

User manual: SwissCaRe in CardioReport XP

Document	
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Historique des versions

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Changes Version 2.0

- New chapter *VI PCI aborted* added
- Chapter *XII Calcium modification* updated
- New chapter *XIII Major complications* added

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

SwissCaRe questions are highlighted in CardioReport.

2) CV risk factors	Comments
Smoker  4 date of cessation <input type="text" value="16/11/2022"/> Packet-Year <input type="text"/> <input type="checkbox"/> THC <input type="checkbox"/> Electronic cigarette	<input type="checkbox"/> Hormonal risk factor Family History  5
Hypertension  1 <input type="checkbox"/> Stabilized hypertension <input type="checkbox"/> Hypertension treatment <input type="checkbox"/> Overweight	Diabetes  2 <input type="checkbox"/> Microalbuminuria HbA1c <input type="text" value=""/> % 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 aigüe	Acute MI
Infarctus semi-récent thrombolysé	Subacute MI thrombolized
Infarctus semi-récent non thrombolysé	Subacute MI not thrombolized
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 transplatation	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

proximal RCA.....
mid RCA.....
Segment precise location of artery.....
Syntax score: 0
Ok

Standard Bifurcation Pressure wire IVUS / OCT Comments Imaging

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

Drugs

FFR hyperemia 6 FFR Basal

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

proximal RCA.....
mid RCA.....
Segment precise location of artery.....
Syntax score: 0
Ok

Standard Bifurcation Pressure wire IVUS / OCT Comments Imaging

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

IVUS/OCT not performed

IVUS performed 7

OCT performed 8

OFDI performed

8- OFDI = OCT

VI-PCI aborted (V2)

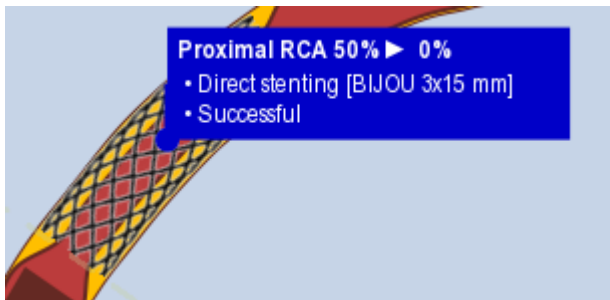
If there are no PCI-result in angioplasty or all PCI-result are failed so the PCI is aborted.

This deactivates these questions: no treated lesions/vessels, left main stenosis treated, no stents/balloons, bifurcation, interventions stent failure and calcium modification.

VII- Number of treated lesions & vessels

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

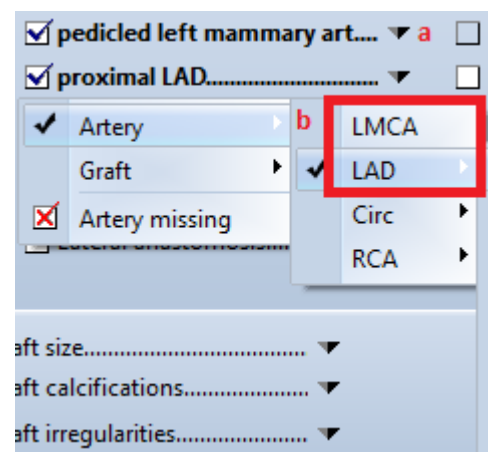
- 1) Number of treated lesions:** All lesions for which a “**successful**” **treatment result** has been entered are counted.



- 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:

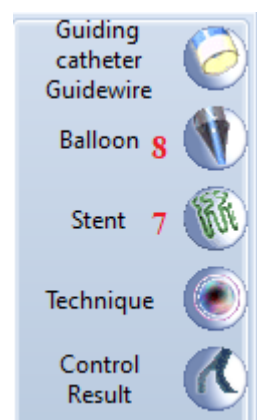
- Graft equal to “pedicled left mammary artery graft” or “free left mammary artery graft”
- And artery equal to “LMCA” or “LAD”



VIII- 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).



IX- 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 screenshot shows the 'Standard' tab of the SwissCaRe form. The 'Grade' field is set to '50%'. The 'Previous angioplasty' dropdown menu is open, showing 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 one of these items:

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

X- 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.

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"

XI- Bifurcation

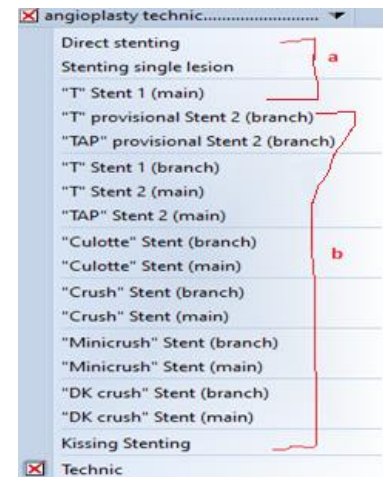
If **Bifurcating lesions are treated with Stents** the information is automatically derived from the Lesions and Angioplasty pages.

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 **"angioplastic 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).



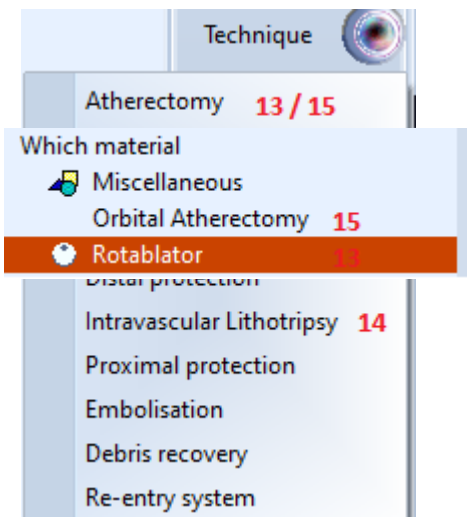
XII- Calcium modification (Rotablation, Lithotripsy, Orbital Atherectomy, ...)

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.

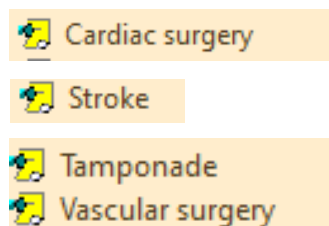
15- Orbital atherectomy is checked when the technique “**Atherectomy**” is selected and a device of the type “**Orbital Atherectomy**” is selected.



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

XIII- Major complications

Complications during the procedure are entered in the Tab **Adverse Events > Add...**





The Adverse Events can also be accessed via double-click on the **Major complications** field in the SwissCaRe form:

Complication	
Major complication	Complications
Procedural death	Dead

The complication **Procedural death** is entered directly in the SwissCaRe form.

XIV- 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.

From 01/09/2022 To 29/12/2022  

Select: All Protocol: SwissCaRe

Date of procedure	Procedure title	Procedure #	Patient validation	Patient ID	Patient	Filling rate	Attending	Survival status	Sent	Code error	Export date
01/09/2022	Coronarographie	Q113684		1162734473		94 %			OK		02/12/2022 15:58:37
02/09/2022	Angioplastie	Q113687		1162734473		96 %			OK		02/12/2022 15:58:34
05/09/2022	Coronarographie et Angioplastie	Q113595		1162652196		27 %			OK		10/11/2022 11:00:45
05/09/2022	Coronarographie et Angioplastie	Q113596		1162652196		33 %			OK		10/11/2022 11:00:50
05/09/2022	Coronarographie et Angioplastie	Q113685		1162734473		91 %			OK		02/12/2022 16:36:09
14/09/2022	Coronarographie et Angioplastie	Q113602		4353		21 %			OK		10/11/2022 11:00:37
22/09/2022	Coronarographie et Angioplastie	Q113607	Patient consent ?	1162715821		97 %		Alive	OK		10/11/2022 11:00:32
01/10/2022	Coronarographie	Q113686		1162734474		100 %			OK		02/12/2022 15:58:25
18/10/2022	Coronarographie et Angioplastie	Q113613	Patient consent ?	2	Test	70 %					
19/10/2022	Angioplastie	Q113614	Patient consent ?	2	Test	86 %					
26/10/2022	Coronarographie	Q113622		2	Test	44 %					

CardioReport XP - Debug - 192.168.1.100 - Firebird

File Tools Patient Options ?

- 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
- Protocols data**

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.

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 cardioreport 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** or the **PCI is aborted**.