

**Answer Guide to Case Studies
in
Systems Based Practice
and
Advanced Clinic Access**

Created by:

The Sub Committee on Advanced Clinic Access in Academic Environments in
Cooperation with the Office of Academic Affiliations and
The Office of the VA Deputy Undersecretary for Health: Operations and Management

**Advanced Clinic Access: Providing veterans the quality care they
want and need when they want and need it.**

June 1, 2004

Dear Faculty,

In an attempt to improve the quality of both the education of our residents in continuity clinics and the quality of patient care services through the use of Advanced Clinic Access, a series of case studies have been created. These case studies, completed in a familiar format, use evidence-based medicine as a framework to elucidate the relationship between understanding and practicing Advanced Clinic Access, while at the same time, lead to the resident's obtaining competency in the Systems-Based Practice Core Competency in Internal Medicine residency training. Each case study is designed to be completed in twenty to thirty minutes and requires only a faculty mentor to lead the discussion. Answer guides and references are provided for this series. Introductory materials and supplemental lectures are also available and all can be tailored to your individual institutional requirements. Implementation of Advanced Clinic Access (ACA) principles within your outpatient clinics is a difficult endeavor. However, through the education of residents, the process of ACA implementation can be rewarding as future physicians learn a structured framework for understanding the role they play within the greater health care system.

Sincerely,

Advanced Clinic Access Initiative,
National Sub Committee on Academic Environments in conjunction with the
Office of Academic Affairs and the
Office of the VA Deputy Undersecretary of Health for Operations and Management

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Case 1: “Max Packing” at Clinical Visits

A 57-year-old man presents to your clinic for a new patient visit for low back pain. This symptom has been present for two weeks and was precipitated by lifting a heavy object. He has not been to a primary physician for at least 5 years. His past medical history is significant only for chronic dermatitis, which he is seen in the Dermatology clinic and is under excellent control. In his review of symptoms, he denies any symptoms not related to his complaint and is focused on the issue of his low back pain. His physical examination is unremarkable, except for minor left lumbar paraspinal tenderness. In review of his records from the Dermatology Clinic, his last 3 blood pressures taken over the past 6 months have all been greater than 145/95.

Goals:

- Appropriate use and understanding of “Max Packing” during provider visits as it related to quality and cost effective care.
- Understanding the role of Clinical Practice Guidelines in “real time” patient care.
- Facilitate the understanding of individual decisions on the system wide provision of health care.

What are your goals for this visit?

- *Focus discussion away from the acute problem-focused management of Low Back Pain*
- *Focus discussion on “how” to provide the care requested and required*
- *Focus discussion on the need to provide care for all issues discovered during the visit, those the patient “wants”(low back pain) and “needs” (preventive services and diagnosis of hypertension)*

Areas of concern could be focused on the **value placed on:**

- *The patient’s time (not having to present for multiple visits)*
- *Cost (multiple co-pays for the patient, more cost for the system)*
- *Quality of care (not following the Clinical Practice Guideline for Hypertension) and Clinical Reminder created by this patient’s elevated blood pressure*
- *‘Max Packing’: Management of both issues (low back pain and hypertension) at the current visit would avoid multiple future visits*
 - *Discuss the system implications that some demand for care is physician-driven*
 - *Discuss the system implication that demand can be molded*
 - *Aid the resident in understanding that reductions in demand create supply for patient care issues when patients need to be seen by their provider or group of providers instead of the Emergency Room (ED)*
 - *Preventive Services utilized would prevent future disease (beneficial to both the patient (quality of life) and system (cost effective)*

After you decided on the appropriate actions, how do you decide on the appropriate follow up and with whom?

- *Lead the discussion away from the “what” of therapy to focus on the “how” to effectively deliver patient-centered care within a large, complex health care system*

- *Introduction of the concept that care is delivered in a patient-centered model*
 - *Not care “just in case”: Arbitrary visit for follow-up*
 - *Care “just in time”: Visit when problems arise or as defined in a best practice model (clinic practice guideline as in this case for Hypertension and Low Back Pain)*

- *Introduction of ideas of alternate care providers: RN, NP, PA or PharmD*
 - *Use of physician extenders*
 - *Teamwork & leadership*

Case 2: Understanding Team dynamics in Health Care

Goals:

- Understand the importance in setting expectations for patients and staff
- Explore the options for patient interaction to meet demand
- Review the use of other professionals in meeting patient needs
- Understand advanced clinic access as a component of VA systems practice (ACGME)

Mr. Johnson is a 71-year-old male who is an established patient in the resident clinic of Dr. Moore. He is having increasing shortness of breath with exercise. He followed the clinic protocol 4 days ago and called to discuss his problems with the nurse. Miss Smith called Dr. Moore for recommendations and returned them to Mr. Johnson.

Yesterday, he still was not better and thus called for an 8:00 a.m. appointment. On arriving at the clinic, he found Dr. Moore was delayed on ward rounds. He was given the option of waiting for Dr. Moore, seeing the physician's assistant, Mr. Brown, or waiting for the attending physician, Dr. Dunn, or another resident to have free time to see him.

Mr. Johnson decided to wait for Dr. Moore, but the patient scheduled at 8:30 a.m. was seen by the physician assistant and his needs met. Dr. Moore appeared at 9:00 a.m., examined Mr. Johnson, ordered lab work and a chest x-ray and called him the results after lunch.

What were the difficulties that occurred in the episode of care regarding:

- The Patient?
- The Resident?
- The Program?

What steps can be taken to decrease future occurrences of this type of interaction?

Areas of Discussion:

- Use of protocols to meet the patient's expectations and to clarify need for visit. *How would use of protocols impact on the care provided and the resources that were diverted away from direct care to deal with the problems of Dr. Moore?*
- Involvement of clinic nurse may often resolve issues: *Discuss how the RN could be enlisted as a team member to help resolve such situations.*
- In resident clinics, the team must be involved to address absences from clinic with every other week scheduling. *Examples of team involvement could include coverage by mid-levels on the team, by residents on that team, or by referring to the clinic attending. Discuss how, at your facility, coverage of absences is accomplished (either by the attending, another resident or an extender). Lead discussion to include why the ED (Emergency Department) is not an appropriate use of resources. (Discussion of cost effective utilization of resources and patient advocacy as part of the systems based practice competency)*

Areas of Concern::

- Be sure you help the resident understand *the consequences of their actions are far-reaching – i.e., beyond just canceling today's patients.*
- Coverage when the resident is not there [*Do residents answer their pages? Also an opportunity to discuss issues of professionalism and doctor-patient and doctor-team relationships.*]
- Resident tardiness and consequences on team's schedule (*starting late as implications beyond themselves, patient waiting, RN overtime costs, lack of appropriate support services – i.e., lab closures, x-ray reading*)
- Patients not getting to see the practitioner they wish (*continuity as a cost of education and how can, through 'max packing' and predicting patient needs, can loss of continuity be minimized*)

Case 3A: System Redesign: Optimizing Patient and Provider Interactions

It is your first visit with Mr. M. He is a 62-year-old male with diabetes mellitus for many years. He is coming to your practice because his current MD has retired. Previously, he has been with an MD in a solo practice. He tells you that his Doctor instructed him to “Go to the Emergency Room,” if he had problems during times when he did not have a regular scheduled appointment. He has never done self-glucose monitoring. He explains that he manages his blood sugar by “how he feels”.

Goals:

- Understanding how synchronizing patient and provider can impact on the health care system and patient quality outcomes
- Understand the role the provider plays in acting as a patient advocate within the health care system

How would you orient *this patient* to your clinic practice?

How do you currently orient your patients *in general* to your clinic practice?

Need to focus discussion on using the first visit for orienting patient to:

1. *How the practice operates: i.e., open access scheduling with longer return intervals, but the ability to come in when you need to be seen; the importance of continuity with the practice team and the need to avoid unnecessary emergency room care. The fact that continuity care will be provided within the team. Who is on the health care team? Who is the patient likely to interact with?*
2. *How to access the provider or other members of the team. Need to clarify how urgent needs will be handled. How is after hours care handled. The time frame in which the provider will return both urgent and non-urgent phone calls. Expectations regarding notification of inpatient stays.*
3. *Discuss the concept of the patient as an active member of the health care team. In order to provide open access scheduling, the provider expects that the patient will be doing blood sugar monitoring. The provider may expect that more of the patient’s care will occur via phone or e-mail communication. The provider’s expectation that the patient will need to have enough disease-specific education to be able to alert the provider when he needs to be seen or as problems arise*
4. *Discuss that this is a lot of information to give in a first visit. Many practices have practice guidelines written out so that the patient has a written reference, in case he hasn’t absorbed all that was said. Need for reinforcement of these concepts at subsequent visits. May not cover all of these aspects in a first visit but importance of using the first visit to “set the stage” for future doctor-patient interactions*

Case 3A:

Mr. Z is an 82-year-old with coronary artery disease, hypertension, and diabetes mellitus. He receives all of his care at your VA-affiliated clinic. The patient lives 60 miles from his place of care. He does not like to travel after dark because he doesn’t feel he drives well enough to avoid accidents. He has excellent blood pressure control at 130/60. He is compliant with his meds. His Hgb A_{1c} has been consistently in the 6.5 range. Dr. L is his medical provider. The day of Mr. Z’s

clinic appointment Dr. L leaves his affiliated hospital late. He arrives at clinic ½-hour late and has a full schedule. Dr. L arrives at clinic ½-hour late on a regular basis. Mr. Z waits patiently until about 4 pm when he starts to worry about hitting rush hour and it getting dark outside. He decides to leave without being seen.

1. What are the issues that this case illustrates in regards to patient satisfaction and what would the consequences of this behavior be in the “real world” outside the VA, where the patient has a choice of providers?

Focus discussion on patient satisfaction issues. The fact that the patient spent most of his day at the VA and ended up having to leave without being seen. The concept that “once you start late you end late” and you inconvenience many people along the way. Emphasize the importance of professionalism in your outpatient care area. Issues of patient’s choice of provider and how in a “real world” situation(if this was a pattern), the patient could choose a different primary care provider.

2. How could understanding other principles of Advanced Clinic Access be used to offer other allied processes or alternatives to serve this patient’s needs? Give examples.

Also, focus on the issue of how often does the patient need to be seen. The patient appears to be well controlled. The concept of a ‘max packed’ visit, followed by more convenient ways for the patient to communicate with his provider, given that coming to the clinic is difficult for him. The concept of a recall system, so that when Mr. Z needs to make a follow up appt. He can call and make it himself. This way he has more control over time of appointment. How he is more likely to be complaint with an appointment he set up himself.

Case 4A: Planning for Contingencies

Dr X. is a 3rd year resident. He has chosen to take an International Medicine Rotation. From February through early March, he will be in Brazil. When he returns from Brazil, he immediately leaves for a Critical Care Elective at an out-of-state hospital. He realizes that he will not be in his outpatient clinic practice for 2-3 months. On his last clinic day in January, he sees Mrs. Z. Mrs. Z is a 61-year-old with diabetes, hypertension, and hyperlipidemia. On that visit, her blood pressure is 160 /110. Her LDL cholesterol is 150. A quick diet history reveals that she has little knowledge of a diabetic diet. Her Hgb A_{1C} is 8.5.

Goals:

1. Developing an understanding of unique nature of each provider within a health delivery system in respects to demonstrating the constraints that patients can encounter in attempting to access care services
2. Understand the allocation of scarce health care resources within a system designed to provide uncompromised quality of care by the most appropriate provider

How can Dr. X manage this patient while he is gone for 3 months?

Focus the discussion on ways to use other members of the health care team to help manage this patient. *Review what you have available at your own institution to provide interim care for this type of patient.*

- *Options that exists in various clinics include: Pharmacist management of the patient, sharing the patient with an APRN, virtual clinics where the Clinic RN manages blood draws and titration of meds with attending support i.e. virtual cholesterol clinic.*
- *Group visits for diabetics or hypertensives where the patient may be seen in a group setting and have meds adjusted by a pharmacist or other provider.*
- *Teaching the patient self-management skills. Can she get a BP cuff and have an identified colleague to call or fax her blood pressure into the clinic and be managed by phone? Is there a diabetic educator, nutritionist, or are there diabetic education classes on site or in the community that she could attend?*

Case 4B:

Dr. X is in the exact same clinical situation. He is no longer going to Brazil or to his outside elective.

Would the patient's management be different in this case?

What is (are) the limiting factor(s) in his providing for this patient's care?

Now would be a good time to focus the discussion on how patients don't need to see their own MD for every part of their management. Using other members of the health care team opens up Dr. X's schedule, so he can attend to his other patients' urgent visits. Discussion about Dr. X as the coordinator of the patient's care – i.e., he can remain apprised and involved in the patient's case without doing all of the direct patient care.

- *Advantages (and disadvantages) of being seen by other members of the health care team.*
- *How certain members of the team may have better skills to teach patients in certain areas.*
- *How they may also be able to devote more time to the patient than in a rushed visit with a provider.*

Case 5: Understanding and Molding Demand for Provider Services and the use of Physician Extenders

Mr. R, 57-year-old male, presents to your primary care clinic for follow-up for his chronic medical conditions. He has no current complaints and his review of systems is normal. All of the appropriate preventive screening has been completed for the next year. Currently, he has congestive heart failure (NYHA Class II) after an MI three years ago. He has hypercholesterolemia and hypertension that both have been well controlled. He no longer smokes.

Medications:

Lisinopril	20mg PO daily
Metoprolol	SA 100mg PO daily
Simvastatin	20mg PO daily
EC-ASA	325mg PO daily

Labs done prior to this visit:

Na 142 K 4.5 Cl 110 CO2 25 BUN 18 Cr 1.1 Glu 102
Cholesterol, Total 167
LDL 91 HDL 46 Trig 150

Vitals: 98.4°F, BP 105/74, pulse 62, height 6'0", weight 184 lbs

Physical Examination reveals: normal lung examination, no jugular venous distension at 45 degrees, a regular rate and rhythm with an s4, but no murmurs and normal PMI. Abdominal examination is unremarkable and no edema is seen in the lower extremities. Pulses are palpable and 2+ throughout. Prostate examination is normal and no focal neurologic deficits are seen.

Given this patient's medical conditions, what would be the appropriate time for his next visit and consider with whom this visit should occur (MD, RN, Pharm D, etc...)?

Review CPG for CHF and guidance in determining follow-up interval, elaborate on concept of care 'just in time', not 'just in case' (planning for visits when the care is needed not at a predetermined time frame).

In this patient, re-appointment would be appropriate when weight is gained or lower extremity edema is noted. Address, with the residents, the need to educate the patient in order to improve self-management. The chances of an exacerbation occurring at the planned visit (i.e., 3 months) are small; however, the need to provide access to care when it does an exacerbation occurs is real and demonstrable. Multiple studies referenced in the CPG demonstrate the value of continuity of care (at a minimum), not availability of an ED, in improving CHF care.

No current recommendations exist for specific time for scheduling a follow-up visit; however, multiple studies referenced in the CPG Section N have looked at access to providers as a method to prevent admission and improved outcomes. Also, the addition of practitioner types and use of multidisciplinary approaches increased cost effectiveness and improved care outcome.

Lab monitoring and BP rechecks do not have to be done at a face-to-face visit (telephone contact, RN or Pharm D are all possible interactions that can bridge between physician visits and extend appointment intervals).

What are the consequences to the health care system of both underutilization and over utilization of clinic visits?

- *What happens to the system when you have too many return visits (no access = no quality)*
- *What happens when you have too few (no interventions, missed opportunities, more ED visits, and inpt admissions)*
- *Residents as part of the System-Based Practice Competency need to understand the interaction between the individual actions taken (too many or too few visits or the wrong person) and the effects that inappropriate scheduling and use of clinic visits have on the care system. Quality starts with availability and then, the effectiveness of the encounter becomes important. If the patient does not receive the appropriate services then morbidity or mortality becomes more likely.*
- *Inpatient admissions direct resources to the inpatient setting at a higher cost per patient. If inpatient admissions are avoided, the same resources can be used to greater patient benefit in a less costly environment (either the outpatient setting or home). Over-utilization of outpatient visits also strains the scarce resource (office visits) and results in ED or Inpatient care when it is needed. Again, care in a less effective more expensive venue.*

Case 6: Understanding and Molding Demand through Clinic Practice Guidelines and the Electronic Medical Record Systems

Mr. K, a 59-year-old Vietnam-era African American veteran, with a 20% service-connected disability for hearing loss, presents to your clinic for a new patient visit. He has been followed by a private physician for the last 15 years, but has recently lost his health insurance and is now seeking care in the VA. He has been treated by his private physician for hypertension, diabetes, and “heart disease” and has been told that his BP and lipids are “fine”, but his “sugar is high.”

His medications include hydrochlorothiazide, Simvastatin and lisinopril. He is also on insulin twice a day. His social history reveals that he has been smoking ½- pack-per-day, since military service.

Mr. K’s review of systems reveals no physical complaints, but he mentions that, since 9/11, he has been having more difficulty sleeping and describes recurrence of nightmares that he experienced when he first returned from Vietnam.

On physical exam, the patient’s BMI is 25. His BP is 165/92 and he has slightly decreased sensation in his feet bilaterally, but his exam is otherwise unremarkable. Lab results from 6 months ago, performed by his private physician show a fasting glucose of 160, a total cholesterol of 206 and an LDL of 120. His urinalysis is normal.

Goals:

- Assess whether current treatment for existing diagnoses is adequate using clinical practice guidelines; if time permits, include discussion of relationship between era of service and DM (Agent Orange).
- Identify primary, secondary and tertiary prevention needs for patient’s sex and age, including discussion of how to approach screening for prostate cancer, and need for colorectal cancer screening.
- Using clinical practice guidelines, develop follow-up treatment plan, including what types of providers (e.g., podiatry, eye care, etc.) he needs to see and how to address recurrence of possible PTSD symptoms.

What are your goals for this visit?

- *Focus discussion on the treatment choices for HTN in the setting of DM and CAD*
- *Focus discussion on what type of routine screening is needed – both secondary and tertiary – using evidence-based medicine*
- *Focus discussion on how frequently he needs to return, what types of providers he needs to see*
- *Focus discussion on what types of monitoring – based on evidence – can the patient do at home vs. having to be seen in clinic*

What systems are in place within CPRS to aid in providing the highest quality care as demonstrated by the best evidence available?

- *Evidence for prevention in improving outcomes*
- *Use of Clinical Reminders to assure screening takes place as appropriate*
- *Use of Clinical Reminders to meet treatment goals*

Are there other services and types of care that would benefit this patient today and how does the availability of these services directly impact on this patient’s quality of care?

- *Importance of service agreements with specialty clinics to assure appropriateness of referral and reduction of unnecessary specialty utilization*
- *Appropriate use of primary vs. specialty care providers*
- *Utilization of ancillary providers such as podiatrists, optometrists, pharmacists to reduce demand and improve compliance*
- *How ACA allows same day specialty care – would be useful to have patient seen ASAP regarding possible PTSD symptoms*

Case 7: Managing Demand through Optimal Patient Involvement

Mr. C, 64-year-old man, comes in for routine F/U. He had an MI four years ago and has had some intermittent exacerbations of his congestive heart failure (CHF). His last EF (ejection fraction) was 49%. When he has had CHF exacerbations, he has tended to wait until he is unable to breath. Then, he comes in to the ER and often gets admitted to the hospital. His last admission was two months ago. He also has diabetes mellitus Type II and HTN. He states that he took his BP at the drugstore and it was 165/92. Mr. C denies any CP, SOB, change in the bowel or bladder habits. He is still smoking and eats out a lot. On exam, his BP is 134/80, pulse of 68. Weight is 202lbs. The rest of the exam is unremarkable, except for some mild non-pitting pedal edema bilaterally.

Labs: electrolytes are normal and his Hgb A_{1C} is 6.4, Total Cholesterol 180, LDL 92.

Meds:

Furosemide	40mg BID
lisinopril	40 mg QD
glyburide	10mg BID
metoprolol	SA 50mg QD
ASA	81mg QD
simvastatin	20mg QD.

Goals:

- Appropriate use and understanding of “Optimizing Patient Involvement,” as it relates to quality of care and effective use of future visits.
- Become more comfortable with patient education, as it relates to the patient’s understanding of when to call for appointments.
- Help patients and their families to become more involved in their own healthcare.

Briefly discuss the control of his various medical problems.

Focus the discussion on the control of his chronic care issues

DM: Hgb A_{1C} excellent, good BP control, foot and eye examination; need for urine testing for protein (where is he in the cycle and how can CPRS help through the use of clinical reminders).

Cholesterol: excellent – when is it due again?

CHF: focus on weight control and diet education

*Prevention issues: be sure to ask **what** but also **when** the above measures should be done and **by whom***

In what ways can you, as the physician, intervene, and what aspects of his care should the patient become more involved in or change?

Discuss how the Clinical Practice Guideline (CPG) for CHF involves the patient in weight monitoring and education regarding clinic signs of disease exacerbation. Involve the resident in a discussion of how active patient participation can lead to fewer visits and admissions through appropriate care “when” it is needed and not “if”, as was found in older monitors of care. The question of what is the literature based decision on follow-up interval can lead to a good discussion of “right care” at the “right time” (i.e. when the exacerbation occurs or sugars become uncontrolled not at some randomly selected point in time)

When would you want to have the patient return?

Ask the resident if there is a right answer [it is not a time but an “if” the chronic disease exacerbates]. Refer the residents to the Bodenheimer articles in the NEJM from 2002, about Chronic Disease Management.

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