

# MR/CT REGISTRY

## User Manual

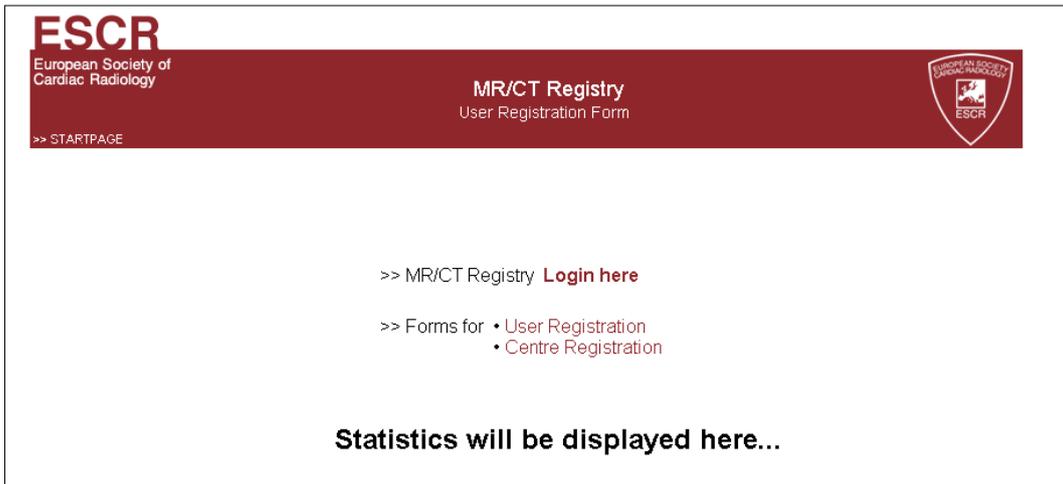
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## USER MANUAL

<https://www.mrct-registry.org/>

### I. Log In



The screenshot shows the top part of the MR/CT Registry User Registration Form. The header is dark red with the ESCR logo on the left and the text 'MR/CT Registry User Registration Form' on the right. Below the header, there is a link '>> STARTPAGE'. The main content area is white and contains the following text:

>> MR/CT Registry **Login here**

>> Forms for • User Registration  
• Centre Registration

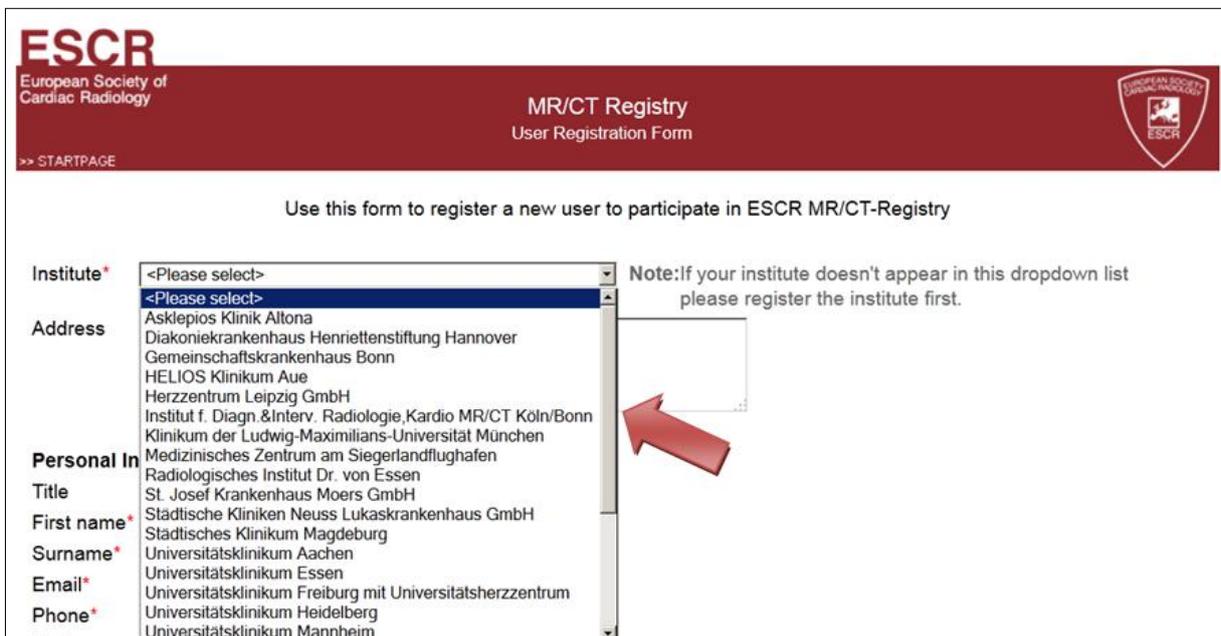
**Statistics will be displayed here...**

In order to enter examination data in the MRCT-Registry page of the ESCR, a login code is required.

To complete the personal user registration your institute has to be registered beforehand.

Whether your institute is already registered in the database or not can be identified in the user registration area under the section *Institutes*.

If your institute is already registered, you find it in the drop-down menu. If this is the case, you may continue with the personal User Registration.



The screenshot shows the 'Institute' dropdown menu in the MR/CT Registry User Registration Form. The header is dark red with the ESCR logo on the left and the text 'MR/CT Registry User Registration Form' on the right. Below the header, there is a link '>> STARTPAGE'. The main content area is white and contains the following text:

Use this form to register a new user to participate in ESCR MR/CT-Registry

**Institute\*** <Please select>

**Address**

**Personal In**

**Title**

**First name\***

**Surname\***

**Email\***

**Phone\***

Note: If your institute doesn't appear in this dropdown list please register the institute first.

The dropdown menu is open, showing a list of institutes. A red arrow points to the dropdown menu.

## II. Centre Registration Form

**ESCR**  
European Society of  
Cardiac Radiology

MR/CT Registry  
Centre Registration Form

>> STARTPAGE

Use this form to register a new institute to participate in ESCR MR/CT-Registry

Institute\*

Type of institute\* Academic Hospital

Address\*

Zip\* / City\*  /

Country\*

**Institute director / Responsible person for Continuing Education**

Title

First name\*

Surname\*

Email\*

If your institute is not yet registered, this has to be done one-time, using the registration form provided ([Centre Registration](#))

Information concerning the hospital/institute, the person responsible for maintenance of the account as well as the equipment used has to be provided.

- All fields marked with a red star (\*) are mandatory and have to be filled in
- Blank mandatory fields prevent the saving process and hence generating an institute
- By clicking the button “*submit*” your data will be forwarded

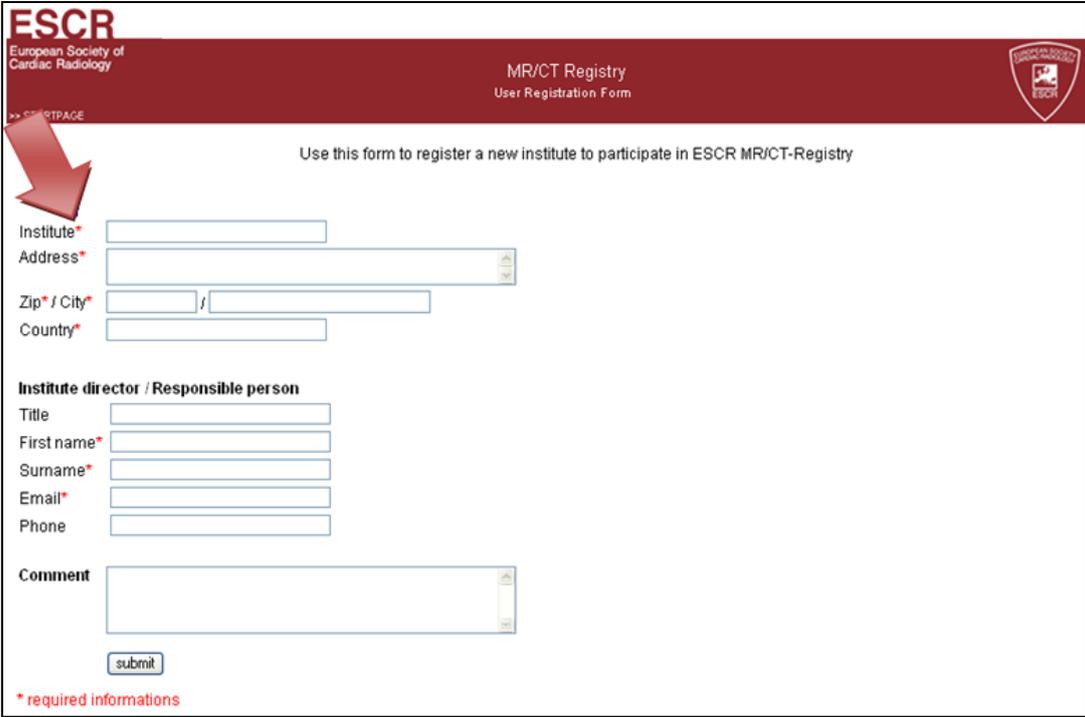
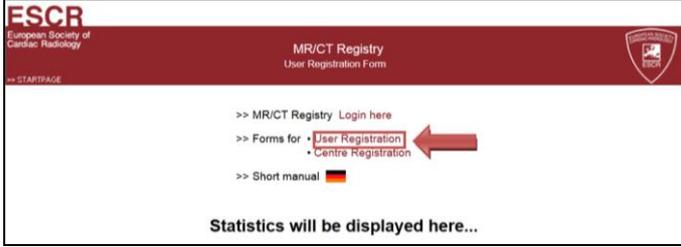
Upon receipt and approval of your application your institutional access is being created and an email with your username and password will be sent to you. The authorisation process usually takes 1 work day.

As soon as your institute is authorised and appears in the drop-down-menu, you can continue with your User Registration

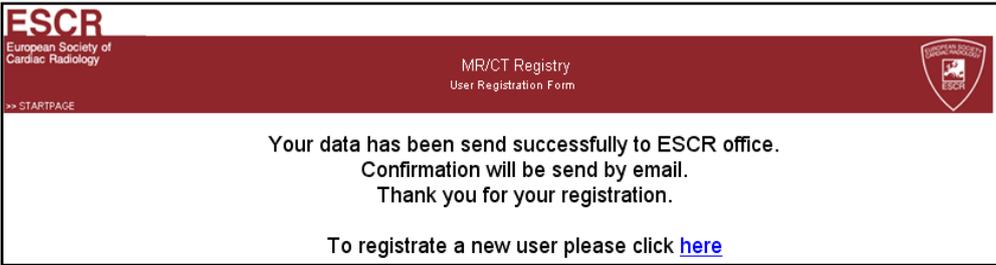
### III. User Registration Form

As soon as you have received your username, you may log in to the Registry and create further user accounts.

- Continue with the user registration

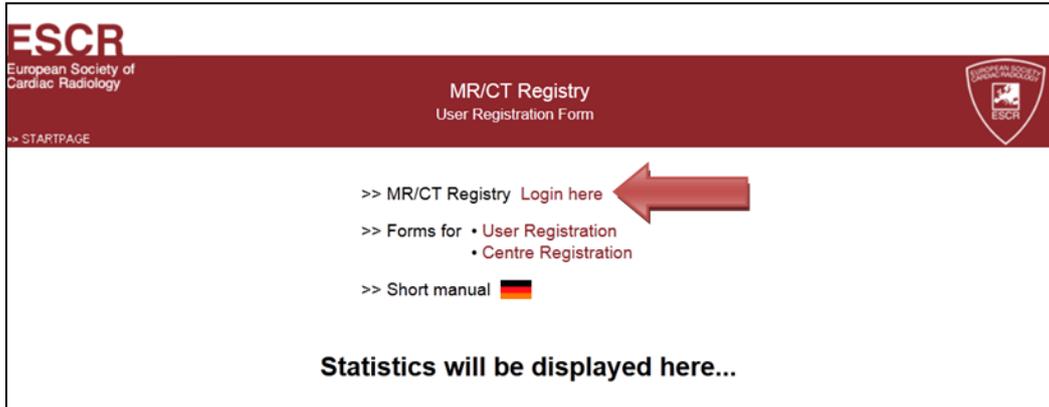


In this form as well, all fields marked with a red star (\*) are mandatory, hence have to be filled in, in order for the user data being saved and the registration process being continued. Only then, your examinations can be allocated to you personally.

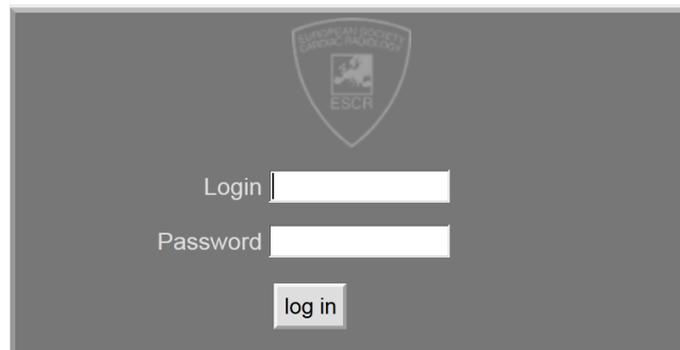


After saving, a Username and a Password will be generated and sent to your stated e-mail address. This process takes approximately one work day.

#### IV. Log In Page



As soon as you received your Username and Password you may log in via clicking on the button “**Login here**”.



After you successfully logged in you may continue filling out the MR- or CT-form.

## V. Registry Data

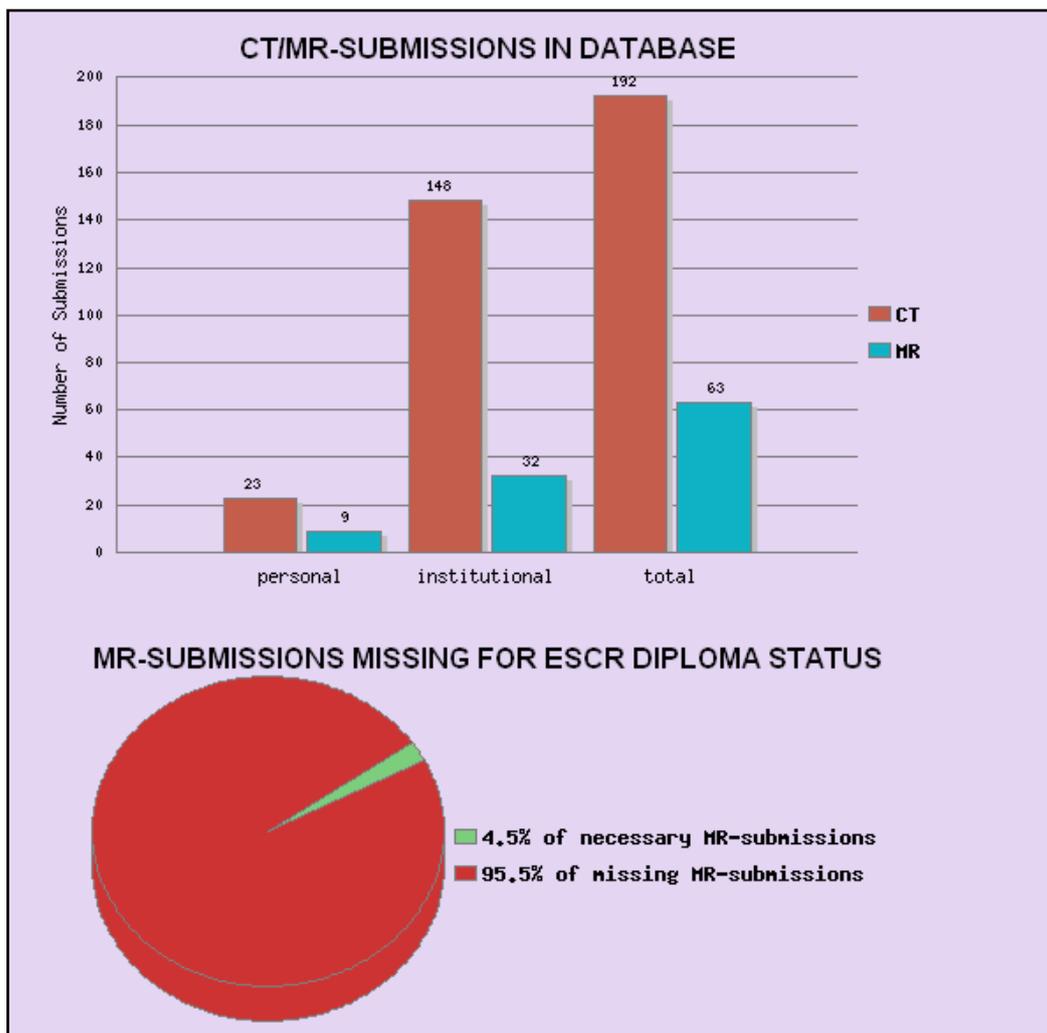
The form for the MR-database and the CT-database can be distinguished by their differently coloured backgrounds and by their caption.

Pink = MR – form      light blue = CT- form

You may select the desired form under the section *Switch to MDCT/MR registry*.



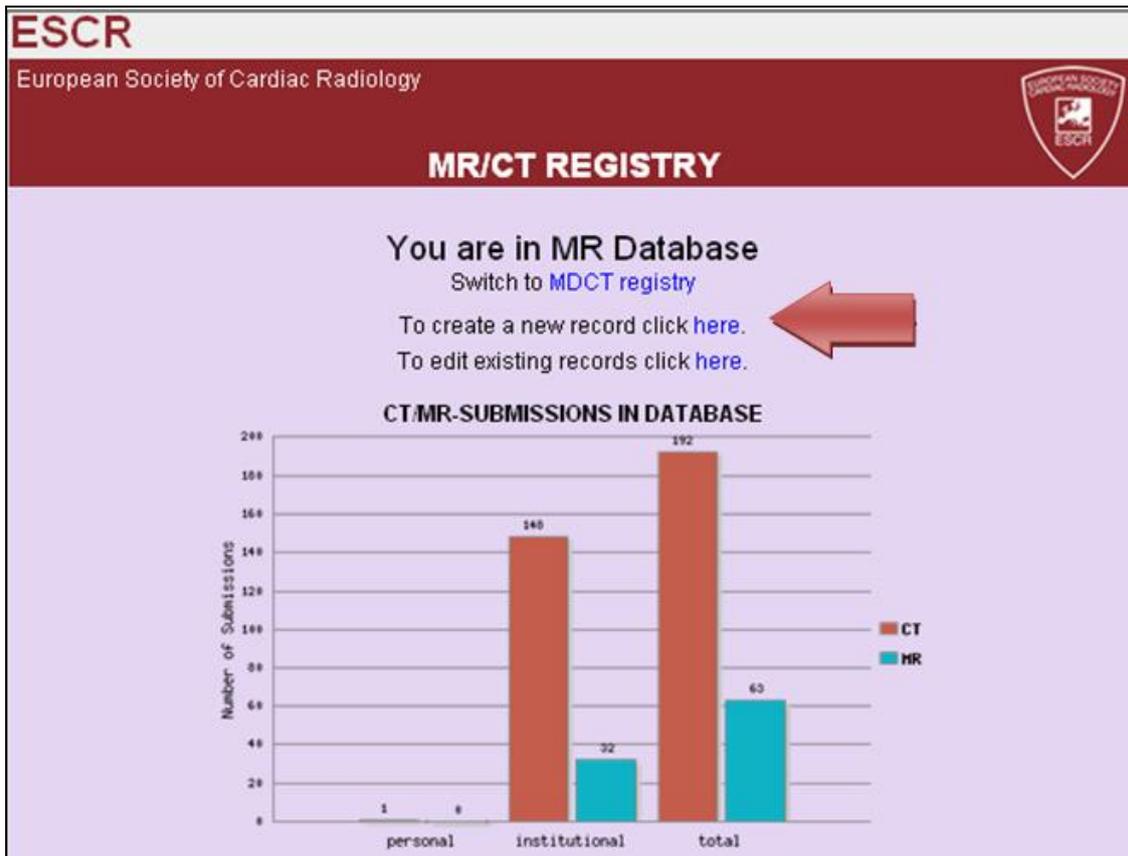
After logging in you find two diagrams on the home page:



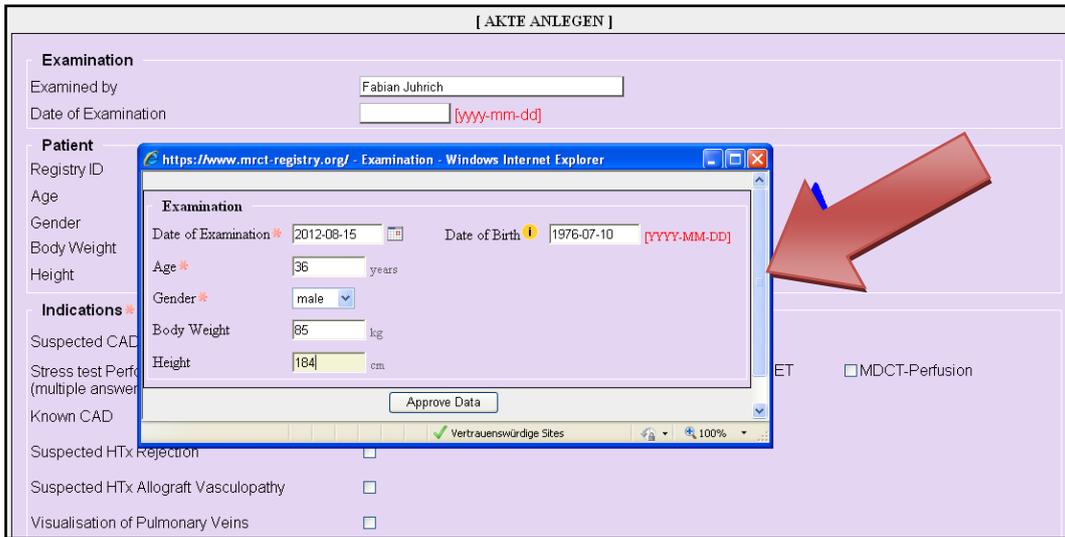
- a) **The bar chart** shows you the CT- (**red bar**) and MR- examinations (**blue chart**) that are already entered in the registry. It is distinguished between personal, institutional and total examinations of all centres.
  
- b) **The pie chart** describes the percentage of CT-/MR-examination numbers that are lacking to complete the **ESCR Cardiac Diploma** (% of missing CT-/MR- submissions) and how many percent of the required examination numbers have already been entered (% of necessary MR-submissions).

## VI. Data Entry

The MR Database gives the possibility to create a new examination record or open and edit an existing one.

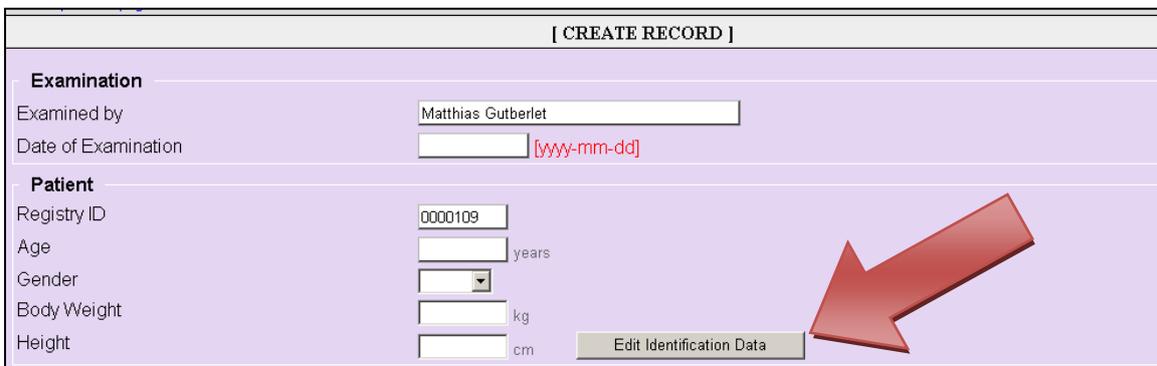


## VII. Create a New Record



When creating a new record, usually a pop-up window opens **automatically**.

If this is not the case, click on the button “Edit Identification Data”.



This menu is to enter information about the patient.

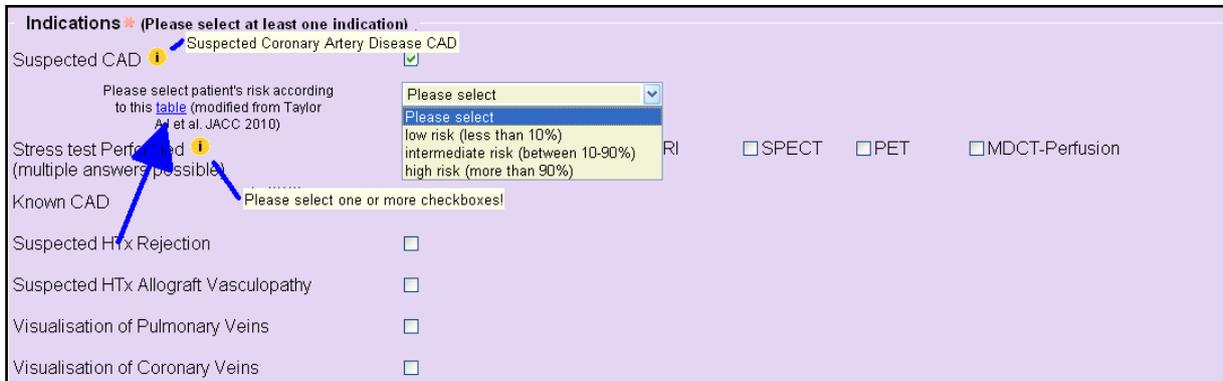
Fields marked with a red star \* (Examination date, age and gender) are mandatory fields that have to be filled out

The date of birth is used for the automatic age calculation and **will not be saved** in the registry.

Please mind the date format **Year – Month – Day** which are separated with a “-”.

As soon as all mandatory fields are filled in, the data can be saved and the pop-up window closes.

### VIII. Specification of Indication / Suspected CAD



 Is a “mouse over” info field that provides further information when placing the mouse cursor on it.

At least one indication/question has to be specified by ticking the check box

If a suspicion of Coronary Artery Disease (CAD) exists, the individual risk for the patient has to be assessed.

- ➔ by clicking on “table” a pdf file containing a table for risk classification opens. By means of this table the individual risk of a present CAD case can be assessed.

ESCR European Society of Cardiac Radiology		MR/CT REGISTRY			
Pretest Probability of Coronary Artery Disease (CAD) by Age, Sex, and Symptoms <small>modified from Taylor AJ et al. (JACC 2010)</small>					
AGE	SEX	Typical/Definite Angina Pectoris	Atypical/Probable Angina Pectoris	Nonanginal Chest Pain	Asymptomatic
< 39	Men	Intermediate	Intermediate	Low	Very Low
	Women	Intermediate	Very Low	Very Low	Very Low
40-49	Men	High	Intermediate	Intermediate	Low
	Women	Intermediate	Low	Very Low	Very Low
50-59	Men	High	Intermediate	Intermediate	Low
	Women	Intermediate	Intermediate	Low	Very Low
> 60	Men	High	Intermediate	Intermediate	Low
	Women	High	Intermediate	Intermediate	Low

## IX. Final Diagnosis

**Final Diagnosis (based on MR results) \*** (Please select at least one indication)

Exclusion of CAD	<input type="checkbox"/>
Coronary Artery Disease(CAD)	<input type="checkbox"/>
Visualisation of Pulmonary Veins	<input type="checkbox"/>
Visualisation of Coronary Veins	<input type="checkbox"/>
Please select one or more	<input type="checkbox"/> Coronary Anomaly or Fistula <input type="checkbox"/> Pulmonary Embolism <input type="checkbox"/> CABG or IMA-Graft-Patency <input type="checkbox"/> CABG or IMA-Graft-Stenosis (>50%) / Occlusion <input type="checkbox"/> Aortic Dissection <input type="checkbox"/> Constrictive Pericarditis <input type="checkbox"/> Patient suitable for TAVI <input type="checkbox"/> Patient not suitable for TAVI <input type="checkbox"/> Myocardial Infarction - Non-Viable Myocardium
Cardiomyopathy	<input type="checkbox"/>
Myocarditis	<input type="checkbox"/>
Valve Disease	<input type="checkbox"/>
Cardiac Tumour	<input type="checkbox"/>
Congenital Heart Disease(CHD)	<input type="checkbox"/>
Post Heart Transplantation(HTX)	<input type="checkbox"/>
Additional new non-cardiac DX	<input type="checkbox"/>
Others	<input type="checkbox"/>

Image Quality   very good     good     adequate     poor     very poor

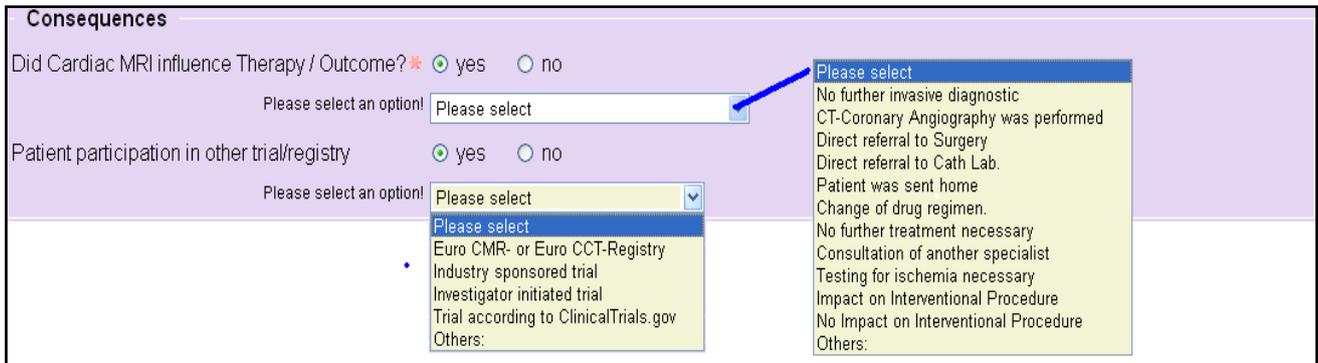
**very good:** no artefacts, brilliant image quality  
**good:** a few artefacts, which did not influence image quality  
**adequate:** artefacts, which did not influence image interpretation  
**poor:** a lot of artefacts, which influence image interpretation  
**very poor:** not assessable

The next step is to make a diagnosis on the basis of the MRT.

Please note that at least one check box  has to be ticked for the diagnosis

The information sign  supports the classification of the image quality

## X. Consequences



**Consequences**

Did Cardiac MRI influence Therapy / Outcome? \*  yes  no  
Please select an option! Please select

Patient participation in other trial/registry  yes  no  
Please select an option!

Please select

- No further invasive diagnostic
- CT-Coronary Angiography was performed
- Direct referral to Surgery
- Direct referral to Cath Lab.
- Patient was sent home
- Change of drug regimen.
- No further treatment necessary
- Consultation of another specialist
- Testing for ischemia necessary
- Impact on Interventional Procedure
- No Impact on Interventional Procedure
- Others:

Please select

- Euro CMR- or Euro CCT-Registry
- Industry sponsored trial
- Investigator initiated trial
- Trial according to ClinicalTrials.gov
- Others:

Under the section “Consequences” the various effects of the findings on the following treatment of the patient have to be stated and whether the patient participates in any other trial or registry.

In case the findings have no further consequences, or the patient is in no other study or register, select “no”.

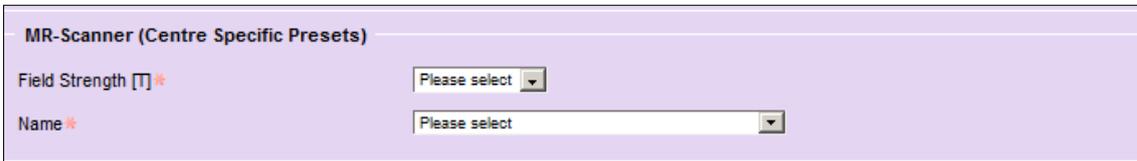
By selecting “yes” a drop-down menu with various pre-formulated answers opens

## XI. Complications / MR – Scanner

This section is to state possible complications that appeared during the examination.



In order to select more than one answer hold the CTRL or STRG key.



Please select the device used for the examination from the drop-down menu “Name”.

The Field Strength [IT] will be specified automatically.

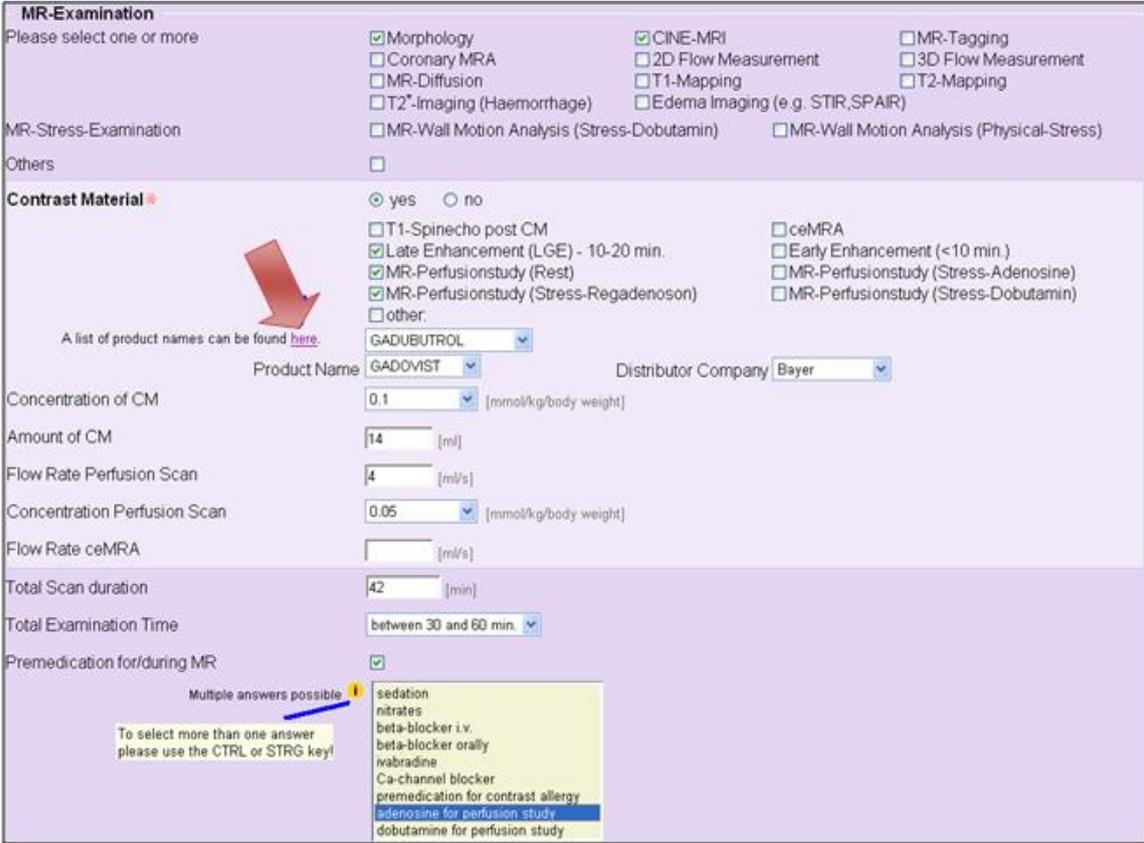
According to your institution selection there will only be a limited choice of devices to choose from, in regards to the MR-scanners used in your institution.

- In case a scanner is missing in the list, the allocations for your institute have to be altered!

## XII. MR-Examination / Contrast Material

The section “MR – Examination” is for general information concerning the examination

➔ which sequences, contrast medium, flow rate, etc



**MR-Examination**  
Please select one or more

Morphology  
 Coronary MRA  
 MR-Diffusion  
 T2\*-Imaging (Haemorrhage)  
 MR-Wall Motion Analysis (Stress-Dobutamin)  
 Others

CINE-MRI  
 2D Flow Measurement  
 T1-Mapping  
 Edema Imaging (e.g. STIR, SPAIR)  
 MR-Tagging  
 3D Flow Measurement  
 T2-Mapping  
 MR-Wall Motion Analysis (Physical-Stress)

**Contrast Material** \*

yes  no

T1-Spinecho post CM  
 Late Enhancement (LGE) - 10-20 min.  
 MR-Perfusionstudy (Rest)  
 MR-Perfusionstudy (Stress-Regadenoson)  
 other.

A list of product names can be found [here](#).

Product Name:   
Product Name:  Distributor Company:

Concentration of CM:  [mmol/kg/body weight]  
Amount of CM:  [ml]  
Flow Rate Perfusion Scan:  [ml/s]  
Concentration Perfusion Scan:  [mmol/kg/body weight]  
Flow Rate ceMRA:  [ml/s]  
Total Scan duration:  [min]  
Total Examination Time:   
Premedication for/during MR:

Multiple answers possible !  
To select more than one answer please use the CTRL or STRG key!

- sedation
- nitrates
- beta-blocker i.v.
- beta-blocker orally
- ivabradine
- Ca-channel blocker
- premedication for contrast allergy
- adenosine for perfusion study
- dobutamine for perfusion study

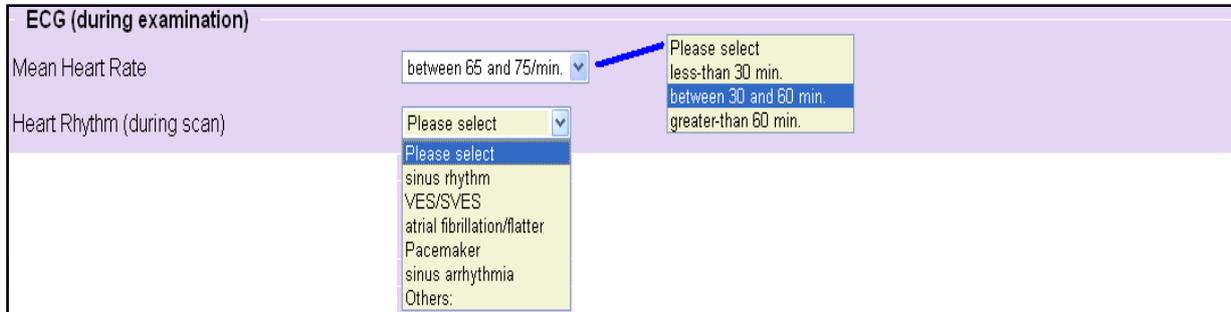
The indication of the contrast medium depends on the family

By clicking on “here” (as marked by the red arrow in the above figure) a pop up window opens with a pdf file containing a table for family contrast medium classification.

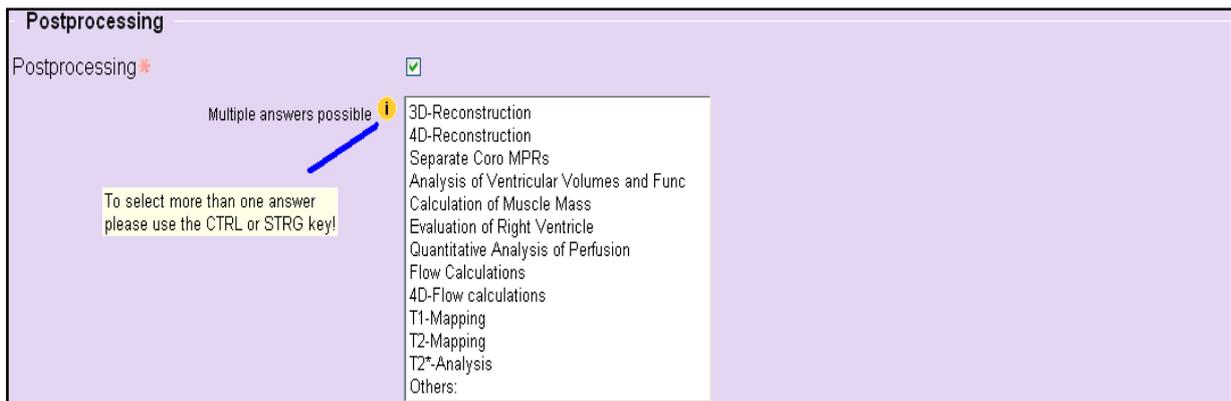
➔ For the premedication multiple answers are possible.

GADOPENTETATE DIMUGLUMINE	MAGNEVIST®	Bayer	HUNGARY/IRELAND/ITALY/LATVIA/LITHUANIA/LUXEMBOURG/MALTA/NETHERLANDS/NORWAY/POLAND/PORTUGAL/ROMANIA/ SLOVAK REPUBLIC/SLOVENIA/ /SPAIN/SWEDEN/SWITZERLAND/TURKEY/ UNITED KINGDOM
GADOBENATE DIMEGLUBINE	MULTIHANCE®	Bracco	AUSTRIA/BELGIUM/CZECH REPUBLIC/DENMARK/FINLAND/FRANCE/GERMANY/GREECE/HUNGARY/IRELAND/ITALY/LUXEMBOURG/NETHERLANDS/NORWAY/POLAND/PORTUGAL/ROMANIA/SLOVENIA/SPAIN/SWEDEN/SWITZERLAND/TURKEY/ UNITED KINGDOM
GADOTERIDOL	PROHANCE®	Bracco	AUSTRIA/BELGIUM/CZECH REPUBLIC/DENMARK/FINLAND/FRANCE/GERMANY/ITALY/LUXEMBOURG/NETHERLANDS/NORWAY/SLOVAK REPUBLIC/SPAIN/SWEDEN/SWITZERLAND/ UNITED KINGDOM

### XIII. MR-ECG / Postprocessing



Please specify mean heart rate and heart rhythm of the patient during the examination in the section “ECG”.



All post processing that has been carried out afterwards is to be stated here.

Again, multiple answers can be selected by pressing the CTRL or STRG key.

#### XIV. Reporting

**Who was writing the report?**

Reporter \*  Radiologist  Consensus Reading (Radiologist and Cardiologist)  
 Cardiologist  Separate Reading (Radiologist / Cardiologist)  
 other:

Role  Consultant  Resident

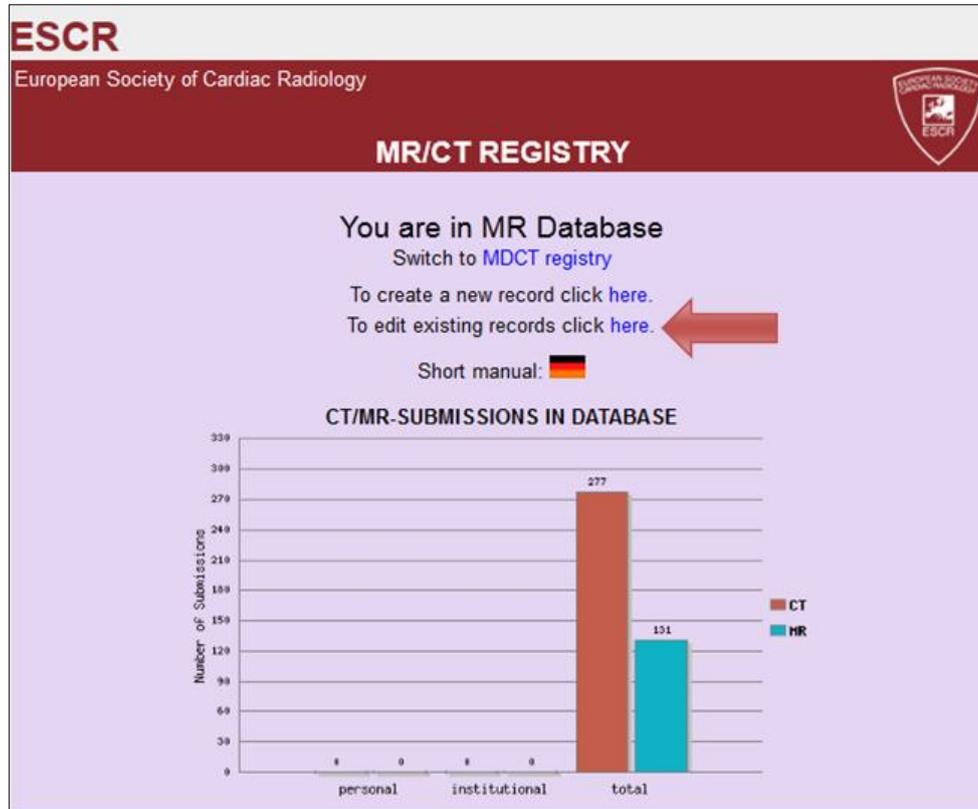
Responsible Consultant/Second Observer

Before saving, please specify who wrote the examination report.

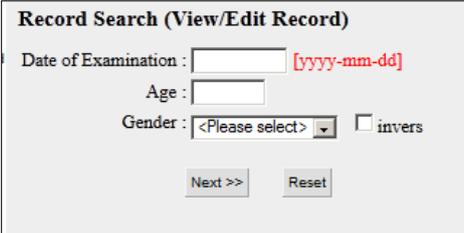
After having filled in all mandatory fields, you may now save your entries or reset the form.

Before saving, please ensure you filled in all mandatory fields (marked with a red star \*). Only if all mandatory fields are filled in, you may continue.

XV. Editing / Data Search



Already existing examination data can be opened by clicking on “here” as marked by the arrow in the figure above.



**Record Search (View/Edit Record)**

Date of Examination :  [yyyy-mm-dd]

Age :

Gender :   invers

A search mask opens, which gives the possibility to filter by examination date and age and gender of the patient.

If you leave all fields blank, you find all your examinations of the respective form.

Suchergebnisse: 9 Akten

	Date of Examination	Age	Gender	Aktenanmerkungen
	08. Mai 2012	60	male	
	08. Mai 2012	73	female	
	08. Mai 2012	74	female	
	09. Mai 2012	67	male	
	21. Mai 2012	65	female	
	24. Mai 2012	47	male	
	24. Mai 2012	60	female	
	24. Mai 2012	80	male	
	25. Mai 2012	81	male	

[AKTE ANLEGEN](#)

By clicking on the grey box (marked by the red arrow on the figure above) you can open the individual examinations.



To open examinations without editing them, click on "MR" as marked by the red arrow in the figure above.



To edit examinations click on the edit logo.