

# TRIAD Medical Chart Abstraction Instructions

## For Use with TRIAD Chart Review Instrument Version 5.1

Chart abstractors should review relevant outpatient and inpatient medical records included in the patient medical record. These records include but are not limited to visit notes, progress notes, physician's letters, procedure summaries, discharge summaries, consultant notes, medication records, history and physical (H&P), problem lists, vascular surgery assessments, diabetes education notes, emergency room and urgent care records, and lab or other test reports.

Symptom checklists and other self-reported information provided by the patient (or proxy for the patient) should be ignored. The abstractor's goal is to record information that accurately reflects the health information documented in the patient's medical record by the health care providers.

For the Patient Medical History Section (items 3-12), abstractors should review and consider medical documentation covering an entire 3-year interval. Based on these medical records, abstractors will indicate if the patient has a record of EVER having the listed conditions, treatments, and risk factors. Medical documents dated after the review period end date should not be reviewed. Similarly, documents dated more than three years prior to the review period end date should not be reviewed.

For the Medical Data During 18-month Review Period section (items 13-28), abstractors will gather information from only 18 months of patient records, i.e., the 18-month period from the review period start date to the review period end date. This section requires the abstractor to record information on health care visits, body weight, blood pressure readings, medications, and various diagnostic test and exam results THAT OCCURRED DURING THIS 18-MONTH REVIEW PERIOD. Abstractors must not record information in this section if the medical documentation does not clearly denote that the event or test occurred during the 18-month period. For example, if a visit note stated "last EKG normal" without mention of a date, the reviewer should not consider this test because it may have occurred prior to the review period start date. However, if a visit note states "last month's EKG normal" and the entire month prior to that visit was within the 18-month period, the reviewer should consider this test as having occurred during the 18-month review period. For Current Medications (item 28), abstractors will identify selected diabetes, BP, lipid, and depression medications\* taken or prescribed during the 18-month review period which were not stopped or discontinued prior to the review period end date. *\*The medication categories included are listed on page 13 of this document.*

***This instrument was created and developed by the TRIAD Study, 2000.***

Participants who have agreed to a medical chart review will be identified by the Translational Research Center (TRC). The five items in the shaded box on page one of the chart review instrument contain identifying information regarding specific participants and appropriate time frames.

Information provided by the TRC:

<i>Study Subject ID Number:</i> the identification number assigned to the patient. TRIAD identification numbers are 6 digits, leading with a single digit numeric identifier for each site:	
Hxxxxx:	1NNNNN
Ixxxxx:	2NNNNN
Kxxxxx Pxxxxxxxx:	3NNNNN
Mxxxxxxx:	4NNNNN
Nxx Jxxxxx:	5NNNNN
Txxxx:	6NNNNN
<i>Date of TRIAD Patient Survey Interview:</i> the date on which the interview was completed.	
<i>Review Period End Date:</i> the same date as the date of the TRIAD patient survey interview.	
<i>18-Month Review Period Start Date:</i> the date that is 18 months prior to the date of the TRIAD interview. Example: if TRIAD patient survey interview date is 06/18/2000 the 18-month review period start date will be 12/19/1998.	
<i>3-Year Review Interval Start Date:</i> the date that is 3 years prior to the date of the TRIAD interview. Example: if TRIAD patient survey interview date is 06/18/2000 the 3-year review interval start date will be 06/19/1997.	

The chart abstractor should complete the two items in the unshaded box on page one of the chart review instrument:

<i>Reviewer's ID Number.</i> Record the abstractor's identification number, as assigned by the TRC.
<i>Date of Medical Chart Abstraction.</i> Record the date on which the medical chart abstractor completes the review.

Record all dates as 2-digit month, 2-digit day, and 4-digit year. Leave missing date information blank. For example, if the records indicate "July 1999", record the date as "07/ /1999. Abstractors should record requested information only: avoid writing comments and other extraneous information on the form.

**PATIENT DEMOGRAPHICS**

- 1. PATIENT'S DATE OF BIRTH:** Record the patient's date of birth.
- 2. PATIENT'S GENDER:** Place a check mark in the box to indicate whether the patient is male or female.

## PATIENT MEDICAL HISTORY

**For this section, abstractors will review patient records covering a three-year interval.** For each patient, refer to page 1 of the instrument for exact start and end dates of the 3-year interval.

**Medical documents dated more than three years prior to the review period end date should not be reviewed. Also, information documented in the medical record after the review period end date should not be considered.**

**Based on the records reviewed, check the 'Yes' or 'No' box on the instrument to indicate if the patient has a record of EVER having the listed condition, treatment, or risk factor. Medical history items documented during this three year interval should be considered without regard to treatment date, event date, or condition onset date** (exception: 12g.). If the records reviewed do not clearly document the listed item, check 'No'. Do not leave any item unmarked. Data abstraction should be based on consideration of all information in the medical records reviewed except information presented as reported by the patient or a proxy for the patient and not confirmed by the provider.

Obviously, comments regarding a condition to be "ruled out" or appearing in a Family History list should be ignored. For example, abstractors should take care that comments such as "R/O MI" and "Fhx: MI" are not interpreted as meaning the patient has had a myocardial infarction (MI). The comment "Probable MI" also does not warrant checking "Yes" for MI. The comment "history of MI" or "Heart Attack 1987" does warrant a "Yes". Check "Yes" for a condition if it documented anywhere in the records reviewed without a modifier (for example: if the comment "probable MI" appears in one place and "MI '87" appears in another place, the reviewer should check "Yes" for MI). A diagnosis appearing in a current problem list with an onset date later than the end of the review period should not be counted. To be counted, the diagnosis must have been recorded into the medical record on or before the review period end date.

Abstractors are looking for clinician observation – not their own interpretation. For example, do not interpret blood pressure values: a notation "BP 175/92" does not warrant checking YES for HTN if the medical records do not somewhere explicitly document the diagnosis HTN (or Hypertension). Similarly, a total cholesterol value of 230 mg/dl is not Hyperlipidemia unless so documented or interpreted by a health care provider. Abstractors should not base decisions upon their own interpretation of an EKG report or any other test result.

### **3. HISTORY OF CARDIOVASCULAR RISK FACTOR OR VASCULAR DISEASE:**

- a. Hypertension (HTN) - Includes elevated BP, ↑BP, HBP, HCVD (hypertensive cardiovascular disease), and HASHD (hypertensive arteriosclerotic heart disease)
- b. Hyperlipidemia/Hypercholesterolemia - includes hypertriglyceridemia and dyslipidemia.
- c. Cigarette Smoking - does not include pipe or cigar smoking. Does include unspecified tobacco use (e.g., "current smoker" or "Quit smoking four years ago").
- d. Transient Ischemic Attack (TIA) - may also be recorded as a "mini" or "mild" stroke with no permanent damage.

- e. Cerebral Vascular Accident (CVA) - may also be recorded as a stroke. Does not include carotid bruits or asymptomatic disease documented by Doppler or angiogram without history of TIA or stroke.
- f. Angina - may also be recorded as angina pectoris.
- g. Myocardial Infarction (MI) - may also be recorded as heart attack or AMI.
- h. Congestive Heart Failure (CHF) – may also be recorded as cardiac failure/heart failure.
- i. Other Coronary Heart Disease (CHD) or Coronary Artery Disease (CAD) - includes cardiovascular disease and arteriosclerotic heart disease. Does not include valvular heart disease.
- j. Peripheral Vascular Disease (PVD) / (PVOD) / Claudication: includes intermittent claudication, bypass for arterial insufficiency, and untreated thoracic or abdominal aortic aneurysms (AAA) of 6 cm or more.

**4. HISTORY OF VASCULAR TREATMENT:** Check 'Yes' or 'No' to indicate if the patient has a record of the listed vascular treatment/surgeries.

- a. Carotid Endarterectomy
- b. Coronary Angioplasty
- c. Coronary Bypass - CABG
- d. Peripheral Vascular Angioplasty or Bypass - includes "Fem-Pop Bypass"

**5. HISTORY OF END-STAGE RENAL DISEASE (ESRD):** Check 'Yes' or 'No' for item 5 indicate if the patient has a record of ESRD, dialysis, or kidney transplant. If "No", skip to item 6. Otherwise, check the following treatments 'Yes' or 'No' to indicate if the patient has ever received:

- a. Dialysis (peritoneal or hemodialysis - includes HD, PD, CAPD and CCPD), or
- b. Kidney transplant.

**6. HISTORY OF MICROALBUMINURIA:** Check 'Yes' or 'No' to indicate if the patient ever had a record of microalbuminuria. If records do not clearly document microalbuminuria, check 'No'.

**7. HISTORY OF DIABETIC NEPHROPATHY:** Check 'Yes' or 'No' to indicate if the patient ever had a record of diabetic nephropathy. If records do not clearly document nephropathy, check 'No'. Confirming documentation includes one of the following diagnoses:

- |                                 |   |
|---------------------------------|---|
| -Diabetic nephropathy (DN)      | -Chronic renal insufficiency (CRI)              |
| -Nephropathy                    | -Renal insufficiency                            |
| -Diabetic kidney disease        | -Proteinuria                                    |
| -End-stage renal disease (ESRD) | -Azotemia                                       |
| -Acute renal failure (ARF)      | -Diffuse diabetic or nodular glomerulosclerosis |
| -Chronic renal failure (CRF)    | -Kimmelstiel-Wilson disease                     |
| -Chronic renal disorder         |   |

**8. HISTORY OF DIABETIC PERIPHERAL NEUROPATHY:** Check 'Yes' or 'No' to indicate whether the patient ever had a record of diabetic peripheral neuropathy. If records indicate peripheral neuropathy due to a cause other than diabetes, check 'No'.

**9. HISTORY OF COMPLETE AMPUTATION OF BOTH FEET:** Check 'Yes' or 'No' to indicate if the patient has had BOTH feet amputated. Mark 'Yes' only if both feet were amputated. Note: AKA indicates "above knee amputation", BKA indicates "below knee amputation".

**10. HISTORY OF RETINAL LASER TREATMENT:** Check 'Yes' or 'No' to indicate whether the patient ever had eye laser treatment/surgery for proliferative retinopathy or macular edema. Check "Yes" if the records indicate "panretinal photocoagulation" or "focal photocoagulation". Retinal laser treatment does not include the following: LASIK therapy for refractive error, laser trabeculoplasty for glaucoma, and YAG laser for cataract.

**11. HISTORY OF DIABETIC RETINOPATHY:** Check 'Yes' or 'No' to indicate whether the patient ever had a record of diabetic retinopathy. If records do not clearly indicate diabetic retinopathy, check 'No'. Do not include macular degeneration without mention of diabetes.

Diabetic Retinopathy Inclusions:

Non-proliferative Diabetic Retinopathy (NPDR)

Background diabetic retinopathy (BDR)

Background retinopathy

Macular Edema (ME)

Clinically Significant Macular Edema (CSME)

Proliferative Diabetic Retinopathy with or without high risk characteristics  
(PDR or PDR with HRC)

Intraretinal microvascular abnormalities (IRMA)

Diabetic retinal or eye changes

Panretinal photocoagulation (PRP), focal photocoagulation, or laser treatment of the eyes  
(excluding LASIK therapy for refractive error, laser trabeculoplasty for glaucoma,  
and YAG laser for cataract)

Macular changes with retinopathy

New vessels on the disc (NVD)

New vessels elsewhere on the retina (NVE)

Preretinal or vitreous hemorrhage

Rubeosis Iridis

Cotton wool spots

Retinal blot hemorrhages

Venous beading/looping

Blot hemorrhage

Hard exudates

Microaneurysms

Soft exudates

**12. HISTORY OF COMORBID CONDITIONS:** Check 'Yes' or 'No' to indicate if the patient ever had the listed medical conditions. Do not leave any condition unmarked. Check one box only for each condition listed. If records do not clearly document the listed condition or related illnesses, check 'No'.

- a. Dementia: chronic cognitive deficit. Includes Alzheimer's disease.
- b. Chronic Pulmonary Disease - includes chronic obstructive pulmonary disease (COPD), chronic bronchitis, emphysema, asthma, and cystic fibrosis.
- c. Connective Tissue Disease (Rheumatologic disease) - includes systemic lupus erythematosus (SLE), polymyositis, fibromyalgia, mixed connective tissue disease, polymyalgia rheumatica, and moderate to severe rheumatoid arthritis (RA). Excludes osteoarthritis (OA).
- d. Ulcer Disease - includes peptic ulcer disease (PUD), gastric ulcers, and duodenal ulcers.
- e. Mild Liver Disease - includes chronic hepatitis or cirrhosis without mention of portal hypertension.
- f. Hemiplegia - cerebrovascular accident (CVA) with residual weakness or paralysis of an arm or leg or both. Includes hemiparesis.
- g. Non-metastatic Solid Cancer - includes only solid cancers without documented metastases that were initially treated in the 5 years prior to the review period end date. Includes carcinoma in situ. Does not include leukemia or lymphoma.
- h. Leukemia - includes acute and chronic myelogenous leukemia, acute and chronic lymphocytic leukemia, and polycythemia vera.
- i. Lymphoma - includes Hodgkin's disease, lymphosarcoma, Waldenstrom's macroglobulinemia, myeloma, and other lymphomas.
- j. Moderate or Severe Liver Disease - includes cirrhosis with mention of portal hypertension either with or without variceal bleeding.
- k. Metastatic Solid Cancer - includes metastatic solid cancers, including breast, lung, colon and other solid cancers.
- l. AIDS (Acquired Immune Deficiency Syndrome) - includes AIDS and AIDS-related complex (ARC). Do not check "Yes" for HIV-positive patients without AIDS. *Check the "Not Abstracted" box only if review of AIDS status has not received local Institutional Review Board (IRB) or Human Research Subjects Committee approval. Otherwise, check either "No" or "Yes". Note: as of 9/13/00, New Jersey is the only TRIAD site whose local IRB has approved review of AIDS status.*

## MEDICAL DATA DURING 18-MONTH REVIEW PERIOD

**For this section abstractors will review patient records covering an 18-month interval.**

This section is time dependent. **For items 13-28, all tests and other events considered MUST have occurred during the 18-month review period.** For each patient, refer to page 1 of the instrument for exact start and end dates of the 18-month review period. Ignore any lab tests or other events if they occurred prior to the review period start date or were documented after the review period end date. If the medical records are unclear regarding whether an event occurred during the 18-month period, abstractors should ignore the event. For example, if eleven of twelve months of the year 1999 are within the 18-month review period and the records state that a dilated eye exam was performed in 1999 (without mention of month of exam), this eye exam should not be counted.

This section includes six frequency count items that require the abstractor to sum the number of times various events occurred during the review period. These fields ask for the following totals:

- 13a. number of outpatient visits to a PCP, nurse practitioner, endocrinologist or diabetologist
- 13b. number of visits counted in 13a. for which a record of the visit was not available for review
- 15a. number of visits counted in 13a. for which a blood pressure measurement is recorded
- 16a. number of GLYCO, A1c, or Fructosamine tests performed
- 25b. number of times a foot exam was performed
- 26b. number of times a dilated eye exam was performed

*Note: the final page of the TRIAD Chart Review Instrument provides a worksheet for these fields.*

Regarding lab values recorded in this section:

- Use the date drawn or collected as the date of the test.
- If unable to determine the date of the test, use the date of the report.
- Laboratory values that are included in correspondence in the medical record may be used.
- If lab reports and office notes have different results for the same day and time, use the lab slip information.
- If both a direct and calculated value are listed for the same date, enter the direct value.

Consider lab tests only when the results are documented or when there is a statement that the test was performed; **do not consider tests if the medical records merely show that the test was ordered.** On occasion abstractors may encounter references to lab values without an exact date of occurrence. In such cases, the lab result should be ignored unless the medical records clearly denote that it occurred during the 18-month review period. Labs with inexact dates take precedence over ones with an exact date only when the inexact one is definitely within the review period and more timely than the test with an exact date. The same approach should be applied to foot or eye exams that are documented but missing an exact date.

**13. DID THE PATIENT HAVE ANY OUTPATIENT VISITS TO A PCP, NURSE PRACTITIONER, ENDOCRINOLOGIST OR DIABETOLOGIST DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient had any outpatient visits to a primary care provider (PCP), nurse practitioner (NP), endocrinologist or diabetologist. Exclude telephone encounters. Exclude visits to other specialists, ER visits, urgent care visits, and visits for lab tests, infusions, flu or allergy injections. If no, skip to question 16. If yes:

- a. Record the total number of outpatient visits to providers in the categories included above.
- b. Record the total number of visits recorded in number 13a. for which no record of the visit is available for review by the abstractor. For example, if an outpatient note by the PCP states that the patient was seen by an endocrinologist (within the review period) and there is no other record of that visit, the abstractor should count this visit to the endocrinologist in both 13a. and 13b.

**14. WAS WEIGHT RECORDED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient's weight was measured and recorded during the review period at a visit included in number 13a. If no, skip to question 15. If yes:

- a. Record the weight that was last reported within the review period at a visit included in item #13a. **Record the value to the nearest 1/10 and circle the unit of measure: kg or lbs.** The unit must be circled. If the medical records do not display the unit of measure for the most recent recorded weight, the abstractor should look at recorded weights elsewhere in the records to ascertain the correct unit of measure to circle. (*Note: 2.2 lbs = 1 kg*)

**15. WERE THERE VISITS DURING WHICH A BLOOD PRESSURE (B.P.) READING WAS TAKEN DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient's blood pressure was measured during the review period at a visit included in number 13a. If no blood pressure readings were taken, skip to question 16. If yes:

- a) Check the appropriate box to indicate the number of included visits during which a b.p. reading was taken
- b) Record the value of the systolic pressure last measured at one of these visits
- c) Record the value of the diastolic pressure last measured at one of these visits and indicate date.  
- Reference Systolic b.p. readings can range from (80-300) and Diastolic b.p. readings can range from (40 -140). A reading is usually recorded systolic/diastolic.

**16. WAS A GLYCOSYLATED HEMOGLOBIN, HbA1c, OR FRUCTOSAMINE TEST PERFORMED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient had a glycosylated hemoglobin, HbA1c, or Fructosamine test during the review period. If no tests were performed, skip to question 17.

a) Record the total number of glycosylated hemoglobin, HbA1c, and Fructosamine tests performed. Note: if a lab performs two of these tests on the same date from the same specimen, for example, a glyco and an A1c assay, count the A1c result rather than the glyco test result; do not count these as two tests.

b) Record the value of the first HbA1c or Glyco test during the review period, the value of the upper limit of the normal range for that test, and the date this test was performed. If only 1 such test was performed, leave 16b blank and record results as item 16c.

c) Record the value of the last HbA1c or Glyco test during the review period, the value of the upper limit of the normal range for that test, and the date this test was performed.

- Reference HbA1c tests can range from (4.0-16.0%);  
upper limit of normal for HbA1c can range from (6.0-6.5%)
- Reference glycosylated hemoglobin tests can range from (5.0-20.0%);  
upper limit of normal for glycosylated hemoglobin can range from (7.0-9.0%)  
Regarding unit of measure: record test values as "%".

Note: Do not use a stated "desirable range" or "goal" as a proxy for a test's upper limit of normal. If the upper limit of the normal range for the first or most recent assay cannot be ascertained from information in the medical record, leave the upper limit field blank for that item. However, if this limit is shown for an earlier recorded result for the same assay (by the same lab), assume that this upper limit also applies to a first or most recent test for which the limit is not explicitly shown.

**Include Fructosamine tests in 16a. only; do not record Fructosamine test values or normal range limits in either 16b. or 16c.**

Glycosylated hemoglobin and HbA1c tests may be recorded as:

Glycated hemoglobin	Glycohemoglobin A1C	A1 or A1c
Glycohemoglobin	Hemoglobin A1	Hemoglobin A1c
Glyco	HbA1	HbA1c

**17. WAS TOTAL CHOLESTEROL (TC) MEASURED DURING THE REVIEW PERIOD?**

Check 'Yes' or 'No' to indicate if the patient's total cholesterol was measured during the review period. If no tests were performed, skip to question 18. Otherwise, record the value of the patient's total cholesterol last measured during the review period and indicate the date.

- Reference Total Cholesterol values can range from (100-600 mg/dl)

Regarding unit of measure: record test values as "mg/dl".

**18. WERE TRIGLYCERIDES (TG) MEASURED DURING THE REVIEW PERIOD?**

Check 'Yes' or 'No' to indicate if the patient had their triglyceride levels measured during the review period. If no tests were performed, skip to question 19. Otherwise, record the triglyceride value last measured during the review period and indicate the date.

- Reference Triglyceride values can range from (50 -1000 mg/dl, and occasionally higher)  
Regarding unit of measure: record test values as "mg/dl".

**19. WAS HIGH DENSITY LIPOPROTEIN (HDL) MEASURED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient's HDL was measured during the review period. If no tests were performed, skip to question 20. Otherwise, record the value of the patient's HDL last measured during the review period and indicate the date.

- Reference HDL cholesterol values can range from (20-150 mg/dl)

Regarding unit of measure: record test values as "mg/dl".

**20. WAS LOW DENSITY LIPOPROTEIN (LDL) MEASURED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient's LDL was measured or calculated during the review period. If no tests were performed, skip to question 21. Otherwise, record the value of the patient's LDL last measured during the review period and indicate the date.

- Reference LDL cholesterol values can range from (50 -300 mg/dl).

Regarding unit of measure: record test values as "mg/dl".

**21. WAS SERUM CREATININE MEASURED DURING THE REVIEW PERIOD?**

Check 'Yes' or 'No' to indicate if the patient's serum creatinine level was measured during the review period. Do not record urine creatinine values. If no tests performed, skip to question 22. Otherwise, record the serum creatinine value last measured during the review period and indicate the date.

- Reference Serum Creatinine values range from (0.4 - 15 mg/dl).

Regarding unit of measure: record test values as "mg/dl".

**22. WAS A DIPSTICK URINALYSIS PERFORMED DURING THE REVIEW PERIOD?**

Check 'Yes' or 'No' to indicate if the patient had a dipstick urinalysis during the review period. If no tests were performed, skip to question 23. Otherwise, check only one response to indicate the result of the last protein value measured and record the date of that test. If a dipstick reading is recorded as "urine protein positive", check "1+". If a dipstick reading is recorded as "4+", check "3+".

- Negative may be recorded as 0 mg/dl
- Trace may be recorded as 15 mg/dl
- 1+ may be recorded as 30 mg/dl
- 2+ may be recorded as 100 mg/dl
- 3+ may be recorded as 500 mg/dl

**23. WAS A MICROALBUMINURIA OR QUANTITATIVE URINE PROTEIN TEST PERFORMED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient had at least one urine microalbuminuria or quantitative urine protein test. Do not include serum albumin tests. If no tests were performed, skip to question 24. If the comment "microalbumin positive" appears in a visit note, check "Yes" to item # 6 "History of Microalbuminuria" but do not record a result in this section based on that comment. If yes to question #23:

a. Specify each test in the list below that was performed during the review period. Check 'No' if there is no record of the listed test.

- Urine Microalbumin/Creatinine ratio
- Urine Protein/Creatinine ratio
- Urine Microalbumin (without Creatinine)
- Quantitative Urine Protein (without Creatinine)
- Micral test

b. Record the most recent value during the review period for the first test appearing on the list that is checked "Yes" and indicate the unit of measure and date of that test. For this item, the order of the list takes precedence over the date of the test. For example, if there were two tests performed during the review period, one a Urine Microalbumin/Creatinine ratio and the other a Urine Protein/Creatinine ratio, record the Urine Microalbumin/Creatinine ratio value regardless of which of these two tests was the most recent. Regarding unit of measure, record the numerator and the denominator in the spaces provided. Urine Microalbumin/Creatinine ratio values are often recorded as "mg/g". Urine Protein/Creatinine ratio values often have no unit of measure; if this is the case, leave the numerator and denominator fields blank. Urine Microalbumin values are often recorded as "ug/ml". Quantitative Urine Protein values are often recorded as "g/24hrs".  
If the patient only had a Micral test, skip part b.

c. If the patient only had a Micral test, place a check next to the value of the last Micral test during the review period (otherwise, skip part c).

**24. WAS AN EKG PERFORMED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient had an electrocardiogram (EKG or ECG) during the review period. If no test was performed, skip to question 25. Otherwise, record the date of the last test during the review period.

**25. WAS A FOOT EXAM PERFORMED DURING THE REVIEW PERIOD?** Check 'Yes' or 'No' to indicate if the patient had a foot exam performed by any health care practitioner or technician. Include foot exams taking place in any setting (outpatient, emergency room, or inpatient). If no exams were performed, skip to question 26. Exclude range of motion (ROM) exams; patient self-report of foot condition; documentation of general extremity or lower extremity exam without mention of the foot; comments such as "1+, 2+ edema" without mention of location, and comments such as "no clubbing, cyanosis, or edema (CCE)".

Visual Inspection

Inclusions:

Feet WNL (within normal limits)  
 Smooth atrophic skin  
 Nail abnormalities / onychomycosis  
 Toe nail clipping  
 Fissuring  
 Callus  
 Blisters  
 Dry skin  
 Athlete's foot or tinea pedis  
 Macerated skin  
 Foot lesions  
 Cyanosis of the toes/feet  
 Edema of the feet  
 Pedal edema  
 Skin exam of foot

Capillary refill

Dependent rubor  
 Deformities  
 Claw toe deformity  
 Prominent metatarsal heads  
 Other structural changes

Sensory Examination

Inclusions:

Impaired sensation (including tuning fork or monofilament tests)  
 Babinski (toes downgoing / toes upgoing)  
 Impaired vibration sensation  
 "Intact to touch"  
 Temperature sensation  
 Light touch

Pin prick

Sensation in feet  
 Testing with monofilament

Vascular Examination

Inclusions:

Doppler check  
 Dorsalis pedis (DP)  
 Posterior tibialis (PT)  
 Pedal pulse  
 Pulses of feet  
 Noninvasive vascular testing of feet  
 Circulation in feet  
 Temperature of feet  
 Ankle BP/arm BP ratio;  
 Ankle/Brachial Index (ABI)

If one or more foot exams were performed during the review period:

- a) Record the date of the most recent foot exam.
- b) Check the appropriate box to indicate the total number of foot exams performed during the review period.
- c) Specify the type of exam(s) performed during the review period and the result of the most recent exam for each type. For c1 - c4, check "Yes" if there is documentation indicating that the particular type of exam was performed, otherwise check "No". For c5 (Unable to determine type of exam), check "Yes" if there were one or more foot exams of unspecified type performed during the review period, otherwise check "No". Note: normal results may be recorded as "Normal", "Present", "Feet are OK", or "Feet are within normal limits". Abnormal results may be recorded "Abnormal", "Diminished" or "Absent".

## **26. WAS A DILATED EYE EXAM PERFORMED DURING THE REVIEW PERIOD?**

Check 'Yes' or 'No' to indicate if the patient had a dilated eye exam. If no dilated exams were performed, go to 26d. In dilated exams, drops are put in the patient's eyes to increase pupil diameter. Dilated eye exams may be abbreviated Dil, DL, DI, or DFE. All diabetic retinal exams performed by ophthalmologists should be considered a dilated exam. Exams performed for other indications (e.g., glaucoma, injury, foreign bodies, or herpes keratitis) should be counted only when the medical record explicitly indicates a dilated eye exam. Similarly, exams performed by a PCP or optometrist should be counted only when a dilated eye exam is explicitly indicated.

If one or more dilated eye exams were performed during the review period:

- a) Record the date of the most recent dilated eye exam.
- b) Record the total number of dilated eye exams performed.
- c) Indicate the person(s) who performed the exam(s), i.e., check "Yes" to item 26c1, 26c2, or 26c3, if appropriate. If records document that there was one or more dilated eye exams for which the type of professional is not documented, check "Yes" for UTD. If UTD is checked "Yes", do not check "No" for item 26c1, 26c2, or 26c3 even if "Yes" is not checked for that item.
  - c1. Ophthalmologist: physician (MD or DO) who specializes in the diagnosis, medical, and surgical treatment of diseases of the eye.
  - c2. Optometrist: person trained to practice primary eye and vision care (OD) for the diagnosis and prevention of associated disorders; not a physician, does not perform surgery.
  - c3. PCP: primary care physician (MD).
  - c4. Unable to Determine: Check "Yes" if the patient had one or more dilated eye exams for which the type of professional performing the exam is not specified in the medical records; otherwise, check "No".
- d) Indicate whether the medical records document that retinal or fundus photos were taken and submitted to an eye care professional during the review period.

**27. WHAT IS THE RETINOPATHY STATUS?** Check one category to indicate the most severe condition noted in the medical records. Items 27a. through 27e. are listed in increasing order of severity.

- a. None - no evidence of diabetic retinopathy
- b. Diabetic Retinopathy noted, level not specified - report of diabetic retinopathy, however severity of condition not reported (does not include macular degeneration without mention of retinopathy)
- c. Non-proliferative Diabetic Retinopathy (NPDR) or background diabetic retinopathy (BDR). Includes IRMA (intraretinal microvascular abnormalities).
- d. Macular Edema or Clinically Significant Macular Edema (ME or CSME)
- e. Proliferative Diabetic Retinopathy (PDR). Includes NVD or NVE, vitreous hemorrhages, retinitis proliferans, fibrous proliferans, and PDR with High Risk Characteristics (HRC).
- f. UTD- check this if there is no record of retinopathy status or if the appropriate status category cannot be ascertained.

**28. CURRENT MEDICATIONS:** Check "Yes" if any drugs on the numbered list on pages 9-11 of the instrument were taken or prescribed during the review period **and** were not discontinued or stopped prior to the end of this period; otherwise check "No". If "Yes", for each "current" medication on the list, record the number in the spaces provided on page 8.

Regarding aspirin, circle #19 "Aspirin" if aspirin, ASA, ECA (enteric coated aspirin), acetylsalicylic acid, or any product containing aspirin was taken or prescribed during the review period. An extensive list of products containing aspirin appears at the end of this document.

*The medication list on the chart instrument is sorted alphabetically. All drug names on the alphabetic list are shown by category on the list that begins on the next page. Trade names are capitalized, generics are in lower case, and category headings are capitalized. Many drugs may appear in the medical records that are not on this list.*

### **Listing of TRIAD Medication Categories**

#### **ANTIDIABETIC AGENTS**

BIGUANIDES  
GLUCOSIDASE INHIBITORS  
INSULINS  
MEGLITINIDES  
SULFONYLUREAS  
THIAZOLIDINEDIONES

#### **ANTILIPEMIC AGENTS**

BILE ACID SEQUESTRANTS  
FIBRIC ACID DERIVATIVES  
HMG-CoA REDUCTASE INHIBITORS  
NICOTINIC ACID

#### **OTHER CARDIOVASCULAR AGENTS**

ADRENERGIC BLOCKERS, PERIPHERAL & COMBINATIONS  
ADRENERGIC STIMULANTS CENTRAL & COMBINATIONS  
ALPHA/BETA ADRENERGIC BLOCKERS  
ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS  
ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS WITH CALCIUM CHANNEL BLOCKERS  
ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS WITH DIURETICS  
ANGIOTENSIN II RECEPTOR ANTAGONISTS  
ANGIOTENSIN II RECEPTOR ANTAGONISTS WITH DIURETICS  
BETA ADRENERGIC BLOCKING AGENTS  
BETA ADRENERGIC BLOCKING AGENTS WITH DIURETICS  
CALCIUM CHANNEL BLOCKERS  
COMBINATION DIURETICS  
LOOP DIURETICS  
POTASSIUM-SPARING DIURETICS  
THIAZIDES & RELATED DIURETICS  
RAUWOLFIA DERIVATIVES & COMBINATIONS

#### **ANTIDEPRESSANTS**

MICELLANEOUS ANTIDEPRESSANTS  
SELECTIVE SEROTONIN REUPTAKE INHIBITORS

#### **OTHER**

ASPIRIN (or any product containing aspirin)

## All Medications on the Chart Review Instrument List, by Category

### ANTIDIABETIC AGENTS

#### BIGUANIDES

Glucophage

Glucovance

metformin

#### GLUCOSIDASE INHIBITORS

acarbose

Glyset

miglitol

Precose

#### INSULIN

(INTERMEDIATE ACTING INSULINS)

Humulin L

Humulin N

Humulin NPH

Iletin II, L

Iletin II, NPH

Novolin L

Novolin N

Purified Pork Lente

Purified Pork NPH Isophane

(INTERMEDIATE AND RAPID ACTING  
INSULIN COMBINATIONS)

Humulin 50/50

Humulin 70/30

Novolin 70/30

(LONG ACTING INSULINS)

Humulin U (Ultralente)

insulin glargine

Lantus

(RAPID ACTING INSULINS)

Humalog

Humulin R

Iletin II Regular

Novolin R

Purified Pork R

Velosulin BR

#### MEGLITINEDES

nateglinide

Prandin

repaglinide

Starlix

#### SULFONYLUREAS

acetohexamide

Amaryl

chlorpropamide

DiaBeta

Diabinese

Dymelor

glimeperide

glipizide

Glucotrol

Glucotrol XL

Glucovance

glyburide

Glycron

Glynase

Micronase

Orinase

tolazamide

tolbutamide

Tolinase

#### THIAZOLIDINEDIONES

Actos

Avandia

pioglitazone

Rezulin

rosiglitazone

troglitazone

### ANTILIPEMIC AGENTS

#### BILE ACID SEQUESTRANTS

cholestyramine

Cholestyramine Light

Colestid

colestipol

Locholest

Prevalite

Questran

#### FIBRIC ACID DERIVATIVES

Atromid-S

clofibrate

fenofibrate

gemfibrozil

Lopid

Tricor

#### HMG-CoA REDUCTASE INHIBITORS

atorvastatin

Baycol

cerivastatin

fluvastatin

Lescol

Lipitor

lovastatin

Mevacor

Pravachol

pravastatin

simvastatin

Zocor

#### NICOTINIC ACID

niacin

Niacor

Niaspan

**OTHER CARDIOVASCULAR AGENTS**

**ADRENERGIC BLOCKERS, PERIPHERAL & COMBINATIONS**

Cardura  
Dibenzyline  
doxazosin  
guanadrel  
Hylorel  
Hytrin  
Minipress  
Minizide  
phenoxybenzamine  
prazosin  
terazosin

**ADRENERGIC STIMULANTS CENTRAL & COMBINATIONS**

Aldoclor  
Aldomet  
Aldoril  
Catapres  
Catapres-TTS  
clonidine  
Clorpres  
Combipres  
guanfacine  
methyldopa  
Tenex

**ALPHA/BETA ADRENERGIC BLOCKERS**

carvedilol  
Coreg  
labetalol  
Normodyne  
Trandate

**ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS**

Accupril  
Aceon  
Altace  
benazepril  
Capoten  
captopril  
enalapril  
fosinopril  
lisinopril  
Lotensin  
Mavik  
moexipril  
Monopril  
perindopril  
Prinivil  
quinapril  
ramipril  
trandolapril  
Univasc  
Vasotec  
Zestril

**ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS WITH CALCIUM CHANNEL BLOCKERS**

Lexxel  
Lotrel  
Tarka

**ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS WITH DIURETICS**

Capozide  
Lotensin HCT  
Prinzide  
Uniretic  
Vaseretic  
Zestoretic

**ANGIOTENSIN II RECEPTOR ANTAGONISTS**

Atacand  
Avapro  
candesartan  
Cozaar  
irbesartan  
losartan  
Micardis  
telmisartan

**ANGIOTENSIN II RECEPTOR ANTAGONISTS WITH DIURETICS**

Avalide  
Diovan  
Hyzaar 100  
Hyzaar 50  
valsartan

**BETA ADRENERGIC BLOCKING AGENTS**

acebutolol  
atenolol  
Betapace  
betaxolol  
bisoprolol  
Blocardren  
Brevibloc  
carteolol  
Cartrol  
esmolol  
Inderal  
Inderal LA  
Kerlone  
Levatol  
Lopressor  
metoprolol  
nadolol  
penbutolol  
propranolol  
Sectral  
sotalol  
Tenormin  
timolol  
Toprol-XL  
Zebeta

BETA ADRENERGIC BLOCKING AGENTS  
WITH DIURETICS

bendroflumethiazide

Corzide 40/5

Corzide 80/5

Inderide

Lopressor HCT

Tenoretic

Timolide

Ziac

CALCIUM CHANNEL BLOCKERS

Adalat

Adalat CC

amlodipine

bepidil

Calan

Calan SR

Cardene

Cardene SR

Cardizem CD

Cardizem SR

Cartia XT

Covera-HS

Dilacor XR

Diltia XT

diltiazem

Dynacric

Dynacric CR

felodipine

Isoptin SR

isradipine

labetalol

nicardipine

nifedipine

nimodipine

Nimotop

nisoldipine

Norvasc

Plendil

Procardia

Procardia XL

Sular

Tiazac

Vascor

verapamil

Verelan

Verelan PM

COMBINATION DIURETICS

Aldactazide

Dyazide

Maxzide

Moduretic

LOOP DIURETICS

Demadex

Edecrin

ethacrynic acid

Furocot

Furomide MD

furosemide

Lasix

torsemide

POTASSIUM-SPARING DIURETICS

Aldactone

amiloride

Dyrenium

Midamor

spironolactone

triamterene

THIAZIDES & RELATED DIURETICS

Aquazide H

chlorothiazide

chlorthalidone

Diurcardin

Diuril

Diuril Oral Suspension

Enduron

Esidrix

Ezide

hydrochlorothiazide, (HCTZ)

Hydrocot

Hydrodiuril

hydroflumethiazide

indapamide

methyclothiazide

metolazone

Microzide

Mykrox

Oretic

polythiazide

Renese

Thalitone

Zaroxolyn

RAUWOLFIA DERIVATIVES &  
COMBINATIONS

Moderil

rescinamine

## ANTIDEPRESSANTS

### MICELLANEOUS ANTIDEPRESSANTS

bupropion  
Effexor  
Effexor XR  
mirtazapine  
nefazodone  
Remeron  
Serzone  
venlafaxine  
Wellbutrin  
Wellbutrin SR

### SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRI)

Celexa  
citalopram  
fluoxetine  
paroxetine  
Paxil  
Prozac  
sertraline  
Zoloft

## OTHER

### ASPIRIN (ASA)

Products containing aspirin include:

*Acetasol*  
*Aceticyl*  
*Acetol*  
*Acetophen*  
*Acetosalin*  
*Acetylin*  
*Acetysal*  
*Acuprin*  
*Adprin-B*  
*Alka-Seltzer*  
*Effervescent Pain*  
*Alka-Seltzer with*  
*Aspirin*  
*Alor 5/500*  
*Anacin*  
*Anacin Maximum*  
*Strength*  
*Anodynos*  
*Arthritis Foundation*  
*Pain Reliever*  
*Arthritis Pain Ascriptin*  
*Arthritis strength BC*  
*Ascriptin*  
*Aspercin*  
*Aspergum*  
*Aspermin*  
*Aspirin*  
*Aspirtab*  
*Asprimox*  
*Axotal*  
*Azdone*  
*Back-Quell*  
*BC Powder*  
*Buffaprin*

*Buffasal*  
*Bufferin*  
*Buffets II*  
*Buffex*  
*Butalbitol*  
*Cama Arthritis Pain*  
*Reliever*  
*Carisoprodol*  
*Cope*  
*Damason-P*  
*Darvon Compound*  
*Easprin*  
*Ecotrin*  
*Emagrin*  
*Empirin*  
*Endodan*  
*Equagesic Tablets*  
*Excedrin*  
*Farbital*  
*Fiorinal*  
*Fiormor*  
*Fiortal*  
*Fortabs*  
*Gelprin*  
*Gemisyn*  
*Genacote*  
*Genprin*  
*Gensan*  
*Goody's Headache*  
*Powders*  
*Halfprin*  
*Heartline*  
*Idenal*  
*Isollyl Improved*  
*Laniroif*

*Lanorinal*  
*Lortab ASA*  
*Magnaprin*  
*Maximum Pain Relief*  
*Miacrin Tablets*  
*Micrainin*  
*Momentum*  
*Norgesic*  
*Norgesic Forte*  
*Norwich Aspirin*  
*Orphengesic*  
*P-A-C Analgesic*  
*Pamprin*  
*Panasal*  
*PC-CAP*  
*Percodan*  
*Percodan-Demi*  
*Propoxyphene*  
*Regiprin*  
*Robaxisal*  
*Roxiprin*  
*Saletin*  
*Saleto*  
*Sloprin*  
*Soma Compound*  
*Stanback Original*  
*Formula*  
*Supac*  
*Synalgos-DC*  
*Talwin Compound*  
*Ursinus Inlay-Tabs*  
*Vanquish*  
*ZORprin.*