



Atrial fibrillation

ICD-10-CM

Clinical overview

Background

Atrial fibrillation is an arrhythmia (an abnormal rhythm of the heart) in which the two small upper chambers of the heart, called the atria, “fibrillate” (contract very fast and irregularly) and quiver instead of beating effectively.

Atrial fibrillation is the most common type of heart arrhythmia. When the atria of the heart quiver or fibrillate, blood is not pumped completely out of the atria; thus, blood may pool and clot. If a blood clot is pumped out of the heart, it can lodge in an artery in the brain and block blood flow, causing a stroke. Further, atrial fibrillation that is not controlled can weaken the heart, causing heart failure (a condition in which the heart cannot effectively pump blood to the body).

Definitions

Paroxysmal atrial fibrillation: Begins suddenly and stops on its own. Symptoms range from mild to severe; can last seconds, minutes, hours or days; and can occur intermittently.

Persistent atrial fibrillation: Persists and does not terminate on its own within seven days. Often requires pharmacologic or electrical cardioversion to restore normal rhythm. **Longstanding persistent:** Persistent and continuous atrial fibrillation lasting more than twelve months.

Permanent atrial fibrillation: Persistent or longstanding persistent atrial fibrillation where cardioversion cannot or will not be performed, or is not indicated. This term is used to identify patients with persistent atrial fibrillation where a joint decision has been made by the patient and clinician to no longer pursue a rhythm control strategy.

Chronic atrial fibrillation (unspecified): May refer to any persistent, longstanding persistent or permanent atrial fibrillation. However, in clinical practice, use of one of the more specific descriptive terms is preferred over the use of the nonspecific term chronic atrial fibrillation.

Chronic persistent atrial fibrillation: Has no widely accepted clinical definition or meaning. AHA Coding Clinic advises to code this description to “Other persistent atrial fibrillation” (code I48.19).

CODER ALERT: ICD-10-CM code assignment is based on the specific diagnosis description documented in the medical record, *not* on timelines noted within these definitions.

Some of the possible causes

- High blood pressure
- Heart attacks
- Abnormal heart valves
- Congenital heart defects
- Metabolic imbalances, such as an overactive thyroid
- Stimulants, such as medications, caffeine, tobacco or alcohol
- Emphysema or other lung diseases
- Prior heart surgeries
- Viral infections
- Stress related to surgery or other illnesses
- Sleep apnea

Note: Sometimes the cause is not known.

Signs and symptoms

- Palpitations (sensations of a racing, irregular heartbeat or a pounding or flopping in the chest)
- Decreased blood pressure
- Weakness or fatigue
- Lightheadedness
- Confusion
- Shortness of breath
- Chest pain

Note: In some cases there may be no symptoms.

Diagnostic tools

- Medical history and physical exam
- Electrocardiogram (ECG or EKG)
- Holter monitor
- Cardiac event recording
- Echocardiogram
- Blood tests (to check for metabolic problems or substances in the blood that can cause atrial fibrillation)
- Chest X-ray (to monitor for complications, such as fluid buildup in the lungs, or to check for other conditions that may be responsible for signs and symptoms)

Treatment

- Blood-thinning medications to prevent clots
- Medications to control the heart rate and rhythm
- Medical procedures, such as electrical cardioversion (electrical shock delivered to reset the heart rhythm),



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or ablation therapy that destroys tiny areas of heart tissue that are causing atrial fibrillation by firing off abnormal electrical impulses (radiofrequency ablation, destruction by electrical current; or cryoablation, destruction by extreme cold energy)

- Pacemaker implantation
- Surgical procedures called Maze procedures that create a pattern of scar tissue in the heart (Since scar tissue does not conduct electricity, the abnormal electrical impulses causing the problem are disrupted.)



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Best documentation practices for physicians

Subjective

The subjective section of the office note should document the presence or absence of any current symptoms related to atrial fibrillation.

Objective

In the objective section, include any current associated physical exam findings (such as “irregularly irregular” rhythm or increased heart rate) and related diagnostic testing results.

Assessment

Specificity: Document current atrial fibrillation to the highest level of specificity, using all applicable descriptors (paroxysmal, persistent, longstanding, chronic, permanent). Include the current status of atrial fibrillation (e.g., stable on medication, worsening, controlled with medication, etc.).

Abbreviations: A good rule of thumb for a medical record is to limit – or avoid altogether – the use of acronyms and abbreviations. While “AF” is a commonly accepted medical abbreviation for atrial fibrillation, this abbreviation has other meanings (e.g., atrial flutter). The meaning of an abbreviation or acronym can often be determined based on context, but this is not always true. **Best practice** is to always document atrial fibrillation by spelling it out in full.

Current versus historical/transient:

- Do not use the descriptor “history of” to describe current atrial fibrillation. In diagnosis coding, the descriptor “history of” implies the condition occurred in the past and is no longer a current problem.
- Temporary or transient atrial fibrillation that occurred in the past and is no longer present should not be documented as if it is current. This is true even in the presence of ongoing, chronic anticoagulation therapy that is being used just in case a historical atrial fibrillation should ever recur.

Medications:

Clearly link atrial fibrillation to any medications specifically being used to treat the condition. Include the purpose of each medication, i.e., anti-arrhythmic to control heart rate and rhythm versus anticoagulant to prevent blood clots.

Example: “Continue amiodarone for permanent atrial fibrillation and Coumadin as directed for blood clot prevention.”

Electronic medical record (EMR) final diagnosis issues:

- Some electronic medical records (EMR) insert ICD-10-CM codes with corresponding descriptions into the assessment section of the office note rather than a provider-stated final diagnosis. For example:
 - “I48.91 Unspecified atrial fibrillation.” This is a vague and nonspecific description.
 - “I48.19 Other persistent atrial fibrillation.” This vague description can lead to confusion, as the “other” type of atrial fibrillation is *NOT* specified.
- Another scenario that causes confusion is when the assessment section documents a provider-stated diagnosis *PLUS* an EMR-inserted diagnosis code with description that does not match – or may even be contradictory. Example:

Impression:

Problem #1 – Chronic atrial fibrillation

I48.11 Longstanding persistent atrial fibrillation

In this scenario, the provider’s stated final diagnosis does not match the EMR-inserted diagnosis code with description.

Please note: ICD-10-CM is a statistical classification; it is not a substitute for a healthcare provider’s final diagnostic statement. It is the provider’s responsibility to provide legible, clear, concise and complete documentation of each final diagnosis described to the highest level of specificity, which is then translated to a code for reporting purposes. It is not appropriate for healthcare providers to simply list a code number or select a code number from a list of codes in place of a written final diagnosis.

Plan

Document a specific and concise treatment plan.

- Clearly link atrial fibrillation to all medications being used to treat the condition, along with the purpose of each medication (e.g., anti-arrhythmic to control heart rate and rhythm; anticoagulant to prevent blood clots.)
Example: “Continue amiodarone for rhythm control of permanent atrial fibrillation and Coumadin to prevent blood clots.”
- Include details of plans for diagnostic testing and medical or surgical procedures.
- Details of referrals or consultations requested.
- Document when you will see the patient again.



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Tips and resources for coders

Basics of coding

For accurate and specific diagnosis code assignment:
Review the entire medical record to verify atrial fibrillation is a current problem. Note the exact atrial fibrillation description documented in the medical record; then, in accordance with ICD-10-CM official coding conventions and guidelines:

- Search the alphabetic index for that specific description and the corresponding code.
- Verify the code in the tabular list, carefully following all instructional notes.

Current atrial fibrillation

In the ICD-10-CM manual, current atrial fibrillation classifies as follows:

ALPHABETIC INDEX

Fibrillation

- atrial or auricular (established) I48.91
- chronic I48.20
- persistent I48.19
- paroxysmal I48.0
- permanent I48.21
- persistent (chronic) (NOS) (other) I48.19
- longstanding I48.11

TABULAR LIST

- I48.0 Paroxysmal atrial fibrillation
- I48.1- Persistent atrial fibrillation
 - Excludes 1:** Permanent atrial fibrillation (I48.21)
 - I48.11 Longstanding persistent atrial fibrillation
 - I48.19 Other persistent atrial fibrillation
 - Chronic persistent atrial fibrillation
 - Persistent atrial fibrillation, NOS
- I48.2- Chronic atrial fibrillation
 - I48.20 Chronic atrial fibrillation, unspecified
 - Excludes 1:** Chronic persistent atrial fibrillation (I48.19)
 - I48.21 Permanent atrial fibrillation
- I48.91 Unspecified atrial fibrillation

Postoperative atrial fibrillation with no further description classifies to I97.89 Other postprocedural complications and disorders of the circulatory system, not elsewhere classified and I48.91 Unspecified atrial fibrillation

Personal history of atrial fibrillation: The best code available is Z86.79, Personal history of other diseases of the circulatory system.

Atrial fibrillation and anticoagulation therapy

Code Z79.01 represents long-term (current) use of anticoagulants.

BACKGROUND:

Quivering and ineffective beating of the heart that occurs with atrial fibrillation can cause blood to pool inside the chambers of the heart, which can result in the formation of blood clots inside the heart.

If the heart should spontaneously return to a normal rhythm and suddenly start pumping blood effectively, a blood clot can be dislodged and pumped out of the heart and to an artery in the brain. The blood clot can ultimately lodge in the brain artery, blocking blood flow of vital oxygen and nutrients to that area of the brain. This is known as an ischemic stroke and can lead to devastating neurological deficits, disability or even death.

To prevent this potential complication, blood-thinning drugs (anticoagulants) such as Coumadin (warfarin) are used to prevent the development of blood clots inside the heart.

KEY POINTS:

- Unlike antiarrhythmic drugs, anticoagulation therapy does not treat or control the atrial fibrillation arrhythmia itself. Rather, anticoagulants are used to prevent the complication of blood clot formation in the heart as previously described.
- A coder cannot assume anticoagulation therapy is being used to treat atrial fibrillation when there is no documented link between the two in the record.
- Even when the medical record links anticoagulation therapy to the treatment of atrial fibrillation, this does not necessarily mean atrial fibrillation is current, since long-term anticoagulant therapy may be used to:
 - a) prevent blood clots in a patient with **current** atrial fibrillation (category I48); OR
 - b) prevent blood clots in a patient with a **past history** of atrial fibrillation (Z86.79) just in case atrial fibrillation should ever recur.

Ultimately, code assignment is based on the specific description of atrial fibrillation documented in the individual medical record (i.e., whether the medical record describes and supports atrial fibrillation as current versus historical).



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Coding examples

Example 1	
Chief complaint	Presents to clinic for follow-up of his diabetes.
Past medical history	Obesity, hypertension, diabetes mellitus type II, benign prostatic hypertrophy, atrial fibrillation
Medications	Toprol XL, Humulin N, Flomax
Review of systems	Well-groomed male in no acute distress. Blood sugars at home have been running between 130 and 250. All other systems reviewed and negative.
Physical exam	Vital signs stable. Lungs clear to auscultation. Heart regular rate and rhythm without murmur.
Impression	Diabetes mellitus type II with hyperglycemia
Plan	Encouraged weight loss and exercise. Referred to dietitian.
ICD-10-CM code(s)	E11.65 Type 2 diabetes mellitus with hyperglycemia
Comments	Atrial fibrillation is not coded as current since it is mentioned only in the history and the record does not otherwise support atrial fibrillation as a current problem. Atrial fibrillation is not linked to any specific treatment; is not included in the final diagnostic statement; and is not addressed in the plan.

Example 2	
Chief complaint	"Here today to check blood pressure and irregular heart."
Medications	Lisinopril, Coumadin, Digoxin
Review of systems	Voices no complaints, denies fatigue, palpitations, shortness of breath or chest pain.
Physical exam	Blood pressure 116/87, pulse 70, respiration 16, temperature 97.2. Pulse oximetry 94% on room air. No edema noted. Heart regular rate and rhythm, no murmur or rub. EKG shows normal sinus rhythm. Pacemaker interrogation with cardiologist due in two months.
Impression	Hypertension and persistent longstanding atrial fibrillation, both controlled on medications.
Plan	Continue same meds, follow up in six months.
ICD-10-CM code(s)	I10 Essential (primary) hypertension I48.11 Longstanding persistent atrial fibrillation
Comments	Documentation supports longstanding persistent atrial fibrillation as a current condition controlled by medications.

Example 3	
Subjective	73-year-old female returns today for recheck regarding her long-term anticoagulation therapy secondary to her history of atrial fibrillation. Currently she is taking 3.5 mg of Coumadin daily. Her protime today is 27.3, INR 2.7. Denies any chest pain, palpitations and shortness of breath or dizziness. Daughter in attendance and reports her mother continues to be forgetful, but she is assisting her with her meds.
Objective	BP 120/82. Pulse 57. Respiration 16. Weight 150. Lungs clear to auscultation with no wheezes, rales or rhonchi. Heart regular rate and rhythm with no rubs, murmurs or gallops. Exam or otherwise unremarkable.
Assessment	1. History of atrial fibrillation on long-term anticoagulant therapy 2. Early dementia
Plan	Continue current dose of Coumadin at 3.5mg daily. Return to clinic in one month for recheck
ICD-10-CM code(s)	Z86.79 Personal history of other diseases of the circulatory system Z79.01 Long term (current) use of anticoagulants F03.90 Unspecified dementia without behavioral disturbance
Comments	In the final assessment, atrial fibrillation is described as historical. The best code available in ICD-10-CM for personal history of atrial fibrillation is Z86.79.

References: American Heart Association; American Hospital Association (AHA) Coding Clinic; ICD-10-CM Official Guidelines for Coding and Reporting; Mayo Clinic; National Heart, Lung, and Blood Institute; WebMD.