



RESOURCE AND PATIENT MANAGEMENT SYSTEM

IHS Clinical Reporting System

(BGP)

Other National Measures Report Performance Measure List and Definitions

Version 14.1

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1.0 Introduction

The Other National Measures (ONM) Report contains clinical quality measures for which national data is desired. The majority of these measures were historically reported in the National Government Performance and Results Act (GPRA) Report as non-GPRA measures. The ONM Report provides valuable information on the quality of care that is being provided to patients and can be used to address other national reporting requirements. Data for these measures will be collected and reported at least once annually.

1.1 CRS Denominator Definitions

1.1.1 For All Denominators

- All patients with name “DEMO, PATIENT” or who are included in the Resource and Patient Management System (RPMS) Demo/Test Patient Search Template (DPST option located in the Patient Care Component (PCC) Management Reports, Other section) will be excluded automatically for all denominators.
- For all measures except as noted, patient age is calculated as of the beginning of the Report Period.

1.1.2 Active Clinical Population

1.1.2.1 National GPRA/GPRAMA Reporting

- The patient must have two visits to medical clinics in the past three years. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the *Clinical Reporting System for FY2014 Clinical Measures User Manual* for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The patient must be American Indian/Alaska Native (AI/AN); defined as Beneficiary 01.
- The patient must reside in a community specified in the site’s GPRA community taxonomy, defined as all communities of residence in the defined Contract Health Service (CHS) catchment area.

1.1.2.2 Local Reports

- The patient must have two visits to medical clinics in the past three years. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the *Clinical Reporting System for FY2014 Clinical Measures User Manual* for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The user defines the population type as one of the following:
 - AI/AN patients only
 - Non AI/AN
 - Both
- The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.

1.1.3 User Population

1.1.3.1 National GPRA/GPRAMA Reporting

- The patient must have been seen at least once in the three years prior to the end of the time period, regardless of the clinic type, and the visit must be either ambulatory (including day surgery or observation) or a hospitalization; the rest of the service categories are excluded.
- The patient must be alive on the last day of the Report Period.
- The patient must be AI/AN; defined as Beneficiary 01.
- The patient must reside in a community specified in the site's GPRA community taxonomy, defined as all communities of residence in the defined CHS catchment area.

1.1.3.2 Local Reports

- The patient must have been seen at least once in the three years prior to the end of the time period, regardless of the clinic type, and the visit must be either ambulatory (including day surgery or observation) or a hospitalization; the rest of the service categories are excluded.
- The patient must be alive on the last day of the Report Period.
- The user defines the population type as one of the following:
 - AI/AN patients only
 - Non AI/AN

- Both

- The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.

1.1.4 Active Clinical plus BH Population

1.1.4.1 National GPRA/GPRAMA Reporting

- The patient must have two visits to medical clinics in the past three years. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the *Clinical Reporting System (CRS) for FY2014 Clinical Measures User Manual* for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The patient must be American Indian/Alaska Native (AI/AN); defined as Beneficiary 01.
- The patient must reside in a community specified in the site's GPRA community taxonomy, defined as all communities of residence in the defined Contract Health Service (CHS) catchment area.

1.1.4.2 Local Reports

- The patient must have two visits to medical clinics in the past three years. Chart reviews and telephone calls from these clinics do not count; the visits must be face-to-face. At least one visit must be to a core medical clinic. Refer to the *Clinical Reporting System (CRS) for FY2014 Clinical Measures User Manual* for listing of these clinics.
- The patient must be alive on the last day of the Report Period.
- The user defines the population type as one of the following:
 - AI/AN patients only
 - Non AI/AN
 - Both
- The user defines the general population: single community, group of multiple communities (community taxonomy), user-defined list of patients (patient panel), or all patients regardless of community of residence.

2.0 Topics and Definitions

The following sections define the performance measure topics and their definitions that are included in the CRS 2014 Version 14.1 ONM Report.

Note: In this section, the asterisk (*) frequently appears in codes (CPT, POV, Edu., etc.) as a 'wildcard' character indicating that the code given has one or more additional characters at this location.

2.1 Diabetes Group

2.1.1 Diabetes Comprehensive Care

Changes from CRS v14.0 are noted

2.1.1.1 Owner: Contact

Diabetes Program: Dr. Ann Bullock

2.1.1.2 Denominators

1. Active Diabetic patients, defined as all Active Clinical patients diagnosed with diabetes prior to the Report Period, *and* at least two visits in the past year, *and* two DM-related visits ever.
2. Active Diabetic patients, defined as all Active Clinical patients diagnosed with diabetes prior to the Report Period, *and* at least two visits during the Report Period, *and* two DM-related visits ever, without a documented history of bilateral blindness.
3. Active Diabetic patients, defined as all Active Clinical patients diagnosed with diabetes prior to the Report Period, *and* at least two visits during the Report Period, *and* two DM-related visits ever, without a documented history of bilateral foot amputation or two separate unilateral foot amputations.

2.1.1.3 Numerators

1. Patients with hemoglobin A1c documented during the Report Period, regardless of result.
2. Patients with blood pressure documented during the Report Period.
3. Patients with controlled blood pressure during the Report Period, defined as below 140/90.

Note: This measure is *not* included in the comprehensive measure (the last numerator).

4. Patients with LDL completed during the Report Period, regardless of result
5. Patients with nephropathy assessment, defined as an estimated Glomerular Filtration Rate (GFR) with result *and* a Urine Albumin-to-Creatinine Ratio (UACR) during the report period *or* with evidence of diagnosis or treatment of end-stage renal disease (ESRD) at any time before the end of the report period.
6. Patients receiving a qualified retinal evaluation during the Report Period.

Note: This numerator does *not* include refusals.

7. Patients with diabetic foot exam during the Report Period.

Note: This numerator does *not* include refusals.

8. Patients with A1c and Blood Pressure and LDL and Nephropathy Assessment and Retinal exam and Diabetic Foot Exam.

Note: This numerator does not include controlled Blood Pressure, only Blood Pressure assessment.

2.1.1.4 Definitions

Diabetes

First Purpose of Visit (POV) ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* recorded in the V POV file prior to the report period.

A1c

Searches for most recent A1c test with a result during the report period. If none found, CRS searches for the most recent A1c test without a result. A1c defined as:

- CPT 83036, 83037, 3044F through 3046F, 3047F (old code)
- LOINC taxonomy
- Site-populated taxonomy DM AUDIT HGB A1C TAX

BP Documented

BP documented is defined as having a minimum of two blood pressures (BP) documented during the report period.

Exclusions: When calculating all BPs (using vital measurements or CPT codes), the following visits will be excluded:

- Service Category H (Hospitalization), I (In Hospital), S (Day Surgery), or O (Observation)
- Clinic code 23 (Surgical), 30 (ER), 44 (Day Surgery), C1 (Neurosurgery), or D4 (Anesthesiology)

CRS uses mean of last 3 BPs documented during the report period. If 3 BPs are not available, uses mean of last 2 BPs. If a visit contains more than 1 BP, the lowest BP will be used, defined as having the lowest systolic value. The mean Systolic value is calculated by adding the last 3 (or 2) systolic values and dividing by 3 (or 2). The mean Diastolic value is calculated by adding the diastolic values from the last 3 (or 2) blood pressures and dividing by 3 (or 2).

If CRS is not able to calculate a mean BP, it will search for Current Procedural Terminology (CPT) 0001F, 2000F, 3074F through 3080F or POV ICD-9: V81.1 documented during the report period.

Controlled BP

CRS uses a mean, as described above. If the mean systolic and diastolic values do not *both* meet the criteria for controlled, then the value is considered not controlled.

BP Documented and Controlled BP

If CRS is not able to calculate a mean BP from blood pressure measurements, it will search for the most recent of any of the following codes documented during the report period:

- BP Documented: CPT 0001F or 2000F or POV ICD-9: V81.1; OR
- Systolic: CPT 3074F, 3075F, or 3077F with Diastolic: CPT 3078F, 3079F, or 3080F. The systolic and diastolic values do not have to be recorded on the same day. If there are multiple values on the same day, the CPT indicating the lowest value will be used.
- The following combinations represent BP below 140/90 and will be included in the Controlled BP numerator: CPT 3074F or 3075F *and* 3078F or 3079F. All other combinations will not be included in the Controlled BP numerator.

LDL

Finds last test done during the report period; defined as one of the following:

- CPT 80061, 83700, 83701, 83704, 83715 (old code), 83716 (old code), 83721, 3048F, 3049F, 3050F
- Logical Observations Identifiers, Names, Codes (LOINC) taxonomy
- Site-populated taxonomy DM AUDIT LDL CHOLESTEROL TAX

Nephropathy Assessment

Defined as any of the following:

- Estimated GFR with result during the report period, defined as any of the following:

- Site-populated taxonomy BGP GPRA ESTIMATED GFR TAX
- LOINC taxonomy
- Urine Albumin-to-Creatinine Ratio during the report period, defined as any of the following:
 - CPT 82043 WITH 82570
 - LOINC taxonomy
 - Site-populated taxonomy BGP QUANT UACR TESTS

Note: Be sure to check with your laboratory supervisor that the names added to your taxonomy reflect quantitative test values.

- End Stage Renal Disease diagnosis or treatment defined as any of the following ever:
 - CPT 36145 (old code), 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831 through 36833, 50300, 50320, 50340, 50360, 50365, 50370, 50380, 90951 through 90970 or old codes 90918 through 90925, 90935, 90937, 90939 (old code), 90940, 90945, 90947, 90989, 90993, 90997, 90999, 99512, 3066F, G0257, G0308 through G0327 (old codes), G0392 (old code), G0393 (old code), S2065, S9339
 - POV ICD-9: 585.6, V42.0, V45.1 (old code), V45.11, V45.12, V56.*; ICD-10: N18.6, Z48.22, Z49.*, Z91.15, Z94.0, Z99.2
 - Procedure ICD-9: 38.95, 39.27, 39.42, 39.43, 39.53, 39.93 through 39.95, 54.98, 55.6*

Qualified Retinal Evaluation

- Diabetic retinal exam or
- Other eye exam

The following methods are qualifying for this measure:

- Dilated retinal evaluation by an optometrist or ophthalmologist.
- Seven standard fields stereoscopic photos (Early Treatment Diabetic Retinopathy Study [ETDRS]) evaluated by an optometrist or ophthalmologist.
- Any photographic method formally validated to seven standard fields (ETDRS).

Diabetic Retinal Exam

Any of the following during the report period:

- Exam code 03 Diabetic Eye Exam (dilated retinal examination or formally validated¹ ETDRS photographic equivalent).
- CPT 2022F Dilated retinal eye exam, 2024F Seven standard field stereoscopic photos with interpretation by an ophthalmologist or optometrist, 2026F Eye imaging formally validated² to match the diagnosis from seven standard field stereoscopic photos, S0620 Routine ophthalmological examination including refraction; new patient, S0621 Routine ophthalmological examination including refraction; established patient, S3000 Diabetic indicator; retinal eye exam, dilated, bilateral.

Other Eye Exam

- Non-DNKA (did not keep appointment) visits to ophthalmology, optometry or formally validated³ tele-ophthalmology retinal evaluation clinics or
- Non-DNKA visits to an optometrist or ophthalmologist. Searches for the following codes in the following order:
 - Clinic codes A2 (Diabetic Retinopathy)⁴, 17, 18
 - Provider code 24, 79, 08
 - CPT 67028, 67038 (old code), 67039, 67040, 92002, 92004, 92012, 92014

Bilateral Blindness

- Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted) ICD-9: 369.01, 369.03, 369.04; ICD-10: H54.0 through H54.12

Diabetic Foot Exam

- Exam code 28 Diabetic Foot Exam, Complete
- Non-DNKA visit with a podiatrist (Provider codes 33, 84, 25)
- Non-DNKA visit to Podiatry Clinic (Clinic code 65), or
- CPT 2028F

¹¹ Validation study properly powered and controlled against the ETDRS gold standard.

² Ibid.

³ Validation study properly powered and controlled against the ETDRS gold standard.

⁴ Validated photographic (teleophthalmology) retinal surveillance.

Bilateral foot amputation

- CPT: 27290.50 through 27295.50, 27590.50 through 27592.50, 27598.50, 27880.50 through 27882.50 (50 modifier indicates bilateral)

Unilateral foot amputation

- The patient must have two separate occurrences for either CPT or Procedure codes on two different dates of service:
 - CPT: 27290 through 27295, 27590 through 27592, 27598, 27880 through 27882
 - Procedure ICD-9: 84.10, 84.13 through 84.19; ICD-10: 0Y6*0ZZ, 0Y6C0Z*, 0Y6D0Z*, 0Y6H0Z*, 0Y6J0Z*, 0Y6M0Z0, 0Y6N0Z0

2.1.1.5 Patient Lists

- List of diabetic patients who did have their A1c assessed.
- List of diabetic patients who did not have their A1c assessed.
- List of diabetic patients who did have their BP assessed.
- List of diabetic patients who did not have their BP assessed.
- List of diabetic patients with controlled BP, defined as below 140/90.
- List of diabetic patients with uncontrolled BP, defined as above 140/90.
- List of diabetic patients with LDL completed.
- List of diabetic patients without LDL completed.
- List of diabetic patients with nephropathy assessment.
- List of diabetic patients without nephropathy assessment.
- List of diabetic patients with retinal evaluation.
- List of diabetic patients without retinal evaluation.
- List of diabetic patients with a diabetic foot exam.
- List of diabetic patients without a diabetic foot exam.
- List of diabetic patients with comprehensive diabetes care.
- List of diabetic patients without comprehensive diabetes care.

2.1.2 RAS Antagonist Use in Diabetic Patients**Changes from CRS v14.0 are noted**

2.1.2.1 Owner/Contact

Chris Lamer, PharmD

2.1.2.2 Denominators

1. Active Diabetic patients with HTN, defined as all Active Clinical patients diagnosed with diabetes and hypertension prior to the Report Period, AND at least two visits during the Report Period, AND two DM-related visits ever, and no documented history of ESRD.

2.1.2.3 Numerators

1. Patients receiving a RAS Antagonist medication during the Report Period.
2. Patients with contraindication or previous adverse reaction to RAS Antagonist therapy.

2.1.2.4 Definitions**Diabetes**

First DM Purpose of Visit ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* recorded in the V POV file prior to the Report Period.

Hypertension

Diagnosis (POV or Problem List entry where the status is not Inactive or Deleted) ICD-9: 401.*; ICD-10: I10 prior to the Report period, and at least one hypertension POV during the Report period

ESRD

Any of the following ever:

- CPT 36145 (old code), 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831 through 36833, 50300, 50320, 50340, 50360, 50365, 50370, 50380, 90918 through 90925 (old codes), 90935, 90937, 90939 (old code), 90940, 90945, 90947, 90951 through 90970, 90989, 90993, 90997, 90999, 99512, G0257, G0308 through G0327 (old codes), G0392 (old code), G0393 (old code), S2065, S9339
- POV ICD-9: 585.6, V45.1 (old code), V45.11 V45.12, V56.*; ICD-10: N18.6, Z48.22, Z49.*, Z91.15, Z94.0, Z99.2
- Procedure ICD-9: 38.95, 39.27, 39.42, 39.43, 39.53, 39.93 through 39.95, 54.98, 55.6*

RAS Antagonist Numerator Logic

Renin Angiotensin System (RAS) Antagonist medication codes defined with medication taxonomy BGP PQA RASA MEDS.

ACEI medications are:

- Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril).
- Antihypertensive Combinations (Amlodipine-benazepril, Benazepril-hydrochlorothiazide, Captopril-hydrochlorothiazide, Enalapril-hydrochlorothiazide, Enalapril-Felodipine, Fosinopril-hydrochlorothiazide, Lisinopril-hydrochlorothiazide, Moexipril-hydrochlorothiazide, Quinapril-hydrochlorothiazide, Trandolapril-verapamil).

ARB medications are:

- Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan).
- Antihypertensive Combinations (Amlodipine-valsartan, Amlodipine-hydrochlorothiazide-valsartan, Amlodipine-olmesartan, Azilsartan-Chlorthalidone, Candesartan-hydrochlorothiazide, Eprosartan-hydrochlorothiazide, Irbesartan-hydrochlorothiazide, Losartan-hydrochlorothiazide, Olmesartan-amlodipine-hydrochlorothiazide, Olmesartan-hydrochlorothiazide, Telmisartan-amlodipine, Telmisartan-hydrochlorothiazide, Valsartan-hydrochlorothiazide).

Direct Renin Inhibitor medications are:

- Direct Renin Inhibitors (Aliskiren).
- Direct Renin Inhibitor Combination Products (Aliskiren-amlodipine, Aliskiren-amlodipine-hydrochlorothiazide, Aliskiren-hydrochlorothiazide, Aliskiren-valsartan).

Contraindications to RAS Antagonist

- Pregnancy, defined as at least two visits during the Report Period with POV or Problem diagnosis ICD-9: 640.*3, 641.*3, 642.*3, 643.*3, 644.*3, 645.*3, 646.*3, 647.*3, 648.*3, 649.*3, 651.*3, 652.*3, 653.*3, 654.*3, 655.*3, 656.*3, 657.*3, 658.*3, 659.*3, 660.*3, 661.*3, 662.*3, 663.*3, 665.*3, 668.*3, 669.*3, 671.*3, 673.*3, 674.*3, 675.*3, 676.*3, 678.*3, 679.*3, V22.0 through V23.9, V28.81, V28.82, V28.89, V72.42, V89.01 through V89.09; ICD-10: O09.00 through O10.02, O10.111 through O10.12, O10.211 through O10.22, O10.311 through O10.32, O10.411 through O10.42, O10.911 through O10.92, O11.1 through O15.1, O15.9 through O24.02, O24.111 through O24.12, O24.311 through O24.32, O24.41*, O24.811 through O24.82, O24.911 through O24.92, O25.10 through O25.2, O26.00 through O26.62, O26.711 through O26.72, O26.811 through O26.93, O29.011 through O30.93, O31.* through O48.*, O60.0*, O61.* through O66.*, O68, O69.*, O71.00 through O71.1, O71.89, O71.9, O74.0 through O75.81, O75.89,

O75.9, O76 through O77.*, O88.011 through O88.02, O88.111 through O88.12, O88.211 through O88.22, O88.311 through O88.32, O88.811 through O88.82, O90.3, O91.011 through O91.019, O91.111 through O91.119, O91.211 through O91.219, O92.011 through O92.019, O92.20, O92.29, O98.011 through O98.02, O98.111 through O98.12, O98.211 through O98.22, O98.311 through O98.32, O98.411 through O98.42, O98.511 through O98.52, O98.611 through O98.62, O98.711 through O98.72, O98.811 through O98.82, O98.911 through O98.92, O99.011 through O99.02, O99.111 through O99.12, O99.210 through O99.214, O99.280 through O99.284, O99.310 through O99.314, O99.320 through O99.324, O99.330 through O99.334, O99.340 through O99.344, O99.350 through O99.354, O99.411 through O99.42, O99.511 through O99.52, O99.611 through O99.62, O99.711 through O99.72, O99.810, O99.814, O99.820, O99.824, O99.830, O99.834, O99.840 through O99.844, O99.89, O9A.111 through O9A.12, O9A.211 through O9A.22, O9A.311 through O9A.32, O9A.411 through O9A.42, O9A.511 through O9A.52, Z03.7*, Z32.01, Z33.1, Z34.*, Z36, where the primary provider is not a CHR (Provider code 53). Pharmacy-only visits (clinic code 39) will not count toward these two visits. If the patient has more than two pregnancy-related visits during the Report Period, CRS will use the first two visits in the Report Period. The patient must not have a documented miscarriage or abortion occurring after the second pregnancy-related visit.

– Miscarriage definition

- POV ICD-9: 630, 631, 632, 633*, 634*; ICD-10: O03.9
- CPT 59812, 59820, 59821, 59830

– Abortion definition

- POV ICD-9: 635*, 636* 637*; ICD-10: O00.*, O01.*, O03.1, O03.31 through O03.33, O03.6, O03.81 through O03.83, O04.6, O04.81 through O04.83, Z33.2
- CPT 59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857, S2260 through S2267
- Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z
 - Breastfeeding, defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
 - Diagnosis ever for moderate or severe aortic stenosis (POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, or 747.22)
 - NMI (not medically indicated) refusal for any RAS Antagonist at least once during the Report Period

Adverse drug reaction or documented RAS Antagonist allergy

- POV ICD-9: 995.0 through 995.3 *and* E942.6; ICD-10: T46.4X5*
- "ace inhibitor", "ACEI", "Angiotensin Receptor Blocker" or "ARB" entry in ART (Patient Allergies File)
- "ace i*", "ACEI", "Angiotensin Receptor Blocker" or "ARB" contained within Problem List or in Provider Narrative field for any POV 995.0 through 995.3, V14.8; ICD-10: Z88.8

2.1.2.5 Patient Lists

- List of diabetic patients with hypertension and with RAS Antagonist medication.
- List of diabetic patients with hypertension and with no RAS Antagonist medication or with RAS Antagonist contraindication or ADR.

2.2 Dental Group**2.2.1 Topical Fluoride**

No changes from Version 14.0

2.2.1.1 Owner: Contact

Dental Program: Dr. Patrick Blahut

2.2.1.2 Denominators

No denominator. This measure is a total count only, not a percentage.

2.2.1.3 Numerators

1. Count only (no percentage comparison to denominator). For patients meeting the User Population definition, the total number of appropriate topical fluoride applications based on a maximum of four per patient per year.

2.2.1.4 Definitions**Topical Fluoride Application**

Defined as any of the following:

- Dental ADA codes 1201 (old code), 1203 (old code), 1204 (old code), 1205 (old code), 1206, 1208, 5986
- CPT D1203 (old code), D1204 (old code), D1206, D1208, D5986
- POV ICD-9: V07.31

A maximum of one application per patient per visit is allowed. A maximum of four topical fluoride applications are allowed per patient per year for the applications measure.

2.2.1.5 Patient Lists

List of patients who received at least one topical fluoride application during Report period.

2.3 Immunization Group

2.3.1 Influenza

Changes from CRS v14.0 are noted

2.3.1.1 Owner: Contact

Epidemiology Program: Amy Groom, MPH

2.3.1.2 Denominators

1. Active Clinical patients broken down by age groups (younger than 18 years, 18 through 49 years, 50 through 64 years, 65 years and older).
2. Active Clinical patients ages 18 through 49 years and considered high risk for influenza.
3. Active Diabetic patients, defined as all Active Clinical patients diagnosed with diabetes prior to the Report Period, and at least two visits in the past year, AND two DM-related visits ever.

2.3.1.3 Numerators

1. Patients with influenza vaccine documented during the Report Period or with a contraindication documented at any time before the end of the Report Period.

Note: The only refusals included in this numerator are not medically indicated (NMI) refusals.

A. Patients with a contraindication or a documented NMI refusal.

2.3.1.4 Definitions

Diabetes

First DM Purpose of Visit ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* recorded in the V POV file prior to the Report period.

Influenza Vaccine

Any of the following during the report period:

- Immunization (CVX) codes 15, 16, 88, 111, 135, 140, 141, 144, 149, 150, 151, 153, 155, 158
- POV ICD-9: V04.8 (old code), V04.81 not documented with 90663, 90664, 90666 through 90668, 90470, G9141 or G9142, or V06.6 not documented with 90663, 90664, 90666 through 90668, 90470, G9141 or G9142
- CPT 90654 through 90662, 90672, 90673, 90685, 90686, 90688, 90724 (old code), G0008, G8108 (old code)

Contraindication to Influenza Vaccine

Any of the following documented at any time before the end of the Report Period:

- Contraindication in the Immunization Package of “Egg Allergy” or “Anaphylaxis,”
- PCC NMI Refusal

Persons Considered High Risk for Influenza:

Those who have two or more visits in the past 3 years with a POV or Problem diagnosis of any of the following:

- HIV Infection: ICD-9: 042, 042.0 through 044.9 (old codes), 079.53, V08; ICD-10: B20, B52.0, B97.35, Z21
- Diabetes: ICD-9: 250.00 through 250.93; ICD-10: E08.2*, E09.2*, E10.* through E13.*
- Rheumatic Heart Disease: ICD-9: 393. through 398.99; ICD-10: I05.* through I09.*
- Hypertensive Heart Disease: ICD-9: 402.00 through 402.91; ICD-10: I11.*
- Hypertensive Heart or Renal Disease: ICD-9: 404.00 through 404.93; ICD-10: I13.*
- Ischemic Heart Disease: ICD-9: 410.00 through 414.9; ICD:10: I20.0 through I22.8, I24.0 through I25.83, I25.89, I25.9
- Pulmonary Heart Disease: ICD-9: 415.0 through 416.9; ICD-10: I26.* through I27.*
- Other Endocardial Heart Disease: ICD-9: 424.0 through 424.9; ICD-10: I34.* through I39
- Cardiomyopathy: ICD-9: 425.0 through 425.9; ICD-10: I42.*, I43

- Congestive Heart Failure: ICD-9: 428.0 through 428.9, 429.2; ICD-10: I50.1, I50.20, I50.22 through I50.30, I50.32 through I50.40, I50.42 through I50.9
- Chronic Bronchitis: ICD-9: 491.0 through 491.9; ICD-10: J41.*, J42
- Emphysema: ICD-9: 492.0 through 492.8; ICD-10: J43.*
- Asthma: ICD-9: 493.00 through 493.91; ICD-10: J45.21 through J45.902
- Bronchiectasis, CLD, COPD: ICD-9: 494.0 through 496.; ICD-10: J44.*, J47.*
- Pneumoconioses: ICD-9: 500 through 505; ICD-10: J60 through J64, J66.8 through J67.6, J67.8 through J67.9
- Chronic Liver Disease: ICD-9: 571.0 through 571.9; ICD-10: K70.11 through K70.41, K73.0 through K74.5, K74.69, K75.81
- Nephrotic Syndrome: ICD-9: 581.0 through 581.9; ICD-10: N02.*, N04.*, N08
- Renal Failure: ICD-9: 585.6, 585.9; ICD-10: N18.6 through N19
- Transplant: ICD-9: 996.80 through 996.89; ICD-10: T86.00 through T86.819, T86.83*, T86.850 through T86.899, Z48.21 through Z48.280, Z48.290, Z94.0 through Z94.4, Z94.6, Z94.81 through Z94.84, Z95.3, Z95.4
- Kidney Transplant: ICD-9: V42.0 through V42.89
- Chemotherapy: ICD-9: V58.1; ICD-10: Z51.11, Z51.12
- Chemotherapy follow-up: ICD-9: V67.2; ICD-10: Z08

2.3.1.5 Patient Lists

- List of patients with influenza vaccination, contraindication, or NMI refusal.
- List of patients without influenza vaccination, contraindication, or NMI refusal.
- List of diabetic patients with influenza vaccination, contraindication, or NMI refusal.
- List of diabetic patients without influenza vaccination, contraindication, or NMI refusal.

2.3.2 Adult Immunizations

Changes from CRS v14.0 are noted

2.3.2.1 Owner: Contact

Epidemiology Program: Amy Groom, MPH

2.3.2.2 Denominators

1. Active Clinical patients ages 18 through 64 years and considered high risk for pneumococcal.
2. Active Diabetic patients, defined as all Active Clinical patients diagnosed with diabetes prior to the report period, and at least two visits in the past year, and two DM-related visits ever.
3. Active Clinical patients ages 18 and older.

2.3.2.3 Numerators

1. Patients with Pneumococcal vaccine or contraindication documented ever and, if patient is older than 65 years, either a dose of pneumovax after the age of 65 or a dose of pneumovax in the past 5 years.

Note: The only refusals included in this numerator are NMI refusals.

- A. Patients with contraindication or a documented NMI refusal.
2. Patients who have received one dose of Tdap ever, including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

3. Patients who have received one dose of Tdap or Td in the past ten years, including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

2.3.2.4 Definitions

Diabetes

First DM Purpose of Visit ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* recorded in the V POV file prior to the report period.

Pneumococcal Immunization

Any of the following documented any time before the end of report period:

- Immunization (CVX) codes 33, 100, 109, 133, 152
- POV ICD-9: V06.6, V03.82
- CPT 90669, 90670, 90732, G0009, G8115 (old code).

Pneumococcal Contraindication

Any of the following documented any time before the end of the report period:

- Contraindication in the Immunization Package of Anaphylaxis
- PCC NMI Refusal

Persons Considered High Risk for Pneumococcal

Those who have two or more visits in the past three years with a POV or Problem diagnosis of any of the following:

- HIV Infection: ICD-9: 042, 042.0 through 043.9 (old codes), 044.9 (old code), 079.53, V08; ICD-10: B20, B52, B97.35, Z21
- Diabetes: ICD-9: 250.00 through 250.93; ICD-10: E08.2*, E09.2*, E10.* through E13.*
- Chronic alcoholism: ICD-9: 303.90, 303.91; ICD-10: F10.20, F10.22 through F10.29
- Congestive Heart Failure: ICD-9: 428.0 through 428.9, 429.2; ICD-10: I50.1, I50.20, I50.22 through I50.30, I50.32 through I50.40, I50.42 through I50.9
- Emphysema: ICD-9: 492.0 through 492.8; ICD-10: J43.*
- Asthma: ICD-9: 493.00 through 493.91; ICD-10: J45.21 through J45.902
- Bronchiectasis, CLD, COPD: ICD-9: 494. through 496.; ICD-10: J44.*, J47.*
- Pneumoconioses: ICD-9: 501. through 505.; ICD-10: J60 through J64, J66.8 through J67.6, J67.8 through J67.9
- Chronic Liver Disease: ICD-9: 571.0 through 571.9; ICD-10: K70.11 through K70.41, K73.0 through K74.5, K74.69, K75.81
- Nephrotic Syndrome: ICD-9: 581.0 through 581.9; ICD-10: N02.*, N04.*, N08
- Renal Failure: ICD-9: 585.6, 585.9; ICD-10: N18.6 through N19
- Injury to spleen: ICD-9: 865.00 through 865.19
- Transplant: ICD-9: 996.80 through 996.89; ICD-10: T86.00 through T86.819, T86.83*, T86.850 through T86.899, Z48.21 through Z48.280, Z48.290, Z94.0 through Z94.4, Z94.6, Z94.81 through Z94.84, Z95.3, Z95.4
- Kidney Transplant: ICD-9: V42.0 through V42.89
- Chemotherapy: ICD-9: V58.1; ICD-10: Z51.11, Z51.12
- Chemotherapy follow-up: ICD-9: V67.2; ICD-10: Z08

Tdap Immunization:

Any of the following documented during the applicable time frame:

- Immunization (CVX) code: 115
- CPT 90715

Tdap Contraindication

Any of the following documented any time before the end of the Report Period:

- Immunization Package contraindication of "Anaphylaxis"
- PCC NMI Refusal

Td Immunization

Any of the following documented in the past 10 years:

- Immunization (CVX) code 9, 113, 138, 139
- POV ICD-9: V06.5
- CPT 90714, 90718

Td Contraindication

Any of the following documented any time before the end of the Report Period:

- Immunization Package contraindication of "Anaphylaxis"
- PCC NMI Refusal

2.3.2.5 Patient Lists

- List of patients 18 through 64 years of age considered high risk for pneumococcal with pneumovax vaccination, contraindication, or NMI refusal.
- List of patients 18 through 64 years of age considered high risk for pneumococcal without pneumovax vaccination, contraindication, or NMI refusal.
- List of diabetic patients with pneumovax vaccination, contraindication, or NMI refusal.
- List of diabetic patients without pneumovax vaccination, contraindication, or NMI refusal.
- List of patients 18 years of age and older with Tdap vaccination, contraindication, evidence of disease or NMI refusal.
- List of patients 18 years of age and older without Tdap vaccination, contraindication, evidence of disease or NMI refusal.
- List of patients 18 years of age and older with Tdap or Td vaccination or NMI refusal in the past 10 years, or contraindication or evidence of disease ever.

- List of patients 18 years of age and older without Tdap or Td vaccination or NMI refusal in the past 10 years, or contraindication or evidence of disease ever.

2.3.3 Adolescent Immunizations

Changes from CRS v14.0 are noted

2.3.3.1 Owner: Contact

Epidemiology Program: Dr. Scott Hamstra, Amy Groom, MPH

2.3.3.2 Denominators

1. Active Clinical patients ages 13 through 17 years.
2. Male Active Clinical patients ages 13 through 17 years.
3. Female Active Clinical patients ages 13 through 17 years.

2.3.3.3 Numerators

1. Patients who have received the 1:3:2:1 combination (i.e., 1 Td or Tdap, 3 Hepatitis B, 2 MMR, 1 Varicella), including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

2. Patients who have received the 1:1:3 combination (i.e., 1 Tdap or Td, 1 Meningococcal, 3 HPV), including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

3. Patients who have received the 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal), including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

4. Patients who have received one dose of Tdap ever, including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

5. Patients who have received one dose of meningococcal ever, including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

6. Patients who have received three doses of HPV ever, including contraindications and evidence of disease.

Note: The only refusals included in this numerator are NMI refusals.

2.3.3.4 Definitions

Timing of Doses

Because IZ data comes from multiple sources, any IZ codes documented on dates within 10 days of each other will be considered as the same immunization.

Dosage and Types of Immunizations

- 1 dose of Td or Tdap
- 2 doses of MMR:
 - 2 MMRs
 - 2 M/R and 2 Mumps
 - 2 R/M and 2 Measles or
 - 2 each of Measles, Mumps, and Rubella
- 3 doses of Hepatitis B OR 2 doses if documented with CPT 90743
- 1 dose of Varicella
- 1 dose of Meningococcal
- 3 doses of HPV

Not Medically Indicated Refusal, Contraindication, and Evidence of Disease Information

Not Medically Indicated refusals, evidence of disease, and contraindications for individual immunizations will also count toward meeting the definition, as defined in the following section.

Note: NMI refusals are not counted as refusals; rather, they are counted as contraindications.

- Each immunization must be refused and documented separately. For example, if a patient has an NMI refusal for Rubella only, then there must be an immunization, contraindication, or separate NMI refusal for the Measles and Mumps immunizations.

- For immunizations where required number of doses is greater than one, only one NMI refusal is necessary to be counted in the numerator. For example, if there is a single NMI refusal for Hepatitis B, the patient will be included in the numerator.
- For immunizations where required number of doses is greater than one, only one contraindication is necessary to be counted in the numerator. For example, if there is a single contraindication for Haemophilus influenzae type B (HiB) vaccine, the patient will be included in the numerator.
- Evidence of disease will be checked for at any time in the child's life (prior to the end of the Report period.)
- To be counted as evidence of disease or contraindication or NMI refusal, a patient must have evidence of disease, a contraindication, or an NMI refusal for any of the immunizations in the numerator. For example, if a patient was Rubella immune but had a Measles and Mumps immunization, the patient would be counted as having evidence of disease for MMR.

NMI Refusal Definitions

PCC Refusal type NMI for any of the following codes:

- MMR
 - Immunization (CVX) codes 3, 94
 - CPT 90707, 90710
- M/R
 - Immunization (CVX) code 4
 - CPT 90708
- R/M
 - Immunization (CVX) code 38
 - CPT 90709 (old code)
- Measles
 - Immunization (CVX) code 5
 - CPT 90705
- Mumps
 - Immunization (CVX) code 7
 - CPT 90704
- Rubella
 - Immunization (CVX) code 6
 - CPT 90706

- Hepatitis B
 - Immunization (CVX) codes 8, 42 through 45, 51, 102, 104, 110, 132, 146
 - CPT 90636, 90723, 90731 (old code), 90740, 90743 through 90748, G0010, Q3021 (old code), Q3023 (old code)
- Varicella
 - Immunization (CVX) codes 21, 94
 - CPT 90710, 90716
- Tdap
 - Immunization (CVX) codes 115
 - CPT 90715
- Td
 - Immunization (CVX) codes 9, 113, 138, 139
 - CPT 90714, 90718
- Meningococcal
 - Immunization (CVX) codes 32, 108, 114, 136, 147
 - CPT 90733, 90734
- HPV
 - CPT 90649, 90650

Immunization Definitions:

- MMR
 - Immunization (CVX) codes 3, 94
 - POV ICD-9: V06.4
 - CPT 90707, 90710
- MMR Contraindication
 - Immunization Package contraindication of “Anaphylaxis”, “Immune Deficiency”, or “Neomycin Allergy”
- M/R
 - Immunization (CVX) code 4
 - CPT 90708
- M/R Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- R/M:
 - Immunization (CVX) code 38

- CPT 90709 (old code)
- R/M Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Measles
 - Immunization (CVX) code 5
 - POV ICD-9: V04.2
 - CPT 90705
- Measles Evidence of Disease
 - POV or PCC Problem List (active or inactive) ICD-9: 055*; ICD-10: B05.*
- Measles Contraindication
 - Immunization Package Contraindication of “Anaphylaxis”
- Mumps
 - Immunization (CVX) code 7
 - POV ICD-9: V04.6
 - CPT 90704
- Mumps Evidence of Disease
 - POV or PCC Problem List (active or inactive) ICD-9: 072*; ICD-10: B26.*
- Mumps Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Rubella
 - Immunization (CVX) code 6
 - POV ICD-9: V04.3
 - CPT 90706
- Rubella Evidence of Disease
 - POV or PCC Problem List (active or inactive) ICD-9: 056*, 771.0; ICD-10: B06.*
- Rubella Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Hepatitis B
 - Immunization (CVX) codes 8, 42 through 45, 51, 102, 104, 110, 132, 146
 - CPT 90636, 90723, 90731 (old code), 90740, 90743 through 90748, G0010, Q3021, Q3023

- Hepatitis B Evidence of Disease
 - POV or PCC Problem List (active or inactive) ICD-9: V02.61, 070.2*, 070.3*; ICD-10: B16.*, B19.1*, Z22.51
- Hepatitis B Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Varicella
 - Immunization (CVX) codes 21, 94
 - POV ICD-9: V05.4
 - CPT 90710, 90716
- Varicella Evidence of Disease
 - POV or PCC Problem List (active or inactive) ICD-9: 052*, 053*; ICD-10: B01.* through B02.*
 - Immunization Package contraindication of “Hx of Chicken Pox” or “Immune”
- Varicella Contraindication
 - Immunization Package contraindication of “Anaphylaxis”, “Immune Deficiency”, or “Neomycin Allergy”
- Tdap
 - Immunization (CVX) code 115
 - CPT 90715
- Tdap Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Td
 - Immunization (CVX) code 9, 113, 138, 139
 - POV ICD-9: V06.5
 - CPT 90714, 90718
- Td Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- Meningococcal
 - Immunization (CVX) codes 32, 108, 114, 136, 147
 - CPT 90733, 90734
- Meningococcal Contraindication
 - Immunization Package contraindication of “Anaphylaxis”
- HPV

- Immunization (CVX) codes 62, 118, 137
- CPT 90649, 90650
- HPV Contraindication
 - Immunization Package contraindication of “Anaphylaxis”

2.3.3.5 Patient Lists

- List of Active Clinical patients 13 through 17 years of age with 1:3:2:1 combination (i.e., 1 Td or Tdap, 3 Hepatitis B, 2 MMR, 1 Varicella).
- List of Active Clinical patients 13 through 17 years of age without 1:3:2:1 combination (i.e., 1 Td or Tdap, 3 Hepatitis B, 2 MMR, 1 Varicella). If a patient did not have all doses in a multiple dose vaccine, the IZ will not be listed. For example, if a patient only had 2 Hepatitis B, no IZ will be listed for Hepatitis B.
- List of Active Clinical patients 13 through 17 years of age with 1:1:3 combination (i.e., 1 Tdap or Td, 1 Meningococcal, 3 HPV).
- List of Active Clinical patients 13 through 17 years of age without 1:1:3 combination (i.e., 1 Tdap or Td, 1 Meningococcal, 3 HPV). If a patient did not have all doses in a multiple dose vaccine, the IZ will not be listed. For example, if a patient only had 2 HPV, no IZ will be listed for HPV.
- List of Active Clinical patients 13 through 17 years of age with 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal).
- List of Active Clinical patients 13 through 17 years of age without 1:1 combination (i.e., 1 Tdap or Td, 1 Meningococcal).
- List of Active Clinical patients 13 through 17 years of age with 1 Tdap ever.
- List of Active Clinical patients 13 through 17 years of age without 1 Tdap ever.
- List of Active Clinical patients 13 through 17 years of age with 1 Meningococcal ever.
- List of Active Clinical patients 13 through 17 years of age without 1 Meningococcal ever.
- List of Active Clinical patients 13 through 17 years of age with 3 doses of HPV ever.
- List of Active Clinical patients 13 through 17 years of age without 3 doses of HPV ever. If a patient did not have all doses, the IZ will not be listed.

2.4 Behavioral Health Group

2.4.1 Alcohol Screening and Brief Intervention (ASBI) in the ER

No changes from Version 14.0

2.4.1.1 Owner: Contact

IHS Division of Behavioral Health (DBH)

2.4.1.2 Denominators

1. Number of visits for Active Clinical Plus BH patients age 15 through 34 years seen in the ER for injury during the Report Period.
2. Number of visits for Active Clinical Plus BH patients age 15 through 34 years seen in the ER for injury and screened positive for hazardous alcohol use during the Report Period.
3. Number of visits for User Population patients age 15 through 34 years seen in the ER for injury during the Report Period.
4. Number of visits for User Population patients age 15 through 34 years seen in the ER for injury and screened positive for hazardous alcohol use during the Report Period.

2.4.1.3 Numerators

1. Number of visits where patients were screened in the ER for hazardous alcohol use.
 - A. Number of visits where patients were screened positive.
2. Number of visits where patients were provided a brief negotiated interview (BNI) at or within seven days of the ER visit (used with denominators #2 and #4).
 - A. Number of visits where patients were provided a BNI at the ER visit.
 - B. Number of visits where patients were provided a BNI not at the ER visit but within 7 days of the ER visit.

2.4.1.4 Definitions

ER Visit:

Clinic code 30

Injury

Primary or secondary POV ICD-9: 800.0 through 999.9, E800.0 through E989;
ICD-10: (All codes ending in A, B, or C only) S00.00XA, S00.01XA, S00.03XA
through S00.05XA, S00.07XA through S00.219A, S00.241A through S00.259A,

S00.271A through S00.31XA, S00.33XA through S00.35XA, S00.37XA through S00.419A, S00.431A through S00.459A, S00.471A through S00.512A, S00.531A through S00.552A, S00.571A through S00.81XA, S00.83XA through S00.85XA, S00.87XA through S00.91XA, S00.93XA through S00.95XA, S00.97XA, S01.* through S05.*, S06.**0A, S06.**1A, S06.**2A, S06.**9A, S07.* through S09.*, S10.0XXA through S10.11XA, S10.14XA, S10.15XA, S10.17XA through S10.81XA, S10.83XA through S10.85XA, S10.87XA through S10.91XA, S10.93XA through S10.95XA, S10.97XA, S11.* through S19.*, S20.00XA through S20.119A, S20.141A through S20.159A, S20.171A through S20.319A, S20.341A through S20.359A, S20.371A through S20.419A, S20.441A through S20.459A, S20.471A through S20.91XA, S20.94XA, S20.95XA, S20.97XA, S21.* through S29.*, S30.0XXA through S30.817A, S30.840A through S30.857A, S30.870A through S30.98XA, S31.* through S39.*, S40.011A through S40.219A, S40.241A through S40.259A, S40.271A through S40.819A, S40.841A through S40.859A, S40.871A through S40.929A, S41.* through S49.*, S50.00XA through S50.319A, S50.341A through S50.359A, S50.371A through S50.819A, S50.841A through S50.859A, S50.871A through S50.919A, S51.* through S59.*, S60.00XA through S60.319A, S60.341A through S60.359A, S60.371A through S60.419A, S60.440A through S60.459A, S60.470A through S60.519A, S60.541A through S60.559A, S60.571A through S60.819A, S60.841A through S60.859A, S60.871A through S60.949A, S61.* through S69.*, S70.00XA through S70.219A, S70.241A through S70.259A, S70.271A through S70.319A, S70.341A through S70.359A, S70.371A through S70.929A, S71.* through S79.*, S80.00XA through S80.219A, S80.241A through S80.259A, S80.271A through S80.819A, S80.841A through S80.859A, S80.871A through S80.929A, S81.* through S89.*, S90.00XA through S90.416A, S90.441A through S90.456A, S90.471A through S90.519A, S90.541A through S90.559A, S90.571A through S90.819A, S90.841A through S90.859A, S90.871A through S90.936A, S91.* through S99.*, T07 through T34.*, T36.*X1A, T36.*X2A, T36.*X3A, T36.*X4A, T36.91XA through T36.94XA, T37.*X1A, T37.*X2A, T37.*X3A, T37.*X4A, T37.91XA through T37.94XA, T38.**1A, T38.**2A, T38.**3A, T38.**4A, T39.**1A, T39.**2A, T39.**3A, T39.**4A, T39.91XA through T39.94XA, T40.**1A, T40.**2A, T40.**3A, T40.**4A, T41.**1A, T41.**2A, T41.**3A, T41.**4A, T41.41XA through T41.44XA, T42.**1A, T42.**2A, T42.**3A, T42.**4A, T42.71XA through T42.74XA, T43.**1A, T43.**2A, T43.**3A, T43.**4A, T43.91XA through T43.94XA, T44.**1A, T44.**2A, T44.**3A, T44.**4A, T45.**1A, T45.**2A, T45.**3A, T45.**4A, T45.91XA through T45.94XA, T46.**1A, T46.**2A, T46.**3A, T46.**4A, T47.**1A, T47.**2A, T47.**3A, T47.**4A, T47.91XA through T47.94XA, T48.**1A, T48.**2A, T48.**3A, T48.**4A, T49.**1A, T49.**2A, T49.**3A, T49.**4A, T49.91XA through T49.94XA, T50.**1A, T50.**2A, T50.**3A, T50.**4A, T51.* through T76.*, T79.*, V00.* through Y35.*

Denominator and Numerator Logic

If a patient has multiple ER visits for injury during the Report Period, each visit will be counted in the denominator. For the screening numerator, each ER visit with injury at which the patient was screened for hazardous alcohol use will be counted. For the positive alcohol use screen numerator, each ER visit with injury at which the patient screened positive for hazardous alcohol use will be counted. For the BNI numerators, each visit where the patient was either provided a BNI at the ER or within 7 days of the ER visit will be counted.

An example of this logic is shown in Table 2-1.

Table 2-1: Denominator and Numerator Logic

ER Visit with Injury	Denom Count	Scm Num	Post Scm Num Count	BNI Num Count
John Doe, July 17, 2014, Screened Positive at ER, BNI at ER	1	1	1	1
John Doe, September 1, 2014, Screened Positive at ER, No BNI	1	1	1	0
John Doe, November 15, 2014, No Screen	1	0	0	0
Counts:	3	2	2	1

ER Screening for Hazardous Alcohol Use

Any of the following conducted during the ER visit:

- Exam code 35
- Any Alcohol Health Factor (i.e., CAGE)
- POV ICD-9: V79.1 Screening for Alcoholism
- CPT G0396, G0397, H0050, 99408, 99409, 3016F
- Measurement in PCC AUDT, AUDC, or CRFT

Positive Screen for Hazardous Alcohol Use

Any of the following for the screening performed at the ER visit:

- Exam code 35 Alcohol Screening result of Positive
- Health factor of CAGE result of 1/4, 2/4, 3/4 or 4/4
- CPT G0396, G0397, 99408, 99409
- AUDT result of 8 or higher, AUDC result of 4 or higher for men and 3 or higher for women, CRFT results of 2 through 6

Brief Negotiated Interview (BNI)

Any of the following documented at the ER visit or within 7 days of the ER visit at a face-to-face visit, which excludes chart reviews and telecommunication visits:

- CPT G0396, G0397, H0050, 99408, 99409
- Patient education code containing AOD-BNI , G0396, G0397, H0050, 99408, 99409

2.4.1.5 Patient Lists

- Patients 15 through 34 years of age seen in the ER for injury who were screened for hazardous alcohol use.
- Patients 15 through 34 years of age seen in the ER for injury who were not screened for hazardous alcohol use.
- Patients 15 through 34 years of age seen in the ER for injury with positive alcohol screen who received a BNI.
- Patients 15 through 34 years of age seen in the ER for injury with positive alcohol screen who did not receive a BNI.

2.4.2 Depression Screening

No changes from Version 14.0

2.4.2.1 Owner: Contact

IHS Division of Behavioral Health (DBH)

2.4.2.2 Denominators

1. Active Diabetes patients, defined as: all Active Clinical patients diagnosed with diabetes prior to the Report Period, *and* at least two visits during the Report Period, *and* two DM-related visits ever. Broken out by gender.

2.4.2.3 Numerators

1. Patients screened for depression or diagnosed with mood disorder at any time during the Report Period.

Note: This numerator does *not* include refusals.

- A. Patients screened for depression during the Report Period.
 - B. Patients with a diagnosis of a mood disorder during the Report Period.
2. Patients with depression-related education in past year.

2.4.2.4 Definitions

Diabetes

First DM Purpose of Visit ICD-9: 250.00 through 250.93 or ICD-10: E10.* through E13.* recorded in the V POV file prior to the Report period

Depression Screening

Any of the following:

- Exam code 36
- POV ICD-9: V79.0
- CPT 1220F
- BHS Problem code 14.1 (screening for depression)
- Measurement in PCC or BH of PHQ2 or PHQ9

Mood Disorders

At least two visits in PCC or BHS during the Report period with POV for: Major Depressive Disorder, Dysthymic Disorder, Depressive Disorder NOS, Bipolar I or II Disorder, Cyclothymic Disorder, Bipolar Disorder NOS, Mood Disorder Due to a General Medical Condition, Substance-induced Mood Disorder, or Mood Disorder NOS. These POV codes are:

- ICD-9: 296.*, 291.89, 292.84, 293.83, 300.4, 301.13, 311; ICD-10: F06.31 through F06.34, F1*.*4, F10.159, F10.180, F10.181, F10.188, F10.259, F10.280, F10.281, F10.288, F10.959, F10.980, F10.981, F10.988, F30.*, F31.0 through F31.71, F31.73, F31.75, F31.77, F31.81 through F31.9, F32.* through F39
- BHS POV 14, 15.

Depression-related patient education

Any of the following during the report period:

- Patient education codes containing “DEP-” (depression), 296.2*, 296.3*, “BH-” (behavioral and social health), 290 through 319, 995.5*, 995.80 through 995.85, “SB-” (suicidal behavior), 300.9, “PDEP-” (postpartum depression), 648.44

2.4.2.5 Patient Lists

- List of Active Diabetic patients screened for depression or diagnosed with mood disorder.
- List of Active Diabetic patients not screened for depression or diagnosed with mood disorder.

2.4.3 Antidepressant Medication Management

Changes from CRS v14.0 are noted

2.4.3.1 Owner: Contact

IHS Division of Behavioral Health (DBH)

2.4.3.2 Denominators

1. As of the 120th day of the report period, Active Clinical Plus BH patients 18 years and older who were diagnosed with a new episode of depression and treated with antidepressant medication in the past year.

2.4.3.3 Numerators

1. Effective Acute Phase Treatment: Patients who filled a sufficient number of separate prescriptions or refills of antidepressant medication for continuous treatment of at least 84 days (12 weeks).
2. Effective Continuation Phase Treatment: Patients who filled a sufficient number of separate prescriptions or refills of antidepressant medication treatment to provide continuous treatment for at least 180 days (6 months).

2.4.3.4 Definitions

Major Depression

POV ICD-9: 296.20 through 296.25, 296.30 through 296.35, 298.0, 311; ICD-10: F32.0 through F32.4, F32.8 through F33.3, F33.41, F33.9

The Index Episode Start Date is date of the patient's earliest visit during this period. For inpatient visits, the discharge date will be used.

Index Prescription (Rx) Start Date

The date of the earliest prescription for antidepressant medication filled during this period.

Antidepressant Medications

Medication taxonomy BGP HEDIS ANTIDEPRESSANT MEDS.

- Medications are: Tricyclic antidepressants (TCA) and other cyclic antidepressants, Selective serotonin reuptake inhibitors (SSRI), Monoamine oxidase inhibitors (MAOI), Serotonin-norepinephrine reuptake inhibitors (SNRI), and other antidepressants. Medications must not have a comment of RETURNED TO STOCK.

Denominator Inclusions

To be included in the denominator, patient must meet the following condition:

- Filled a prescription for an antidepressant medication (see the list of medications above) within the 121st day of the year prior to the Report period to the 120th day of the Report period. For example, if report period is July 1, 2013 through June 30, 2014, patient must have filled a prescription during November 01, 2012 through October 29, 2013. In V Medication, Date Discontinued must not be equal to the prescription, (i.e., visit date).

Denominator Exclusions

Patients with any of the following will be excluded from the denominator:

- Patients who did not have a diagnosis of major depression in an inpatient, outpatient, ED, intensive outpatient or partial hospitalization setting during the 60 days prior to the IPSD (inclusive) through 60 days after the IPSD (inclusive).
- Patients who had a new or refill prescription for antidepressant medication (see the list of medications that follows) within 105 days prior to the Index Rx Start Date are excluded as they do not represent new treatment episodes.

Effective Acute Phase Treatment Numerator

For all antidepressant medication prescriptions filled (see list of medications that follows) within 114 days of the Index Prescription Date, from V Medication CRS counts the days prescribed (i.e., treatment days) from the Index Prescription Date until a total of 84 treatment days has been established. If the patient had a total gap exceeding 30 days or if the patient does not have 84 treatment days within the 114 day time frame, the patient is not included in the numerator.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014
Recalculated number of Days Prescribed:
 $November\ 19,\ 2014 - November\ 15,\ 2014 = 4$

Example of Patient Included in Numerator:

- First prescription:
 - Index Rx Date: November 1, 2013
 - Number of Days Prescribed: 30

November 1, 2013 + 30 days = December 1, 2013

Prescription covers the patient through December 1, 2013

- Second prescription:

- Rx Date: December 15, 2013
- Number of Days Prescribed: 30:
- Gap #1 equals 14 days:

December 15, 2013 – December 1, 2013 = 14 days

Prescription covers the patient through January 14, 2014.

- Third prescription:

- Rx Date: January 10, 2014
- Number of Days Prescribed: 30
- No gap days

November 1, 2013 + 114 days = February 23, 2014

Prescription covers the patient through February 13, 2014.

- Patient's 84th treatment day occurs on February 7, 2014:

February 7, 2014 ≤ February 23, 2014

Number of gap days = 14, which is < 30

Patient is included in the Numerator.

Example of Patient Not Included in Numerator:

- First prescription:

- Index Rx Date: November 1, 2013
- Number of Days Prescribed: 30

November 1, 2013 + 30 days = December 1, 2013

Prescription covers the patient through December 1, 2013.

- Second prescription:

- Rx Date: December 15, 2013
- Number of Days Prescribed: 30:
- Gap #1 equals 14 days:

December 15, 2013 – December 1, 2013 = 14 days

Prescription covers the patient through January 14, 2014.

- Third prescription:
 - Rx Date: February 1, 2014
 - Number of Days Prescribed: 30
 - Gap #2 equals 18 days:
February 1, 2014 – January 14, 2014 = 18
 - Total number of gap days equals 32:
 $14 + 18 = 32$

Patient is not included in the numerator.

Effective Continuation Phase Treatment Numerator

For all antidepressant medication prescriptions (see the previous list of medications) filled within 231 days of the Index Rx Date, CRS counts the days prescribed (i.e., treatment days) (from V Medication) from the Index Rx Date until a total of 180 treatment days has been established. If the patient had a total gap exceeding 51 days or if the patient does not have 180 treatment days within the 231 day timeframe, the patient is not included in the numerator.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:
 - Rx Date: November 15, 2014
 - Discontinued Date: November 19, 2014
 Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

2.4.3.5 Patient Lists

- List of Active Clinical Plus BH patients with new depression diagnosis and no acute phase treatment (APT).
- List of Active Clinical Plus BH patients with new depression diagnosis and no continuation phase treatment (CONPT).

2.5 Cardiovascular Disease Related Group

2.5.1 Physical Activity Assessment

No changes from Version 14.0

2.5.1.1 Owner: Contact

Patient Education Program: Chris Lamer, PharmD

Nutrition Program: Alberta Becenti

2.5.1.2 Denominators

1. Active Clinical patients ages 5 and older.
2. Numerator 1 (Active Clinical Patients assessed for physical activity during the Report Period).
3. User Population patients ages 5 and older.
4. Numerator 1 (User Population Patients assessed for physical activity during the Report Period).

2.5.1.3 Numerators

1. Patients assessed for physical activity during the Report Period.
 - A. Patients from Numerator 1 who have received exercise education following their physical activity assessment.

2.5.1.4 Definitions**Physical Activity Assessment**

Any health factor for category Activity Level documented during the Report Period.

Exercise Education

- POV ICD-9: V65.41 exercise counseling
- Patient education codes ending “-EX” (Exercise) or containing V65.41

2.5.1.5 Patient Lists

- List of Active Clinical patients 5 and older who had a physical activity assessment.
- List of Active Clinical patients 5 and older who did not have a physical activity assessment.
- List of Active Clinical patients 5 and older who had a physical activity assessment and received exercise education.
- List of Active Clinical patients 5 and older who had a physical activity assessment and did not receive exercise education.

2.5.2 Cardiovascular Disease and Cholesterol Screening

No changes from Version 14.0

2.5.2.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.2.2 Denominators

1. Active Clinical patients ages 23 and older.

2.5.2.3 Numerators

1. Patients with documented blood total cholesterol screening any time during past 5 years.

2.5.2.4 Definitions

Total Cholesterol Panel

Searches for most recent cholesterol test with a result during the Report Period. If more than one cholesterol test is found on the same day or the same visit and one test has a result and the other does not, the test with the result will be used. If a cholesterol test with a result is not found, CRS searches for the most recent cholesterol test without a result.

Total Cholesterol:

- CPT 82465
- LOINC taxonomy
- Site-populated taxonomy DM AUDIT CHOLESTEROL TAX

2.5.2.5 Patient Lists

- List of Active Clinical patients 23and older screened for total cholesterol in past 5 years.
- List of Active Clinical patients 23and older not screened for total cholesterol in past 5 years.

2.5.3 Cardiovascular Disease and Blood Pressure Control

Changes from CRS v14.0 are noted

2.5.3.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.3.2 Denominators

1. All Active Clinical patients ages 18 and over.
2. Active coronary heart disease (CHD) patients, defined as all Active Clinical patients diagnosed with CHD prior to the Report Period, *and* at least two visits during the Report Period, *and* two CHD-related visits ever.

2.5.3.3 Numerators

1. Patients with BP values documented during the Report Period.
 - A. Patients with normal BP, below 120/80.
 - B. Prehypertension I, 120/80 or higher but below 130/80.
 - C. Prehypertension II, 130/80 or higher but below 140/90.
 - D. Stage 1 hypertension, 140/90 or higher but below 160/100.
 - E. Stage 2 hypertension, 160/100 or higher.

2.5.3.4 Definitions

CHD

- POV ICD-9: 410.0 through 413.*, 414.0 through 414.9, 429.2; ICD-10: I20.0 through I22.8, I24.0 through I25.83, I25.89, I25.9
- One or more Coronary Artery Bypass Graft (CABG) or Percutaneous Coronary Interventions (PCI) procedures, defined as any of the following:
 - CABG Procedure
- POV ICD-9: V45.81; ICD-10: Z95.1
- CPT 33510 through 33514, 33516 through 33519, 33521 through 33523, 33533 through 33536, S2205 through S2209
- Procedure ICD-9: 36.1*, 36.2*; ICD-10: 02100**, 021049*, 02104A*, 02104J*, 02104K*, 02104Z*, 02110**, 021149*, 02114A*, 02114J*, 02114K*, 02114Z*, 02120**, 021249*, 02124A*, 02124J*, 02124K*, 02124Z*, 02130**, 021349*, 02134A*, 02134J*, 02134K*, 02134Z*
- PCI Procedure
- POV ICD-9: V45.82; ICD-10: Z95.5, Z98.61
- CPT 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980, 92982, 92995, G0290
- Procedure ICD-9: 00.66, 36.01 (old code), 36.02 (old code), 36.05, (old code), 36.06 through 36.07; ICD-10: 02703**, 02704**, 02713**, 02714**, 02723**, 02724**, 02733**, 02734**

BP Values (all numerators)

Exclusions: When calculating all BPs (using vital measurements or CPT codes), the following visits will be excluded:

- Service Category H (Hospitalization), I (In Hospital), S (Day Surgery), or O (Observation)
- Clinic code 23 (Surgical), 30 (ER), 44 (Day Surgery), C1 (Neurosurgery), or D4 (Anesthesiology)

CRS uses mean of last 3 BPs documented during the Report Period. If 3 BPs are not available, uses the mean of last 2 BPs. If a visit contains more than 1 BP, the lowest BP will be used, defined as having the lowest systolic value. The mean Systolic value is calculated by adding the last 3 (or 2) systolic values and dividing by 3 (or 3). The mean Diastolic value is calculated by adding the diastolic values from the last 3 (or 2) blood pressures and dividing by 3 (or 2). If the systolic and diastolic values do not *both* meet the current category, then the value that is least controlled determines the category.

For the BP documented numerator only, if CRS is not able to calculate a mean BP, it will search for CPT 0001F, 2000F, 3074F through 3080F or POV ICD-9: V81.1 documented during the Report Period.

2.5.3.5 Patient Lists

- List of Active Clinical patients 20 and older or who have CHD who had their BP assessed twice in past 2 years.
- List of Active Clinical patients 20 and older or who have CHD who have not had their BP assessed twice in past 2 years.
- List of Active Clinical patients 20 and older or who have CHD who have normal BP (below 120/80).
- List of Active Clinical patients 20 and older or who have CHD who have uncontrolled BP (120/80 or higher).

2.5.4 Appropriate Medication Therapy after a Heart Attack

Changes from CRS v14.0 are noted

2.5.4.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.4.2 Denominators

1. Active Clinical patients 35 and older discharged for an Acute Myocardial Infarction (AMI) during the first 51 weeks of the report period and were not readmitted for any diagnosis within 7 days of discharge.

2.5.4.3 Numerators

Note: These numerators do *not* include refusals.

1. Patients with active prescription for or who have a contraindication or previous adverse reaction to beta-blockers.
2. Patients with active prescription for or who have a contraindication or previous adverse reaction to ASA or other anti-platelet agent.
3. Patients with active prescription for or who have a contraindication or previous adverse reaction to ACEIs or ARBs.
4. Patients with active prescription for or who have a contraindication or previous adverse reaction to statins.
5. Patients with active prescriptions for all post-AMI medications (i.e., beta-blocker, ASA or anti-platelet, ACEI or ARB, AND statin) or who have a contraindication or previous adverse reaction.

2.5.4.4 Definitions

AMI:

POV ICD-9: 410.*1; ICD-10: I21.*, I22.* (i.e., first eligible episode of an AMI) with Service Category H. If patient has more than one episode of AMI during the first 51 weeks of the Report period, CRS will include only the first discharge.

Denominator Exclusions

Patients meeting any of the following conditions will be excluded from the denominator:

- Patients with Discharge Type of Irregular (AMA), Transferred, or contains “Death”
- Patients readmitted for any diagnosis within seven days of discharge
- Patients with a Diagnosis Modifier of C (Consider), D (Doubtful), M (Maybe, Possible, Perhaps), O (Rule Out), P (Probable), R (Resolved), S (Suspect, Suspicious), T (Status Post)
- Patients with a Provider Narrative beginning with “Consider”, “Doubtful”, “Maybe”, “Possible”, “Perhaps”, “Rule Out”, “R/O”, “Probable”, “Resolved”, “Suspect”, “Suspicious”, “Status Post”

To Be Included in the Numerators

A patient must meet one of the two conditions that follow:

- An active prescription (not discontinued as of discharge date plus 7 days and does not have a comment of RETURNED TO STOCK) that was prescribed prior to admission, during the inpatient stay, or within 7 days after discharge. “Active” prescription defined as:

$$\text{Days Prescribed} > (\text{Discharge Date} + 7 \text{ days}) - \text{Order Date}$$

- Have a contraindication or previous adverse reaction to the indicated medication.

Contraindications or previous adverse drug reactions (ADR) or allergies are only counted if a patient did not have a prescription for the indicated medication. Patients without a prescription who have a contraindication or ADR or allergy will be counted toward meeting the numerator.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

Numerator Logic

In the logic that follows, “ever” is defined as anytime through the end of the report period.

Beta-Blocker Numerator Logic

- **Beta-blocker medication codes**
 - Defined with medication taxonomy BGP HEDIS BETA BLOCKER MEDS
 - Medications are:
 - Noncardioselective Beta Blockers: Carvedilol, Labetalol, Nadolol, Penbutolol, Pindolol, Propranolol, Timolol, Sotalol
 - Cardioselective Beta Blockers: Acebutolol, Atenolol, Betaxolol, Bisoprolol, Metoprolol, Nebivolol

- Antihypertensive Combinations: Atenolol-chlorthalidone, Bendroflumethiazide-nadolol, Bisoprolol-hydrochlorothiazide, Hydrochlorothiazide-metoprolol, and Hydrochlorothiazide-propranolol.

- **Contraindications to beta-blockers**

Defined as any of the following occurring ever unless otherwise noted:

- **Asthma.** Two diagnoses (POV) of ICD-9: 493*; ICD-10: J45.20 through J45.52 on different visit dates
- **Hypotension.** One diagnosis of ICD-9: 458*; ICD-10: I95.*
- **Heart block greater than 1 degree.** One diagnosis of ICD-9: 426.0, 426.12, 426.13, 426.2, 426.3, 426.4, 426.51, 426.52, 426.53, 426.54, 426.7; ICD-10: I44.1, I44.2, I45.2, I45.3, I45.6
- **Sinus bradycardia.** One diagnosis of ICD-9: 427.81; ICD-10: I49.5, R00.1
- **COPD.** Two diagnoses on different visit dates of ICD-9: 491.2*, 496, 506.4; ICD-10: J44.*, J68.4, J68.8, or a combination of any of these codes, such as one visit with 491.20 and one with 496
- NMI refusal for any beta-blocker at least once during hospital stay through 7 days after discharge date
- CPT G8011 (Clinician documented that AMI patient was not an eligible candidate for beta-blocker at arrival) (old code) at least once during hospital stay through 7 days after discharge date

- **Adverse drug reaction or documented beta blocker allergy**

Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 and E942.0
- Beta block* entry in ART (Patient Allergies File)
- Beta block*, bblock* or b block* contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ASA or Other Anti-Platelet Numerator Logic

- **ASA medication codes**
 - Defined with medication taxonomy DM AUDIT ASPIRIN DRUGS
- **Other antiplatelet medication codes**
 - Defined with medication taxonomy site-populated BGP ANTI-PLATELET DRUGS taxonomy

- **Contraindications to ASA or other antiplatelet**

Defined as any of the following occurring ever unless otherwise noted:

- Patients with active prescription for Warfarin (Coumadin) at time of arrival or prescribed at discharge, using site-populated BGP CMS WARFARIN MEDS taxonomy
- Hemorrhage diagnosis (POV ICD-9: 459.0; ICD-10: R58)
- NMI refusal for any aspirin at least once during hospital stay through 7 days after discharge date
- CPT G8008 (Clinician documented that AMI patient was not an eligible candidate to receive aspirin at arrival) (old code) at least once during hospital stay through 7 days after discharge date

- **Adverse drug reaction, documented ASA, or other antiplatelet allergy**

Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 *and* E935.3; ICD-10: T39.015* or T39.095*
- Aspirin entry in ART (Patient Allergies File)
- ASA or aspirin contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ACEI/ARB Numerator Logic

- **Ace Inhibitor (ACEI) medication codes**

Defined with medication taxonomy BGP HEDIS ACEI MEDS.

- **ACEI medications are:** Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril).
- **Antihypertensive Combinations:** (Amlodipine-benazepril, Benazepril-hydrochlorothiazide, Captopril-hydrochlorothiazide, Enalapril-hydrochlorothiazide, Fosinopril-hydrochlorothiazide, Hydrochlorothiazide-lisinopril, Hydrochlorothiazide-moexipril, Hydrochlorothiazide-quinapril, Trandolapril-verapamil).
- **Contraindications to ACEI** defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** defined as POV ICD-9: V24.1; ICD-10: Z39.1 or Breastfeeding Patient Education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
 - **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22

- **NMI refusal** for any ACEI at least once during hospital stay through 7 days after discharge date.
- **Adverse drug reaction or documented ACEI allergy**
Defined as any of the following occurring ever:
 - POV ICD-9: 995.0 through 995.3 *and* E942.6; ICD-10: T46.4X5*
 - Ace inhibitor or ACEI entry in ART (Patient Allergies File)
 - Ace i* or ACEI contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8
- **ARB medication codes**
Defined with medication taxonomy BGP HEDIS ARB MEDS
 - **ARB medications are:** Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan.)
- **Antihypertensive Combinations**
 - Aliskiren-valsartan, Amlodipine-hydrochlorothiazide-olmesartan, Amlodipine-hydrochlorothiazide-valsartan, Amlodipine-olmesartan, Amlodipine-Telmisartan, Amlodipine-valsartan, Azilsartan-chlorthalidone, Candesartan-hydrochlorothiazide, Eprosartan-hydrochlorothiazide, Hydrochlorothiazide-Irbesartan, Hydrochlorothiazide-Losartan, Hydrochlorothiazide-olmesartan, Hydrochlorothiazide-Telmisartan, Hydrochlorothiazide-Valsartan
- **Contraindications to ARB** defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** Defined as POV V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
 - **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22
 - **NMI refusal** for any ARB at least once during hospital stay through 7 days after discharge date.
- **Adverse drug reaction or documented ARB allergy**
Defined as any of the following occurring ever:
 - POV ICD-9: 995.0 through 995.3 *and* E942.6
 - Angiotensin Receptor Blocker or ARB entry in ART (Patient Allergies File)

- Angiotensin Receptor Blocker or ARB contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.

Statins Numerator Logic:

- **Statin medication codes**

- Defined with medication taxonomy BGP PQA STATIN MEDS.
- **Statin medications are:** Atorvastatin (Lipitor), Fluvastatin (Lescol), Lovastatin (Altacor, Altoprev, Mevacor), Pravastatin (Pravachol), Pitavastatin (Livalo), Simvastatin (Zocor), Rosuvastatin (Crestor).

- **Statin Combination Products**

- Niacin-lovastatin, Niacin-simvastatin, Ezetimibe-simvastatin, Amlodipine-Atorvastatin, Sitagliptin-simvastatin, Ezetimibe-atorvastatin, Aspirin-pravastatin.

- **Contraindications to Statins:** defined as any of the following:

- **Pregnancy:** See the definition that follows
- **Breastfeeding:** defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
- **Acute Alcoholic Hepatitis:** defined as POV ICD-9: 571.1; ICD-10: K70.10, K70.11 during the Report Period
- **NMI refusal** for any statin at least once during hospital stay through 7 days after discharge date.

- **Adverse drug reaction or documented statin allergy**

Defined as any of the following:

- ALT or AST greater than three times the Upper Limit of Normal (ULN) (i.e., Reference High) on two or more consecutive visits during the Report Period
- Creatine Kinase (CK) levels greater than 10 times ULN or CK greater than 10,000 IU/L during the Report Period
- Myopathy or Myalgia, defined as any of the following during the Report Period:
 - POV ICD-9: 359.0 through 359.9, 729.1, 710.5, 074.1; ICD-10: G71.14, G71.19, G72.0, G72.2, G72.89, G72.9, M35.8, M60.80 through M60.9, M79.1
- Any of the following occurring ever:
 - POV ICD-9: 995.0 through 995.3 *and* E942.9

- Statin or Statins entry in ART (Patient Allergies File)
- Statin or Statins contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

Pregnancy Definition

At least two visits during the Report Period with POV or Problem diagnosis ICD-9: 640.*3, 641.*3, 642.*3, 643.*3, 644.*3, 645.*3, 646.*3, 647.*3, 648.*3, 649.*3, 651.*3, 652.*3, 653.*3, 654.*3, 655.*3, 656.*3, 657.*3, 658.*3, 659.*3, 660.*3, 661.*3, 662.*3, 663.*3, 665.*3, 668.*3, 669.*3, 671.*3, 673.*3, 674.*3, 675.*3, 676.*3, 678.*3, 679.*3, V22.0 through V23.9, V28.81, V28.82, V28.89, V72.42, V89.01 through V89.09; ICD-10: O09.00 through O10.02, O10.111 through O10.12, O10.211 through O10.22, O10.311 through O10.32, O10.411 through O10.42, O10.911 through O10.92, O11.1 through O15.1, O15.9 through O24.02, O24.111 through O24.12, O24.311 through O24.32, O24.41*, O24.811 through O24.82, O24.911 through O24.92, O25.10 through O25.2, O26.00 through O26.62, O26.711 through O26.72, O26.811 through O26.93, O29.011 through O30.93, O31.* through O48.*, O60.0*, O61.* through O66.*, O68, O69.*, O71.00 through O71.1, O71.89, O71.9, O74.0 through O75.81, O75.89, O75.9, O76 through O77.*, O88.011 through O88.02, O88.111 through O88.12, O88.211 through O88.22, O88.311 through O88.32, O88.811 through O88.82, O90.3, O91.011 through O91.019, O91.111 through O91.119, O91.211 through O91.219, O92.011 through O92.019, O92.20, O92.29, O98.011 through O98.02, O98.111 through O98.12, O98.211 through O98.22, O98.311 through O98.32, O98.411 through O98.42, O98.511 through O98.52, O98.611 through O98.62, O98.711 through O98.72, O98.811 through O98.82, O98.911 through O98.92, O99.011 through O99.02, O99.111 through O99.12, O99.210 through O99.214, O99.280 through O99.284, O99.310 through O99.314, O99.320 through O99.324, O99.330 through O99.334, O99.340 through O99.344, O99.350 through O99.354, O99.411 through O99.42, O99.511 through O99.52, O99.611 through O99.62, O99.711 through O99.72, O99.810, O99.814, O99.820, O99.824, O99.830, O99.834, O99.840 through O99.844, O99.89, O9A.111 through O9A.12, O9A.211 through O9A.22, O9A.311 through O9A.32, O9A.411 through O9A.42, O9A.511 through O9A.52, Z03.7*, Z32.01, Z33.1, Z34.*, Z36, where the primary provider is not a CHR (Provider code 53). Pharmacy-only visits (clinic code 39) will not count toward these two visits. If the patient has more than two pregnancy-related visits during the Report Period, CRS will use the first two visits in the Report Period. The patient must not have a documented miscarriage or abortion occurring after the second pregnancy-related visit.

- **Miscarriage definition:**
 - POV ICD-9: 630, 631, 632, 633*, 634*; ICD-10: O03.9
 - CPT 59812, 59820, 59821, 59830

- **Abortion definition:**

- POV ICD-9: 635*, 636* 637*; ICD-10: O00.*, O01.*, O03.1, O03.31 through O03.33, O03.6, O03.81 through O03.83, O04.6, O04.81 through O04.83, Z33.2
- CPT 59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857, S2260 through S2267,
- Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z

All Medications Numerator Logic

To be included in this numerator, a patient must have a prescription or a contraindication for *all* of the four medication classes (i.e., beta-blocker, ASA or other anti-platelet, ACEI or ARB, *and* statin).

Test Definitions

- **ALT**
 - Site-populated taxonomy DM AUDIT ALT TAX
 - LOINC taxonomy
- **AST**
 - Site-populated taxonomy DM AUDIT AST TAX
 - LOINC taxonomy
- **Creatine Kinase**
 - Site-populated taxonomy BGP CREATINE KINASE TAX
 - LOINC taxonomy

2.5.4.5 Patient Lists

- List of Active Clinical patients 35 and older discharged for AMI with beta-blocker therapy.
- List of Active Clinical patients 35 and older discharged for AMI without beta-blocker therapy.
- List of Active Clinical patients 35 and older discharged for AMI with ASA therapy.
- List of Active Clinical patients 35 and older discharged for AMI without ASA therapy.
- List of Active Clinical patients 35 and older discharged for AMI with ACEI or ARB therapy.

- List of Active Clinical patients 35 and older discharged for AMI without ACEI or ARB therapy.
- List of Active Clinical patients 35 and older discharged for AMI with statin therapy.
- List of Active Clinical patients 35 and older discharged for AMI without statin therapy.
- List of Active Clinical patients 35 and older discharged for AMI with all appropriate medications.
- List of Active Clinical patients 35 and older discharged for AMI without all appropriate medications.

2.5.5 Persistence of Appropriate Medication Therapy after a Heart Attack

Changes from CRS v14.0 are noted

2.5.5.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.5.2 Denominators

1. Active Clinical patients 35 and older diagnosed with an AMI 6 months prior to the Report period through the first 6 months of the Report period.

2.5.5.3 Numerators

Note: These numerators do *not* include refusals.

1. Patients with a 135-day course of treatment with beta-blockers or who have a contraindication or previous adverse reaction to beta-blocker therapy.
2. Patients with a 135-day course of treatment with ASA or other antiplatelet agent or who have a contraindication or previous adverse reaction to ASA or antiplatelet therapy.
3. Patients with a 135-day course of treatment with ACEIs or ARBs or who have a contraindication or previous adverse reaction to ACEI or ARB therapy.
4. Patients with a 135-day course of treatment with statins or who have a contraindication or previous adverse reaction to statin therapy.
5. Patients with a 135-day course of treatment for all post-AMI medications, (i.e. beta-blocker, ASA or anti-platelet, ACEI or ARB, AND statin) following first discharge date or visit date, including previous active prescriptions; or who have a contraindication or previous adverse reaction.

2.5.5.4 Definitions

AMI

POV or Problem List ICD-9: 410.0* through 410.9* or 412; ICD-10: I21.*, I22.*. AMI diagnosis may be made at an inpatient or outpatient visit but must occur between six months prior to beginning of Report period through first six months of the Report period. Inpatient visit defined as Service Category of H (Hospitalization). If patient has more than one episode of AMI during the timeframe, CRS will include only the first hospital discharge or ambulatory visit.

Denominator Exclusions

Patients meeting any of the following conditions will be excluded from the denominator.

- If inpatient visit, patients with Discharge Type of Irregular (AMA), Transferred, or contains “Death”
- Patients with a Diagnosis Modifier of C (Consider), D (Doubtful), M (Maybe, Possible, Perhaps), O (Rule Out), P (Probable), R (Resolved), S (Suspect, Suspicious), or T (Status Post)
- Patients with a Provider Narrative beginning with “Consider”, “Doubtful”, “Maybe”, “Possible”, “Perhaps”, “Rule Out”, “R/O”, “Probable”, “Resolved”, “Suspect”, “Suspicious”, or “Status Post”

To Be Included in the Numerators

A patient must meet one of the two conditions that follow:

- A total days’ supply of 135 days or more in the 180 days following discharge date for inpatient visits or visit date for ambulatory visits. Medications must not have a comment of RETURNED TO STOCK. Prior active prescriptions can be included if the treatment days fall within the 180 days following discharge or visit date. Prior active prescription defined as most recent prescription (see codes that follow) prior to admission or visit date with the number of days’ supply equal to or greater than the discharge or visit date minus the prescription date; or
- Have a contraindication or previous adverse reaction to the indicated medication. Contraindications or previous adverse drug reactions (ADR) or allergies are only counted if a patient did not have a prescription for the indicated medication. Patients without a prescription who have a contraindication or ADR or allergy will be counted toward meeting the numerator.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

Example of patient included in the beta-blocker numerator who has prior active prescription

- Admission Date: February 1, 2014
- Discharge Date: February 15, 2014
- Must have 135 days prescribed by August 13, 2014:
Discharge Date + 180 days
- Prior Beta-Blocker Rx Date: January 15, 2014
- Number of Days Prescribed: 60 (treats patient through March 15, 2014)
- Discharge Date minus Rx Date:
February 15, 2014 – January 15, 2014 = 31 days
 $60 \geq 31$
 Prescription is considered Prior Active Rx
- March 15, 2014 is between February 15 and August 13, 2014, thus remainder of Prior Active Rx can be counted toward 180-day treatment period
- Number of Remaining Days Prescribed from Prior Active Rx:
 $60 - (\text{Discharge Date} - \text{Prior Prescription Date}) = \text{Remaining Days}$
 $60 - (\text{February 15, 2014} - \text{January 15, 2014}) = \text{Remaining Days}$
 $60 - 31 = 29$
- Second Prescription: April 1, 2014
- Number of Days Prescribed: 90
- Third Prescription: July 10, 2014
- Number of Days Prescribed: 90
- Total Days' Supply Prescribed between February 15 and August 13, 2014:

$$29 + 90 + 90 = 209$$

Numerator Logic

In the logic that follows, “ever” is defined as anytime through the end of the report period.

Beta-Blocker Numerator Logic

- **Beta-blocker medication codes:**

- Defined with medication taxonomy BGP HEDIS BETA BLOCKER MEDS
- Medications are:
 - Noncardioselective Beta Blockers: Carvedilol, Labetalol, Nadolol, Penbutolol, Pindolol, Propranolol, Timolol, Sotalol
 - Cardioselective Beta Blockers: Acebutolol, Atenolol, Betaxolol, Bisoprolol, Metoprolol, Nebivolol
 - Antihypertensive Combinations: Atenolol-chlorthalidone, Bendroflumethiazide-nadolol, Bisoprolol-hydrochlorothiazide, Hydrochlorothiazide-metoprolol, and Hydrochlorothiazide-propranolol.

- **Contraindications to beta-blockers**

Defined as any of the following occurring ever unless otherwise noted:

- **Asthma.** Two diagnoses (POV) of ICD-9: 493*; ICD-10: J45.20 through J45.52 on different visit dates
- **Hypotension.** One diagnosis of ICD-9: 458*; ICD-10: I95.*
- **Heart block greater than 1 degree.** One diagnosis of ICD-9: 426.0, 426.12, 426.13, 426.2, 426.3, 426.4, 426.51, 426.52, 426.53, 426.54, 426.7; ICD-10: I44.1, I44.2, I45.2, I45.3, I45.6
- **Sinus bradycardia.** One diagnosis of ICD-9: 427.81; ICD-10: I49.5, R00.1
- **COPD.** Two diagnoses on different visit dates of ICD-9: 491.2*, 496, 506.4; ICD-10: J44.*, J68.4, J68.8, or a combination of any of these codes, such as one visit with 491.20 and one with 496
- NMI refusal for any beta-blocker at least once during the period admission or visit date through the 180 days after discharge or visit date
- CPT G8011 (Clinician documented that AMI patient was not an eligible candidate for beta-blocker at arrival) (old code) at least once during the period admission or visit date through the 180 days after discharge or visit date

- **Adverse drug reaction or documented beta blocker allergy**

Defined as any of the following occurring anytime up to the 180 days after discharge or visit date:

- POV ICD-9: 995.0 through 995.3 *and* E942.0
- Beta block* entry in ART (Patient Allergies File)
- Beta block*, bblock* or b block* contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ASA Numerator Logic

- **ASA medication codes**

- Defined with medication taxonomy DM AUDIT ASPIRIN DRUGS

- **Other antiplatelet medication codes**

- Defined with medication taxonomy site-populated BGP ANTI-PLATELET DRUGS taxonomy

- **Contraindications to ASA or other antiplatelet**

Defined as any of the following occurring ever unless otherwise noted:

- Patients with prescription for Warfarin (Coumadin) using site-populated BGP CMS WARFARIN MEDS taxonomy during the period admission or visit date through the 180 days after discharge or visit date
- Hemorrhage diagnosis (POV ICD-9: 459.0; ICD-10: R58)
- NMI refusal for any aspirin at least once during the period admission or visit date through the 180 days after discharge or visit date
- CPT G8008 (Clinician documented that AMI patient was not an eligible candidate to receive aspirin at arrival) (old code) at least once during the period admission or visit date through the 180 days after discharge or visit date

- **Adverse drug reaction, documented ASA, or other antiplatelet allergy**

Defined as any of the following occurring anytime up to the 180 days after discharge or visit date:

- POV ICD-9: 995.0 through 995.3 *and* E935.3; ICD-10: T39.015*, T39.095*
- Aspirin entry in ART (Patient Allergies File)
- ASA or aspirin contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ACEI/ARB Numerator Logic

- **Ace Inhibitor (ACEI) medication codes**

Defined with medication taxonomy BGP HEDIS ACEI MEDS.

- **ACEI medications are:** Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril).
- **Antihypertensive Combinations:** (Amlodipine-benazepril, Benazepril-hydrochlorothiazide, Captopril-hydrochlorothiazide, Enalapril-hydrochlorothiazide, Fosinopril-hydrochlorothiazide, Hydrochlorothiazide-lisinopril, Hydrochlorothiazide-moexipril, Hydrochlorothiazide-quinapril, Trandolapril-verapamil).
- **Contraindications to ACEI** defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the period admission or visit date through the 180 days after discharge or visit date
 - **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22
 - **NMI refusal** for any ACEI at least once during the period admission or visit date through the 180 days after discharge or visit date.
- **Adverse drug reaction or documented ACEI allergy**

Defined as any of the following occurring ever:

 - POV ICD-9: 995.0 through 995.3 and E942.6; ICD-10: T46.4X5*
 - Ace inhibitor or ACEI entry in ART (Patient Allergies File)
 - Ace i* or ACEI contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8
- **ARB (Angiotensin Receptor Blocker) medication codes**

Defined with medication taxonomy BGP HEDIS ARB MEDS

- **ARB medications are:** Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan)

- **Antihypertensive Combinations**
 - Aliskiren-valsartan, Amlodipine-hydrochlorothiazide-olmesartan, Amlodipine-hydrochlorothiazide-valsartan, Amlodipine-olmesartan, Amlodipine-Telmisartan, Amlodipine-valsartan, Azilsartan-chlorthalidone, Candesartan-hydrochlorothiazide, Eprosartan-hydrochlorothiazide, Hydrochlorothiazide-Irbesartan, Hydrochlorothiazide-Losartan, Hydrochlorothiazide-olmesartan, Hydrochlorothiazide-Telmisartan, Hydrochlorothiazide-Valsartan
- **Contraindications to ARB** defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the period admission or visit date through the 180 days after discharge or visit date
 - **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22
 - **NMI refusal** for any ARB at least once during the period admission or visit date through the 180 days after discharge or visit date.
- **Adverse drug reaction or documented ARB allergy**

Defined as any of the following occurring anytime up to the 180 days after discharge or visit date:

 - POV ICD-9: 995.0 through 995.3 *and* E942.6
 - Angiotensin Receptor Blocker or ARB entry in ART (Patient Allergies File)
 - Angiotensin Receptor Blocker or ARB contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

Statins Numerator Logic

- **Statin medication codes**
 - Defined with medication taxonomy BGP PQA STATIN MEDS
 - **Statin medications are:** Atorvastatin (Lipitor), Fluvastatin (Lescol), Lovastatin (Altacor, Altoprev, Mevacor), Pravastatin (Pravachol), Pitavastatin (Livalo), Simvastatin (Zocor), Rosuvastatin (Crestor).
- **Statin Combination Products**
 - Niacin-lovastatin, Niacin-simvastatin, Ezetimibe-simvastatin, Amlodipine-Atorvastatin, Sitagliptin-simvastatin, Ezetimibe-atorvastatin, Aspirin-pravastatin.

- **Contraindications to Statins:** Defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** Defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, BF-N during the period admission or visit date through the 180 days after discharge or visit date
 - **Acute Alcoholic Hepatitis:** Defined as POV ICD-9: 571.1; ICD-10: K70.10, K70.11 during the period admission or visit date through the 180 days after discharge or visit date
 - **NMI (not medically indicated) refusal** for any statin at least once during the period admission or visit date through the 180 days after discharge or visit date.
- **Adverse drug reaction or documented statin allergy**

Defined as any of the following:

- ALT or AST greater than three times the ULN (i.e., Reference High) on two or more consecutive visits during the period admission or visit date through the 180 days after discharge or visit date
- Creatine Kinase (CK) levels greater than 10 times ULN or CK greater than 10,000 IU/L during the period admission or visit date through the 180 days after discharge or visit date
- Myopathy or Myalgia, defined as any of the following during the period admission or visit date through the 180 days after discharge or visit date:
 - POV ICD-9: 359.0 through 359.9, 729.1, 710.5, 074.1; ICD-10: G71.14, G71.19, G72.0, G72.2, G72.89, G72.9, M35.8, M60.80 through M60.9, M79.1
- Any of the following occurring anytime up to the 180 days after discharge or visit date:
 - POV ICD-9: 995.0 through 995.3 *and* E942.9
 - Statin or Statins entry in ART (Patient Allergies File)
 - Statin or Statins contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

Pregnancy Definition

At least two visits during the period admission/visit date through the 180 days after discharge/visit date with POV or Problem diagnosis ICD-9: 640.*3, 641.*3, 642.*3, 643.*3, 644.*3, 645.*3, 646.*3, 647.*3, 648.*3, 649.*3, 651.*3, 652.*3, 653.*3, 654.*3, 655.*3, 656.*3, 657.*3, 658.*3, 659.*3, 660.*3, 661.*3, 662.*3, 663.*3, 665.*3, 668.*3, 669.*3, 671.*3, 673.*3, 674.*3, 675.*3, 676.*3, 678.*3,

679.*3, V22.0 through V23.9, V28.81, V28.82, V28.89, V72.42, V89.01 through V89.09; ICD-10: O09.00 through O10.02, O10.111 through O10.12, O10.211 through O10.22, O10.311 through O10.32, O10.411 through O10.42, O10.911 through O10.92, O11.1 through O15.1, O15.9 through O24.02, O24.111 through O24.12, O24.311 through O24.32, O24.41*, O24.811 through O24.82, O24.911 through O24.92, O25.10 through O25.2, O26.00 through O26.62, O26.711 through O26.72, O26.811 through O26.93, O29.011 through O30.93, O31.* through O48.*, O60.0*, O61.* through O66.*, O68, O69.*, O71.00 through O71.1, O71.89, O71.9, O74.0 through O75.81, O75.89, O75.9, O76 through O77.*, O88.011 through O88.02, O88.111 through O88.12, O88.211 through O88.22, O88.311 through O88.32, O88.811 through O88.82, O90.3, O91.011 through O91.019, O91.111 through O91.119, O91.211 through O91.219, O92.011 through O92.019, O92.20, O92.29, O98.011 through O98.02, O98.111 through O98.12, O98.211 through O98.22, O98.311 through O98.32, O98.411 through O98.42, O98.511 through O98.52, O98.611 through O98.62, O98.711 through O98.72, O98.811 through O98.82, O98.911 through O98.92, O99.011 through O99.02, O99.111 through O99.12, O99.210 through O99.214, O99.280 through O99.284, O99.310 through O99.314, O99.320 through O99.324, O99.330 through O99.334, O99.340 through O99.344, O99.350 through O99.354, O99.411 through O99.42, O99.511 through O99.52, O99.611 through O99.62, O99.711 through O99.72, O99.810, O99.814, O99.820, O99.824, O99.830, O99.834, O99.840 through O99.844, O99.89, O9A.111 through O9A.12, O9A.211 through O9A.22, O9A.311 through O9A.32, O9A.411 through O9A.42, O9A.511 through O9A.52, Z03.7*, Z32.01, Z33.1, Z34.*, Z36, where the primary provider is not a CHR (Provider code 53). Pharmacy-only visits (clinic code 39) will not count toward these two visits. If the patient has more than two pregnancy-related visits during the time period, CRS will use the first two visits in the time period. The patient must not have a documented miscarriage or abortion occurring after the second pregnancy-related visit.

- **Miscarriage definition:**

- POV ICD-9: 630, 631, 632, 633*, 634*; ICD-10: O03.9
- CPT 59812, 59820, 59821, 59830

- **Abortion definition:**

- POV ICD-9: 635*, 636* 637*; ICD-10: O00.*, O01.*, O03.1, O03.31 through O03.33, O03.6, O03.81 through O03.83, O04.6, O04.81 through O04.83, Z33.2
- CPT 59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857, S2260 through S2267,
- Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z

All Medications Numerator Logic

To be included in this numerator, a patient must have a prescription or a contraindication for *all* of the four medication classes (i.e., beta-blocker, ASA or other anti-platelet, ACEI or ARB, *and* statin).

Test Definitions

- **ALT**
 - Site-populated taxonomy DM AUDIT ALT TAX
 - LOINC taxonomy
- **AST**
 - Site-populated taxonomy DM AUDIT AST TAX
 - LOINC taxonomy
- **Creatine Kinase**
 - Site-populated taxonomy BGP CREATINE KINASE TAX
 - LOINC taxonomy

2.5.5.5 Patient Lists

- List of Active Clinical patients 35 and older with AMI diagnosis with 135-day beta-blocker therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis without 135-day beta-blocker therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis with 135-day ASA therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis without ASA therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis with 135-day ACEI or ARB therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis without 135-day ACEI or ARB therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis with 135-day statin therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis without 135-day statin therapy.
- List of Active Clinical patients 35 and older with AMI diagnosis with 135-day therapy for all appropriate meds.

- List of Active Clinical patients 35 and older with AMI diagnosis without 135-day therapy for all appropriate meds.

2.5.6 Appropriate Medication Therapy in High Risk Patients

Changes from CRS v14.0 are noted

2.5.6.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.6.2 Denominators

1. Active CHD patients ages 22 and older, defined as all Active Clinical patients diagnosed with CHD prior to the Report Period, *and* at least two visits during the Report Period, *and* two CHD -related visits ever.

2.5.6.3 Numerators

Note: These numerators do *not* include refusals.

1. Patients with a 180-day course of treatment with beta-blockers during the report period, or who have a contraindication or previous adverse reaction to beta-blocker therapy.
2. Patients with a 180-day course of treatment with ASA or other antiplatelet agent during the report period, or who have a contraindication or previous adverse reaction to ASA or antiplatelet therapy.
3. Patients with a 180-day course of treatment with ACEIs or ARBs during the report period, or who have a contraindication or previous adverse reaction to ACEI or ARB therapy.
4. Patients with a 180-day course of treatment with statins during the report period, or who have a contraindication or previous adverse reaction to statin therapy.
5. Patients with a 180-day course of treatment for all medications (i.e., beta-blocker, aspirin or antiplatelet, ACEI or ARB, *and* statin) during the report period or who have a contraindication or previous adverse reaction.

2.5.6.4 Definitions

CHD

- POV ICD-9: 410.0 through 413.*, 414.0 through 414.9, 429.2; ICD-10: I20.0 through I22.8, I24.0 through I25.83, I25.89, I25.9
- One or more Coronary Artery Bypass Graft (CABG) or Percutaneous Coronary Interventions (PCI) procedures, defined as any of the following:
 - CABG Procedure

- POV ICD-9: V45.81; ICD-10: Z95.1
- CPT 33510 through 33514, 33516 through 33519, 33521 through 33523, 33533 through 33536, S2205 through S2209
- Procedure ICD-9: 36.1*, 36.2*; ICD-10: 02100**, 021049*, 02104A*, 02104J*, 02104K*, 02104Z*, 02110**, 021149*, 02114A*, 02114J*, 02114K*, 02114Z*, 02120**, 021249*, 02124A*, 02124J*, 02124K*, 02124Z*, 02130**, 021349*, 02134A*, 02134J*, 02134K*, 02134Z*
- PCI Procedure
 - POV ICD-9: V45.82; ICD-10: Z95.5, Z98.61
 - CPT 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980, 92982, 92995, G0290
 - Procedure ICD-9: 00.66, 36.01 (old code), 36.02 (old code), 36.05, (old code), 36.06 through 36.07; ICD-10: 02703**, 02704**, 02713**, 02714**, 02723**, 02724**, 02733**, 02734**

To Be Included in the Numerators

A patient must meet one of the following conditions:

- Prescription for the indicated medication with a total days' supply of 180 days or more during the Report Period. Medications must not have a comment of RETURNED TO STOCK.
- Have a contraindication or previous adverse reaction to the indicated medication.

Contraindications or previous ADR or allergies are only counted if a patient did not have a prescription for the indicated medication. Patients without a prescription who have a contraindication or ADR or allergy will be counted toward meeting the numerator. For prescriptions, the days' supply requirement may be met with a single prescription or from a combination of prescriptions for the indicated medication that were filled during the Report Period and prescriptions filled prior to the Report Period but which are still active (i.e., prior active prescription). Prior active prescriptions can be included if the treatment days fall within the Report Period. Prior active prescription defined as most recent prescription for the indicated medication (see codes that follow) prior to Report Period Start Date with the number of days' supply equal to or greater than the Report Period Start Date minus the prescription date.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

Example of patient included in the beta-blocker numerator with prior active prescription

- Report period: July 1, 2013 through June 30, 2014
- Must have 180 days' supply of indicated medication June 30, 2014 (end of report period)
- Prior Beta-Blocker Rx Date: June 1, 2013
- Number of Days Prescribed: 60 (treats patient through July 31, 2013)
- Report Period Start Date minus Rx Date:
July 1, 2013 – June 1, 2013 = 30 days
Number of Days Prescribed = 60 and $60 \geq 30$ so:
 Prescription is considered Prior Active Rx
- July 31, 2013 falls within the report period of July 1, 2013 to June 30, 2014, thus the remainder of the Prior Active Rx can be counted toward 180 days' supply
- Number of Remaining Days Prescribed from Prior Active Rx:
Days Prescribed – (Report Period Start Date – Prior Rx Date)
60 – (July 1, 2013 – June 1, 2013)
60 – 30 = 30
- Second Prescription: August 5, 2013
- Number of Days Prescribed: 90
- Third Prescription: January 10, 2013
- Number of Days Prescribed: 90
- Total Days' Supply Prescribed between July 1, 2013 and June 30, 2014, including prior active prescription:

$$30 + 90 + 90 = 210$$

Numerator Logic

In the logic that follows, "ever" is defined as anytime through the end of the Report Period.

Beta-Blocker Numerator Logic:

- **Beta-blocker medication codes**

- Defined with medication taxonomy BGP HEDIS BETA BLOCKER MEDS

- Medications are:

- Noncardioselective Beta Blockers: Carvedilol, Labetalol, Nadolol, Penbutolol, Pindolol, Propranolol, Timolol, Sotalol
- Cardioselective Beta Blockers: Acebutolol, Atenolol, Betaxolol, Bisoprolol, Metoprolol, Nebivolol
- Antihypertensive Combinations: Atenolol-chlorthalidone, Bendroflumethiazide-nadolol, Bisoprolol-hydrochlorothiazide, Hydrochlorothiazide-metoprolol, and Hydrochlorothiazide-propranolol

- **Contraindications to beta-blockers**

Defined as any of the following occurring ever unless otherwise noted:

- **Asthma.** Two diagnoses (POV) of ICD-9: 493*; ICD-10: J45.20 through J45.52 on different visit dates
- **Hypotension.** One diagnosis of ICD-9: 458*; ICD-10: I95.*
- **Heart block greater than 1 degree.** One diagnosis of ICD-9: 426.0, 426.12, 426.13, 426.2, 426.3, 426.4, 426.51, 426.52, 426.53, 426.54, 426.7; ICD-10: I44.1, I44.2, I45.2, I45.3, I45.6
- **Sinus bradycardia.** One diagnosis of ICD-9: 427.81; ICD-10: I49.5, R00.1
- **COPD.** Two diagnoses on different visit dates of ICD-9: 491.2*, 496, 506.4; ICD-10: J44.*, J68.4, J68.8, or a combination of any of these codes, such as one visit with 491.20 and one with 496
- NMI refusal for any beta-blocker at least once during the Report Period
- CPT G8011 (Clinician documented that AMI patient was not an eligible candidate for beta-blocker at arrival) (old code) at least once during the Report Period.

- **Adverse drug reaction or documented beta blocker allergy**

Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 and E942.0

- Beta block* entry in ART (Patient Allergies File)
- Beta block*, bblock* or b block* contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ASA and Other Anti-Platelet Numerator Logic

- **ASA medication codes**

- Defined with medication taxonomy DM AUDIT ASPIRIN DRUGS.

- **Other anti-platelet medication codes**

- Defined with medication taxonomy site-populated BGP ANTI-PLATELET DRUGS taxonomy.

- **Contraindications to ASA or other antiplatelet**

Defined as any of the following occurring ever unless otherwise noted:

- Patients with a 180-day course of treatment for Warfarin (Coumadin) during the Report Period, using site-populated BGP CMS WARFARIN MEDS taxonomy
- Hemorrhage diagnosis (POV ICD-9: 459.0; ICD-10: R58)
- NMI refusal for any aspirin at least once during the Report Period
- CPT G8008 (Clinician documented that AMI patient was not an eligible candidate to receive aspirin at arrival) (old code) at least once during the report period

- **Adverse drug reaction, documented ASA, or other anti-platelet allergy**

Defined as any of the following occurring ever:

- POV ICD-9: 995.0 through 995.3 *and* E935.3; ICD-10: T39.015*, T39.095*
- Aspirin entry in ART (Patient Allergies File)
- ASA or aspirin contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

ACEI/ARB Numerator Logic

- **Ace Inhibitor (ACEI) medication codes**

Defined with medication taxonomy BGP HEDIS ACEI MEDS

- **ACEI medications are:** Angiotensin Converting Enzyme Inhibitors (Benazepril, Captopril, Enalapril, Fosinopril, Lisinopril, Moexipril, Perindopril, Quinapril, Ramipril, Trandolopril).

- **Antihypertensive Combinations:** (Amlodipine-benazepril, Benazepril-hydrochlorothiazide, Captopril-hydrochlorothiazide, Enalapril-hydrochlorothiazide, Fosinopril-hydrochlorothiazide, Hydrochlorothiazide-lisinopril, Hydrochlorothiazide-moexipril, Hydrochlorothiazide-quinapril, Trandolapril-verapamil).
- **Contraindications to ACEI** defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** Defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
 - **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22
 - **NMI refusal** for any ACEI at least once during the Report Period.
- **Adverse drug reaction or documented ACEI allergy**
Defined as any of the following occurring anytime through the end of the report period:
 - POV ICD-9: 995.0 through 995.3 *and* E942.6; ICD-10: T46.4X5*
 - Ace inhibitor or ACEI entry in ART (Patient Allergies File)
 - Ace i* or ACEI contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8
- **ARB (Angiotensin Receptor Blocker) medication codes**
Defined with medication taxonomy BGP HEDIS ARB MEDS
 - **ARB medications are:** Angiotensin II Inhibitors (Azilsartan, Candesartan, Eprosartan, Irbesartan, Losartan, Olmesartan, Telmisartan, Valsartan)
- **Antihypertensive Combinations**
 - Aliskiren-valsartan, Amlodipine-hydrochlorothiazide-olmesartan, Amlodipine-hydrochlorothiazide-valsartan, Amlodipine-olmesartan, Amlodipine-Telmisartan, Amlodipine-valsartan, Azilsartan-chlorthalidone, Candesartan-hydrochlorothiazide, Eprosartan-hydrochlorothiazide, Hydrochlorothiazide-Irbesartan, Hydrochlorothiazide-Losartan, Hydrochlorothiazide-olmesartan, Hydrochlorothiazide-Telmisartan, Hydrochlorothiazide-Valsartan
- **Contraindications to ARB** defined as any of the following:
 - **Pregnancy:** See the definition that follows

- **Breastfeeding:** Defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
- **Diagnosis ever for moderate or severe aortic stenosis**
 - POV ICD-9: 395.0, 395.2, 396.0, 396.2, 396.8, 424.1, 425.1, 747.22
- **NMI refusal** for any ARB at least once during the Report Period.
- **Adverse drug reaction or documented ARB allergy**
Defined as any of the following occurring anytime through the end of the Report Period:
 - POV ICD-9: 995.0 through 995.3 and E942.6
 - Angiotensin Receptor Blocker or ARB entry in ART (Patient Allergies File)
 - Angiotensin Receptor Blocker or ARB contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

Statins Numerator Logic

- **Statin medication codes**
 - Defined with medication taxonomy BGP PQA STATIN MEDS
 - **Statin medications are:** Atorvastatin (Lipitor), Fluvastatin (Lescol), Lovastatin (Altacor, Altoprev, Mevacor), Pravastatin (Pravachol), Pitavastatin (Livalo), Simvastatin (Zocor), Rosuvastatin (Crestor).
- **Statin Combination Products**
 - Niacin-lovastatin, Niacin-simvastatin, Ezetimibe-simvastatin, Amlodipine-Atorvastatin, Sitagliptin-simvastatin, Ezetimibe-atorvastatin, Aspirin-pravastatin.
- **Contraindications to Statins:** Defined as any of the following:
 - **Pregnancy:** See the definition that follows
 - **Breastfeeding:** Defined as POV ICD-9: V24.1; ICD-10: Z39.1 or breastfeeding patient education codes BF-BC, BF-BP, BF-CS, BF-EQ, BF-FU, BF-HC, BF-ON, BF-M, BF-MK, or BF-N during the Report Period
 - **Acute Alcoholic Hepatitis:** Defined as POV ICD-9: 571.1; ICD-10: K70.10, K70.11 during the Report Period
 - **NMI refusal** for any statin at least once during the report period
- **Adverse drug reaction or documented statin allergy**

Defined as any of the following:

- ALT or AST greater than 3 times the ULN (i.e., Reference High) on two or more consecutive visits during the Report Period
- CK levels greater than 10 times ULN or CK greater than 10,000 IU/L during the Report Period
- Myopathy or Myalgia, defined as any of the following during the Report Period:
 - POV ICD-9: 359.0 through 359.9, 729.1, 710.5, 074.1; ICD-10: G71.14, G71.19, G72.0, G72.2, G72.89, G72.9, M35.8, M60.80 through M60.9, M79.1
- Any of the following occurring anytime through the end of the Report Period:
 - POV ICD-9: 995.0 through 995.3 *and* E942.9
 - Statin or Statins entry in ART (Patient Allergies File)
 - Statin or Statins contained within Problem List or in Provider Narrative field for any POV ICD-9: 995.0 through 995.3, V14.8; ICD-10: Z88.8

Pregnancy Definition

At least two visits during the Report Period with POV or Problem diagnosis ICD-9: 640.*3, 641.*3, 642.*3, 643.*3, 644.*3, 645.*3, 646.*3, 647.*3, 648.*3, 649.*3, 651.*3, 652.*3, 653.*3, 654.*3, 655.*3, 656.*3, 657.*3, 658.*3, 659.*3, 660.*3, 661.*3, 662.*3, 663.*3, 665.*3, 668.*3, 669.*3, 671.*3, 673.*3, 674.*3, 675.*3, 676.*3, 678.*3, 679.*3, V22.0 through V23.9, V28.81, V28.82, V28.89, V72.42, V89.01 through V89.09; ICD-10: O09.00 through O10.02, O10.111 through O10.12, O10.211 through O10.22, O10.311 through O10.32, O10.411 through O10.42, O10.911 through O10.92, O11.1 through O15.1, O15.9 through O24.02, O24.111 through O24.12, O24.311 through O24.32, O24.41*, O24.811 through O24.82, O24.911 through O24.92, O25.10 through O25.2, O26.00 through O26.62, O26.711 through O26.72, O26.811 through O26.93, O29.011 through O30.93, O31.* through O48.*, O60.0*, O61.* through O66.*, O68, O69.*, O71.00 through O71.1, O71.89, O71.9, O74.0 through O75.81, O75.89, O75.9, O76 through O77.*, O88.011 through O88.02, O88.111 through O88.12, O88.211 through O88.22, O88.311 through O88.32, O88.811 through O88.82, O90.3, O91.011 through O91.019, O91.111 through O91.119, O91.211 through O91.219, O92.011 through O92.019, O92.20, O92.29, O98.011 through O98.02, O98.111 through O98.12, O98.211 through O98.22, O98.311 through O98.32, O98.411 through O98.42, O98.511 through O98.52, O98.611 through O98.62, O98.711 through O98.72, O98.811 through O98.82, O98.911 through O98.92, O99.011 through O99.02, O99.111 through O99.12, O99.210 through O99.214, O99.280 through O99.284, O99.310 through O99.314, O99.320 through O99.324,

O99.330 through O99.334, O99.340 through O99.344, O99.350 through O99.354, O99.411 through O99.42, O99.511 through O99.52, O99.611 through O99.62, O99.711 through O99.72, O99.810, O99.814, O99.820, O99.824, O99.830, O99.834, O99.840 through O99.844, O99.89, O9A.111 through O9A.12, O9A.211 through O9A.22, O9A.311 through O9A.32, O9A.411 through O9A.42, O9A.511 through O9A.52, Z03.7*, Z32.01, Z33.1, Z34.*, Z36, where the primary provider is not a CHR (Provider code 53). Pharmacy-only visits (clinic code 39) will not count toward these two visits. If the patient has more than two pregnancy-related visits during the Report Period, CRS will use the first two visits in the Report Period. The patient must not have a documented miscarriage or abortion occurring after the second pregnancy-related visit.

- **Miscarriage definition:**

- POV ICD-9: 630, 631, 632, 633*, 634*; ICD-10: O03.9
- CPT 59812, 59820, 59821, 59830

- **Abortion definition:**

- POV ICD-9: 635*, 636* 637*; ICD-10: O00.*, O01.*, O03.1, O03.31 through O03.33, O03.6, O03.81 through O03.83, O04.6, O04.81 through O04.83, Z33.2
- CPT 59100, 59120, 59130, 59136, 59150, 59151, 59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857, S2260 through S2267,
- Procedure ICD-9: 69.01, 69.51, 74.91, 96.49; ICD-10: 0WHR73Z, 0WHR7YZ, 10A0***, 3E1K78Z, 3E1K88Z

All Medications Numerator Logic

To be included in this numerator, a patient must have a prescription or a contraindication for *all* of the four medication classes (i.e., beta-blocker, ASA or other antiplatelet, ACEI or ARB, *and* statin).

Test Definitions

- **ALT**

- Site-populated taxonomy DM AUDIT ALT TAX
- LOINC taxonomy

- **AST**

- Site-populated taxonomy DM AUDIT AST TAX
- LOINC taxonomy

- **Creatine Kinase**

- Site-populated taxonomy BGP CREATINE KINASE TAX
- LOINC taxonomy

2.5.6.5 Patient Lists

- List of Active IHD patients 22 and older with 180-day beta-blocker therapy.
- List of Active IHD patients 22 and older without 180-day beta-blocker therapy.
- List of Active IHD patients 22 and older with 180-day ASA therapy.
- List of Active IHD patients 22 and older without 180-day ASA therapy.
- List of Active IHD patients 22 and older with 180-day ACEI or ARB therapy.
- List of Active IHD patients 22 and older without 180-day ACEI or ARB therapy.
- List of Active IHD patients 22 and older with 180-day statin therapy.
- List of Active IHD patients 22 and older without 180-day statin therapy.
- List of Active IHD patients 22 and older with 180-day therapy for all appropriate meds.
- List of Active IHD patients 22 and older without 180-day therapy for all appropriate meds.

2.5.7 Cholesterol Management for Patients with Cardiovascular Conditions

Changes from CRS v14.0 are noted

2.5.7.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.7.2 Denominators

1. Active Clinical patients ages 18 through 75 years who, during the year prior to the beginning of the Report period, were diagnosed with AMI, coronary artery bypass graft (CABG), or percutaneous coronary interventions (PCI), or who were diagnosed with ischemic vascular disease (IVD) during the Report Period and the year prior to the Report Period.

2.5.7.3 Numerators

1. Patients with LDL completed during the report period, regardless of result.
 - A. Patients with LDL of less than 100, completed during the report period.
 - B. Patients with LDL 100 through 130, completed during the report period.
 - C. Patients with LDL above 130, completed during the report period.

2.5.7.4 Definitions

AMI

POV ICD-9: 410.*0, 410.*1; ICD-10: I21.*

PCI

- Procedure ICD-9: 00.66, 36.01 (old code), 36.02 (old code), 36.05, (old code), 36.06 through 36.07; ICD-10: 02703**, 02704**, 02713**, 02714**, 02723**, 02724**, 02733**, 02734**
- POV ICD-9: V45.82; ICD-10: Z95.5, Z98.61
- CPT 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92980, 92982, 92995, G0290

CABG

- Procedure ICD-9: 36.1*, 36.2; ICD-10: 02100**, 021049*, 02104A*, 02104J*, 02104K*, 02104Z*, 02110**, 021149*, 02114A*, 02114J*, 02114K*, 02114Z*, 02120**, 021249*, 02124A*, 02124J*, 02124K*, 02124Z*, 02130**, 021349*, 02134A*, 02134J*, 02134K*, 02134Z*
- POV ICD-9: V45.81; ICD-10: Z95.1
- CPT 33510 through 33514, 33516 through 33519, 33521 through 33523, 33533 through 33536, S2205 through S2209

IVD

- POV ICD-9: 411.*, 413.*, 414.0*, 414.2, 414.8, 414.9, 429.2, 433.* through 434.*, 440.1, 440.2*, 440.4, 444.*, 445.*; ICD-10: I20.*, I24.*, I25.1*, I25.5 through I25.812, I70.201 through I70.299, I70.92, I75.*

LDL

Searches for most recent LDL test with a result during the report period. If more than one LDL test is found on the same day or the same visit and one test has a result and the other does not, the test with the result will be used. If an LDL test with a result is not found, CRS searches for the most recent LDL test without a result. LDL defined as:

- CPT 80061, 83700, 83701, 83704, 83715 (old code), 83716 (old code), 83721, 3048F, 3049F, 3050F
- LOINC taxonomy
- Site-populated taxonomy DM AUDIT LDL CHOLESTEROL TAX
- For numerator LDL less than 100, CPT 3048F will count as meeting the measure

2.5.7.5 Patient Lists

- List of Active Clinical patients 18 through 75 years of age with diagnosis of AMI, CABG, PCI, or IVD with LDL completed, regardless of result.
- List of Active Clinical patients 18 through 75 years of age with diagnosis of AMI, CABG, PCI, or IVD without LDL completed.
- List of Active Clinical patients 18 through 75 years of age with diagnosis of AMI, CABG, PCI, or IVD with LDL 100 or lower.
- List of Active Clinical patients 18 through 75 years of age with diagnosis of AMI, CABG, PCI, or IVD with LDL 101 through 130.
- List of Active Clinical patients 18 through 75 years of age with diagnosis of AMI, CABG, PCI, or IVD with LDL above 130.

2.5.8 Heart Failure and Evaluation of LVS Function

No changes from Version 14.0

2.5.8.1 Owner: Contact

Dr. Dena Wilson, Chris Lamer, PharmD, and Mark Veazie

2.5.8.2 Denominators

1. Active Clinical ages 18 or older discharged with heart failure during the Report Period.

2.5.8.3 Numerators

1. Patients whose LVS function was evaluated before arrival, during hospitalization, or is planned for after discharge.

2.5.8.4 Definitions

Heart Failure

- Primary diagnosis code of ICD-9: 398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9, 429.1, 997.1 ICD-10: I11.0, I13.0, I13.2, I50.* *and* with Service Category H (hospitalization).

Note: If a patient has multiple admissions matching these criteria during the Report Period, the earliest admission will be used.

Denominator Exclusions

Defined as any of the following:

- Patients receiving comfort measures only (i.e., patients who received palliative care and usual interventions were not received because a medical decision was made to limit care).
- Patients with a Discharge Type of Transferred or Irregular or containing “Death.”
- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospitalization.

Comfort Measures

- POV ICD-9: V66.7 (Encounter for palliative care); ICD-10: Z51.5 documented during hospital stay.

LVAD/Heart Transplant

Any of the following during hospital stay:

- Procedure ICD-9: 33.6, 37.41, 37.51 through 37.54, 37.61 through 37.66, 37.68; ICD-10: 02HA**Z, 02PA*RZ, 02RK0JZ, 02RL0JZ, 02UA4JZ, 02WA0JZ, 02WA0QZ, 02WA0RZ, 02WA3QZ, 02WA3RZ, 02WA4QZ, 02WA4RZ, 02YA0Z*, 5A02*10, 5A02*16, 5A02*1D

Evaluation of LVS (Left Ventricular Systolic) Function

Any of the following:

- An ejection fraction ordered or documented anytime one year prior to discharge date, defined as any of the following:
 - Measurement “CEF”
 - Procedure ICD-9: 88.53, 88.54; ICD-10: B205*ZZ, B206*ZZ, B215*ZZ, B216*ZZ
 - CPT 78414, 78468, 78472, 78473, 78480, 78481, 78483, 78494, 93303, 93304, 93307, 93308, 93312, 93314 through 93318, 93350, 93543, 93555
- RCIS order for Cardiovascular Disorders referral that is ordered during the hospital stay but no later than the hospital discharge date. (RCIS referral defined as:
 - ICD Diagnostic Category "Cardiovascular Disorders" combined with any of the following CPT Categories: “Evaluation and/or Management, “Non-surgical Procedures” or “Diagnostic Imaging.”)
- Any of the following documented anytime 1 year prior to discharge date:

- Echocardiogram: Procedure ICD-9: 88.72, 37.28, 00.24; ICD-10: B245YZZ, B245ZZ4, B245ZZZ, B246YZZ, B246ZZ4, B246ZZZ, B24BYZZ, B24BZZ4, B24BZZZ
- Nuclear Medicine Test: Procedure ICD-9: 92.2*
- Cardiac Catheterization with a Left Ventriculogram: Procedure ICD-9: 37.22, 37.23, 88.53, 88.54; ICD-10: 4A02*N7, 4A02*N8, B205*ZZ, B206*ZZ, B215*ZZ, B216*ZZ

2.5.8.5 Patient Lists

- List of Active Clinical heart failure patients 18 and older who received evaluation of LVS function.
- List of Active Clinical heart failure patients 18 and older who did not receive evaluation of LVS function.

2.6 STD-Related Group

2.6.1 HIV Quality of Care

No changes from Version 14.0

2.6.1.1 Owner: Contact

Lisa Neel, MPH, Dr. Marie Russell, and Jonathan Iralu

2.6.1.2 Denominators

1. User Population patients 13 and older with at least two direct care visits, (i.e., not contract or CHS) during the report period with HIV diagnosis *and* one HIV visit in last 6 months.

2.6.1.3 Numerators

1. Patients who received CD4 test only (without HIV viral load) during the report period.
2. Patients who received HIV Viral load only (without CD4), during the report period.
3. Patients who received both CD4 and HIV viral load tests during the report period.
4. Total Numerators 1, 2 and 3.
5. Patients who received at least one prescription for an Antiretroviral medication.

2.6.1.4 Definitions

HIV

POV ICD-9: 042, 042.0 through 044.9 (old codes), 079.53, V08, 795.71; ICD-10: B20, B97.35, R75, Z21, O98.711 through O98.73

Lab Test CD4

- CPT 86359, 86360, 86361
- LOINC taxonomy
- Site-populated taxonomy BGP CD4 TAX

HIV Viral Load

- CPT 87536, 87539
- LOINC taxonomy
- Site-populated taxonomy BGP HIV VIRAL TAX

Antiretroviral Medication

- Defined with medication taxonomy BGP PQA ANTIRETROVIRAL MEDS. Medications must not have a comment of RETURNED TO STOCK.

2.6.1.5 Patient Lists

- List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 test only.
- List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 test only.
- List of patients 13 and older with HIV diagnosis during the Report Period who received HIV viral load only.
- List of patients 13 and older with HIV diagnosis during the Report Period who did not receive HIV viral load only.
- List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 and HIV viral load.
- List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 and HIV viral load.
- List of patients 13 and older with HIV diagnosis during the Report Period who received CD4 or HIV viral load.
- List of patients 13 and older with HIV diagnosis during the Report Period who did not receive CD4 or HIV viral load.

- List of patients 13+ with HIV diagnosis during the Report Period who received a prescription for an antiretroviral medication.
- List of patients 13+ with HIV diagnosis during the Report Period who did not receive a prescription for an antiretroviral medication.

2.6.2 Sexually Transmitted Infection Screening

No changes from Version 14.0

2.6.2.1 Owner: Contact

Scott Tulloch

2.6.2.2 Denominators

1. Number of key sexually transmitted infections (STI) incidents for Active Clinical patients that occurred during the period 60 days prior to the beginning of the report period through the first 300 days of the report period. Key STIs defined as Chlamydia, gonorrhea, HIV/AIDS, and syphilis. Two or more key STIs on the same visit will be counted once. Broken down by gender.
2. HIV/AIDS screenings needed for key STI incidents for Active Clinical patients that occurred during the defined period. Broken down by gender.
3. Number of key sexually transmitted infections (STI) incidents for User Population patients that occurred during the period 60 days prior to the beginning of the report period through the first 300 days of the report period. Key STIs defined as Chlamydia, gonorrhea, HIV/AIDS, and syphilis. Two or more key STIs on the same visit will be counted once. Broken down by gender.
4. HIV/AIDS screenings needed for key STI incidents for User Population patients that occurred during the defined period. Broken down by gender.

2.6.2.3 Numerators

1. No denominator; count only. The total count of Active Clinical patients who were diagnosed with one or more key sexually transmitted infections (STIs) during the period 60 days prior to the Report Period through the first 300 days of the Report Period.
2. No denominator; count only. The total count of separate key STI incidents for Active Clinical patients during the defined period.
3. For use with denominator 1 and 3: Number of complete screenings, defined as all screenings necessary for a specific STI incident, performed from 1 month prior to the date of relevant STI incident through 2 months after.

Note: This numerator does not include refusals.

4. For use with denominator 2 and 4: Number of needed HIV/AIDS screenings performed from 1 month prior to the date of first STI diagnosis of each incident through 2 months after.

Note: This numerator does not include refusals.

2.6.2.4 Definitions

Key STIs

Chlamydia, gonorrhea, HIV/AIDS, and syphilis. Key STIs defined with the following POVS:

- Chlamydia: ICD-9: 079.88, 079.98, 099.41, 099.50 through 099.59; ICD-10: A56.*, A74.81 through A74.9
- Gonorrhea: ICD-9: 098.0 through 098.89; ICD-10: A54.*, O98.2*
- HIV/AIDS: ICD-9: 042, 042.0 through 044.9, 079.53, 795.71, V08; ICD-10: B20, B97.35, R75, Z21, O98.711 through O98.73
- Syphilis: ICD-9: 090.0 through 093.9, 094.1 through 097.9; ICD-10: A51.* through A53.*

Logic for Identifying Patients Diagnosed with Key STI (numerator #1)

Any patient with one or more diagnoses of any of the key STIs defined above during the period 60 days prior to the beginning of the Report Period through the first 300 days of the Report Period.

Logic for Identifying Separate Incidents of Key STIs (numerator #2)

One patient may have one or multiple occurrences of one or multiple STIs during the year, except for HIV. An occurrence of HIV is only counted if it is the initial HIV diagnosis for the patient ever. Incidents of an STI are identified beginning with the date of the first key STI diagnosis (see definition above) occurring between 60 days prior to the beginning of the report period through the first 300 days of the report period. A second incident of the same STI (other than HIV) is counted if another diagnosis with the same STI occurs 2 months or more after the initial diagnosis. A different STI diagnosis that occurs during the same 60-day time period as the first STI counts as a separate incident.

Table 2-2: Example of Patient with Multiple Incidents of Single STI

Date	Visit	Total Incidents
August 1, 2013	Patient screened for Chlamydia	0
August 8, 2013	Patient diagnosed with Chlamydia	1
August 15, 2013	Patient diagnosed with Chlamydia	2

Date	Visit	Total Incidents
October 25, 2013	Follow-up for Chlamydia	2
November 15, 2013	Patient diagnosed with Chlamydia	2
March 1, 2014	Patient diagnosed with Chlamydia	3

Denominator Logic for Needed Screenings (Denominator #1)

One patient may need multiple screening tests based on one or more STI incidents occurring during the time period.

To be included in the needed screening tests denominator, the count will be derived from the number of separate STI incidents and the types of screenings recommended for each incident. The recommended screenings for each key STI are listed in Table 2-3.

Table 2-3: Recommended STI screenings

STI	Screenings Needed
Chlamydia	Gonorrhea, HIV/AIDS, Syphilis
Gonorrhea	Chlamydia, HIV/AIDS, Syphilis
HIV/AIDS	Chlamydia, Gonorrhea, Syphilis
Syphilis	Chlamydia, Gonorrhea, HIV/AIDS

“Needed” screenings are recommended screenings that are further evaluated for contraindications. The following are reasons that a recommended screening is identified as not needed (i.e., contraindicated).

- The patient has a documented STI diagnosis corresponding to the screening type in the same time period. For example, a patient with both a Chlamydia and a gonorrhea diagnosis on the same visit does not need the recommended Chlamydia screening based on the gonorrhea diagnosis.
- Only one screening for each type of STI is needed during the relevant time period, regardless of the number of different STI incidents identified. For example, if a patient is diagnosed with Chlamydia and Gonorrhea on the same visit, only one screening each is needed for HIV/AIDS and Syphilis.
- A patient with HIV/AIDS diagnosis prior to any STI diagnosis that triggers a recommended HIV/AIDS screening does not need the screening ever.

Numerator Logic

To be counted in the numerator, each needed screening in the denominator must have a corresponding lab test or test refusal documented in the period from 1 month prior to the relevant STI diagnosis date through 2 months after the STI incident.

Chlamydia Screening

Any of the following during the specified time period:

- POV ICD-9: V73.88, V73.98
- CPT 86631 through 86632, 87110, 87270, 87320, 87490 through 87492, 87810, 3511F
- Site-populated taxonomy BGP CHLAMYDIA TESTS TAX
- LOINC taxonomy

Gonorrhea Screening

Any of the following during the specified time period:

- CPT 87590 through 87592, 87850, 3511F
- Site-populated taxonomy BKM GONORRHEA TEST TAX
- LOINC taxonomy

HIV/AIDS Screening

Any of the following during the specified time period:

- CPT 86689, 86701 through 86703, 87390 through 87391, 87534 through 87539
- Site-populated taxonomy BGP HIV TEST TAX
- LOINC taxonomy

Syphilis Screening

Any of the following during the specified time period:

- CPT 86592 through 86593, 86781, 87285, 3512F
- site-populated taxonomy BKM FTA-ABS TESTS TAX or BKM RPR TESTS TAX
- LOINC taxonomy

Logic Examples

- Example of Patient with Single Diagnosis of Single STI
 - August 1, 2013: Patient screened for Chlamydia
 - August 8, 2013: Patient diagnosed with Chlamydia—three screens needed: Gonorrhea, HIV/AIDS, Syphilis
 - August 13, 2013: Patient screened for Gonorrhea, HIV/AIDS, Syphilis
 - Result:
- Denominator: One key STI incident

- Numerator: One complete screening
 - Example of Patient with Multiple Diagnoses of Single STI
 - August 1, 2013: Patient screened for Chlamydia
 - August 8, 2013: Patient diagnosed with Chlamydia (Incident #1)–three screens needed: Gonorrhea, HIV/AIDS, Syphilis
 - August 13, 2013: Patient screened for Gonorrhea, HIV/AIDS, Syphilis
 - December 1, 2013: Patient screened for Chlamydia
 - December 8, 2013: Patient diagnosed with Chlamydia (Incident #2)– three screens needed: Gonorrhea, HIV/AIDS, Syphilis
 - Result:
 - Denominator: Two key STI incidents,
- Numerator: One complete screening (one each of three types)
 - Example of Patient with Single Diagnosis of Multiple STIs
 - October 15, 2013: Patient screened for Chlamydia, Gonorrhea, HIV/AIDS, Syphilis
 - October 18, 2013: Patient diagnosed with Chlamydia–three screens needed: Gonorrhea, HIV/AIDS, Syphilis
 - October 20, 2013: Patient diagnosed with Syphilis–removes needed screen for Syphilis (see above)
 - Result:
 - Denominator: Two key STI incidents
- Numerator: One complete screening (prior to triggering diagnoses but within timeframe)
 - Example of Patient with Multiple Diagnoses of Multiple STIs
 - June 15, 2005: Patient diagnosed with HIV/AIDS
 - August 1, 2013: Patient screened for Chlamydia and Gonorrhea
 - August 8, 2013: Patient diagnosed with Chlamydia and Gonorrhea (Incident #1–one screen needed: Syphilis (HIV/AIDS not needed since prior diagnosis)
 - August 8, 2013: Patient screened for HIV/AIDS and Syphilis - since only the Syphilis screen is needed, the HIV/AIDS screen is not counted at all
 - December 1, 2013: Patient screened for Chlamydia
 - December 8, 2013: Patient diagnosed with Chlamydia (Incident #2)– two screens needed: Gonorrhea and Syphilis
 - December 10, 2013: Patient screened for Syphilis
 - Result: Denominator:

- Two key STI incidents
- Numerator: One complete screening

2.6.2.5 Patient Lists

- List of Active Clinical patients diagnosed with an STI who were screened for other key STIs.
- List of Active Clinical patients diagnosed with an STI who were not screened for other key STIs.

2.7 Other Clinical Measures Group

2.7.1 Asthma

No changes from Version 14.0

2.7.1.1 Owner: Contact

Chris Lamer, PharmD

2.7.1.2 National Reporting

Not reported nationally

2.7.1.3 Denominators

1. Active Clinical patients, broken down by age groups: under 15 years, 15 through 34 years, 35 through 64 years, 65 years and older.

2.7.1.4 Numerators

1. Patients who have had two asthma-related visits during the report period or with persistent asthma.

2.7.1.5 Definitions

Asthma Visits

Asthma visits are defined as diagnosis (POV) ICD-9: 493.*; ICD-10: J45.20 through J45.52.

Persistent Asthma

Any of the following:

- Problem List entry where the status is not Inactive or Deleted for ICD-9: 493.*; ICD-10: J45.20 through J45.52 with Severity of 2, 3 or 4 at any time before the end of the report period

- Most recent visit-related asthma entry (i.e., V Asthma) with Severity of 2, 3, or 4 documented any time before the end of the report period.

2.7.1.6 Patient Lists

List of Active Clinical patients diagnosed with asthma.

2.7.2 Medication Therapy for Persons with Asthma

Changes from CRS v14.0 are noted

2.7.2.1 Owner: Contact

Chris Lamer, PharmD

2.7.2.2 Denominators

1. Active Clinical patients ages 5 through 50 years with persistent asthma within the year prior to the beginning of the Report Period and during the Report Period, without a documented history of emphysema or chronic obstructive pulmonary disease (COPD).

2.7.2.3 Numerators

1. Suboptimal Control: Patients who were dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period during the Report Period.
2. Absence of Controller Therapy: Patients who were dispensed more than three canisters of short acting Beta-2 agonist inhalers over a 90-day period and who did not receive controller therapy during the same 90-day period.

2.7.2.4 Definitions

Denominator Exclusions

Patients diagnosed with emphysema or COPD at any time on or before the end of the report period are excluded from the denominator.

Emphysema

Any visit at any time on or before the end of the report period with POV ICD-9: 492.*, 506.4, 518.1, 518.2; ICD-10: J43.*, J68.4, J68.8, J98.2, J98.3.

COPD

Any visit at any time on or before the end of the report period with POV ICD-9: 491.20, 491.21, 491.22, 493.2*, 496, 506.4; ICD-10: J44.*, J68.4, J68.8.

Persistent Asthma

Meeting any of the following four criteria within the year prior to the beginning of the report period and during the report period:

- At least one visit to Clinic code 30 (Emergency Medicine) with primary diagnosis ICD-9: 493.*; ICD-10: J45.20 through J45.52 (asthma)
- At least one acute inpatient discharge with primary diagnosis ICD-9: 493.*; ICD-10: J45.20 through J45.52 Acute inpatient discharge defined as Service Category of H
- At least four outpatient visits, defined as Service Categories A, S, or O, with primary or secondary diagnosis of ICD-9: 493.*; ICD-10: J45.20 through J45.52 and at least two asthma medication dispensing events (see definition that follows)
- At least four asthma medication dispensing events (see definition that follows). If the sole medication was leukotriene modifiers, then must also have at least one visit with POV ICD-9: 493.*; ICD-10: J45.20 through J45.52 in the same year as the leukotriene modifier (i.e. during the report period or within the year prior to the beginning of the report period.), or

Meeting any of the following criteria:

- Problem List entry where the status is not Inactive or Deleted for ICD-9: 493.*; ICD-10: J45.20 through J45.52 with Severity of 2, 3 or 4 at any time before the end of the report period
- Most recent visit-related asthma entry (i.e., V Asthma) with Severity of 2, 3, or 4 documented any time before the end of the report period.

Dispensing Event

One prescription of an amount lasting 30 days or less. For prescriptions longer than 30 days, divide the days' supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events:

$$100 \div 30 = 3.33, \text{ rounded down to } 3$$

Also, two different prescriptions dispensed on the same day are counted as two different dispensing events. Inhalers should also be counted as one dispensing event.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

- Asthma medication codes for denominator defined with medication taxonomies:
 - BGP HEDIS ASTHMA MEDS
 - BGP HEDIS ASTHMA LEUK MEDS
 - BGP HEDIS ASTHMA INHALED MEDS
 - Medications are: Antiasthmatic Combinations (Dyphylline-Guaifenesin, Guaifenesin-Theophylline), Antibody Inhibitor (Omalizumab), Inhaled Steroid Combinations (Budesonide-Formoterol, Fluticasone-Salmeterol, Formoterol-Mometasone), Inhaled Corticosteroids (Belclomethasone, Budesonide, Ciclesonide CFC Free, Flunisolide, Fluticasone CFC Free, Mometasone, Triamcinolone), Lekotriene Modifiers (Montelukast, Zafirlukast, Zileuton), Long-Acting, Inhaled Beta-2 Agonists (Aformoterol, Formoterol, Salmeterol), Mast Cell Stabilizers (Cromolyn), Methylxanthines (Aminophylline, Dyphylline, Theophylline), Short-Acting, Inhaled Beta-2 Agonists (Albuterol, Levalbuterol, Pirbuterol). Medications must not have a comment of RETURNED TO STOCK.

Numerator Inclusion

To be included in the Suboptimal Control and Absence of Controller Therapy numerators, patient must have one or more non-discontinued prescriptions for short acting Beta-2 Agonist inhalers totaling at least four canisters in one 90 day period. Short acting Beta-2 Agonist inhaler medications defined with medication taxonomy BGP PQA SABA MEDS. (Medications are: Albuterol, Levalbuterol, Pirbuterol). Medications must not have a comment of RETURNED TO STOCK.

Controller Therapy

At least one non-discontinued prescription of controller therapy medications during the same 90-day period.

Controller Therapy Medications

Controller therapy medications defined with medication taxonomy BGP PQA CONTROLLER MEDS. (Medications are: Beclomethasone, Budesonide, Budesonide-Formoterol, Ciclesonide, Cromolyn, Flunisolide, Fluticasone,

Fluticasone-Salmeterol, Formoterol, Mometasone, Mometasone-Formoterol, Montelukast, Nedocromil, Salmeterol, Theophylline, Triamcinolone, Zafirlukast, Zileuton). Medications must not have a comment of RETURNED TO STOCK.

2.7.2.5 Patient Lists

- List of Active Clinical patients ages 5 through 50 years with asthma who were dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period.
- List of Active Clinical patients' ages 5 through 50 years with asthma who were not dispensed more than three canisters of a short-acting Beta-2 agonist inhaler during the same 90-day period.
- List of Active Clinical patients ages 5 through 50 years with asthma who did not receive controller therapy.

2.7.3 Proportion of Days Covered by Medication Therapy

Changes from CRS v14.0 are noted

2.7.3.1 Owner: Contact

Chris Lamer, PharmD

2.7.3.2 Denominators

1. Active Clinical patients ages 18 and older who had two or more prescriptions for beta-blockers during the Report Period.
2. Active Clinical patients ages 18 and older who had two or more prescriptions for RAS Antagonists and no documented history of ESRD during the Report Period.
3. Active Clinical patients ages 18 and older who had two or more prescriptions for calcium channel blockers (CCB) during the Report Period.
4. Active Clinical patients ages 18 and older who had two or more prescriptions for biguanides during the Report Period.
5. Active Clinical patients ages 18 and older who had two or more prescriptions for sulfonylureas during the Report Period.
6. Active Clinical patients ages 18 and older who had two or more prescriptions for thiazolidinediones during the Report Period.
7. Active Clinical patients ages 18 and older who had two or more prescriptions for DiPeptidyl Peptidase (DPP)-IV Inhibitors during the Report Period.
8. Active Clinical patients ages 18 and older who had two or more prescriptions for Diabetes All Class medications and no documented history of ESRD during the Report Period.

9. Active Clinical patients ages 18 and older who had two or more prescriptions for statins during the Report Period.
10. Active Clinical patients ages 18 and older who had two or more prescriptions for non-warfarin oral anticoagulants during the Report Period.
11. Active Clinical patients ages 18 and older who had two or more prescriptions for antiretroviral agents during the Report Period.

2.7.3.3 Numerators

1. Patients with proportion of days covered (PDC) 80% or more during the Report Period.
2. Patients with a gap in medication therapy 30 days or longer.
3. For use with denominator #11: Patients with proportion of days covered (PDC) 90% or higher during the Report Period.

2.7.3.4 Definitions

Denominator Inclusion

Patients must have at least two prescriptions for that particular type of medication on two unique dates of service at any time during the Report Period. Medications must not have a comment of RETURNED TO STOCK.

For the Non-warfarin anticoagulants measures, the two unique dates of service must be at least 180 days apart and the patient must have received greater than 60 days' supply of the medication during the Report Period. Patients who received one or more prescriptions for warfarin, low molecular weight heparin (LMWH) or heparin (defined by medication taxonomy BGP PQA WARFARIN) will be excluded from the denominator.

Index Prescription Start Date

The date when the medication was first dispensed within the Report Period. For all measures except Non-warfarin anticoagulants, this date must be greater than 90 days from the end of the Report Period to be counted in the denominator.

Medications

Medications are defined with the following taxonomies: BGP PQA BETA BLOCKER MEDS, BGP PQA RASA MEDS, BGP PQA CCB MEDS, BGP PQA BIGUANIDE MEDS, BGP PQA SULFONYLUREA MEDS, BGP PQA THIAZOLIDINEDIONE MEDS, BGP PQA DPP IV MEDS, BGP PQA DIABETES ALL CLASS, BGP PQA STATIN MEDS, BGP PQA NON-WARFARIN ANTICOAG, BGP PQA WARFARIN, BGP PQA ANTIRETROVIRAL MEDS.

ESRD

Any of the following ever:

- CPT 36145 (old code), 36147, 36800, 36810, 36815, 36818, 36819, 36820, 36821, 36831 through 36833, 50300, 50320, 50340, 50360, 50365, 50370, 50380, 90918 through 90925 (old codes), 90935, 90937, 90939 (old code), 90940, 90945, 90947, 90951 through 90970, 90989, 90993, 90997, 90999, 99512, G0257, G0308 through G0327 (old codes), G0392 (old code), G0393 (old code), S2065, S9339
- POV ICD-9: 585.6, V45.1 (old code), V45.11 V45.12, V56.*; ICD-10: N18.6, Z48.22, Z49.*, Z91.15, Z94.0, Z99.2
- Procedure ICD-9: 38.95, 39.27, 39.42, 39.43, 39.53, 39.93 through 39.95, 54.98, 55.6*

Each PDC Numerator

The proportion of days covered equals the number of days the patient was covered by at least one drug in the class divided by the number of days in the patient's measurement period.

The patient's measurement period is defined as the number of days between the Index Prescription Start Date and the end of the Report Period. When calculating the number of days the patient was covered by at least one drug in the class, if prescriptions for the same drug overlap, the prescription start date for the second prescription will be adjusted to be the day after the previous fill has ended.

Note: If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

Example of Proportion of Days Covered

Report Period: January 1 through December 31, 2014

- First prescription:
 - Index Rx Start Date: March 1, 2014
 - Days' Supply: 90
 - Prescription covers patient through May 29, 2014
- Second prescription:

- Rx Date: May 26, 2014
- Days' Supply: 90
- Prescription covers patient through August 27, 2014
- Third prescription:
 - Rx Date: September 11, 2014
 - Days' Supply: 180
 - Gap:
September 11, 2014 – August 27, 2014 = 15 days
 - Prescription covers patient through March 8, 2015

Patient's measurement period:

March 1, 2014 through December 31, 2014 = 306 days

Days patient was covered:

*March 1, 2014 through August 27, 2014 +
September 11, 2014 through December 31, 2014 = 292 days*

PDC:

$$292 \div 306 = 95\%$$

Each Gap Numerator

CRS will calculate whether a gap in medication therapy of 30 or more days has occurred between each consecutive medication dispensing event during the Report Period. A gap is calculated as the days not covered by the days' supply between consecutive medication fills.

Example of Medication Gap 30 Days or Longer:

Report Period: January 1 through December 31, 2014

- First prescription:
 - Rx Date: April 1, 2014
 - Days' Supply: 30
 - Prescription covers patient through April 30, 2014
- Second prescription:
 - Rx Date: July 1, 2014
 - Days' Supply: 90
 - Gap #1:
July 1, 2014 – April 30, 2014 = 61 days
 - Prescription covers patient through September 28, 2014

- Third prescription:
 - Rx Date: October 1, 2014
 - Days' Supply: 90
 - Gap #2:
October 1, 2014 – September 28 – 2014 = 2 days
- Prescription covers patient through December 29, 2014

Gap #1 ≥ 30 days

Patient will be included in the numerator for that medication.

2.7.3.5 Patient Lists

- List of Active Clinical patients 18 and older whose proportion of days covered for beta-blockers is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for beta-blockers is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their beta-blocker medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for RAS Antagonists is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for RAS Antagonists is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their RAS Antagonist medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for calcium channel blockers is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for calcium channel blockers is less than 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their calcium channel blocker medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for biguanides is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for biguanides is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their biguanide medication therapy.

- List of Active Clinical patients 18 and older whose proportion of days covered for sulfonylureas is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for sulfonylureas is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their sulfonylurea medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for thiazolidinediones is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for thiazolidinediones is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their thiazolidinedione medication therapy.
- List of Active Clinical patients greater than or equal to (\geq) 18 whose proportion of days covered for DPP-IV is greater than or equal to (\geq) 80%.
- List of Active Clinical patients greater than or equal to (\geq) 18 whose proportion of days covered for DPP-IV is less than (<) 80%.
- List of Active Clinical patients greater than or equal to (\geq) 18 who had a gap greater than or equal to (\geq) 30 days in their DPP-IV medication therapy.
- List of Active Clinical patients greater than or equal to (\geq) 18 whose proportion of days covered for Diabetes All Class is greater than or equal to (\geq) 80%.
- List of Active Clinical patients greater than or equal to (\geq) 18 whose proportion of days covered for Diabetes All Class is less than (<) 80%.
- List of Active Clinical patients greater than or equal to (\geq) 18 who had a gap greater than or equal to (\geq) 30 days in their Diabetes All Class medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for statins is 80% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for statins is less than (<) 80%.
- List of Active Clinical patients 18 and older who had a gap of 30 days or more in their statin medication therapy.
- List of Active Clinical patients 18 and older whose proportion of days covered for antiretroviral agents is 90% or more.
- List of Active Clinical patients 18 and older whose proportion of days covered for antiretroviral agents is less than (<) 90%.

2.7.4 Primary Medication Non-adherence

New topic for Version 14.0

2.7.4.1 Owner and Contact

Chris Lamer, PharmD

2.7.4.2 National Reporting

Not reported nationally

2.7.4.3 Denominators

1. Number of e-prescriptions for newly initiated drug therapy for chronic medications for Active Clinical patients ages 18 and older.

2.7.4.4 Numerators

1. Number of medications returned to stock within 30 days.

2.7.4.5 Definitions

Denominator Inclusion

To be included in the denominator, the e-prescription must be for a chronic medication during the Report Period.

Denominator Exclusions

- Any prescription where there is a prescription dispensing record in the preceding 180 days for the same drug.
- Any duplicate medications, defined as any medication that has been e-prescribed twice in a 30-day period with no prescription fill in between the e-prescriptions.
- Any prescription sent to an outside pharmacy, as it is not possible to know if the medication was returned to stock.

Chronic Medications

Defined by the following taxonomies: BGP PQA ASTHMA INHALED STEROIDS, BGP PQA COPD, BGP PQA DIABETES ALL CLASS, BGP PQA RASA MEDS, BGP PQA STATIN MEDS

Numerator Inclusion

To be included in the numerator, the e-prescription medication must have a comment of RETURNED TO STOCK within 30 days of the prescription date (i.e., visit date).

2.7.4.6 Patient List

List of Active Clinical patients ages 18 and older with an e-prescription for a chronic medication that has been returned to stock.

2.7.5 Medication Therapy Management Services

No changes from Version 14.0

2.7.5.1 Owner: Contact

Chris Lamer, PharmD

2.7.5.2 National Reporting

Not reported nationally

2.7.5.3 Denominators

1. Active Clinical patients 18 and older with Medications dispensed at their facility during the Report Period.

2.7.5.4 Numerators

1. Patients who received medication therapy management (MTM) during the Report Period.

2.7.5.5 Definitions**Patients receiving medications**

Identified by any entry in the VMed file for your facility.

Medication Therapy Management

Medication Therapy Management (MTM) defined as:

- CPT 99605 through 99607
- Clinic codes: D1, D2, D5

2.7.5.6 Patient List

List of patients 18 and older receiving medications with medication therapy management, if any.

2.7.6 Public Health Nursing

No changes from Version 14.0

2.7.6.1 Owner: Contact

Tina Tah, RN, BSN, MBA

2.7.6.2 Denominators

1. No numerator; count of visits only. Number of visits to User Population patients by PHNs in any setting, including Home.
 - A. Number of visits to patients, ages 0 through 28 days (Neonate) in any setting.
 - B. Number of visits to patients, ages 29 days through 12 months (infants) in any setting.
 - C. Number of visits to patients, ages 1 through 64 years in any setting.
 - D. Number of visits to patients ages 65 and older (Elders) in any setting.
2. No numerator; count of visits only. Number of visits to User Population patients by PHNs in Home setting.
 - A. Number of Home visits to patients, ages 0 through 28 days (Neonate).
 - B. Number of Home visits to patients, ages 29 days through 12 months (infants).
 - C. Number of Home visits to patients, ages, 1 through 64 years.
 - D. Number of visits to patients, ages 65 and older (Elders) in any setting.
 - E. Number of PHN driver/interpreter (Provider code 91) visits in a HOME setting.

2.7.6.3 Numerator

None

2.7.6.4 Definitions**PHN Visit-Any Setting**

Any visit with primary or secondary Provider codes 13 or 91.

PHN Visit-Home

Any visit with one of the following:

- Clinic code 11 and a primary or secondary provider code of 13 or 91, or
- Location Home (as defined in Site Parameters) and a primary or secondary Provider code 13 or 91

2.7.6.5 Patient Lists

- List of patients with a PHN visit in any setting, including Home.
- List of patients with a PHN visit in Home setting

2.7.7 Use of High Risk Medications in the Elderly

No changes from Version 14.0

2.7.7.1 Owner and Contact

Dr. Bruce Finke

2.7.7.2 National Reporting

Not reported nationally

2.7.7.3 Denominators

1. Active Clinical patients ages 65 years and older, broken down by gender and age groups (65 years and older, 65 through 74 years, 75 through 84 years, and 85 years and older).

2.7.7.4 Numerators

1. Patients who received at least one high risk medication for the elderly during the report period.
2. Patients who received at least two different high risk medications for the elderly during the report period.

2.7.7.5 Definitions

Note: The logic below is a deviation from the logic written by PQA, as PQA requires at least two prescriptions fills for the same high-risk medication during the Report Period, while the logic below only requires one prescription fill.

- For nitrofurantoin, a patient must have received a cumulative day's supply for any nitrofurantoin product greater than 90 days during the Report Period.
- For nonbenzodiazepine hypnotics (BGP HEDIS NONBENZODIAZ MEDS), a patient must have received a cumulative day's supply for any nonbenzodiazepine hypnotic products greater than 90 days during the Report Period.

High Risk Medications for the Elderly

Defined with medication taxonomies:

- BGP HEDIS ANTICHOLINERGIC MEDS
 - First-generation antihistamines (Includes combination drugs) (Brompheniramine, Carbinoxamine, Chlorpheniramine, Clemastine, Cyproheptadine, Dexbrompheniramine, Dexchlorpheniramine, Diphenhydramine (oral), Doxylamine, Hydroxyzine, Promethazine, Triprolidine); Antiparkinson agents (Benztropine (oral), Trihexyphenidyl)

- BGP HEDIS ANTITHROMBOTIC MEDS
 - (Ticlopidine, Dipyridamole, oral short-acting)
- BGP HEDIS ANTI-INFECTIVE MEDS
 - (Nitrofurantoin)
- BGP HEDIS CARDIOVASCULAR MEDS
 - Alpha blockers, central (Guanabenz, Guanfacine, Methyldopa, Reserpine); Cardiovascular, other (Disopyramide, Digoxin, Nifedipine, immediate release)
- BGP HEDIS CENTRAL NERVOUS MEDS
 - Tertiary TCAs (Includes combination drugs) (Amitriptyline, Clomipramine, Doxepin, Imipramine, Trimipramine); Antipsychotics, first-generation (conventional) (Thioridazine, Mesoridazine); Barbiturates (Amobarbital, Butabarbital, Butalbital, Mephobarbital, Pentobarbital, Phenobarbital, Secobarbital); Central Nervous System, other (Chloral hydrate, Meproamate); Nonbenzodiazepine hypnotics (Eszopiclone, Zolpidem, Zaleplon); Vasodilators (Ergoloid mesylates, Isoxsuprine)
- BGP HEDIS ENDOCRINE MEDS
 - Endocrine (Desiccated thyroid, Estrogens with or without progesterone (oral and topical patch products only), Megestrol); Sulfonylureas, long-duration (Chlorpropamide, Glyburide)
- BGP HEDIS GASTROINTESTINAL MED
 - (Trimethobenzamide)
- BGP HEDIS PAIN MEDS
 - Other (Meperidine, Pentazocine); Non-COX-selective NSAIDs (Indomethacin, Ketorolac)
- BGP HEDIS SKL MUSCLE RELAX MED
 - (Includes combination drugs) (Carisoprodol, Chlorzoxazone, Cyclobenzaprine, Metaxalone, Methocarbamol, Orphenadrine)

Note: For each medication, the days' supply must be > 0. If a medication was started and then discontinued, CRS will recalculate the number of Days Prescribed by subtracting the prescription date (i.e., visit date) from the V Medication Discontinued Date. For example:

- Rx Date: November 15, 2014
- Discontinued Date: November 19, 2014

Recalculated number of Days Prescribed:
November 19, 2014 – November 15, 2014 = 4

Medications must not have a comment of RETURNED TO STOCK.

2.7.7.6 Patient Lists

- List of Active Clinical patients 65 years of age and older with at least one high-risk medication.
- List of Active Clinical patients 65 years of age and older without at least one high-risk medication.

List of Acronyms

ABG	Arterial Blood Gas
ACEI	Angiotensin Converting Enzyme Inhibitors
ADR	Adverse Drug Reactions
AI/AN	American Indian/Alaska Native
AMA	Against Medical Advice
AMI	Acute Myocardial Infarction
APT	Acute Phase Treatment
ARB	Angiotensin Receptor Blocker
ART	Patient Allergies File
ASA	Aspirin (acetylsalicylic acid)
ASBI	Alcohol Screening and Brief Intervention
BH	Behavioral Health
BHS	Behavioral Health System
BMI	Body Mass Index
BNI	Brief Negotiated Interview
BP	Blood Pressure
CABG	Coronary Artery Bypass Graft
CBC	Complete Blood Count
CCB	Calcium Channel Blocker

CHR	Community Health Representative
CHS	Contract Health Service
CK	Creatine Kinase
CONPT	Continuation Phase Treatment
COPD	Chronic Obstructive Pulmonary Disease
CPT	Current Procedural Terminology
CRC	Colorectal Cancer
CRS	Clinical Reporting System
CVD	Cardiovascular Disease
CVX	Vaccine Code
DCBE	Double Contrast Barium Enema
DM	Diabetes Mellitus
DNKA	Did Not Keep Appointment
DPST	Demo/Test Patient Search Template
ER	Emergency Room
ESRD	End Stage Renal Disease
ETDRS	Early Treatment Diabetic Retinopathy Study
ETS	Environmental Tobacco Smoke
FAS	Fetal Alcohol Syndrome
FIT	Fecal Immunochemical Test
FOBT	Fecal Occult Blood Test

FY	Fiscal Year
GFR	Glomerular Filtration Rate
GPRA	Government Performance and Results Act of 1993
HIV	Human Immunodeficiency Virus
ICD	International Classification of Diseases
IFC	Infant Feeding Choice
IHD	Ischemic Heart Disease
IHS	Indian Health Service
IMM	Immunization
IPV/DV	Intimate Partner Violence/Domestic Violence
IVD	Ischemic Vascular Disease
LABA	Long-Acting Beta2 Agonist
LDL	Low-Density Lipoprotein
LOINC	Logical Observations Identifiers, Names, Codes
LVAD	Left Ventricular Assistive Device
LVS	Left Ventricular Systolic
MAOI	Monoamine Oxidase Inhibitors
MTM	Medication Therapy Management
NMI	Not Medically Indicated
OA	Osteoarthritis
OMB	Office of Management and Budget

OPC	Optimal Practitioner Contact
PCC	Patient Care Component
PCI	Percutaneous Coronary Interventions
PDC	Proportion of Days Covered
PEPC	Patient and Family Education Protocols and Codes
POV	Purpose of Visit
RA	Rheumatoid Arthritis
RAS	Renin Angiotensin System
RCIS	Referred Care Information System
RPMS	Resource and Patient Management System
SNRI	Serotonin-Norepinephrine Reuptake Inhibitors
SSRI	Selective Serotonin Reuptake Inhibitors
STI	Sexually Transmitted Infection
TCA	Tricyclic Antidepressants
TIA	Transient Ischemic Attack
ULN	Upper Limit of Normal
URI	Upper Respiratory Infection

Contact Information

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