American Academy of Nurse Practitioners

REPRINT OF A CLASSIC ARTICLE

Effective case presentations—An important clinical skill for nurse practitioners

Connie H. Coralli, MN, MPH, CANP

Formerly, Instructor, Nurse Practitioner Program, Community Health Division, Emory School of Nursing, Atlanta, Georgia

Comment from the Editor

Over the years we have had numerous requests to reprint this article which first appeared in 1989, volume 1, issue 2. The author, Connie Coralli, is no longer working in nursing, but she was happy to grant permission for us to reprint this timeless piece.

Correspondence
Connie H. Coralli,
<http://www.UsborneBooksWow.com>

doi:10.1111/j.1745-7599.2006.00125.x

Abstract

Effective case presentations are an important component of the nurse practitioner's skills, yet very little literature exists to guide the development of this skill, and frequently little priority is given to teaching this skill during the education of the nurse practitioner. This report discusses the importance of effective case presentations, describes the organization of the presentation, and outlines the appropriate information to be included. The main components of a case presentation—introduction, history of the present illness, physical examination, diagnostic studies, differential diagnosis, management, and summary of the case—are discussed in detail. Examples of a formal and an informal case presentation are presented and used to illustrate key points in the text.

How to prepare a case presentation is often a neglected part of the education of nurse practitioners, yet expertise in presenting clinical cases is a necessary and important skill for the nurse practitioner student and the practicing nurse practitioner. The case presentation serves several purposes: it allows one to briefly convey a clear and comprehensive account of a patient's health problem(s) to another provider; it provides a mechanism for preceptors and peers to assess the level of expertise one has regarding a particular problem and to evaluate the assessment and management portion of that patient's care; and finally, a clearly articulated case presentation enables the nurse practitioner to get a more experienced clinician's opinion about a patient in an efficient, inexpensive manner.

The ability to communicate information about patients is important for all care providers. However, certain features of the nurse practitioner role make this skill more important for them than for other clinicians. Nurse practitioners provide a composite of nursing and medical care. It is not uncommon for patients to present to the nurse practitioner with conditions that require physician input. The nurse practitioner who presents a clear, comprehensive summary of the patient's problem to a physician colleague may be able to expedite that patient's care. This is particularly important for nurse practitioners who work in settings where physicians are not available on site. Case presentations may be done over the phone or through other communication set-ups as well as in person. Additionally, nurse practitioners, because of the relative "newness" of their role, frequently work with other professionals who are not knowledgeable about nurse practitioners. One excellent way of apprising others of our skills is via well-organized, comprehensive case presentations.

Although nurse practitioners may have an even greater need than physicians to develop expertise in case presentations, nurse practitioner education does not generally lend itself to the development of this skill. Physicians, over the course of their training, spend a number of years not only presenting cases to other house officers and attendings, but also listening to such presentations from their peers and faculty. During this time, most house officers develop skill in case presentations. They do so in three ways: (1) by repeatedly being in the position of having to present cases "off the top of the head," (2) by having their case presentations critiqued frequently, and (3) by hearing excellent case presentations from others, which they then use as a model for their own presentations. Differences in

Journal of the American Academy of Nurse Practitioners **18** (2006) 216–220 © 2006 American Academy of Nurse Practitioners
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physician and nurse practitioner education do not allow nurse practitioners these years of practice to perfect case presentation skills, nor do many nurse practitioner students have the benefit of hearing others present cases on a regular basis. In addition, there is little literature to guide in the development of this skill (Edwards, 1987; Gold, 1988; Healey, 1970; Kroneke, 1985; Pickell, 1987; Yurchak, 1981; Zack, 1982). The articles available vary in their value. Some do not provide a comprehensive discussion of the topic and others are difficult to access because they are not indexed, are in older journals that may no longer be shelved, or are in journals not held by most libraries.

The goal of this article is to provide a basic understanding of the purposes of and criteria for a good case presentation. With this framework, along with adequate clinical knowledge, the skill of case presentations cannot only be learned, but perfected, over the course of the nurse practitioner's educational program. Presenting cases as often as possible, either formally or informally, will enhance one's comfort with case presentations. Case presentations vary in their degree of formality. More formal presentations are appropriate for "Grand Rounds," for example, whereas "hallway consultations" may be less formal. In either case, however, the components and organization of the case presentation are the same.

It is important to remember that a case presentation is *not* a verbal recital of the written history and physical condition of the patient. Yurchak (1981, p. 109) described it as follows:

> A written … note may be as described as one chooses, covering several pages in the record. To be sure, few may read a detailed account, but it serves as a repository of the history for future reference. A case presentation, on the other hand, is basically "medical reporting," a terse and rapidly moving account of what has happened to the patient. Properly delivered, it will stimulate the listener to construct his own differential diagnosis as the story unfolds. By including a judicious number of positive and negative features of the history and of the physical examination, one can discuss implicitly the main differential points, only to exclude them from serious further consideration. One must approach a case presentation on the assumption that he is "telling the story of a disease occurring in a person." That is, the account includes both the symptoms and signs, as well as something about the patient as an individual.

Components of a case presentation

The components of a case presentation are shown in Table 1. Each component is discussed below. Two examples of case presentations follow, and are used to illustrate important points in the discussion.

Table 1 Components of a case presentation

Introduction
History of the Present Illness
Physical Examination
Diagnostic Studies
Differential Diagnosis
Management
Summary

Introduction

The introduction, or opening statement, of the case presentation is designed to catch the listeners' attention and focus their thought processes on the patient's major problem.

Case presentations generally begin with information about the person seeking care (such as age, sex, marital status, and occupation) and the reason for which care is sought. Recording the chief complaint in the patient's own words may be a good idea for the written record; however, the patient's verbatim statement usually does not adequately set the stage for the presentation of the illness. Thus, the chief complaint may be included; however, the reason for the visit, as perceived by the clinician, should also be stated. In Case Presentation 1 (Figure 1), the patient's chief complaint (pain in my leg) was synonymous with the clinician's assessment of the reason for the visit—evaluation of leg pain. However, in Case Presentation 2 (Figure 2) the clinician's impression of the reason for the visit (evaluation and management of diabetes) is somewhat different from the patient's chief complaint ("just haven't been feeling so good"). In this instance, the chief complaint adds little to the story.

It is generally assumed that the informant is the patient and is considered reliable. If reliability is questioned, it is noted early in the presentation and the reason for the unreliability stated. The history is the key to diagnosis and the listener must know how much faith to put in it.

Brevity is a basic and essential component of the case presentation and undoubtedly one of the most difficult to achieve (second only to organization of the history of the present illness). Yurchak (1981) recommends that the entire presentation be completed in 7 minutes. He believes that this is the maximum length of time a listener can give active and undivided attention. The history portion of the presentation usually takes slightly over half of these 7 minutes. Students are usually surprised at the expectation of the 7-minute limit, yet it is a realistic goal. Informal case presentations ("hallway consultations'') may take only 2 or 3 minutes. Long rambling case presentations

The following is an example of an informal case presentation by a nurse practitioner to her physician preceptor. The purpose of this presentation was to solicit consultation regarding diagnosis and management.

This patient is a 24-year old, single, white female secretary, who presents to our clinic today for the first time for evaluation of pain in her left calf. This patient was in her usual state of excellent health until 48 hours before today's visit when she developed a mild aching sensation in her left calf. The pain has become progressively worse since that time. The discomfort she is experiencing now is sufficient to keep her off her feet. She denies any injury to this area or prior history of similar pain. She has had no pain relief with leg elevation or aspirin.

She takes no prescribed or over-the-counter medications. Specifically, she denies current or previous use of oral contraceptives. She smokes one and a half packs of cigarettes each day and has done so for 5 to 6 years. She denies recent surgery or prolonged immobilization, however, she sits at a desk over 40 hours a week. She denies any other associated symptoms.

Her past medical history, patient profile, family history, and review of systems are unremarkable except as mentioned.

On physical exam, this patient is a pleasant, healthy appearing, 24-year-old female in no acute distress. Temperature is 98.6 degrees orally. Other vital signs are normal. Inspection of her left calf reveals no redness, however, the calf is swollen and measures 1.5 cm larger in circumference than her right calf. There is tenderness to palpation and increased warmth on the left calf as compared with the right. Homan's sign is positive.

Examination of the chest, lungs, cardiovascular system, and peripheral vascular systems is unremarkable.

Thrombophlebitis is the most likely diagnosis. Earlier she was sent for stat Doppler ultrasound and plethysmography, which unfortunately was interpreted as equivocal.

The question now is whether to send her for contrast venography or admit and treat her based on the clinical picture. What do you recommend?

Figure 1 Case Presentation 1

filled with minute detail serve only to detract the listener from the important and relevant information being presented.

History of the present illness

After the introduction, the history of the present illness is given. Describe both the evolution of the present illness (as you see it) and any other current major problems. The seven variables (chronology, location, quality, quantity, setting, aggravating or alleviating factors, and associated manifestations) will provide an organizing framework for the presentation just as they do for history taking. However, in case presentations, if variables do not apply to the particular case being discussed, they need not be mentioned. For example, in Case 1, the patient was asked about changes in type and amount of exercise and effect of weight bearing on calf pain. These inquiries did not turn up any information of relevance; therefore, it is not necessary to include them in the presentation; however, one should be prepared to discuss this information should the listener have any questions about it.

In addition to describing the presenting problem, any other current problems of significance are also described. The more complex a patient's main problem, the more you should compress the account of other peripheral problems in order to be brief. For example, in Case 2, the description of the patient's long history of diabetes necessitated a brief statement regarding his hypertension. Additional information can always be provided to listeners if it is required.

Information from past medical history, family history, patient profile, and the review of systems should be presented only if it is directly relevant to the current problem (Pickell, 1987). Significant positives or negatives in any of these areas should be mentioned. These include information that either supports or detracts from your diagnosis or that affects the assessment or management of the problem. For example, in Case 2, information from the patient profile related to who did the grocery shopping, menu planning, and meal preparation was quite relevant in deciding whether the patient's diet could be manipulated. Past medical history, family history, patient profile, and the review of systems can be referred to as "noncontributory" or "unremarkable" if they are indeed judged to be so.

Physical examination

As with the history, the description of the physical examination should also be abbreviated, emphasizing the systems associated with the differential diagnosis thus far (Yurchak, 1981). The presentation of the physical begins with a general description of the patient (age, sex, physical appearance, alertness, and so forth). Vital signs are then presented, or if the condition is not one generally associated with alterations in vital signs, it is significant to say they are normal. In Case 1, the patient's temperature was included in the presentation even though it was normal because thrombophlebitis may be associated with alteration in temperature. Blood pressure, pulse, and respiration, however, were not reported, as thrombophlebitis is not directly associated with alterations in these parameters.

Examination of the specific system or systems potentially affected are described in detail whether normal or abnormal. For example, in Case 1, when describing the examination of the patient's leg, abnormal positive findings (tenderness to palpation) and significant negative findings (there was no redness) are presented. A detailed description of normal physical findings from unrelated systems is unnecessary and these can be referred to as "unremarkable" or "normal."

This is an example of a case presented by a nurse practitioner in a clinical conference. This conference is held at the end of each endocrinology clinic in a teaching hospital. Attendees included endocrinology attendings, fellows, nurse practitioners, residents, and medical students. Each new patient seen during the clinic was presented by his or her primary care provider. Medical education was the primary purpose of this conference.

This patient is a 62-year-old white, married male, employed by a car manufacturer, who presents for management of his diabetes. He complains of "not feeling well."

This patient was diagnosed with Type II diabetes approximately 12 years ago when he sought care for increasing fatigue and polyuria. Over the past 12 years he has been managed with various regimens of diet and oral hypoglycemics. About 6 months ago he began having increased blood sugar levels despite increased doses of hypoglycemics.

At this time, he is symptomatic with polyuria, polyphagia, polydipsia, and fatigue. He is currently on chlorpropamide, 500 mg per day, which he takes on a regular basis. He follows no strict diet, but, he avoids all concentrated sweets and eats three regular meals per day. He purchases lunch in the company cafeteria. Breakfast and dinner are usually eaten at home. Menu planning, food shopping, and meal preparation are done by his wife, whom he reports to be concerned about preparing the correct foods for him. He checks his urine at home sporadically, but otherwise does no monitoring. His urine sugar has been 2% on most of the occasions that he has checked recently.

He has never had any hospitalizations related to diabetes. He denies any knowledge of complications, and any history of hypoglycemic symptoms. He wears glasses for reading, and his eyes are refracted annually by an optometrist. He has never had fluorescein angiography. He has no symptoms suggestive of cardiac or renal disease. He does relate a history of impotency for several years. He has not noted any abnormal sensation in his lower extremeties.

In addition to his diabetes, he was diagnosed as hypertensive 10 years ago. He takes hydrochlorothiazide, 50 mg daily. He does not restrict salt and eats a diet fairly high in saturated fats. He reports "fairly good" control of his blood pressure since diagnosis. He has never been on any other antihypertensive medications.

Past medical history is essentially unremarkable otherwise. The patient had mumps as a child and an appendectomy at age 26. He is on no other medications except those previously mentioned. He has no drug allergies.

Family history is negative for diabetes with the exception of a paternal aunt who developed Type II diabetes when she was in her 60s. Both of his parents and two of five siblings were or are hypertensive. His father died at age 64 apparently of a myocardial infarction, and one brother had coronary artery surgery for triple vessel disease at age 58.

Patient profile: This patient is married with three grown children. He has been employed full time as an engineer at a car manufacturer for 28 years. He gets no regular exercise. He does not use tobacco or alcohol.

The review of systems is unremarkable except as noted previously.

On physical exam, this is a cooperative, articulate 62-year-old male who appears younger than his stated age.

Vital signs: Blood pressure in the right arm, sitting is 158/98 initially, when repeated at the end of the visit it is 162/98. Blood pressure standing is 142/96. Height is 6 feet. Weight is 184 pounds. Ideal body weight is 178 pounds.

Examination of the eyes reveal pupils that are equal and round, and reactive to light and accommodation. Extraocular movements are intact. Visual fields are normal. Fundiscopic exam reveals sharp discs, arterial-venous ratio of 1:3, with arterial-venous nicking. Microaneurysms and rare, soft exudates are seen bilaterally. No hard exudates or new vessels are seen. Snellen is 20/80 right eye corrected, 20/60 left eye corrected.

On examination of the neck, the thyroid is palpable without enlargement or nodularity.

Cardiovascular examination: There is no jugular venous distention. Carotids are full without bruits. The apical impulse is in the fifth intercostal space, just lateral to the mid-clavicular line. There are no thrills, lifts, or heaves. Rate is 92 and regular. S_1 and S_2 are normal. There is an S_4 present. There are no murmurs.

Neurologic examination: The cranial nerves two through twelve are intact. Cerebellar function is normal. Ankle jerks are absent bilaterally. Knee jerks are 1+ bilaterally. Babinski is negative bilaterally. Sensation is diminished to vibration in both lower extremities but light touch and pain sensations are intact.

Laboratory work done earlier today reveals a random blood sugar of 320 (approximately 3 hours postprandial), sodium of 138, potassium of 3.9, chloride of 98, CO_2 of 20, BUN of 20, and creatinine of 1.2. Urinalysis reveals 4+ glucose, no acetone, and a trace of protein. Microscopy was negative.

The impression is that this patient has Type II diabetes, which has been previously well controlled on oral agents. He probably has no residual beta cell function remaining and will require insulin for control of blood sugars. He also has hypertension, uncontrolled on 50 mg of hydrochlorothiazide. He has Grade II hypertensive retinopathy and background diabetic retinopathy.

The plan is to begin the patient on 14 units of NPH insulin every morning. He will return tomorrow morning for instruction on insulin administration and symptoms and management of hypoglycemia. His wife will come in with him to be instructed on preparation of a 2200 calorie, low sodium diet. He will also be instructed in home glucose monitoring using chemstrips. He will be seen again in 2 weeks. He is also scheduled for an ophthalmology consult. Copies of recent laboratory work have been requested from his family doctor and no further laboratory work will be done pending receipt of those results. The patient declined consultation for evaluation of his impotence. No changes were made in his antihypertensive medications today. If his blood pressure remains elevated after salt restriction, clonidine will be added in two weeks.

In summary, this is a relatively healthy 62-year-old male with Type II diabetes and hypertension. He is currently uncontrolled on maximum doses of oral hypoglycemics and will be started on insulin. His blood pressure is elevated and he will need additional drug therapy unless he responds to salt restriction. He will receive instruction regarding his diabetes and be seen back here in 2 weeks. Does anyone have any questions or comments?

Figure 2 Case presentation 2

Diagnostic studies

Presentation of diagnostic studies should follow the physical examination. Laboratory studies are generally presented first and in the following order: hematologic studies, routine urinalysis, chemistries, and other studies. Radiographs, electrocardiographs, and other diagnostic studies follow. Unless directly relevant to the case, normal

studies are presented as "normal," but the findings of relevant studies, even if normal, should be presented. In Case 2, the patient's creatine is specifically relayed to be 1.2, not just referred to as normal.

Differential diagnosis

At this point in the case presentation, the differential diagnoses should be identified and discussed. Emphasize the features that support or negate various diagnoses and relate why the diagnosis arrived at was made over others considered.

In the discussion, the fate of each abnormal or significant symptom or physical finding and each abnormal diagnostic study must be accounted for. If no follow-up or further study was done for some abnormal finding, provide a rationale for the decision. For example, in Case 2, no evaluation of the patient's impotence was done at the time of the visit because the patient was not interested in evaluation or exploration of treatment options.

Management

Describe any treatment and the patient's responses to date if known. If the patient has been followed over a period of time for the problem identified, convey some sense of the course of the illness or progression of the disease. It is also appropriate to include what is being planned for the future. For example, in Case 2, the plan included a statement about the addition of clonidine to the antihypertensive regimen if the blood pressure is still elevated when the patient returns for follow up.

Summary

In formal or complex presentations, conclude by summarizing the key points of the entire case in several sentences. See Case 2 (Figure 2) for an example. In formal presentations, after the concluding summary, it is customary to ask if anyone has any comments or questions.

Conclusion

Case presentations are an important way of allowing health care professionals to communicate with each other about patients. Nurse practitioners who can present a clear and comprehensive account of a patient's health problems enjoy an advantageous position with regard to interacting with colleagues and obtaining input from other professionals, thus improving patient care. Effective case presentations enhance patient care, as they allow nurse practitioners to obtain knowledge and expertise from more experienced clinicians to help provide care. It also enables a physician preceptor to assess the appropriateness of the medical component of nurse practitioner management, thereby expediting and enhancing care. Nurse practitioners can broaden their assessment and management repertoire by developing expertise in the valuable skill of case presentations.

Acknowledgment

The author thanks Mary Hall, M.N., Ph.D., and Karen Gross, M.N., C.A.N.P. for their review of the manuscript and helpful suggestions and Marvis Starks for her preparation of the manuscript.

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