



**Canadian Cardiac Rehab Registry**



# **CCRR DATA DICTIONARY 2.0 MINIMUM DATASET**

**March 22, 2016**

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## PATIENT INFORMATION

### IDENTIFYING INFORMATION

#### Unique Patient ID

Enter the patient's permanent chart number ("patient ID number", "hospital number", "chart ID", "hospital ID") that corresponds to the patient's permanent unique file number. If you are unsure which is the permanent hospital file number ask a member of the Health Records Department staff which number is sent to the Canadian Institute of Health Information (CIHI). This is not a "visit" number. The CCRR automatically encrypts this number.

**Data Source:** Face sheet of the patient chart or on the Bradma plate stamped on the upper right corner of most pages of the chart.

**Data Entry:** The HID number is institution specific and ranges between 6 and 10 digits.

#### Year of Birth

Indicate the patient's year of birth.

Unknown: 'Not documented'

#### Sex

Select the patient's sex.

**Data Entry:** Choices available are:

- Male
- Female
- Other (trans-sexual or hermaphrodite)
- Unknown: Not documented

## CARDIAC REHAB PROGRAM & TIMING

#### Hospital Discharge Date

Enter the day, month and year the patient was discharged from hospital.

**Data Entry:**

- Not applicable if patient referred following outpatient visit or for stable disease.
- "Not documented" / unknown

#### Referral Diagnosis

The referral diagnosis refers to the most recent diagnosis preceding the patient's referral to cardiac rehabilitation. This item does not include interventions or procedures.

There may be more than one possible referral diagnosis reported if the second referral diagnosis occurred within the same hospitalization period. The following are possible scenarios:

1. If the patient had coronary artery bypass graft surgery with an aortic valve replacement then both CABG and AVR would be considered referral diagnoses.
2. If patient had an MI, was referred for cardiac rehabilitation and had another event during the period between referral and intake, the MI would count as the referral diagnosis and the secondary event would be listed as a secondary referral diagnosis.

**Data Source:** Patient's chart, referral form, health professional referral letter, patient intake interview.

**Data Entry:** Choices available are:

- **Stable CAD / Angina**
- **Acute coronary syndrome (ACS) – Unspecified**
- **Acute coronary syndrome (ACS) - Myocardial infarction - Unspecified**
- **Acute coronary syndrome (ACS) - Myocardial infarction - STEMI**
- **Acute coronary syndrome (ACS) - Myocardial infarction - Non STEMI**
- **Acute coronary syndrome (ACS) - Unstable Angina**
- **Heart Failure - Unspecified**
- **Heart Failure - Cardiomyopathy**
- **Cerebral vascular disease - Unspecified**
- **Cerebral vascular disease - TIA**
- **Cerebral vascular disease - Stroke**
- **Peripheral Vascular disease**
- **High-Risk Primary Prevention**
- Arrhythmia – unspecified
- Arrhythmia – atrial fibrillation
- Arrhythmia – ventricular tachycardia
- Arrhythmia - other
  
- **Other**
- **Unknown: Not documented**

### **Referral Procedure(s)**

Did the patient undergo a procedure associated with the referral diagnosis(es)? Choose all that apply.

**Data Source:** Patient's chart

**Data Entry:** Choices available are:

- Yes – please specify:
  - Percutaneous coronary intervention (PCI)
  - Bypass surgery – CABG
  - Heart Transplant
  - Valve surgery
  - Percutaneous valve intervention
  - VADs
  - Device insertion (e.g., CRT, ICD, Pacemaker)
  - Ablation
  - Other
- No
- Unknown: Not documented

### Referral Receipt Date

Enter the date the patient referral is received by the program.

**Data Source:** Face sheet of the patient's chart, referral form at the CR program, date received stamped or fax date on referral form, others as indicated.

**Data Entry:** Enter a date.

- Unknown: 'Not documented'

### Patient Enrolment

CR Program enrollment is defined as patient attendance at a first CR program visit.

**Data Entry:** Choices available are:

- Yes
- No
- Unknown: 'Not documented'

### Intake Visit Date

Enter the date the patient attended the first appointment at the CR program (this may be the intake assessment, rehabilitation exercise test, educational class, or other services)

**Data Source:** Patient's chart.

**Data Entry:** Enter a date.

Unknown: 'Not documented'

### Interim Event(s)

List any cardiac event(s) that occurred after referral to and prior to discharge from cardiac rehabilitation. Multiple post-referral events are possible.

**Data Source:** Patient's chart, physician progress note/assessment, nursing intake assessment note, hospitalization record(s), patient report (must follow-up with primary care physician to validate).

**Data Entry:** Choices available are:

- Yes, please choose all that apply:
  - Acute coronary syndrome (ACS) – Unspecified
  - Acute coronary syndrome (ACS) - Myocardial infarction – Unspecified
  - Acute coronary syndrome (ACS) - Myocardial infarction – STEMI
  - Acute coronary syndrome (ACS) - Myocardial infarction - Non STEMI
  - Acute coronary syndrome (ACS) - Unstable Angina
  - Cerebral vascular disease - TIA or stroke
  - Other
  - Death – Cardiac
  - Death - Non Cardiac
- No, patient had no interim event
- Unknown: Not documented

### Interim cardiac procedure(s)

Did the patient have cardiac procedure(s) occurring after referral to and prior to discharge from cardiac rehabilitation? Choose all that apply. Enter dates for each.

**Data Source:** Patient's chart

**Data Entry:** Choices available are:

- Yes, please check all that apply
  - Percutaneous intervention (PCI)
  - Bypass surgery – CABG
  - Valve surgery
  - Percutaneous valve procedure
  - Device insertion (e.g., CRT, ICD, Pacemaker)
  - Ablation
  - VADs
  - other
- None
- Not documented

### **Premature Termination(s)**

Premature termination refers to the instance where patients do not complete their prescribed exercise sessions or other core components of the program. Indicate the reason for premature termination of the patient's cardiac rehab program, if applicable.

**Data Entry:** Choices available are:

- Lost to follow-up (patient stopped coming and could not contact them)
- Patient choice (quit)
- Relocation
- Return to work
- Event – Cardiac
- Event – Other health problem
- Death
- Patient met goals early
- Not applicable – patient completed program
- Other
- Not documented

### **CR Program Completion**

To complete the CR program a patient must have attended at least some of the CR intervention components and also have completed a formal re-assessment by the CR team at the conclusion of the CR intervention. Indicate if the patient completed the CR program.

**Data Entry:** Choices available are:

- Yes
- No
- Not applicable (patient had an interim event or a premature termination of the program)
- Unknown: Not documented

### **Discharge Date**

Indicate the date of discharge from the cardiac rehabilitation program. The discharge date could be based on the patient completing the active CR program, the patient completing all recommended services, or a date prior to completing CR program due to specific reasons. This date should closely correspond to the patient's last documented rehabilitation visit. Note: it must **not** be the date of a post-CR program follow-up.

**Data Source:** Patient's chart.

- Unknown: Not documented

## RISK FACTORS AT INTAKE

### Diabetes

Was there a documented diagnosis of diabetes or treatment for diabetes?

Any of the following documented terms apply:

- Adult Onset Diabetes Mellitus
- Diabetes
- Diabetes Mellitus (DM)
- Diet controlled diabetes
- DM Type I (1) or Type II (2)
- Drug induced diabetes
- Juvenile Diabetes
- Non-insulin dependent Diabetes Mellitus
- Any treatment/medication for diabetes

Those conditions that should **NOT** be considered as diabetes are:

- Diabetes insipidus
- History of gestational diabetes
- Impaired fasting glucose
- Glucose intolerance

**Data Source:** History & Physical, Emergency Department record/notes, Nursing Admission notes, Physician's progress notes, Intake Assessment, current treatment for diabetes.

**Data Entry:**

- **Yes** - if diabetes is mentioned in any of the recommended sources listed above or if the patient is on a medication used to treat diabetes.
- **No** - if there is no history of diabetes or if there is no mention of diabetes in any of the recommended sources listed above.
- **Unknown: 'Not documented'**

## PROGRAM COMPONENTS DELIVERED

### Exercise Sessions Prescribed

Enter the total number of exercise classes scheduled for the patient's cardiac rehab program.

Unknown: 'Not documented'

### **Exercise Sessions Completed**

Enter the total number of exercise classes attended by the patient during their rehab program.

Unknown: 'Not documented'

### **Education**

Was the patient offered group or individual education within the program, particularly that counselled patients regarding self-management for heart-healthy behavior changes?

- **Offered and Accepted**
- **Offered and Declined** - If a patient does not accept or declines the offer
- **Not Offered**
- **Unknown: Not documented**

### **Smoking Cessation Counselling or Treatment**

Was the patient offered smoking cessation counselling or treatment?

- **Offered and Accepted**
- **Offered and Declined** - If a patient does not accept or decline the offer please
- **Not Offered**
- **Not applicable** - If patient is a non-smoker
- **Unknown: Not documented**

### **Stress Management**

Was the patient offered a stress management class or program?

- **Offered and Accepted**
- **Offered and Declined** - If a patient does not accept or decline the offer
- **Not Offered**
- **Not applicable**
- **Unknown: Not documented**

### **Depression Counselling or Treatment**

Was the patient offered a depression counselling program or other treatment (e.g., anti-depressants)?

**Data Entry:** Choices available are:

- **Offered and Accepted**
- **Offered and Declined** - If a patient does not accept or declines the offer
- **Not Offered**
- **not applicable** – patient is not depressed
- **Unknown: Not documented**

## **INTAKE & DISCHARGE MEASUREMENTS**

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**HbA1c (percent)**

This refers to the patient's glycosylated hemoglobin level.

**Data Source:** (1) Lab Report, (2) Emergency Department record/notes, (3) History & Physical, (4) Progress note.

**Data Entry:**

Enter in the space provided the value obtained for glycosylated hemoglobin. This value should be entered as a decimal. For example, an HbA1c of 6% should be entered as 0.06.

Add other options in a dropdown format:

- **Not documented / unknown**

**LIPID PROFILE (MMOL/L)****Total Cholesterol (TC) (mmol/L)**

What was the patient's total cholesterol value.

**Data Source:** (1) Lab Report, (2) Emergency Department record/notes, (3) History & Physical, (4) Progress note.

**Data Entry:** Enter the value for total cholesterol in mmol/L

Add other options in a dropdown format:

- **Not documented / unknown**

**Triglycerides (TG) (mmol/L)**

What was the serum triglycerides (TG) result?

**Data Source:** (1) Lab Report, (2) Progress note.

**Data Entry:** Enter value obtained for serum Triglycerides in mmol/L.

Add other options in a dropdown format:

- **Not documented / unknown**

**High Density Lipoprotein (HDL) (mmol/L)**

What was the HDL cholesterol result?

**Data Source:** (1) Lab Report, (2) Progress note.

**Data Entry:** Enter value obtained for HDL cholesterol (HDL) in mmol/L.

Add other options in a dropdown format:

- **Not documented / unknown**

**Low Density Lipoprotein (LDL) (mmol/L)**

What was the LDL cholesterol result? (may be called non-HDL)

**Data Source:** (1) Lab Report, (2) Progress note.

**Data Entry:** Enter value obtained for LDL cholesterol (LDL) in mmol/L.

Add other options in a dropdown format:

- **Unknown (If there are no entry values within the one-year time limit; or, the patient did not have any repeat lipid tests done at discharge)**
- **Not documented / unknown**

## ***ANTHROPOMETRIC***

### **Weight (KG)**

Weigh the patient prior to exercise without shoes, pockets emptied, and while wearing his/her typical or usual exercise clothes. Record weight to the nearest tenth of a kilogram if using a digital scale, to the nearest quarter pound if using a balance beam scale. The scale should be placed on a solid, level surface.

**Data Source:** Direct measurement at the intake assessment.

**Data entry:** Enter the patient's weight to the nearest 10<sup>th</sup> of a kilogram (i.e. 78.0 kg).

Add other options in a dropdown format:

- Not documented (unknown)

### **Height (cm)**

Measure the patient's height in stocking feet to the nearest whole centimetre. Have the patient stand erect with the heels, buttocks, back of shoulders, and back of head against the vertical scale. With the patient holding their breath, bring the horizontal bar into contact with the highest point on the head.

**Data Source:** Direct measurement at the intake and discharge assessment visit.

**Data Entry:** Enter the patient's height to the nearest cm. The number you enter will be three digits (e.g. 172).

Add other options in a dropdown format:

- Unknown: Not documented

### **Waist (cm)**

Enter the patient's waist measurement in centimetres (cm), at the approximate midpoint between lower margin of the last palpable rib and top of the iliac crest (WHO). Patient should stand with arms at sides, feet positioned close together, with weight evenly distributed across feet. Assess at end of normal expiration when lungs are at functional residual capacity. Take without clothing – directly over skin; if not possible, over light clothing.

**Data Source:** Direct measurement at the intake and discharge assessment.

**Data entry:** Enter value obtained from patient's waist measurement to the nearest centimetre.

Add other options in a dropdown format:

- Not documented (unknown)

## ***HEMODYNAMIC***

### **Systolic Blood Pressure / Diastolic Blood Pressure (SBP / DBP) (mm)**

Enter the patient's systolic blood pressure (mmHg) and the patient's diastolic blood pressure (mmHg). BP assessment should be undertaken manually or with a validated automated device only (e.g., see: <http://www.dableducational.org/>).

**Data Source:** Direct measurement at the intake assessment.

**Data entry:** Enter value obtained from patient's SBP and DBP.

Add other options in a dropdown format:

- **Not documented /unknown**

## FUNCTIONAL CAPACITY TESTS

The following measures are required at program intake and discharge.

### Peak METs

Indicate the peak METs achieved during the test or assessment in the space provided. The METs can be estimated from standard equations using speed and grade, or can be calculated from the direct measurement of oxygen consumption using gas analysis. To calculate METs from watts see:

[http://sportsartamerica.com/SAF/support/technicalsupport/techtips/General%20Info/Watts\\_to\\_METs\\_Conversions.pdf](http://sportsartamerica.com/SAF/support/technicalsupport/techtips/General%20Info/Watts_to_METs_Conversions.pdf)

**Data Source:** Exercise stress test or other functional assessment.

**Data Entry:** Enter the numeric value of the peak METs as indicated by the exercise stress test report to the nearest 1/10 of a MET (i.e. 5.4 METs).

- other options in a dropdown format:
  - Not applicable – METS not assessed
  - Not documented / unknown

## OTHER ASSESSMENTS: SELF-REPORTED HEALTH BEHAVIOURS

The following measures are recommended at program intake and discharge.

### Physical Activity - total

Canadian Physical Activity Guidelines recommend that individuals accumulate at least 150 minutes per week of moderate-to vigorous-intensity physical activity, performed in 10 minute bouts or longer. Based on the last 7 day period, how many minutes does the patient report they accumulated of moderate-to vigorous-intensity aerobic physical activity per week (i.e., at least brisk walking), in bouts of 10 minutes or more?

**Data Sources:** Initial intake and discharge visit, patient interview/questionnaire. Patient asked to describe their physical activity level.

**Data Entry:**

- enter number of minutes
- **Unknown:** Not documented

### Smoking

Does the patient smoke at the present time (intake and discharge)? **Note:** pertains to cigarette, cigar and pipe smoking

**Data Entry:** Choices available are (CCS):

- Never = no history of any form of tobacco,
- Current = use of any form of tobacco (cigarettes, cigar, pipe) within one month of referral date,
- Former = use of any form of tobacco > one month of referral date,
- Unknown: Not documented

## PSYCHO-SOCIAL INDICATORS

The following measures are recommended at program intake and discharge.

### **DEPRESSION**

Because the HADS-D costs money to administer and the BDI-II is used more as a research tool, in this iteration of the data dictionary we are recommending administration of the PHQ-2. It is recommended as a screener by AHA (Lichtman et al., Circulation 2008), and also as an option for screening in the CCS CR Quality Indicators.

#### **PHQ-2:**

Ask the patient: over the past 2 weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things
2. Feeling down, depressed or hopeless

Response options are: not at all (0), several days (1), more than half the days (2), nearly every day (3).

#### **At or above cutoff**

Was this score at or above the cutoff for depression?

For the PHQ-2, the cut-off is 3.

**Data Entry:** Choices available are:

- Yes
- No
- Unknown: Not documented

## MEDICATIONS

Enter all prescribed medications at intake and discharge from the CR program. Intake medications could be those documented at the intake assessment or intake functional testing. Discharge medications could be those documented at the time of the exit **Functional Test** or during the **Exit Assessment**. Be sure to include any diabetic or anti-depressant agents.

### **Medication Class**

Indicate the therapeutic class of the medication(s).

**Data Entry:** All of the following classes should be reported, where prescribed: angiotensin converting enzyme inhibitors, angiotensin II inhibitors, ARBs, centrally-acting antiadrenergic agents, peripherally-acting antiadrenergic agents, antianginal agents, antiarrhythmic agents, anticoagulants, antihypertensive combinations, bile acid sequestrants, calcium channel blocking agents, cardioselective beta-blockers, fibric acid derivatives, HMG-CoA reductase inhibitors, inotropic agents, loop diuretics, miscellaneous antihyperlipidemic agents, non-cardioselective beta blockers, platelet aggregation inhibitors, potassium-sparing diuretics, salicylates, sulfonyleureas, thiazide diuretics, thiazolidinediones, vasodilators. Diabetes drugs should also be reported: metformin, DPP4's, LLP-1s, insulins.