## 4 Congestive Heart Failure algorithm summary (1/2)

Triggers	Inpatient admission with a primary diagnosis code for heart failure
PAP assignment	For each episode, the Principal Accountable Provider (PAP) is the admitting hospital for the trigger hospitalization
Exclusions	<ul> <li>Episodes meeting one or more of the following criteria will be excluded:</li> <li>A. Beneficiaries do not have continuous Medicaid enrollment for the duration of the episode</li> <li>B. Beneficiaries under the age of 18 at the time of admission</li> <li>C. Beneficiaries with any cause inpatient stay in the 30 days prior to the triggering admission</li> <li>D. Beneficiaries with any of the following comorbidities diagnosed in the period beginning 365 days before the episode start date and concluding on the episode end date: 1) End-Stage Renal Disease, 2) organ transplants, 3) pregnancy, 4) mechanical or left ventricular assist device (LVAD) or 5) intra-aortic balloon pump (IABP)</li> <li>E. Beneficiaries with diagnoses for malignant cancers in the period beginning 365 days before the episode start date and concluding on the episode end date. The following types of cancers will not be criteria for episode exclusion: colon, rectum, skin, female breast, cervix uteri, body of uterus, prostate, testes, bladder, lymph nodes, lymphoid leukemia, monocytic leukemia.</li> <li>F. Beneficiaries who received a pacemaker or cardiac defibrillator in 6 months prior to the start of the episode or during the episode</li> <li>G. Beneficiaries with any of the following statuses upon discharge: 1) transferred to acute care or inpatient psych facility, 2) left against medical advice or 3) expired</li> </ul>
Episode time window	Episodes begin at inpatient admission for heart failure. Episodes end at the latter of 30 days after the date of discharge for the triggering admission or the date of discharge for any inpatient readmission initiated within 30 days of the initial discharge. Episodes shall not exceed 45 days post-discharge from the triggering admission.
Claims included	<ol> <li>Inpatient facility and professional fees for the initial hospitalization and for all cause readmissions</li> <li>Emergency or observation care</li> <li>Home health services</li> <li>Skilled nursing facility care due to acute exacerbation of CHF (services not included in episode for patients with SNF care in 30 days prior to episode start)</li> <li>Durable medical equipment</li> </ol>
Quality measures	<ul> <li>Quality measures "to pass":</li> <li>1. Percent of patients with LVSD who are prescribed an ACEI or ARB at hospital discharge – must meet minimum threshold of 85%. Quality measures "to track":</li> <li>1. Frequency of outpatient follow-ups within 7 and 14 days after discharge</li> <li>2. For qualitative assessments of left ventricular ejection fraction (LVEF), proportion of patients matching: hyperdynamic, normal, mild dysfunction, moderate dysfunction, severe dysfunction</li> <li>3. Average quantitative ejection fraction value</li> <li>4. 30-day all cause readmission rate</li> <li>5. 30-day heart failure readmission rate</li> <li>6. 30-day outpatient observation care rate – utilization metric</li> </ul>
Adjustments	No adjustments are included in this episode type



## 4 Congestive Heart Failure algorithm summary (2/2)

Trigger codes	Each episode is triggered by an inpatient admission with a primary diagnosis code for heart failure.  ICD-9 Heart failure primary diagnosis codes: 428.xx, 40201, 40211, 40291, 40401, 40411, 40491
Exclusion codes	List of prior diagnoses and meds that would disqualify a patient from the episode ICD-9 / CPT / HCPCS codes within 1 year (prior to trigger): 585.5, 585.6, 586.xx, V42.xx, 0048T, 0049T, 33975—33980, Q0491—Q0505, 33970, 33971, 33973, 33974, 140.xx—152.xx, 155.xx—173.xx, 175.xx, 176.xx, 179.xx, 181.xx, 183.xx, 184.xx, 187.xx, 189.xx—195.xx, 197.xx—203.xx, 205.xx, 207.xx—209.xx, 231.xx, 237.xx, 239.xx, V22.xx, 59120, 59121, 59130, 59135, 59136, 59140, 59141, 59150, 59151, 59160, 59200, 59300, 59320, 59325, 59350, 59400, 59409, 59410, 59412, 59414, 59425, 59426, 59510, 59514, 59515, 59525, 59610, 59612, 59614, 59618, 59620, 59622, 59812, 59820, 59830, 59840, 59841, 59850—59852, 59855—59857, 59866, 59871, 59897—59899, 76801—76821, 76825, 630.xx—679.xx ICD-9 / CPT / HCPCS comorbidities within 6 months (prior to trigger): 33215—33217, 33220, 33224, 33225, 33240, 33245, 33249, 93282—93284, 93287, 93289, 93295, 93296, 93741—93745, K0532, K0606—K0609, G0297, G0298, G0299, G0300  These codes represent the set of business and clinical exclusions described previously
Codes to assign PAP	Admission hospital is principal accountable provider (see trigger codes above)
Reporting codes	Outpatient visit within 7 to 14 days: any outpatient professional claim within 7 to 14 days of date of discharge All-cause readmissions: any hospitalization in the 30 day period following the date of discharge Heart failure readmission: any hospitalization in the 30 day period following the date of discharge with a primary diagnosis of heart failure (see triggers above)
Included claim codes	List of ICD-9 and CPT codes that should be included in episode  Acute inpatient heart failure primary diagnosis codes: ICD-9 codes 428.xx, 40201, 40211, 40291, 40401, 40411, 40491  Post-acute skilled nursing facility (SNF): CPT codes 99304-99310, 99318  Post-acute skilled nursing professional: Revenue codes 190-193  Health home serves: HCPCS codes T1021, T1021-TE (modifier), T1021-TD (modifier)  Durable medical equipment: HCPCS codes 4030F, E0601, E0561, E0562, E0470, A7030-A7039, A7044, A7046, K0532