CHAPTER 3

Medical Records: The Basis for All Coding

Chapter Outline

Format of Medical Records
Content of Medical Records
Incomplete Medical Records
Ten Steps for Coding From Medical Records
Testing Your Comprehension
Coding Practice I: Chapter Review Exercises
Coding Practice II: Medical Record Case Study

Chapter Objectives

- Identify common formats of the medical record.
- Describe the basic steps taken to review a medical record for coding.
- Identify administrative and clinical data contained in medical records that are important to the coding process.
- Explain problems associated with coding from incomplete medical records.
- Identify various medical reports important to the coding process.
- Demonstrate coding from medical reports by using the 10-step method.
- Demonstrate the use of a Coder/Abstract Summary Form and a Physician/Coder Query/Clarification Form.

The coding process begins with a careful and strategic review of the medical record (MR). Whether it describes inpatient or outpatient services, the MR tells a story of each patient's care and provides the best evidence of what physicians, hospitals, and the health-care team are doing.

This chapter explains and illustrates the typical structure and main content of a conventional MR, including various medical reports, and its importance to coders. It then presents a traditional step-by-step approach to reviewing and interpreting the MR for accurate coding. This approach serves as the basic framework on which you can build as you become more adept at coding.

Medical reports contain consistent content, much of which is dictated by laws and accrediting standards. However, from facility to facility, there is no requirement for reports to be formatted (organized or arranged) in the same manner. Over time, information requirements have been standardized through accrediting agencies such as the Joint Commission, Medicare's Conditions of Participation, and state licensure laws. Health-care providers also want to collect and share data to improve their patient services by determining how some institutions can do certain things better than others (i.e., benchmarking to improve performance). This book uses real-world examples of medical reports, so you will see different formats from various health-care facilities presented in this chapter's coding exercises and in those throughout the book.

Format of Medical Records

The formatting of an MR, whether paper based or electronic, can change from one institution to another, but the contents or data remain consistent. Similar information is usually found, although it can be found in different places within MRs from different institutions. To ensure correct coding, you should be searching for data first. Knowledge of MR formatting, although helpful, is of secondary concern.

Different MR formats that you may be exposed to include:

- Problem-oriented MR—contains four main parts: database, problem list, initial plans, and progress notes. This format allows a physician to focus on the whole patient in the context of addressing all problems. Writing progress notes in the problem-oriented MR is referred to as **SOAPing**, which follows all problems through a structured approach of **S**ubjective **O**bjective (data), **A**ssessment (of diagnoses), and **P**lan (for care).
- Source-oriented MR—forms are organized by departments or units (i.e., all laboratory, x-ray, nurses' notes, and physician's progress notes are separated), which allows for quick comparison of data over time (e.g., results of lab work, x-rays, or tests).
- Integrated MR—integrates various forms and caregiver notes, arranging them in strict chronological order to allow for a quick assessment of the patient at any particular moment in time.

Don't worry: you do not have to become an expert at MR formatting to become a good coder. You do need an awareness of the data you are looking for. The arrangement of data within or between pages is not as important as the information itself. Although familiarity with MR formats might help you find data more quickly, by trial and error alone, you will soon find the data and be able to code. You must become familiar with the data contained within MRs to code accurately.

Content of Medical Records

MRs contain administrative and clinical data that assist in the process of coding. Administrative data include routine patient identification such as the patient's name, age, sex, date of birth, address, religious preference, insurance data, and consent for treatment. Clinical data include diagnoses, procedures, and results of tests such as laboratory work, x-ray studies, and operations.

Although most registration data (administrative) collected at the time of patient admission contribute to accurate coding, the key information for coding is clinical (e.g., diagnosis of hepatitis or alcohol abuse and procedures such as cardiac pacemaker insertions or bowel resections).

Incomplete Medical Records

In the real world, you often must code from incomplete records to process records quickly for reimbursement. Discharge summaries (DS) and other important forms and information are often not yet available at the time of coding. Missing information can result in inaccurate coding that can cause the institution to lose money and create compliance issues (e.g., fraud and abuse), and the resulting bad data can spill over into inadequate quality-of-care reviews to evaluate patient care concerns. According to the Joint Commission, patients' histories and physicals (H&Ps) must be completed within 24 hours, and operative reports must be completed immediately. However, the overall record must be completed within 30 days, and often DS fall within this time period. Coding from incomplete records will not result in 100% coding accuracy. In the face of incomplete records, you may need to query the physician for more information or wait until an important report is available.

Just as you need to get a paycheck to pay your bills, a hospital must receive remittance (payments for services) to pay its bills. Under today's prospective payment systems, an MR must be coded before billing and remittance. It is important that health-care professionals remain aware of the effect of incomplete and untimely physician documentation and its effect on the institution's financial bottom line, performance-improvement activities (e.g., internal reviews of surgical and mortality cases), and compliance with its governing laws. Because documentation is the basis of all coding, monitoring and actions to improve the timeliness and quality of MR documentation must constantly be stressed to all who are involved in the coding and billing process.

Ten Steps for Coding from Medical Records

Before beginning the process of coding, make sure sufficient basic materials are in place, including up-to-date ICD-9-CM codebooks, a medical dictionary, and reference books for drugs, human anatomy, and the American Hospital Association's *Coding Clinic*. Have a scratch pad available to take notes as you go. Make sure you have a quiet place to code and plenty of desk space. Be aware that software products such as encoders are available to help you code and are used by many hospitals. However, before you use software, the basics are best learned starting with the ICD-9-CM codebook. The Office of Inspector General's Model Hospital Compliance Plan also prescribes not to rely

100% on computerized encoders and indicates that staff must have access to coding books.[1]

Most hospitals use hundreds of different medical report forms. This chapter does not illustrate every possible report found within a medical record, but it does introduce those most important for beginning the process of coding. The 10 steps below will give you a framework for coding from MRs.

Step 1: Review Face Sheet or Registration Record

The Face Sheet or Registration Record (Medical Report 3.1) is the front page of the MR. It contains basic patient identification data, insurance information, and sometimes clinical data such as the admitting and final diagnoses.

What to look for:

- the size of the record and the patient's length of stay, sex, age, and admitting diagnosis—all of which will give you insight into the complexity of the diagnosis
- prospective payment system payers (e.g., Medicare), which may raise compliance and reimbursement issues

Step 2: Review History and Physical, Emergency Department Report, and/or Consultant's Report

The H&P Report (see Medical Report 3.2) is usually dictated by the attending physician and then transcribed (typed) by medical transcriptionists. The history is an important form that uncovers the chief complaint (CC) of the patient, history of the present illness (HPI), review of systems (ROS), and personal, family, and social history (PFSH). This contains subjective data collected from the patient to begin the process of diagnosis by the physician. The physical examination (PE) includes a system-by-system physical examination by the provider to collect objective data on the patient's condition.

Review the H&P to determine the chief reason(s) for admission and to begin to get a feel for the possible options for the principal diagnosis (i.e., "the condition, after study, chiefly responsible for occasioning the admission of the patient to the hospital for care") and secondary diagnoses. Review the history for secondary diagnoses such as comorbidities and other diagnoses affecting patient care that need to be reported per Uniform Hospital Discharge Data Set (UHDDS) rules. Review the physical examination for abnormal findings. Altogether, the H&P enables the physician to collect both subjective and objective data on the patient to establish a provisional diagnosis and begin a plan of care for the patient.

Determine the provisional or tentative diagnoses given by the physician and plan for care. The Emergency Room or Emergency Department Report provides initial diagnosis and treatment information by the emergency room physician. If a patient is admitted through the emergency room, review the presentation of the patient and the initial treatment or orders given. Emergency room diagnoses should be considered in the context of admitting impressions and assessments.

A Consultant's Report (Medical Report 3.3) contains an expert opinion requested by the attending physician to aid in the diagnosis and treatment of the patient. Ask what the chief reason was for the consultation request by the attending physician, and note all diagnoses given by the consulting physician.

Consultation reports are usually dictated by the consultant and transcribed (typed) but can be handwritten as well.

It is helpful to think of these reports as a connected set; that is, each report that comes from a different physician serves a similar function, which is to assess the patient and begin a plan of care. Often, coders forget to review an emergency room record that may in fact have more detail than the attending physician's H&P.

Step 3: Review Operative Reports, Special Procedure Reports, and/or Pathology Reports

The Operative Report is usually dictated by the surgeon or physician and then transcribed (typed). If applicable, go to the operative report to note operations/procedures and the preoperative and postoperative diagnoses (Medical Report 3.4). Depending on whether it is a major operation or a minor procedure, it is best to recognize that MR forms related to operations or special procedures usually exist as a set of linked forms. This operative set includes the operative report itself, the anesthesia record, special consents for surgery, the recovery room record, and pathology reports for specimen analysis.

Note the results of special procedures such as cardiac catheterizations, colonoscopies (lower endoscopies), esophagogastroduodenoscopies (upper endoscopies), and bronchoscopies, with or without biopsies.

Remember to sequence "definitive before diagnostic" procedure codes per UHDDS rules.

Note pathologic diagnoses given for any specimens removed at operation that are usually dictated by the pathologist and then transcribed (typed).

Step 4: Review Physician's Progress Notes

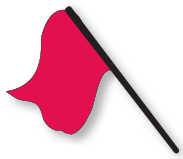
Physician's progress notes (Medical Report 3.5) need to be taken as often as the patient's condition warrants. Progress notes include an admit note, notes that relate to the patient's condition and progress, complications, response to treatment, and a discharge note. Review physician's progress notes for significant diagnoses, findings, and resolution of problems or complications.

Step 5: Review Laboratory, Radiology, and/or Special Test Reports

Laboratory work (Medical Report 3.6) includes several types of chemistry tests, analyses, cultures, and other examinations of body fluids or substances such as blood, urine, stool, and pus. Review laboratory, x-ray, and special tests to note any abnormal results and clarify treatments given through physician documentation. Query the physician for added documentation if this is necessary to clarify the precise code selection.

Radiology Reports (Medical Report 3.7) include x-ray studies, computed tomographic scans, nuclear medicine studies, magnetic resonance imaging, arteriograms, and so on. Review radiologic reports to note any abnormal findings and clarify through additional physician documentation within the MR (e.g., physician's progress notes or DS).

Special Test Reports (Medical Report 3.8) include electrocardiograms, echocardiograms, cardiac stress tests, and so on. Review special tests to note any abnormal findings and clarify through additional physician documentation.



Do not code from laboratory work, radiology, or special tests without additional supporting documentation from the attending physician.

Step 6: Review Physician's Orders

Physician's orders (Medical Report 3.9) are written or oral orders to nursing or ancillary personnel that direct all treatments and medications to be given to the patient. Review the doctor's orders to determine the treatments given. Sometimes doctors prescribe treatments without documenting the corresponding diagnoses or conditions (as the reasons for treatment). Therefore, you may need to query the physician to clarify a diagnosis for coding and ask the physician to add supporting documentation to the patient's MR through an addendum. Diagnosis codes establish the medical necessity for services—an important compliance issue.

Step 7: Review Medication Administration Record (MAR)

The Medication Administration Record (Medical Report 3.10) provides documentation of the drugs given to the patient, including the names of drugs, dosages, times given, and routes of administration, such as by mouth, by intramuscular injection, or intravenously. The nurse or physician administering the drug signs off on all entries. If necessary for clarity, review the MARs to determine medications given to help clarify or justify the diagnoses given by the physician.

Step 8: Review Discharge Summary or Clinical Résumé

The DS (Medical Report 3.11) is usually dictated by the attending physician and then transcribed (typed). It is a summary of the patient's course in the hospital, the patient's condition on discharge, the discharge instructions, and the plan for follow-up care. It includes all final diagnoses, as well as any significant principal procedures and/or any other procedures.

Review the DS for completeness and proper sequencing according to UHDDS reporting rules. Physicians are often unfamiliar with ICD-9-CM coding conventions and rules, so it is the coder's responsibility to ensure that the correct code assignment and sequencing are reported.

Step 9: Assign Codes

The Coder/Abstract Summary Form (Figure 3.1) is a form typically used by coders to summarize their MR review and assign and sequence the patient's codes. Assign codes by following UHDDS and coding rules and conventions in accordance with the steps in Chapter 2.

Step 10: Submit Physician/Coder Query/Clarification Form

The Physician/Coder Query/Clarification Form (Figure 3.2) is typically used as a good-faith communication tool between coders and physicians to clarify

proper code assignment for a patient care episode. It is important to note that the Centers for Medicare and Medicaid Services has expressed concern that questions from coders can at times inappropriately lead physicians to add diagnoses that lead to a higher-weighted diagnosis-related group and payment. Nonetheless, Physician/Coder Query/Clarification Forms are still necessary and used, but coders must now express (within the form) the following points:

1. the coder is not seeking or expecting any particular response from the physician
2. the physician must add supporting documentation to the body of the medical record
3. the Physician/Coder Query/Clarification Form itself must be labeled as part of the permanent MR

If in doubt, query the physician, remembering "if not documented, not done." Without sufficient documentation, you cannot code, because documentation is the basis of all coding. The same or similar type of query form may be used to clarify whether or not a condition was present on admission (POA) to comply with Medicare's new POA reporting requirements (Figure 3.3).

CODER/ABSTRACT SUMMARY FORM
XYZ COMMUNITY MEDICAL CENTER

Medical Record # Acct. #: Name:

Admission Date: Discharge Date: Birthdate: Admission Type: Admission Source: Discharge Disposition:	Encounter Type: Origin: Primary Payor: Sex: LOS: Admission Service: Discharge Service:

Admit Physician:
Discharge MD:
Consultant:

	CODE(S)	SHORT DESCRIPTION(S)
Admit Diag		
Princ Diag		
Other Diag		
Other Diag		
Other Diag		
Other Diag		
Other Diag		
Other Diag		
Other Diag		
Other Diag		

	CODE(S)	SHORT DESCRIPTION(S)
Prin Proc		
Other Proc		
Other Proc		
Other Proc		
Other Proc		
Other Proc		

I certify that the narrative description of the principal and secondary diagnoses and major procedures performed are accurate and complete to the best of my knowledge.

SIGNATURE DATE

FIGURE 3.1 ■ The Coder/Abstract Summary Form is typically used by coders to summarize their MR review and assign and sequence the patient's codes.

PHYSICIAN/CODER QUERY/CLARIFICATION FORM

Date: ____ /____ /____

Dear Dr.:
We need your help. Per the documentation in the medical record, the following has to be clarified in order to correctly code the patient's medical record. The fact that a question is asked does not imply that we expect or desire any particular answer. Please exercise your independent judgment when responding. We sincerely appreciate your clarification on this issue.

Coder's Name / Phone Extension #: _____
Patient Name: _____
Admit / Discharge Dates: _____ to _____
MR #: _____

The medical record reflects the following clinical findings per the following source forms:

_____

_____

_____

Please respond to the following question:

_____

_____

_____

PHYSICIAN RESPONSE:

☐ YES — If yes, please document your response in the space below and be sure to include the clarification in your documentation within the body of the medical record (i.e., progress notes, dictated report or as an addendum to a dictated report)

_____

_____

_____

_____ _____
PHYSICIAN SIGNATURE DATE

☐ NO — If no, please check the box, and sign and date below

☐ UNABLE TO DETERMINE — If so, please check the box, and sign and date below

_____ _____
PHYSICIAN SIGNATURE DATE

This form is a part of the Permanent Medical Record

FIGURE 3.2 ■ The Physician/Coder Query/Clarification Form is typically used as a good-faith communication tool between coders and physicians to clarify proper code assignment for a patient care episode.

PHYSICIAN DOCUMENTATION QUERY
PRESENT ON ADMISSION (POA) DIAGNOSIS CLARIFICATION

Date: _____/_____/_____
Med. Rec. No.: _____
Patient Name: _____
Admit Date: _____/_____/_____

Dear Doctor: _____

We need your help. Per documentation in the medical record, the following has to be clarified in order to correctly code your patient's record. Documentation clarification is required to meet both federal and state POA Compliance.

It is unclear whether or not the following condition or diagnosis was present on admission.

_____ (Specific diagnosis/condition)

Please select one of the following:

_____ **Y** = Yes, the condition was present on inpatient admission

_____ **N** = No, the condition was not present on admission (developed after admission)

_____ **W** = Clinically undeterminable by provider (physician)

_____ ***MD Signature***

_____/_____/_____ ***Date***

If you have any questions, please do not hesitate to contact the HIM Department (Medical Records) for assistance at # 999-9999. Thank you!

This form is a part of the Permanent Medical Record

FIGURE 3.3 ■ The Physician Documentation Query Present on Admission (POA) Diagnosis Clarification Form may be used to clarify whether or not a condition was present on admission to comply with Medicare's new POA reporting requirements.

SUMMARY

In this chapter, the common formats of the MR were identified. The basic steps in reviewing an MR for the process of coding were reviewed. The administrative and clinical data contained in MRs have been identified, and the content has been defined. Various MR forms have been identified, and the coding process has been exemplified by using the 10-step method. The uses of the Coder/Abstract Summary Form and the Physician/Coder Query/Clarification Form have also been demonstrated.

Chapter 4 focuses on how to code for signs, symptoms, and ill-defined conditions.

REFERENCE

1. Russo R, Russo JJ. Healthcare compliance plans: good business practice for the new millennium. J AHIMA 1998;69:24, 26–28, 30–31; quiz 33–34.

TESTING YOUR COMPREHENSION

1. What are the four parts of a problem-oriented medical record?

2. What is unique about the source-oriented medical record?

3. What is the unique element of the integrated medical record?

4. The Face Sheet (Registration Record) of the clinical record customarily contains what information?

5. What medical report is defined as an expert opinion requested by a physician to aid in the diagnosis and treatment of a patient?

6. Under what conditions should a coder decline to code from laboratory work, radiology, or other special tests?

7. What is used as a good-faith communication tool between the coder and the physician?

8. What are other indicators of the complexity of a diagnosis?

CODING PRACTICE I Chapter Review Exercises

Directions

By using your ICD-9-CM codebook, code the following diagnoses and procedures:

	DIAGNOSIS/PROCEDURES	CODE
1	Cellulitis of the leg.	
2	Acute asthmatic bronchitis.	
3	Diagnosis: Open distal femur fracture. Procedure: Open reduction, internal fixation, femur fracture.	
4	Viral meningitis.	
5	Mitral valve insufficiency with aortic regurgitation.	
6	Rheumatoid arthritis.	
7	Endometriosis of the cervix.	
8	Primary thrombocytopenia.	
9	Diagnosis: Nontraumatic rotator cuff tear, right shoulder. Procedure: Rotator cuff repair.	
10	Diagnosis: Loose bodies in left knee. Procedure: Arthroscopy with removal of loose bodies, left knee.	
11	Hypoglycemic coma in patient with non-insulin-dependent diabetes mellitus.	
12	Dehydration with hyponatremia.	
13	Diagnosis: Open wound of hand. Procedure: Suture skin of hand.	
14	Alzheimer's dementia with behavioral disturbance.	
15	Decompensated congestive heart failure.	

CODING PRACTICE II Medical Record Case Study

Instructions

This is an exercise to give you practice in coding from a real-life medical record.

1. Refer to the 10 steps for coding from medical records in this chapter.
2. Follow each step and review each medical report; these are all part of this patient's medical record.
3. At step 9, begin filling in the correct codes on the Coder/Abstract Summary Form (Figure 3.1).
4. If necessary, complete a Physician/Coder Query/Clarification Form (Figure 3.2) to clarify the physician's documentation and ensure more precise coding.

Medical Report 3.1

REGISTRATION RECORD

Thursday April 6, 2000 9:23 AM

XYZ Community Medical Center

MRUN:	0002648-650
ACCT#:	4006755706
MR#:	1234567
CAMPUS:	XYZ – COMMUNITY MEDICAL CENTER
NAME:	John Doe
ADMIT DATE/TIME:	04/06 0321
DISCHARGE DATE/TIME:	04/12 1700
PT TYPE:	INPATIENT
VISIT TYPE:	INTERNAL MEDICINE

PATIENT INFORMATION:

Patient Address:	1234 PARK AVE	DOB:	06/20/1938
Patient Address:		Age:	65Y
City:	SOMEPLACE	Sex:	M
County:		M/S:	MARRIED
State/FC:	FL	Race:	CA
Zip:	99999	Religion:	PROTESTANT
Home Phone #:	999-999-9999	Patient SSN:	
Work Phone #:		Previous Room/Bed:	8302/01 NU: 3EA
Emp. Status:	RETIRED	Privacy Code:	
Occupation:	NONE	Valuables Secured:	N
Employer:	RETIRED	LMP:	
Employer Address:		Onset of Illness:	11/30
City:		Health Program:	MEDICARE
State:			
Zip:			

NEXT OF KIN:

NOK #1:	JANE DOE	NOK #2:	
Rel to Pt:	WIFE	Rel to Pt:	
Address:	1234 PARK AVE	Address:	
City:	SOMEPLACE	City:	
State:	FL	State:	
Zip:	99999	Zip:	
Home Phone #:	999-999-9999	Home Phone #:	
Work Phone #:		Work Phone #:	

Continued

Medical Report 3.1 (Continued)

PHYSICIAN/DIAGNOSIS INFORMATION:

Admitting Physician:	000405-SMITH, MARIE Other Physician: 005500-EMRG DEPT, M
Attending Physician:	000405-SMITH, MARIE
Admitting Diagnosis:	UNSTABLE ANGINA/CATH POSS ANGIOPLAST, ARRHYTHMIA

ACCIDENT INFORMATION:

Accident Date:	How Occurred:
Accident Time:	Where Occurred:
Accident Type:	

ADVANCE DIRECTIVES:

Adv. Directive:	NO
Adv. Directive Type:	
Follow-Up Required:	NO

NOTES

Medical Report 3.2

PATIENT NAME: John Doe
MEDICAL RECORD NUMBER: 1234567
ACCOUNT NUMBER: 4006755706
ADMISSION DATE: 04/07
ROOM: 3507

HISTORY AND PHYSICAL

CHIEF COMPLAINT AND HISTORY OF PRESENT ILLNESS: This 65-year-old male was referred here by Dr. J. Jones.

This patient was working doing auto refurbishing and his wife states that he does a lot of sanding and preparation for painting.

I saw this patient in my office on February 29. I have since reviewed the catheterizations done by Dr. Jones on January 27, at Memorial Hospital. This shows a totally occluded RCA with a tiny distal vessel filled by collaterals and in the posterior one-half of the inferior wall line, the distribution of the RCA is akinetic and the remainder moderately hypokinetic with an overall EF of 30%. The left main has mild disease, the LAD has diffuse 50 and 75% proximal and mid narrowing, with a rather diffuse distal LAD which is not a good target for CABG. The circumflex marginal has diffuse 75% narrowing and is not a good target, the groove circumflex had 50–75% diffuse narrowing.

The patient was admitted on this occasion with rapid atrial fibrillation, with heart rates of 160. He was transferred here for consideration for possible CABG or interventional angioplasty, but after reviewing the films I did not feel that he was a good candidate.

The catheterization was done from the right arm approach since he was total occlusion of the abdominal aorta below the renal arteries.

The patient has had diabetes for 20 years and he has been a chronic heavy cigarette abuser with underlying emphysema. He also has a marked hyperlipidemia.

Since admission, he has had intermittent atrial fibrillation in spite of IV Cardizem drip, and I have started him on a low dose of beta-blocker therapy. The patient has a past history of sinus bradycardia and since admission he has been in and out of atrial fibrillation versus sinus rhythm. When he is in sinus rhythm, he has occasional marked sinus bradycardia with heart rates as low as 30 per minute. He has also had severe long pauses.

PAST MEDICAL HISTORY: PAST SURGICAL HISTORY: None.

ALLERGIES: None.

MEDICATIONS: He has been on Zocor 20 mg q.d., nitroglycerin patch, Humulin N 16 units q.d.

SOCIAL HISTORY: Noncontributory.

Continued

Medical Report 3.2 (Continued)

FAMILY HISTORY: Both parents died in their 70s with cancer. He has a 61-year-old sister that is alive and well and he has a brother who died with cancer. He has been married for 42 years and he has a 31-year-old son and a daughter who is around 30 and they are both living and well.

REVIEW OF SYSTEMS: He has a history of a marked hyperlipidemia and blood work on January 26, showed cholesterol of 317, LDL 254, triglycerides 93 and HDL 45. He has early cataracts. He denies problems with his liver, lungs, kidney, bladder, prostate, bleeding, stomach problems, neurological problems, thyroid, cancer, glaucoma, arthritis or gout. He has claudication if he walks one or two blocks, but if he rests for a few moments, he can continue without difficulty.

The patient was very combative and confused early this morning and was treated with Haldol and Valium.

PHYSICAL EXAMINATION:

GENERAL APPEARANCE: The patient is a slender individual, who is currently a little confused, but much better then earlier this morning.

VITAL SIGNS: He weighs 145 pounds.

SKIN: His skin was normal.

NECK: He has loud bilateral carotid bruits. The carotid pulses were somewhat diminished bilaterally. The thyroid was not enlarged.

HEART: Sounds were irregular due to atrial fibrillation. He has no palpable femoral pulses.

ABDOMEN: Soft, without palpable masses.

PELVIC/RECTAL: Deferred.

IMPRESSION:

1. Severe widespread atherosclerotic disease—see above. I do not feel that he is a good candidate for CABG (coronary artery bypass grafting) or interventional therapy after I reviewed the films. I feel that if we did a Rotablator on the LAD (left anterior descending) he would have a lot of difficulties, and his CX (circumflex) vessels are not candidates for bypass or interventional therapy.
2. Sick sinus syndrome with intermittent atrial fibrillation alternating with sinus bradycardia, with heart rates as low as 30.
3. COPD/Emphysema, secondary to heavy cigarette abuse in the past.
4. Diabetes for 20 years.
5. Marked hyperlipidemia.

Medical Report 3.2 (Continued)

RECOMMENDATION: I feel that the best therapy will be to control his atrial fibrillation with Cardizem, digoxin and beta-blockers, and we will need to put in a permanent AV sequential pacemaker to try to suppress his atrial fibrillation and to keep him out of marked sinus bradycardia from the medications. Medical therapy is indicated for his coronary disease and I do not feel that he is a candidate for interventional therapy.

Marie Smith, M.D.
130097/tjf 04/07/2000 17:10:33 04/07 19:29:45

cc:
J. Jones, M.D.

NOTES

Medical Report 3.3

CONSULTATION FORM

Patient's Name: John Doe

ATTENDING PHYSICIAN Smith to CONSULTANT Jones

Reason for Consultation Request: Help with diabetic management of patient

Date: 04/08 Marie Smith, MD

SIGNATURE OF ATTENDING PHYSICIAN

Findings and Recommendations of Consultant:

IMP:

1. OHD CAD w/ Anterolateral 1
   Atrial Fibrillation (Paroxysmal)
   Marked sinus bradyarrhythmia +SSS
2. PVD Occlusion distal aorta & 1/10 femoral s
   w/ collateral circulation
3. CVD with BL carotid & vertebral artery ds.
4. DM2 Diabetes 20 yrs
   Rx NPH 16u Q am
   Control: Moderate
   Cxs None known
5. HLP/Marked & Chol
6. Smokes 2 1/2 ppd x 40y (60pk yrs)
7. COPD / Emphysema
8. Cataracts BL

REC:

1. Nutritional ADA Rx
2. Insulin Rx
3. Freq Accuchecks
4. → GLUC precautions
5. Hbg A1C
6. TSH

will F/u with you in hospital

Thanks

Date: 04/08 S. Jones, MD

Signature of Consultant

Medical Report 3.4

OPERATIVE REPORT

PATIENT NAME: John Doe
MEDICAL RECORD NUMBER: 1234567
ACCOUNT NUMBER: 4006755706
ADMISSION DATE: 04/07
ROOM: 3507
CARDIOPULMONARY DATE: 04/10

PRE-OP DIAGNOSIS: Tachy-brady Syndrome; Atrial Fibrillation

POST-OP DIAGNOSIS: Same

OPERATION: Dual Chamber permanent pacemaker

CLINICAL HISTORY: This is a 65-year-old gentleman with a history of tachy-brady syndrome with paroxysmal atrial fibrillation and documented bradycardia.

PROCEDURE: After informed consent was obtained, the patient was brought to the electrophysiology laboratory in a fasting state. He was prepped and draped in the usual sterile fashion with multiple layers of Betadine. Lidocaine 1% infiltration was used to achieve local anesthesia. Using sharp and blunt dissection a generator pocket was created. Over 9 French introducers, Pacesetter atrial and ventricular leads were advanced to the appropriate sites in the right atrium and right ventricle. The atrial lead was model #9999P, serial #MJ9999 with PSA values of 0.7 volts at 0.5 msec at a current of 1.4 mA. An impedance of 500 ohms and a P-wave of 2.2mV. The ventricular lead was a Pacesetter #9999P, serial #MK9999 with PSA of 0.9 volts at 0.5 msec and a current of 1.7 mA and an impedance of 520 ohms and an R-wave of 14.2mV. Both leads were secured to the fascial layer with 2-0 silk and than attached to a Pacesetter Trilogy DR Plus, model #9999 which was also secured to the fascial layer with 0-silk after the pocket had been copiously irrigated with antibiotic solution. The lower layers were closed with 2-0 Vicryl and Durabond in several layers. He tolerated the procedure exceptionally well.

CONCLUSION: Successful dual chamber permanent pacemaker implant with fluoroscopy.

A. Michaels, M.D.
131381/tjf 04/10 09:31:52 04/10 09:35:40

cc:
J. Jones, M.D.

Chart Copy

Medical Report 3.5

PATIENT: Doe, John
MR: 1234567
AD: 04/07
ACCT#: 4006755706
PHY: Smith, Marie MD

PROGRESS NOTES

DATE	TIME	
4/7	8:00/A	H & P dictated. See recent office note—Very confused & combative last & night—Cath cancelled —in and out of rapid afib–High risk for PTCA or CABG—will try to settle him down and TX w/ meds—Dig, IV Cardizem strict low dose Lopressor—former brady problem. Smith
4/7	5:00/P	Less confused/agitated now—Int. afib alt w/ sinus rhythm w/ HR down to 30 at times (marked sinus brady). Needs perm A-V Seq. Pacer. I reviewed the cath films by Dr. Jones at Memorial Hospital 1-27-00–100% RCA occlus w/ collat circ from the lft, LAD—Diffuse 50–75% prox & mid w/ distal not good target, 75% diffuse cx marg & mode diffuse cx groove, akinetic post 1/2 of inf wall w/ EF 30% overall. Rec/CABG & med therapy. Smith
4/7		— Endo —
		Pt seen in cardiac tele DM orders written Jones
		EP/Cardiology
4/8		Asked by Dr. Smith to see pt for pacemaker. Has severe CAD & PVD. Has had Tachy-Brady Syndrome. Had rapid afib as recently as yesterday & required IV Cardizem. BP 100/50 HR 60 on IV Cardizem @10. Chest clear. W/O SS

Imp:
1. Angina
2. Severe PVD
3. Severe CAD
4. Tachy-brady Syndrome

Plan:
1. Δ to oral Cardizem
2. con't telemetry
3. Pacer Monday
4. d/c Zestril
5. add topical nitrates Michaels

Medical Report 3.6

J. Johnson, M.D.
Medical Director, Clinical Laboratory

PRINTED DATE: 04/07
TIME: 0012
PAGE: 2
PATIENT: Doe, John
MED REC NO: 1234567
ACCOUNT #: 4006755706
BIRTHDATE: 06/20/1938
SEX: M
PHY: Smith, Marie MD
DISCHARGE DATE:

CHEMISTRY—GENERAL

COLLECTION	DATE	04/06/			
	TIME	2250		UNITS	NORMAL RANGE
TEST					
SODIUM		131	L	meq/L	[136–144]
POTASSIUM		5.0		meq/L	[3.6–5.1]
CHLORIDE		93	L	meq/L	[101–111]
CO2		34	H	meq/L	[22–32]
GLUCOSE RANDOM		145	H	mg/dL	[70–125]
BUN		49	H	mg/dL	[8–20]
CREATININE		1.7	H	mg/dL	[0.9–1.3]
CALCIUM		8.3	L	mg/dL	[8.9–10.3]
TOTAL PROTEIN		5.3	L	g/dL	[6.1–7.9]
ALBUMIN		2.2	L	g/dL	[3.5–4.8]
BILIRUBIN TOTAL		0.7		mg/dL	[0.4–2.0]
AST		21		IU/L	[15–41]
ALT		18		IU/L	[17–63]
ALK PHOS		81		IU/L	[38–126]
BUN/CREAT RATIO		28.8	H		[7.3–21.7]
CALCULATED OSMO		289		MOs/kg	[280–300]

L LOW H HIGH

Patient: Med Rec No: CONTINUE

Medical Report 3.7

RADIOLOGY/NUCLEAR MEDICINE REPORT

PATIENT: Doe, John
DOB: 06/20/1938
SEX: M
MR#: 1234567
CUR LOC: 3N 3507
REQ LOC: 5C 3513
NM#
PT TYPE: IP
SERVICE PROVIDED ON: 04/10 at 1003
APPROVED: 04/10 at 1637
ADM BY: Smith, Marie MD
PROCEDURE: Chest 1 View, Inspiration
PROC ID#: 14538822
CC TO:

ORDERED BY:
Smith, Marie MD
600 W. Street
Somewhere, FL 99999

D: 04/10 @ 1031

XYZ COMMUNITY MEDICAL CENTER * DEPARTMENT OF RADIOLOGY
Somewhere, FL 99999 * (999) 999-9999

INTERPRETATION PROVIDED BY: Community Medical Center Radiology Group

CHEST ONE VIEW: 04/10/.

INDICATION: Status post cardiac pacemaker insertion, evaluate for pneumothorax. Cardiac pacing module is positioned at the left axilla with leads extending into the right atrium and right ventricle. No pneumothorax is visualized. There are bilateral pleural effusions of moderate size. Coarse pulmonary interstitium is seen bilaterally which may reflect chronic changes or congestive failure. Heart size is mildly enlarged.

IMPRESSION: No pneumothorax status post cardiac pacing module and left placement.

/tjf
04/10 @ 1628

s/ Samuel E. Exray, M.D.

Medical Report 3.8

PATIENT NAME: John Doe
MEDICAL RECORD NUMBER: 1234567
ACCOUNT NUMBER: 4006755706
CARDIOPULMONARY
DATE OF TEST: 4/10

PROCEDURE: Echocardiogram

REFERRING PHYSICIAN: Marie Smith, M.D.

INDICATION: A 65-year-old male with dyspnea, status post pacemaker.

M-MODE ECHOCARDIOGRAM: The left ventricle is dilated at 5.6 cm. End-systolic dimension is 4.3. The wall thickness is normal. Small paradoxical septal motion. The left atrium measures 3.8 cm. The aortic root is not dilated. The aortic leaflet cusp opening 1.6 cm. Right-sided chambers are normal size. There is no pericardial effusion.

TWO-DIMENSIONAL STUDY: The left ventricle is mildly dilated. Wall motion abnormalities are noted in the anteroapical segment. There is mild paradoxical septal motion. The left atrium is dilated. There is annulus calcification posteriorly. Aortic root is not dilated. The aortic leaflets show focal sclerosis. Cusp excursion appears adequate. Right-sided chambers of normal size. There is no pericardial effusion.

DOPPLER STUDY: There is trace to mild mitral insufficiency. There is also mild tricuspid insufficiency. No significant gradient across the aortic valve is noted.

IMPRESSION:

1. Abnormal echocardiogram.
2. Left ventricular chamber enlargement.
3. Depressed left ventricular function, estimated ejection fraction is about 35% with anteroapical wall motion abnormalities.
4. Aortic sclerosis.
5. Spontaneous echo contrast noted in the cavity of the left ventricle.

R. Smith, M.D.
131866/tjf 04/10 15:07:07 04/12 07:26:37

Chart copy
A1
1SPOOL – 0196 XYZ COMMUNITY MEDICAL CENTER – HOSPITAL
04/07 00:12 (QARK$N)

Medical Report 3.9

PATIENT: John Doe
MR: 1234567 AD 04/07
ACCT#: 4006755706
ALLERGIES: NKA
PHYSICIAN: Marie Smith, MD

PHYSICIAN'S ORDERS
Please use Ball Point Pen. **PRESS FIRMLY.**

Another brand of generically equivalent product may be substituted unless otherwise indicated by the physician.
◯ DO NOT USE THIS FORM UNLESS A RED NUMBER SHOWS

Date / Time Written		
4/7	CARDIZEM 10 mg IV Bolus then	
0135	CARDIZEM drip 10 mg/hr.	
		T.O. Phillips, ARNP Noted by: L. Curtis, RN Smith 4/7
4/7	HALDOL 1 mg IVP NOW	
0315		T.O. Phillips, ARNP Noted by: L. Curtis, RN Smith 4/7 0415
4/7	Cancel Heart Cath	
0545	Cancel Pre-op meds Digoxin 0.5 mg IV NOW	
		T.O. Phillips, ARNP Noted by: L. Curtis, RN 0640 Smith 4/7

FORM NO 366 REV. 11/99

NOTES

Medical Report 3.10

MEDICATION ADMINISTRATION RECORD

RUN DATE/TIME 04/07 00:00 TO 23:59 RUN FOR: 04/07

PAGE: 1

CARDIAC TELE/ 3507 C DOE, JOHN SEX: M AGE: 65

ADM: 04/06

HEIGHT: 170.2 CM WEIGHT 65.400 KG BSA 1.76 SqM PHYSICIAN: SMITH, MARIE MD

DX: UNSTABLE ANGINA/CATH POSS ANGIOPLAST

ALLERGIES: NKDA

NKA

PHA ALLERGIES: UPDATE ALLERGIES BEFORE PLACING ORDERS

Rx #	GENERIC NAME	START/STOP	0700-1459	1500-2259	2300-0659
DATE/TIME			(7-3)	(3-11)	(11-7)
	(TRADE NAME)	SIG	ROUTE		

SCHEDULED MEDS

000085 INTRAVENOUS INFUSION . . . . START NACL 0.9%, 100ML, DILTIAZEM INJ (5MG/ML) 125MG, RATE – 10CC HR, CONT TIL DC'D

000086 CARDIZEM DILTIAZEM INJ (5MG/ML) 10MG, IV PUSH, NOW

000090 HALDOL HALOPERIDOL DECANOATE INJ (50MG/ML) 1MG, IVPB/SYRINGE, NOW

	INITIALS	SIGNATURE		INITIALS	SIGNATURE
0700-1500			1500-2300		
2300-0700			VERIFIED BY		

1. OFF THE UNIT
2. NAUSEA
3. REFUSED
* SEE NURSES NOTES
SQ—SUBQ
LA—LEFT ARM
LT—LEFT THIGH
LU—LEFT UPPER QUAD.
LLQ—LEFT LOWER QUAD.
RA—RIGHT ARM
RT—RIGHT THIGH
RU—RIGHT UPPER QUAD.
RLQ—RIGHT LOWER QUAD.

NOTES

Medical Report 3.11

CLINICAL RÉSUMÉ

NAME: John Doe
DOB: 06/20/1938
04/06: ADMITTED XYZ COMMUNITY MEDICAL CENTER:
4/12: DISCHARGED

DIAGNOSES:

1. Three-vessel coronary artery disease, being treated medically.
2. Tachy-brady syndrome status post permanent pacemaker implantation with Pacesetter Trilogy DR Plus model #9999. Atrial lead is a Pacesetter Tendrile DX endocardial steroid eluting screw-in lead, model #9999P, serial #MJ9999. Ventricular lead is a Pacesetter Tendrile DX model #9999P endocardial steroid eluting lead serial #MK9999. Pacemaker implanted 4/10.
3. Severe peripheral vascular disease.
4. Diabetes mellitus.
5. Recurrent atrial fibrillation

MEDICATIONS: Include Cardizem CD 120 mg daily, enteric-coated aspirin 325 mg daily, K-Dur 20mEq daily, Pepcid 20 mg b.i.d., Zocor 20 mg daily, Lasix 40 mg daily, insulin NPH as directed, nitroglycerin patch on discharge.

SUMMARY: John Doe is a 65-year-old gentleman who was referred by Dr. J. Jones for evaluation of coronary artery disease and rapid atrial fibrillation which is recurrent. He was admitted to my care. I reviewed cardiac catheterization films from 1/27 by Dr. Jones and felt with the wide spread atherosclerotic disease he was not a good candidate for coronary artery bypass grafting or interventional therapy. Medical therapy was advised. However, the patient also has a history of a sick sinus syndrome with intermittent atrial fibrillation alternating with sinus bradycardia with rates as low as 30. He was advised to proceed with permanent pacemaker implantation in an attempt to treat recurrent atrial fibrillation and to have pacemaker backup for bradycardia. He was entered into the XYZ1 study with Pacesetter and on 4/10 underwent permanent pacemaker implantation. The pacemaker implantation took place without any complications. Of note, on the morning after admission he was noted to be very confused and combative and he was in and out of rapid atrial fibrillation. At the present time, he is alert and oriented and stable from cardiac status.

FOLLOWUP: The patient will follow-up with Dr. Jones in 10-14 days and will then decide at that time if John Doe is a candidate for Coumadin. He will continue to be followed through our EP clinic and Pacesetter through the XYZ1 study to prevent atrial fibrillation study protocol.

D. Doe, A.R.N.P.
d: 04/11: 04/14 jf

_____

Marie Smith, M.D.

cc:
S. Jones, M.D.
J. Jones, M.D.
A. Michaels, M.D.