

Heart Failure (HF) Analytic Flowchart

General Inclusion Criteria

All face-to-face office visits with physician, physicians' assistant, or nurse practitioner occurring during the sampling period where at least two visits had a documented diagnosis of heart failure (see Appendix A.1, and A.2)

AND

Patient is 18 years or older at the beginning of the measurement period

[HFCONFIRMED] = 1
(see Appendix A.1 and A.2)

AND

Beginning of measurement period
– [DATEOFBIRTH] ≥ 18

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Measure Owner Designation
♣ AMA/PCPI is the measure owner
▲ CMS is the measure owner
■ NCQA is the measure owner

Heart Failure (HF) Analytic Flowchart

HF Clinical Performance Measures

LVF Assessment (*HF-1): Percentage of patients with quantitative or qualitative results for LVF assessment

Denominator: All patients with HF \geq 18 years of age

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
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Each unique [PATIENTID] = one case in the denominator

AND

Meeting inclusion criteria (page 1)

Denominator Exclusions

None

None

Numerator: Patients with quantitative or qualitative results for LVF assessment recorded

Numerator Inclusions

Patients who have quantitative or qualitative results of LVF assessment recorded (see Appendix B.1, B.2, B.3)

[HFLVFRESULT] = 1
(see Appendix B.1, B.2, B.3)

Heart Failure (HF) Analytic Flowchart

Left Ventricular Function (LVF) Testing ([▲]HF-2): Percentage of patients with LVF testing during the current year for patients hospitalized with a principal diagnosis of HF during the current year

Denominator: All patients with a principal diagnosis of HF \geq 18 years of age hospitalized during the measurement period

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1) and who were hospitalized during the measurement period for HF (see Appendix C.1)

Each unique [PATIENTID] = one case in the denominator

AND

Meeting inclusion criteria (page 1)

AND

[HFHOSPITAL] = 1

(see Appendix C.1)

Denominator Exclusions (Exclusions only applied if the patient did not receive LVF testing during the measurement period if patient was hospitalized for HF)

Any visit where:
Excluded for Medical Reason(s)
Excluded for Patient Reason(s)
(see Appendix D.1)

[HFLVFEAR] = 3

OR

[HFLVFEAR] = 4

(see Appendix D.1)

Numerator: Patients with LVF testing during the measurement period

Numerator Inclusions

Patients who had LVF testing during the measurement period (see Appendix C.1, C.2, C.3)

[HFLVFEAR] = 1

(see Appendix C.1, C.2, C.3)

Heart Failure (HF) Analytic Flowchart

Weight Measurement (*HF-3): Percentage of HF patient visits with weight measurement recorded

Denominator: All patient visits for patients with HF \geq 18 years of age

Denominator Inclusions

All visits meeting the inclusion criteria
(page 1)

Each [HFPCVISITDATE] = one case in
the denominator

AND

Meeting inclusion criteria (page 1)

AND

[HFPCINVALID] = 0

Denominator Exclusions (Exclusions only applied if the patient weight measurement was not recorded)

Each HF visit where:

Excluded for Medical Reason(s):

- Patient visits in which physician was unable to weigh patient (see Appendix E.1)

Each [HFPCVISITDATE]

WITH

[HFWEIGHT] = 3

(see Appendix E.1)

Numerator: Patient visits with weight measurement recorded

Numerator Inclusions

Patient visits with a weight measurement recorded
(see Appendix F.1, F.2)

Each [HFPCVISITDATE]

WITH

[HFWEIGHT] = 1

(see Appendix F.1, F.2)

Heart Failure (HF) Analytic Flowchart

Patient Education (*HF-5): Percentage of patients who were provided with patient education on disease management and health behavior changes during one or more visit(s)

Denominator: All patients with HF \geq 18 years of age

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1)
--

Each unique [PATIENTID] = one case in the denominator
AND
Meeting inclusion criteria (page 1)

Denominator Exclusions

None

None

Numerator: Patients provided with patient education during one or more visit(s)

Numerator Inclusions

Patients provided with patient during one or more visit(s) (see Appendix G.1, G.2)
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[HFPTEDUCATION] = 1
(see Appendix G.1, G.2)

Heart Failure (HF) Analytic Flowchart

Beta-Blocker Therapy (HF-6): Percentage of patients who were prescribed beta-blocker therapy

Denominator: All patients with HF \geq 18 years of age with LVSD defined as LVEF $<$ 40% or with moderately or severely depressed left ventricular systolic function

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1) and who also have LVSD (defined as LVEF $<$ 40% or with moderately or severely depressed left ventricular systolic function) (see Appendix H.1, H.2, H.3)

Each unique [PATIENTID] = one case in the denominator

AND

Meeting inclusion criteria (page 1)

AND

[HFCADLVSD] = 1

(see Appendix H.1, H.2, H.3)

Denominator Exclusions (Exclusions only applied if the patient did not receive beta-blocker therapy)

Any visit where:
Excluded for Medical Reason(s)
Excluded for Patient Reason(s)
Excluded for System Reason(s)
(see Appendix I.1, I.2, I.3)

[HFBBLOCKDRUG] = 3

OR

[HFBBLOCKDRUG] = 4

OR

[HFBBLOCKDRUG] = 5

(see Appendix I.1, I.2, I.3)

Numerator: Patients who were prescribed beta-blocker therapy

Numerator Inclusions

Patients who were prescribed beta-blocker therapy
(see Table 1 and Appendix H.4)

[HFBBLOCKDRUG] = 1

(see Table 1 and Appendix H.4)

Heart Failure (HF) Analytic Flowchart

ACE Inhibitor/ARB Therapy (*HF-7): Percentage of patients who were prescribed ACE inhibitor or ARB therapy

Denominator: All patients with HF ≥ 18 years of age with LVSD defined as LVEF < 40% or with moderately or severely depressed left ventricular systolic function

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1) and who also have LVSD (defined as LVEF < 40% or with moderately or severely depressed left ventricular systolic function) (see Appendix J.1, J.2, J.3)

Each unique [PATIENTID] = one case in the denominator

AND

Meeting inclusion criteria (page 1)

AND

[HFCADLVSD] = 1

(see Appendix J.1, J.2, J.3)

Denominator Exclusions (Exclusions only applied if the patient did not receive ACE inhibitor or ARB therapy)

Any visit where:
Excluded for Medical Reason(s)
Excluded for Patient Reason(s)
Excluded for System Reason(s)
(see Appendix K.1, K.2, K.3)

[HFACEARBDRUG] = 3

OR

[HFACEARBDRUG] = 4

OR

[HFACEARBDRUG] = 5

(see Appendix K.1, K.2, K.3)

Numerator: Patients who were prescribed ACE inhibitor or ARB therapy

Numerator Inclusions

Patients who were prescribed ACE inhibitor or ARB therapy
(see Tables 2, 3 and Appendix J.4)

[HFACEARBDRUG] = 1

(see Tables 2, 3 and Appendix J.4)

Heart Failure (HF) Analytic Flowchart

Warfarin Therapy for Patients with Atrial Fibrillation (*HF-8): Percentage of patients with paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy

Denominator: All patients with heart failure \geq 18 years of age with paroxysmal or chronic atrial fibrillation

Denominator Inclusions

All patients (each unique patient identifier equals one case in the denominator) meeting the inclusion criteria (page 1) and who also have paroxysmal or chronic atrial fibrillation (see Appendix L.1)

Each unique [PATIENTID] = one case in the denominator

AND

Meeting inclusion criteria (page 1)

AND

[HFAFIB] = 1 (see Appendix L.1)

Denominator Exclusions (Exclusions only applied if the patient did not receive warfarin therapy)

Any visit where:
Excluded for Medical Reason(s)
Excluded for Patient Reason(s)
Excluded for System Reason(s)
(see Appendix M.1, M.2, M.3)

[HFWARFDRUG] = 3

OR

[HFWARFDRUG] = 4

OR

[HFWARFDRUG] = 5
(see Appendix M.1, M.2, M.3)

Numerator: Patients who were prescribed warfarin therapy

Numerator Inclusions

Patients who were prescribed warfarin therapy
(see Table 4 and Appendix L.2)

[HFWARFDRUG] = 1
(see Table 4 and Appendix L.2)