

DIABETIC RETINOPATHY MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN DIABETIC RETINOPATHY MEASURES GROUP:

- #1 Diabetes: Hemoglobin A1c Poor Control
- #18 Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy
- #19 Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care
- #117 Diabetes: Eye Exam
- #130 Documentation of Current Medications in the Medical Record
- #226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
- #317 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9671: I intend to report the Diabetic Retinopathy Measures Group

- Report the patient sample method:
20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).
- Patient sample criteria for the Diabetic Retinopathy Measures Group are patients aged 18 through 75 years with a specific diagnosis of diabetic retinopathy accompanied by a specific patient encounter:

The following diagnosis codes indicating diabetic retinopathy:

ICD-10-CM: E10.311, E10.319, E10.321, E10.329, E10.331, E10.339, E10.341, E10.349, E10.351, E10.359, E11.311, E11.319, E11.321, E11.329, E11.331, E11.339, E11.341, E11.349, E11.351, E11.359, E13.311, E13.319, E13.321, E13.329, E13.331, E13.339, E13.341, E13.349, E13.351, E13.359

Accompanied by:

One of the following patient encounter codes: 92002, 92004, 92012, 92014, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

- To satisfactorily report the Diabetic Retinopathy Measures Group requires reporting a numerator option on **all applicable** measures, for each patient within the eligible professional's patient sample, a minimum of once during the reporting period.
- Measure #19 does not need to be reported (is not applicable) when the reporting provider manages the patient's diabetes care.
- Measure #317 does not need to be reported (is not applicable) if the patient has an active diagnosis of hypertension.
- When reporting measure #317, eligible professionals must perform the blood pressure screening at the time of a qualifying visit and may not obtain measurements from external sources.

- Instructions for qualifying numerator option reporting for each of the measures within the Diabetic Retinopathy Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

Composite QDC G9672: All quality actions for the applicable measures in the Diabetic Retinopathy Measures Group have been performed for this patient

- This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.
- The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

Table 16 - QDC Options

Measure	#1*	#18	#19	#117	#130	#226	#317
QDC options for acceptable use of the composite QDC	3044F or 3045F	2021F	5010F and G8397	2022F or 2024F or 2026F or 3072F	G8427	4004F or 1036F	G8783 or G8950

*Indicates an inverse measure

- Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #1, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.

◆ Measure #1 (NQF 0059): Diabetes: Hemoglobin A1c Poor Control -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:

Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period

NUMERATOR:

Patients whose most recent HbA1c level (performed during the measurement period) is > 9.0%

Numerator Instructions:

INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Patient is numerator compliant if most recent HbA1c level >9% or is missing a result or if an HbA1c test was not done during the measurement year. Ranges and thresholds do not meet criteria for this indicator. A distinct numeric result is required for numerator compliance.

Numerator Options:

Performance Met: Most recent hemoglobin A1c level > 9.0% **(3046F)**

OR

Performance Met: Hemoglobin A1c level was not performed during the measurement period (12 months) **(3046F with 8P)**

OR

Performance Not Met: Most recent hemoglobin A1c (HbA1c) level < 7.0% **(3044F)**

OR

Performance Not Met: Most recent hemoglobin A1c (HbA1c) level 7.0 to 9.0% **(3045F)**

*** Measure #18 (NQF 0088): Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy -- National Quality Strategy Domain: Effective Clinical**

DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months

NUMERATOR:

Patients who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy AND the presence or absence of macular edema during one or more office visits within 12 months

Definitions:

Documentation - The medical record must include: documentation of the level of severity of retinopathy AND documentation of whether macular edema was present or absent.

Macular Edema - Acceptable synonyms for macular edema include: macular thickening, intraretinal thickening, serous detachment of the retina, or pigment epithelial detachment.

Severity of Retinopathy - Mild nonproliferative, moderate nonproliferative, severe nonproliferative, very severe nonproliferative, proliferative.

Numerator Options:

Performance Met:

Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy **(2021F)**

OR

Medical Performance Exclusion:

Documentation of medical reason(s) for not performing a dilated macular or fundus examination **(2021F with 1P)**

OR

Patient Performance Exclusion:

Documentation of patient reason(s) for not performing a dilated macular or fundus examination **(2021F with 2P)**

OR

Performance Not Met:

Dilated macular or fundus exam was not performed, reason not otherwise specified **(2021F with 8P)**

***Measure #19 (NQF 0089): Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care -- National Quality Strategy Domain: Communication and Care Coordination**

DESCRIPTION:

Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months

NUMERATOR:

Patients with documentation, at least once within 12 months, of the findings of the dilated macular or fundus exam via communication to the physician who manages the patient's diabetic care

Definitions:

Communication – May include documentation in the medical record indicating that the findings of the dilated macular or fundus exam were communicated (e.g., verbally, by letter) with the clinician managing the patient's diabetic care OR a copy of a letter in the medical record to the clinician managing the patient's diabetic care outlining the findings of the dilated macular or fundus exam.

Findings – Includes level of severity of retinopathy (e.g., mild nonproliferative, moderate nonproliferative, severe nonproliferative, very severe nonproliferative, proliferative) AND the presence or absence of macular edema.

Numerator Options:

Performance Met:

Findings of dilated macular or fundus exam communicated to the physician or other qualified health care professional managing the diabetes care **(5010F)**

AND

Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy **(G8397)**

OR

Medical Performance Exclusion:

Documentation of medical reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the ongoing care of the patient with diabetes **(5010F with 1P)**

OR

Patient Performance Exclusion:

Documentation of patient reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the ongoing care of the patient with diabetes **(5010F with 2P)**

AND

Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy **(G8397)**

OR

Other Performance Exclusion:

Dilated macular or fundus exam not performed **(G8398)**

OR

Performance Not Met:

Findings of dilated macular or fundus exam were not communicated to the physician managing the diabetes care, reason not otherwise specified
(5010F with 8P)

AND

Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy **(G8397)**

◆ Measure #117 (NQF 0055): Diabetes: Eye Exam -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:

Percentage of patients 18-75 years of age with diabetes who had a retinal or dilated eye exam by an eye care professional during the measurement period or a negative retinal or dilated eye exam (no evidence of retinopathy) in the 12 months prior to the measurement period

NUMERATOR:

Patients with an eye screening for diabetic retinal disease. This includes diabetics who had one of the following: A retinal or dilated eye exam by an eye care professional in the measurement period or a negative retinal or dilated exam (no evidence of retinopathy) by an eye care professional in the year prior to the measurement period

NUMERATOR NOTE: *The eye exam must be performed or reviewed by an ophthalmologist or optometrist. Alternatively, results may be read by a qualified reading center that operates under the direction of a medical director who is a retinal specialist.*

Numerator Options:

Performance Met:

Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed **(2022F)**

OR

Performance Met:

Seven standard field stereoscopic photos with interpretation by an ophthalmologist or optometrist documented and reviewed **(2024F)**

OR

Performance Met:

Eye imaging validated to match diagnosis from seven standard field stereoscopic photos results documented and reviewed **(2026F)**

OR

Performance Met:

Low risk for retinopathy (no evidence of retinopathy in the prior year) **(3072F)***

****NOTE:*** *This code can only be used if the encounter was during the measurement period because it indicates that the patient had “no evidence of retinopathy in the prior year”. This code definition indicates results were negative, therefore a result is not required.*

OR

Performance Not Met:

Dilated eye exam was not performed, reason not otherwise specified **(2022F or 2024F or 2026F with 8P)**

♣ **Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety**

DESCRIPTION:

Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications' name, dosage, frequency and route of administration

NUMERATOR:

Eligible professional attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications' name, dosages, frequency and route of administration

Definitions:

Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.

Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).

Not Eligible - A patient is not eligible if the following reason is documented:

- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

NUMERATOR NOTE: *The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.*

Numerator Options:

<u>Performance Met:</u>	Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient's current medications (G8427)
<u>OR</u>	
<u>Other Performance Exclusion:</u>	Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)
<u>OR</u>	
<u>Performance Not Met:</u>	Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)

▲ Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:

Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months **AND** who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:

Patients who were screened for tobacco use at least once within 24 months **AND** who received tobacco cessation intervention if identified as a tobacco user

Definitions:

Tobacco Use – Includes use of any type of tobacco.

Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: *In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report **4004F with 8P**.*

Numerator Options:

<u>Performance Met:</u>	Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
<u>OR</u>	
<u>Performance Met:</u>	Current tobacco non-user (1036F)
<u>OR</u>	
<u>Medical Performance Exclusion:</u>	Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
<u>OR</u>	
<u>Performance Not Met:</u>	Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)

♣ **Measure #317: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented -- National Quality Strategy Domain: Community/Population Health**

DESCRIPTION:

Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated

NUMERATOR:

Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive

Definitions:

Blood Pressure (BP) Classification – BP is defined by four (4) BP reading classifications: Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings.

Recommended BP Follow-Up – *The Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)* recommends BP screening intervals, lifestyle modifications and interventions based on the current BP reading as listed in the “Recommended Blood Pressure Follow-Up Interventions” listed below.

Recommended Lifestyle Modifications – The JNC 7 report outlines lifestyle modifications which must include one or more of the following as indicated:

- Weight Reduction
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan
- Dietary Sodium Restriction
- Increased Physical Activity
- Moderation in alcohol (ETOH) Consumption

Second Hypertensive Reading:

Requires a BP reading of Systolic BP \geq 140 mmHg OR Diastolic BP \geq 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP \geq 140 mmHg OR Diastolic BP \geq 90 mmHg

Second Hypertensive BP Reading Interventions:

The JNC 7 report outlines BP follow-up interventions for a second hypertensive BP reading and **must** include one or more of the following as indicated:

- Anti-Hypertensive Pharmacologic Therapy
- Laboratory Tests
- Electrocardiogram (ECG)

Recommended Blood Pressure Follow-up Interventions:

- **Normal BP:** No follow-up required for Systolic BP <120 mmHg AND Diastolic BP < 80 mmHg
- **Pre-Hypertensive BP:** Follow-up with rescreen every year with systolic BP of 120 – 139 mmHg OR diastolic BP of 80 – 89 mmHg AND recommended lifestyle modifications OR referral to Alternate/Primary Care Provider
- **First Hypertensive BP Reading:** Patients with one elevated reading of systolic BP \geq 140 mmHg OR diastolic BP \geq 90 mmHg:
 - Follow-up with rescreen > 1 day and < 4 weeks AND recommend lifestyle modifications OR referral to Alternative/Primary Care Provider
- **Second Hypertensive BP Reading:** Patients with second elevated reading of systolic BP \geq 140 mmHg OR diastolic BP \geq 90 mmHg:
 - Follow-up with Recommended lifestyle modifications AND one or more of the Second Hypertensive Reading Interventions OR referral to Alternative/Primary Care Provider

Table 17 - Recommended Blood Pressure Follow-Up

BP Classification	Systolic BP mmHg	Diastolic BP mmHg	Recommended Follow-Up (<i>must include all indicated actions for each BP Classification</i>)
Normal BP Reading	< 120	AND < 80	<ul style="list-style-type: none"> No Follow-Up required
Pre-Hypertensive BP Reading	≥ 120 AND ≤ 139	OR ≥ 80 AND ≤ 89	<ul style="list-style-type: none"> Rescreen BP within a minimum of 1 year AND Recommend Lifestyle Modifications <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Referral to Alternative/Primary Care Provider
First Hypertensive BP Reading	≥ 140	OR ≥ 90	<ul style="list-style-type: none"> Rescreen BP within a minimum of > 1 day and < 4 weeks AND Recommend Lifestyle Modifications <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Referral to Alternative/Primary Care Provider
Second Hypertensive BP Reading	≥ 140	OR ≥ 90	<ul style="list-style-type: none"> Recommend Lifestyle Modifications AND 1 or more of the Second Hypertensive Reading Interventions (see definitions) <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> Referral to Alternative/Primary Care Provider

Not Eligible – A patient is not eligible if one or more of the following reason(s) are documented:

- Patient has an active diagnosis of hypertension
- Patient refuses to participate (either BP measurement or follow-up)
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status. This may include but is not limited to severely elevated BP when immediate medical treatment is indicated

NUMERATOR NOTE: Although the recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, BP screening and follow-up must be performed once per measurement period. For patients with Normal blood pressure a follow-up plan is not required.

Numerator Options:

Performance Met:

Normal blood pressure reading documented, follow-up not required (**G8783**)

OR

Performance Met:

Pre-Hypertensive or Hypertensive blood pressure reading documented, AND the indicated follow-up is documented (**G8950**)

OR

Other Performance Exclusion:

Patient not eligible (e.g. documentation the patient is not eligible due to active diagnosis of hypertension, patient refuses, urgent or emergent situation, documentation the patient is not eligible (**G8784**))

OR

Performance Not Met:

Blood pressure reading not documented, reason not given (**G8785**)

OR

Performance Not Met:

Pre-Hypertensive or Hypertensive blood pressure reading documented, indicated follow-up not documented, reason not given **(G8952)**

DIABETIC RETINOPATHY MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #1 – DIABETES: HEMOGLOBIN A1C POOR CONTROL

RATIONALE:

Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes may cause life-threatening, life-ending or life-altering complications, including poor circulation, nerve damage or neuropathy in the feet and eventual amputation. Nearly 60-70 percent of diabetics suffer from mild or severe nervous system damage (American Diabetes Association 2009).

Randomized clinical trials have demonstrated that improved glycemic control, as evidenced by reduced levels of glycohemoglobin, correlates with a reduction in the development of microvascular complications in both Type 1 and Type 2 diabetes (Diabetes Control and Complications Trial Research Group 1993; Ohkubo 1995). In particular, the Diabetes Control and Complications Trial (DCCT) showed that for patients with Type 1 diabetes mellitus, important clinical outcomes such as retinopathy (an important precursor to blindness), nephropathy (which precedes renal failure), and neuropathy (a significant cause of foot ulcers and amputation in patients with diabetes) are directly related to level of glycemic control (Diabetes Control and Complications Trial Research Group 1993). Similar reductions in complications were noted in a smaller study of intensive therapy of patients with Type 2 diabetes by Ohkubo and co-workers, which was conducted in the Japanese population (Ohkubo et al., 1995).

CLINICAL RECOMMENDATION STATEMENTS:

American Geriatrics Society (Brown et al. 2003):

For frail older adults, persons with life expectancy of less than 5 years, and others in whom the risks of intensive glycemic control appear to outweigh the benefits, a less stringent target such as 8% is appropriate. (Quality of Evidence: Level III; Strength of Evidence: Grade B)

American Diabetes Association (2009):

Lowering A1c to below or around 7% has been shown to reduce microvascular and neuropathic complications of type 1 and type 2 diabetes. Therefore, for microvascular disease prevention, the A1c goal for non-pregnant adults in general is < 7%. (Level of Evidence: A)

In type 1 and type 2 diabetes, randomized controlled trials of intensive versus standard glycemic control have not shown a significant reduction in CVD outcomes during the randomized portion of the trials. Long-term follow-up of the Diabetes Control and Complications Trial (DCCT) and UK Prospective Diabetes Study (UKPDS) cohorts suggests that treatment to A1C targets below or around 7% in the years soon after the diagnosis of diabetes is associated with long-term reduction in risk of macrovascular disease. Until more evidence becomes available, the general goal of < 7% appears reasonable for many adults for macrovascular risk reduction. (Level of Evidence: B)

Subgroup analyses of clinical trials such as the DCCT and UKPDS and the microvascular evidence from the Action in Diabetes and Vascular Disease: Preterax and Diamicon MR Controlled Evaluation (ADVANCE) trial suggest a small but incremental benefit in microvascular outcomes with A1c values closer to normal. Therefore, for selected individual patients, providers might reasonably suggest even lower A1c goals than the general goal of < 7%, if this can be achieved without significant hypoglycemia or other adverse effects of treatment. Such patients might include those with short duration of diabetes, long life expectancy, and no significant CVD. (Level of Evidence: B)

Conversely, less stringent A1c goals than the general goal of < 7% may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, and extensive comorbid conditions and those with longstanding diabetes in whom the general goal is difficult to attain despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose lowering agents including insulin. (Level of Evidence: C)

MEASURE #18 - DIABETIC RETINOPATHY: DOCUMENTATION OF PRESENCE OR ABSENCE OF MACULAR EDEMA AND LEVEL OF SEVERITY OF RETINOPATHY

RATIONALE:

Diabetic retinopathy is a leading cause of new cases of legal blindness among working-age Americans and represents a leading cause of blindness in this age group worldwide. (Klein, 2007). In 2005-2008, the estimated prevalence of diabetic retinopathy and vision-threatening diabetic retinopathy was 28.5 percent among persons with diabetes aged 40 years and older (Zhang, 2010). Approximately 1.5% of adults with diabetes had proliferative diabetic retinopathy and 2.7% had clinically significant macular edema (Zhang, 2010).

Several level 1 RCT studies demonstrate the ability of timely treatment to reduce the rate and severity of vision loss from diabetes (Diabetic Retinopathy Study -- DRS, Early Treatment Diabetic Retinopathy Study -- ETDRS). Necessary examination prerequisites to applying the study results are that the presence and severity of both peripheral diabetic retinopathy and macular edema be accurately documented. In the RAND chronic disease quality project, while administrative data indicated that roughly half of the patients had an eye exam in the recommended time period, chart review data indicated that only 19% had documented evidence of a dilated examination (McGlynn, 2003). Thus, ensuring timely treatment that could prevent 95% of the blindness due to diabetes requires the performance and documentation of key examination parameters. The documented level of severity of retinopathy and the documented presence or absence of macular edema assists with the on-going plan of care for the patient with diabetic retinopathy.

CLINICAL RECOMMENDATION STATEMENTS:

Because treatment is effective in reducing the risk of visual loss, detailed examination is indicated to assess for the following features that often lead to visual impairment: presence of macular edema, optic nerve neovascularization and/or neovascularization elsewhere, signs of severe NPDR (extensive retinal hemorrhages/microaneurysms, venous beading, and IRMA), and vitreous or preretinal hemorrhage. (Good evidence; Strong recommendation) (AAO, 2014)

MEASURE #19 – DIABETIC RETINOPATHY: COMMUNICATION WITH THE PHYSICIAN MANAGING ONGOING DIABETES CARE

RATIONALE:

The primary care physician that manages the ongoing care of the patient with diabetes should be aware of the patient's dilated eye examination and severity of retinopathy to manage the ongoing diabetes care. Such communication is important in assisting the physician to better manage the diabetes. Several studies have shown that better management of diabetes is directly related to lower rates of development of diabetic eye disease (Diabetes Control and Complications Trial – DCCT, UK Prospective Diabetes Study – UKPDS).

CLINICAL RECOMMENDATION STATEMENTS:

Ophthalmologists should communicate the ophthalmologic findings and level of retinopathy with the primary care physician as well as the need for optimizing metabolic control. (Good evidence; Strong recommendation) (AAO, 2014)

MEASURE #117 – DIABETES: EYE EXAM

RATIONALE:

Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes of either type may cause life-threatening, life-

ending or life-altering complications, including glaucoma and blindness. Diabetic retinopathy is the most common diabetic eye disease and causes 21,000–24,000 new cases of blindness annually. The consensus among established clinical guidelines is that patients with both types of diabetes should have an initial dilated and comprehensive eye exam soon after diagnosis. Guidelines also recommend consultation with an ophthalmologist for treatment options if a patient has any level of macular edema or diabetic retinopathy (proliferative and nonproliferative) (American Diabetes Association 2009).

CLINICAL RECOMMENDATION STATEMENTS:

American Diabetes Association (ADA) (2009):

- Adults and children aged 10 years or older with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 5 years after the onset of diabetes. (B recommendation)
- Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist shortly after the diagnosis of diabetes. (B recommendation)
- Subsequent examinations for type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist. Less frequent exams (every 2–3 years) may be considered following one or more normal eye exams. Examinations will be required more frequently if retinopathy is progressing. (B recommendation)
- Women with preexisting diabetes who are planning pregnancy or who have become pregnant should have a comprehensive eye examination and be counseled on the risk of development and/or progression of diabetic retinopathy. (B recommendation)
- Eye examination should occur in the first trimester with close follow-up throughout pregnancy and for 1 year postpartum. (B recommendation)
- Promptly refer patients with any level of macular edema, severe nonproliferative diabetic retinopathy (NPDR), or any proliferative diabetic retinopathy (PDR) to an ophthalmologist who is knowledgeable and experienced in the management and treatment of diabetic retinopathy. (A recommendation)
- Laser photocoagulation therapy is indicated to reduce the risk of vision loss in patients with high-risk PDR, clinically significant macular edema, and in some cases of severe NPDR. (A recommendation)
- The presence of retinopathy is not a contraindication to aspirin therapy for cardioprotection, as this therapy does not increase the risk of retinal hemorrhage. (A recommendation)

American Geriatric Society (AGS) (Brown et al. 2003): The older adult who has new-onset DM should have an initial screening dilated-eye examination performed by an eye-care specialist with funduscopy training. (Level I, Grade B)

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:

In the American Medical Association's (AMA) *Physician's Role in Medication Reconciliation* (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between \$17 billion and \$29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of \$946 million to \$2.4 billion.

According to the AMA's published report, *The Physician's Role in Medication Reconciliation*, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication

information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

CLINICAL RECOMMENDATION STATEMENTS:

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: [Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide](#)).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA's published report, *The Physician's Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and--in all settings of care--will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team's variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:

This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:

The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #317 - PREVENTIVE CARE AND SCREENING: SCREENING FOR HIGH BLOOD PRESSURE AND FOLLOW-UP DOCUMENTED

RATIONALE:

Hypertension is a prevalent condition that affects approximately 66.9 million people in the United States. It is estimated that about 20-40% of the adult population has hypertension; the majority of people over age 65 have a hypertension diagnosis (Appleton SL, et. al., 2012 and Luehr D, et. al., 2012). Winter (2013) noted that 1 in 3 American adults have hypertension and the lifetime risk of developing hypertension is 90% (Winter KH, et. al., 2013). The African American population or non-Hispanic Blacks, the elderly, diabetics and those with chronic kidney disease are at increased risk of stroke, myocardial infarction and renal disease. Non-Hispanic Blacks have the highest prevalence at 38.6% (Winter KH, et. al., 2013). Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke and dementia (Luehr D, et. al., 2012).

Hypertension is the most common reason for adult office visits other than pregnancy. Garrison (2013) stated that in 2007, 42 million ambulatory visits were attributed to hypertension (Garrison GM and Oberhelman S, 2013). It also has the highest utilization of prescription drugs. Numerous resources and treatment options are available, yet only about 40-50% of the hypertensive patients have their blood pressure under control (<140/90) (Appleton SL, et. al., 2012, Luehr D, et. al., 2012). In addition to medication non-compliance, poor outcomes are also attributed to poor adherence to lifestyle changes such as a low-sodium diet, weight loss, increased exercise and limiting alcohol intake. Many adults find it difficult to continue medications and lifestyle changes when they are asymptomatic. Symptoms of elevated blood pressure usually do not occur until secondary problems arise such as with vascular diseases (myocardial infarction, stroke, heart failure and renal insufficiency) (Luehr D, et. al., 2012).

Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. The 2010 ACCF/AHA Guideline for the Assessment of Cardiovascular Risk in Asymptomatic Adults continues to support using a global risk score such as the Framingham Risk Score, to assess risk of coronary heart disease (CHD) in all asymptomatic adults (Greenland P, et. al., 2010). Lifestyle modifications have demonstrated effectiveness in lowering blood pressure (JNC 7, 2003). The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.

CLINICAL RECOMMENDATION STATEMENTS:

The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.