

## MODULE 6

# CARDIOLOGY



### MODULE HIGHLIGHTS

- Identify and differentiate sound-alike words
- Apply style guide principles
- Hone proofreading skills
- Apply listening skills
- Transcribe a variety of cardiology medical reports from dictated voice files
- Edit text in a variety of medical reports employing speech recognition practices
- Internalize the use of medical terminology

Cardiology is a specialty related to heart disorders. The field includes the diagnosis and treatment of congenital heart defects, coronary artery disease, heart failure, and heart disease.

### MEDICAL TRANSCRIPTION TIPS

The speciality of cardiology deals with the functions and health of the heart.

Some of the reports dictated by a cardiologist include, but may not be limited to, operative reports, consultations (outpatient and inpatient), radiology reports, and letters.

A cardiologist may work in collaboration with a nephrologist, neurologist, psychiatrist, cardiac rehabilitation team, occupational therapist, dietician, pharmacist, and hematologist.

Cardiology is a unique specialty in that the terminology encountered is vast and specific. A medical transcriptionist must pay close attention to the acronyms and terms dictated by a cardiologist to ensure they are correct.

#### Speech Recognition **BLOOPER**

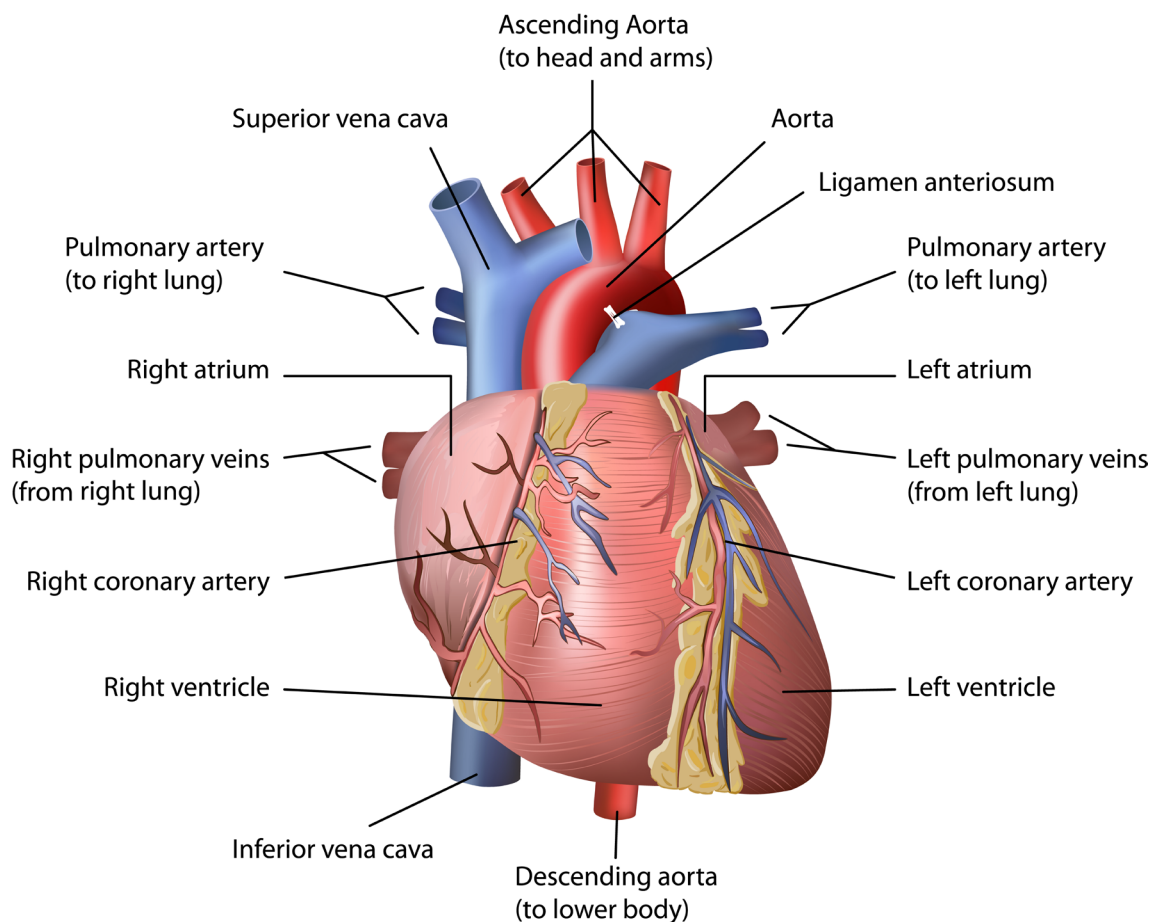
*Dictated:*

- ✓ Should she develop significant gastrointestinal intolerance, she might consider using *Proferrin*.

*Speech Recognition:*

- ✗ Should she develop significant gastrointestinal intolerance, she might consider using *profanity*.

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## Diseases and Conditions

angina	dysrhythmia	mitral valve prolapse
arrhythmia	endocarditis	murmurs
atrial fibrillation	heart failure	myocardial infarction
cardiomyopathy	hypertrophic cardiomyopathy	pericarditis
coronary artery disease	mitral regurgitation	pulmonary stenosis

## Laboratory Studies and Diagnostics

angiogram	echocardiogram	treadmill stress test
brain natriuretic peptide (BNP)	electrocardiogram (ECG/EKG)	troponin I
chest x-ray	electroencephalogram (EEG)	multigated acquisition/ multiple gated acquisition (MUGA)
creatinine kinase or ck	electrolytes, sodium, potassium, calcium, chloride	Doppler
CT and MRI	transesophageal echocardiogram (TEE)	

## Procedures and Surgeries

ablation	coronary artery bypass graft (CABG)	heart valve surgery
aortic valve replacement (AVR)	defibrillator	pacemaker insertion
cardiac catheterization	heart transplant	stent placement

## Medications

Class	Brand Name	Generic Name
angiotensin converting enzyme (ACE) inhibitor	Vasotec	enalapril
angiotension II receptor blocker (ARB)	Avapro	irbesartan
angiotensin-receptor neurolysis inhibitor (ARNi)	Entresto	sacubitril/valsartan
anticoagulant	Coumadin	warfarin
antiplatelet/dual antiplatelet	Brilinta	ticagrelor
beta blocker	Lopressor	metoprolol
calcium channel blocker	Norvasc	amlodipine
digitalis preparation	Lanoxin	digoxin
diuretic	Lasix	furosemide
statin	Crestor	rosuvastatin
vasodilator	Isordil	isosorbide dinitrate

## Abbreviations

atrial septal defect (ASD)	implantable cardioverter defibrillator (ICD)
atrioventricular (AV)	myocardial infarction (MI)
beats per minute (BPM)	premature atrial contraction (PAC)
cardiac heart failure (CHF)	premature ventricular contraction (PVC)
cardiopulmonary resuscitation (CPR)	sinus tachycardia (ST)
coronary artery bypass graft (CABG)	supraventricular tachycardia (SVT)
coronary artery disease (CAD)	ventricular fibrillation (VF)
deep vein thrombosis (DVT)	ventricular septal defect (VSD)
ejection fraction (EF)	ventricular tachycardia (VT)

## What Is Being Dictated/Search Tips?

Report Component	Explanation	Rules/Examples
Heart sounds	Heart sounds are noises generated by a beating heart.	Heart sounds are transcribed as dictated. They will be dictated as an alphanumeric or an ordinal, which is spelled out.  Examples:  The patient had a normal <b>S1</b> and <b>S2</b> with no <b>S3</b> or <b>S4</b> .  A patient's third heart sound may indicate congestive heart failure.
Murmurs	A murmur is an atypical sound heard between heartbeats.	Murmurs are dictated as "grades" and as a fraction. The words " <b>out of</b> " or " <b>over</b> " will be heard.  Example:  A grade 3/6 ejection murmur was heard <b>over</b> the left sternal border.
Blood pressure	Blood pressure is the measure of the pressure of the blood in the arteries.	Blood pressure will be dictated as a systolic and diastolic measurement.  The two measurements are separated with a slash and are measured in millimetres of Mercury.  These are transcribed in numeric form using the short form mmHg only if dictated. The words " <b>on</b> " or " <b>over</b> " may be heard.  Example:  D: The patient's blood pressure was 130 <b>over</b> 80.  T: The patient's blood pressure was 130/80.
Cardiac muscle	Troponin is a blood test to measure the health of the heart. The more damage there is to the heart the higher the troponin level.	Transcribe this as dictated.  Example:  The patient's troponin level was 0.5.
Myocardial infarction	A myocardial infarction is also known as a heart attack. There are three types of myocardial infarction:  non-ST segment myocardial infarction (NSTEMI)  ST segment myocardial infarction (STEMI)  unstable angina	These acronyms will be transcribed as dictated, expanding the acronym.  Examples:  The patient presents with symptoms of a non-ST segment myocardial infarction (NSTEMI).  The patient presents with symptoms of an ST segment myocardial infarction (STEMI).

Report Component	Explanation	Rules/Examples
Echocardiogram	An echocardiogram uses sound waves to produce images of the heart.	This is often dictated as “echo” and can be mistaken for an electrocardiogram. Follow facility guidelines on the expansion of “echo” when it is dictated.  Examples: The patient will undergo an echo later today. The patient will undergo an echocardiogram later today.
Electrocardiogram	An electrocardiogram records the electrical signals of the heart, which is represented by ECG or EKG. These acronyms represent an electrocardiogram, and the rule is to keep them consistent throughout a report.	They are transcribed as dictated and do not need to be expanded unless facility preference dictates differently.  Examples: The patient will undergo an ECG upon admission. The patient will undergo an electrocardiogram upon admission.
ECG tracing	Electrocardiogram tracing monitors and displays the heart’s electrical activity.	The terms that represent ECG tracing results are many and are transcribed as dictated. Refer to a reliable resource when transcribing ECG tracing results.  Remember to use a hyphen when these modify a noun.  Example: The ECG showed T-wave inversions in leads I and III.
Classification systems	There are two main classification systems dictated in cardiology reports: Canadian Cardiovascular Society (CCS) – for angina. New York Heart Association (NYHA) – for heart failure.	These are transcribed as dictated and expanded as per facility preference. The class level is dictated as a Roman numeral.  Examples: The patient has a Canadian Cardiovascular Society (CCS) <b>class II</b> angina. The patient is in New York Heart Association (NYHA) <b>class III</b> heart failure.
Atrial fibrillation	Atrial fibrillation is an abnormal heart rhythm.	It is often dictated as “ <b>Afib</b> ” but needs to be transcribed as atrial fibrillation.  Example: D: The patient presents to the emergency room in <b>Afib</b> . T: The patient presents to the emergency room in <b>atrial fibrillation</b> .

## SOUND-ALIKE WORDS

ACE	acronym for angiotensin converting enzyme (a class of medication)
Ace	name of a type of bandage
ace	card in a deck
arteriosclerosis	thickening of the arterial walls
atherosclerosis	a buildup of cholesterol at the artery walls causing a narrowing
BMP	acronym for basic metabolic profile
BNP	acronym for brain natriuretic peptide
CABG	acronym for coronary artery bypass graft
cabbage	vegetable
coding	used in medical billing; when a patient is in cardiopulmonary arrest
coating	covering
eluting	washing out or extracting
eluding	avoid or escape
infarction	blockage or obstruction; tissue death
infraction	violation of the law
palpation	examining by touch
palpitation	fluttering or fast heartbeat
peace	tranquility
piece	a portion of an object
stent	treatment for narrowed arteries
stint	period of time spent working

**TASK 1** **SOUND-ALIKE EXERCISE**

Using the terms above, fill in the blanks using the correct word:

1. I will adjust the patient's \_\_\_\_\_ (ace/Ace/ACE) inhibitor, Vasotec, to bring his blood pressure down a bit more.
2. The patient's cholesterol is high; therefore, he is at risk for \_\_\_\_\_ (arteriosclerosis/atherosclerosis) and needs to be put on a statin.
3. When a patient arrives and heart failure is suspected, one of the tests performed first is a \_\_\_\_\_ (BNP/BMP) to look for the level of this protein.
4. When a patient is found to have a blocked artery, I send him or her for a \_\_\_\_\_ (cabbage/CABG).
5. In a hospital setting, a patient having a cardiopulmonary arrest is often referred to as \_\_\_\_\_ (coating/coding).
6. The patient performed a \_\_\_\_\_ (stint/stent) on the treadmill so I could examine his exercise tolerance.
7. A myocardial \_\_\_\_\_ (infraction/infarction) is also known as a heart attack.
8. A heart \_\_\_\_\_ (palpation/palpitation) can be caused if a person is under stress or is anxious.
9. The patient was able to have \_\_\_\_\_ (peace/piece) of mind when the surgeon advised the tumour has been fully excised.
10. A drug-\_\_\_\_\_ (eluting/eluding) stent can be placed in the arteries following angioplasty to help keep them open.

**TASK 2****STYLE GUIDE AND TRANSCRIPTION TIP EXERCISE**

Using Appendix H and your transcription tips, complete the following:

1. Which of the following grouping of abbreviations are cardiac enzymes?
  - a. OD, OS, OU
  - b. ALT, AST, and ALP
  - c. CPK, CK, and TnT
  - d. CO2, O2, and PO2

2. A CABG is a drug that is given to regulate the heart rate.  
True or False

3. Which is the same thing as a heart attack?
  - a. CAD
  - b. AV
  - c. MI
  - d. CHF

4. Rewrite the following sentence correcting the four errors:

The patient was sent for a persantine mibi as well as a muga scan.

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5. Rewrite the following sentence correcting the one error:

An I.V. of D5W was started.

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6. Rewrite the following sentence correcting the one error:

CBC and total CPK were drawn.

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7. Rewrite the following correcting the three errors:

Heart: S-one and S-two are normal with a loud S-four.

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8. Rewrite the following sentence correcting the five errors:

The patient was discharged on cardizem 30 milligrams TID and Nitroglycerin spray PRN.

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9. Fill in the Blank: The patient was placed on a/an \_\_\_\_\_ (1800 or 1,800) calorie diet at discharge.

10. Rewrite the following sentence correcting the two errors:

Serial EKG's were done for the first twenty-four hours in ICU.

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**TASK 3****PUNCTUATION AND GRAMMAR EXERCISE**

Using Appendix H, locate and correct the error in grammar or punctuation in each sentence.

1. The patient is a 40-year-old male who presents with a chief complaint of "chest pain".

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2. She is moderately obese but is otherwise well-nourished.

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3. The patient noted some lightheadedness as well as chest discomfort and shortness of breath that was seen on his 12-lead EKG; otherwise, he had no chest pain.

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4. The patient is a 41-year-old French, Canadian male previously well known to me with a history of aortic valve disease.

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5. He denies exertional chest pain, orthopnea or paroxysmal atrial fibrillation.

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6. Chest: Midline sternotomy scar.

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7. Follow up to be arranged with Samantha Kane, dietician, after cardiac catheterization.

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8. She is taking Hydrochlorothiazide 25 mg once a day.

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9. Please accept this letter of followup on this patient who is three months out from left carotid angioplasty.

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10. I had cardiology come see the patient who reviewed the records from Hope General Hospital.

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**TASK 4**    **PROOFREADING EXERCISE**

Locate the ten errors in formatting, punctuation, grammar, or style in the following report excerpt. Refer to your appendices for guidance.

**HISTORY OF PRESENT ILLNESS:**

The patient is a 68-year-old woman with a history of arteriorsclerosis. The patient presented at the clinic due to recurrent left arm pain after a procedure six weeks ago where four stints were placed.

There were complications during the procedure; the patient coated once and had difficulty with palpations.

The patient self-administered two sublingual nitroglycerin prior to seeking medical assistants. The patient was in no pain upon arrival and all vitals were within normal range.

**IMPRESSION**

It is my opinion that the patient has unstable angina post stent.

**PLAN**

The patient will be admitted for farther observation and testing.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

**TASK 5** LISTENING EXERCISE

Using the voice file Module 6, Task 5, and the following text, fill in the ten blanks accurately with the missing information.

Thank you for seeing this patient to \_\_\_\_\_ upon his previous condition. The patient has a scheduled carotid angioplasty procedure and an appointment in 4 \_\_\_\_\_ time. The patient has not experienced a \_\_\_\_\_ event in the \_\_\_\_\_ 2 months. The patient underwent an \_\_\_\_\_ today that showed the \_\_\_\_\_ to be \_\_\_\_\_ with no evidence of significant \_\_\_\_\_. A reassessment would be beneficial for the patient's \_\_\_\_\_ of mind. The patient's imaging report will be forwarded to your office within the next \_\_\_\_\_ days.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

## **TASK 6**    **TRANSCRIPTION EXERCISES**

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Transcribe using the templates and voice files provided.

MODULE 6 TRANSCRIPTION EXERCISE 1

Level 1

Letter

MODULE 6 TRANSCRIPTION EXERCISE 2

Level 1

Discharge Summary

MODULE 6 TRANSCRIPTION EXERCISE 3

Level 1

Diagnostic Study

MODULE 6 TRANSCRIPTION EXERCISE 4

Level 2

Progress Note

MODULE 6 TRANSCRIPTION EXERCISE 5

Level 2

Autopsy Report

MODULE 6 TRANSCRIPTION EXERCISE 6

Level 2

Discharge Summary

**TASK 7**

**SPEECH RECOGNITION EDITING EXERCISES**

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Using the voice files and text, correct all errors on the report.

MODULE 6 SPEECH RECOGNITION EXERCISE 1

Level 1

Progress Note

MODULE 6 SPEECH RECOGNITION EXERCISE 2

Level 1

Operative Report

MODULE 6 SPEECH RECOGNITION EXERCISE 3

Level 1

Discharge Summary

MODULE 6 SPEECH RECOGNITION EXERCISE 4

Level 2

Consultation Report

MODULE 6 SPEECH RECOGNITION EXERCISE 5

Level 2

History and Physical Report

MODULE 6 SPEECH RECOGNITION EXERCISE 6

Level 2

Operative Report

