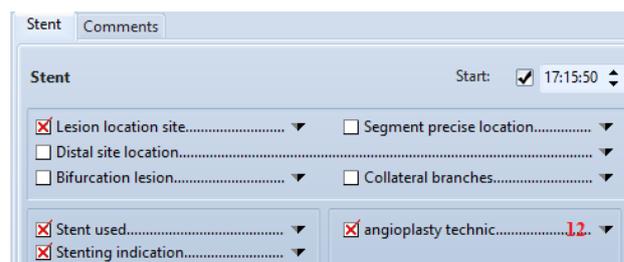
## X- Bifurcation

If Bifurcating lesions are treated with Stents the information is automatically derived from the Lesions and Angioplasty pages.

Lesions across a bifurcation are automatically recognized in cardioreport or can be manually modified in the Lesion specifications -> bifurcation tab:

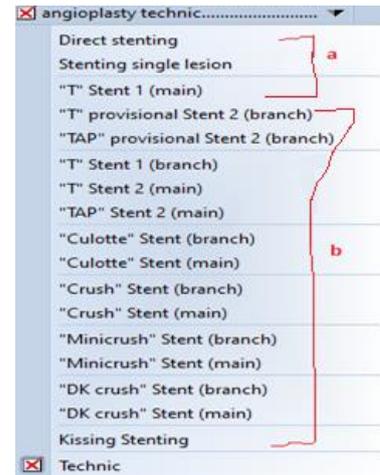


When a lesion over a bifurcation is treated with a stent this is entered in the Angioplasty Page. The stent orientation in the bifurcation is entered in "angioplasty technic" (12):



- a- **1 stent** is checked when “angioplasty technic” of all stents implanted are in section “a”
- b- **2 stents** is checked when “angioplasty technic” of all stents implanted are in section “b”

**Note:** If there are several bifurcating lesions treated with both 1 and 2 stents then bifurcation = 2 (stents).



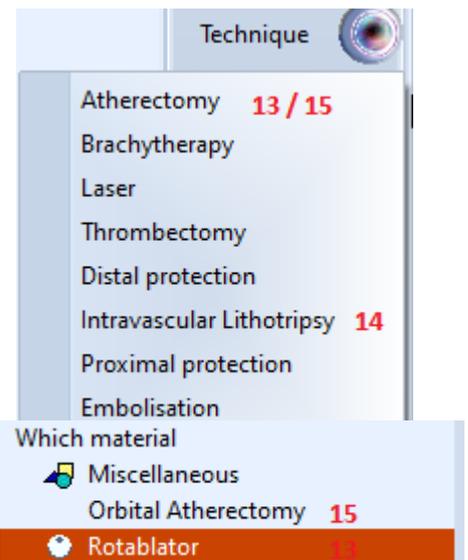
## XI- Calcium modification (Rotablation, Lithotripsy, Orbital Atherectomy, ...)

The usage of the calcium modifying techniques **Rotablation**, **Lithotripsy** and **Orbital Atherectomy** are derived from entries in the Angioplasty page -> Technique -> Device category.

**13- Rotablation** is checked when the technique “**Atherectomy**” is selected and a device of the type “**Rotablator**” is selected.

**14- Lithotripsy** is checked when the technique “**Intravascular Lithotripsy**” is selected.

**15- Orbital atherectomy** is checked when the technique “**Atherectomy**” is selected and a device of the type “**Orbital Atherectomy**” is selected.



The usage of the calcium modifying techniques **Cutting balloon** and **Scoring balloon** are entered directly in the SwissCaRe form.

## XII- SwissCaRe Protocol

Via the Protocols page the status (completeness, transfer status to SwissCaRe) of the SwissCaRe forms of all patients can be viewed in CardioReport.

The screenshot shows the CardioReport interface. At the top, there are filters for 'From' (01/09/2022) and 'To' (29/12/2022), along with 'Dates' and 'Export' buttons. Below this is a table with columns: Date of procedure, Procedure title, Procedure #, Patient validation, Patient ID, Patient, Filling rate, Attending, Survival status, Sent, Code error, and Export date. The table lists several procedures, including Coronarographie, Angioplastie, and Coronarographie et Angioplastie, with varying filling rates (e.g., 34%, 96%, 27%, 33%, 91%, 21%, 97%, 100%, 70%, 86%, 44%).

On the right side, the 'Tools' menu is open, showing various options like 'Tracer', 'AngioQuery', 'Activity report', 'Procedure list', 'Documents list', 'iText reports list', 'Reconvening', 'Billing list', 'Follow-up', 'Catalog', 'Indications list', 'Billing type list', 'Drugs list', 'Complications list', 'Holidays', 'Procedure closing and validation', 'Rooms management', and 'Protocols data'. The 'Protocols data' option is highlighted with a red box and a small red '1' next to it.

The protocols page can be found under > Tools > Protocols data.

1. Choose a date from “...” to “...” by clicking the “Dates” button.
2. Select “SwissCaRe” in the protocol drop-down-menu if not yet selected.

## XIII- Important notes

A. SwissCare registry is available only for those procedure Types:

1. Coronary angiography
2. Coronary angiography and PCI
3. Angioplasty «PCI»

B. Some chapters are only visible for certain type of procedure as follows:

1. Baseline Characteristics is **visible** only for “**Coronary angiography and PCI**”.
2. Indication and Symptoms is **not visible** for “**PCI**”.
3. Treatment is **visible** only for “**Coronary angiography**”.
4. PCI-specific procedural characteristics is **not visible** for “**Coronary angiography**”.
5. Medication is **not visible** for “**Coronary angiography**”.

**C. The hospitals that have added other indications in cardio report specific to them must attach each indication to an indication code to be able to export the data requested by Swisscare correctly.**

**D. for complete data submission, you must fill in all the mandatory fields and for Coro-PCI or PCI, you must have at least one lesion treated and one vessel treated.**