Introduction

This is a plan describing the curriculum *Confidence in Telephone Medicine*. It is derived from the completed worksheets done for the OMERAD blended course, *How to Develop a Curriculum*. The numbers in the headings (and in the Table of Contents) are the worksheet numbers.

Table of Contents

1. Description of the Curriculum	2
2. Needs Assessment	2
3. Feasibility	3
4.1 Curriculum Goal	4
4.2 Curriculum Outline and Visual Model The Pilot Unit	
4.3 Unit Objective	5
4.4 Unit Content	5
4.5 Instructional Strategies	5
4.6 Learner Evaluation Strategies Unit Development Table	
5. Course Evaluation PlanInternal ReviewPilot Test	7
Appendix - Instructional Materials Pilot Unit Lecture Slides Telephone Encounter Checklist	8

(1.) Description of the Curriculum

The curriculum subject is research done by medical students for their research elective. The aim is to prepare students to fill out an IRB application that involves multiple institutions, such as hospitals. The learners are CHM medical students taking their required research elective. After they finish the course they should be able to correctly fill out an IRB application. He curriculum will be one semester long.

I see the curriculum as an online course with narrated slides and an assignment to complete parts of the IRB application until the entire thing is done. They will email me the parts of the application and I will give them feedback, either in person or via email or phone.

(2.) Needs Assessment

At Michigan State University, second and third year residents handle after-hours clinic calls, usually when on-call at the hospital, with very little guidance. The residency manual includes several sentences indicating alternative points of care for the patient, reminding the residents to document the encounter and warning not to prescribe controlled substances over the phone5. Although these are very reasonable guidelines, the residents are not given any tools with which to approach these encounters, they receive little to no feedback from an attending on these encounters and they are not informed of the medical-liability associated with these encounters.

The faculty have indicated a strong agreement that telephone medicine training is important as well as general dissatisfaction with the current training. Several faculty members indicated no knowledge of what training is currently provided. Residents, who have reported receiving 1-4 calls a night, also felt that training in telephone medicine was important. They did not receive any training or any feedback on their encounters. Many are not aware of the residency manual guidelines. Few residents say they are comfortable with these encounters.

The Accreditation Council for Graduate Medical Education (ACGME) requires that residents have a longitudinal continuity clinic experience that is supervised by faculty. This experience should inherently include management of patients' after-hours medical concerns over the telephone. Additionally, telephone medicine encompasses several the ACGME's Core Competencies: Interpersonal Skills and Communication, Patient Care, and Professionalism. These competencies are generally addressed during inpatient and outpatient care experiences, but they are equally important in telephone care.

The Institute of Medicine (IOM), in "Crossing the Quality Chasm," states that a health system should allow patients to receive care "whenever they need it," while acknowledging that this cannot always be done in the traditional face-to-face encounter. In order to offer "care based on continuous healing relationships," the IOM specifically recommends the telephone as an alternative means to provide care8.

This recommendation also relates to the U.S. Department of Heath and Human Services Healthy People 2020 initiative. The Healthy People 2020 objective to "reduce the proportion of individuals that experience difficulties or delays in obtaining necessary medical…care or prescription medications" can be addressed, in part, by promoting effective after hours telephone management. Resident education should mirror the national call for health systems to provide after hours

telephone care.

The literature (Flannery et al.) shows that physicians don't currently do this due to a lack of knowledge or skill. Nationally, program directors have poor confidence in their residents' ability to handle after-hours patient calls and residents have poor satisfaction with the calls, in general. Despite a clear need for this skill, only six percent of residency programs nationally provide training in this subject.

Flannery et al. Telephone management training in internal medicine residency programs: A national survey of program directors. Academic Medicine 1995;70:1138-41

Two studies have shown the effectiveness of a curriculum. The first, by Elnicki et al. included all residents and addressed only the effectiveness of the curriculum. The second, by Roey, included only interns and addressed curriculum effectiveness as well as intern attitudes about telephone medicine.

Elnicki DM, et al. Effectiveness of a Curriculum in Telephone Medicine. Teaching and Learning in Medicine 1998;10:223-7

Roey S. The Effect of a Telephone Medicine Curriculum on Internal Medicine Interns' Skills, Attitudes and Behaviors. eHealth International Journal 2005;2:15-22

Elnicki et al. developed an original curriculum that focused on four main components of telephone medicine: 1) office telephone systems, 2) skills necessary for telephone medicine, 3) medical-legal aspects of telephone medicine, and 4) special issues in telephone medical management. Each component was taught in a one-hour session that included a didactic lecture on basic concepts, videos of telephone encounters that the residents then analyzed, and scripted role-play exercises. The effectiveness was evaluated with pre- and post- curriculum objective structured clinical examinations (OSCEs).

Roey's curriculum was a modified version of Elnicki's. He included the same four units with similar instructional components, but allotted more time (two hours) for each unit. In addition to the techniques listed above, Roey also included small group discussions and problem solving exercises in his curriculum. His evaluation was twofold: 3-way conference call evaluation of resident telephone communication using a checklist and a post-course questionnaire.

In her book *Telephone Medicine* Anna Reisman highlights the importance of focusing not only on the communication skills and knowledge needed for handling after-hours telephone calls, but also on learners' attitudes and willingness to learn. She recommends including group discussion of past experiences to enhance enthusiasm for the subject.

Reisman A, ed., Telephone Medicine: A Guide for the Practicing Physician (Philadelphia: American College of Physicians), 2002.

(3.) Feasibility

This course fits well into the program's patient-centered approach to physician training. Faculty indicated strong agreement with the need for this curriculum. Program leaders indicated their

support for incorporating the curriculum into current programming. There are no potential problems associated with institutional support; no faculty or leader has expressed any opposition.

Very little budget will be needed to accomplish this curriculum. The room and course time are already available for this purpose. The residency program will provide financial support for the purchase of a recording program used for learner evaluation and to support the simulated patients' participation. The patients themselves are volunteers from the rosters of previous residents who are still affiliated with the program (chief resident and a local fellow). These are not formally trained standardized patients, although they will undergo brief training with the curriculum designer (myself) and be given written instructions. It is necessary to use real patient volunteers to maintain the real-world effect for testing. These patients have a resident listed as their PCP in our electronic medical record (EMR) and, therefore, will automatically be routed by the answering service to the on-call resident. Additionally, the patients will have complete medical charts in the EMR for the resident to review and in which to document the encounter.

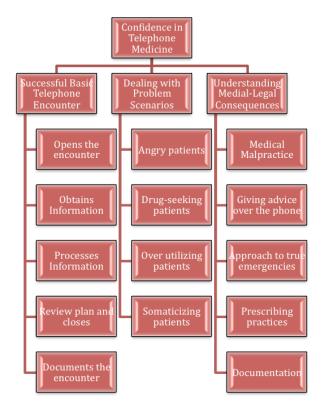
The sessions will fit easily into an afternoon traditionally protected for resident learning (Thursday afternoons). I have all the resources and support I need to develop and implement this curriculum.

(4.1) Curriculum Goal

As internal medicine residents on call for after-hours coverage of the resident continuity clinic, graduates of this course will confidently complete telephone encounters.

(4.2) Curriculum Outline and Visual Model

- 1. The basic telephone encounter
 - a. Open the encounter
 - b. Obtain information
 - c. Process information
 - d. Review plan and close encounter
 - e. Document encounter
- 2. Problem scenarios
 - a. Angry patients
 - b. Drug-seeking patients
 - c. Over-utilizing patients
 - d. Somaticizing patients
- 3. Medical-legal consequences
 - a. Medical malpractice
 - b. Giving advice over the phone
 - c. Approach to true emergencies
 - d. Prescribing practices
 - e. Documentation



The Pilot Unit

The pilot unit is Unit 1: The Basic Telephone Encounter. All remaining units follow from this unit.

(4.3) Unit Objective

The objective for this unit is: "Given a simulated patient on the telephone, on-call residents will complete a successful telephone encounter, according to the course instruction and checklist provided in the course materials."

(4.4) Unit Content

The knowledge and skills to be learned in the unit components are:

- A. Opening the encounter K, S
- B. Obtaining information K, S
- C. Processing the information K, S
- D. Reviewing and closing the encounter K, S
- E. Documenting the encounter in the EMR K, S

(4.5) Instructional Strategies

To accomplish the following purposes I will use these strategies. I will tell the learners:

<u>Motivate</u> - Two stories: one about a good telephone encounter with a patient and its benefits, and the other about a bad telephone encounter and its consequences.

Orient - In this first unit you will learn how to open an encounter, how to obtain relevant information, what to do with that information, how to review and close the encounter, and how to document the encounter in the EMR. Later you will learn how to handle a difficult patient and what the possible medical-legal consequences of telephone medicine are.

<u>Explain</u> - You will watch online videos explaining how to do a telephone encounter.

Demonstrate - You will watch online videos demonstrating how to do a telephone encounter.

<u>Provide Practice</u> - You will meet in a small group with the instructor and practice telephone encounters with a simulated patient.

<u>Provide Feedback</u> - First you will tell the group how you think the encounter went, then the simulated patient will give feedback, followed by the group members and the instructor.

The materials I will need to create for these strategies are:

- Lecture slides explaining each step of the encounter
- Checklist of steps of telephone encounter for feedback during practice

(4.6) Learner Evaluation Strategies

I will test once at the end of each component of the unit. Here is a knowledge test item and a skill assessment for the first component, *Opening the Encounter*. Test instructions are included. The test items and skill assessments for the remaining components will be similar.

Knowledge Test Item	<u>Skill Assessment</u>
In this online knowledge test, enter your answer	Divide into groups of three for a role-play of
in the text box provided. For multiple-choice	opening the encounter. One learner will play the
items click on the circle next to your answer.	patient on the telephone, one learner will play
	the on-call resident, and the third will assess the
1. Describe the three steps in opening the	performance using the checklist. Here is the
encounter.	scenario for the encounter.

Unit Development Table

The unit development table is a useful way to ensure consistency across all components of the design by seeing them on the same page.

Unit Objective(s)	Unit Content	Instructional Strategies		Learner Evaluation Strategies
Given a simulated	Brief review of a	Explanation:	Residents	A simulated patient will contact
patient on the	basic successful	Direct Instruction	will get in	the resident while he/she is on
telephone, residents,	telephone	- Lecture teaching	groups of 3.	call and the resident will
while on-call, will	encounter and	addressing the key	Several	complete a telephone encounter
complete a	difficult patient	components of	examples of	with appropriate documentation
successful telephone	strategies.	documenting a	documentati	according to a checklist.
encounter AND		telephone	on will be	
document it	Discuss	encounter.	given and	Documents:
according to a	medical-legal		evaluated	-Checklist
checklist.	consequences.	Documents:	by the	-Cases
	1) Malpractice	-Slides	residents	
	2) Giving			
	phone advise	Demonstration:		
	Approach to	Teacher will "think	Documents	
	true	allowed" during a	-Handout	
	emergencies	recorded encounter	with phone	
	4) Prescribing	and develop phone	note	
	practices	note.	examples	
	5) Documentati		(some good,	
	on		some poor)	

(5.) Course Evaluation Plan

To review the curriculum I will conduct an internal review and a pilot test of one unit.

Internal Review

I will ask these colleagues to review the curriculum:

Dr J. Hennesey - Assoc. Prof. Internal Med., CHM Dr. R. Koothrapali - Prof. Internal Med., COM Dr. K. Odaku - Assoc. Prof., Family Med., CHM

I will ask them to answer these questions:

Are there any gaps in the content that need to be addressed? Is the content relevant to residents? Are there any topics that should be deleted? Is the organization of the content reasonable?

I will give the reviewers these materials

Curriculum Plan Online tutorial slides Checklist

Pilot Test

I will pilot test the fully developed unit: The Basic Telephone Encounter. The pilot test is expected to take up to four weeks, using fourth-year medical students, or first-year IM or FM residents. I will recruit them via email. To conduct this pilot I will need computers for learners to access the online videos, a room for the group meeting, two telephones, and a simulated patient in another room, copies of the checklist, and the completed online tutorial.

Appendix - Instructional Materials

Pilot Unit Lecture Slides (partial)

Telephone Medicine: The Basic Telephone Encounter

Laura Freilich, MD Michigan State University March 24, 2011

Introduction



Introduction





Introduction

- Telephones have been a critical part of practicing medicine for decades
- Doctors spend at least 25% of their time on the telephone

Introduction

- Telephone medicine is different than clinic medicine
- No non-verbal cues
- No physical exam
- Not at a dedicated time for patient care
- Poor telephone communication can result in poor medical outcomes

Objectives

- Understand the importance of telephone medicine
- Appreciate the differences between telephone medicine and clinic medicine
- Be familiar with the main components of a successful telephone encounter
- Be comfortable executing a successful telephone encounter

Telephone Encounter Checklist (partial)

Opening the Encounter	Well Done	Done	Done Marginally	Not Done	N/A
Introduced self					
Explained role (covering for PCP)					
Obtaining Information					
Elicited chief complaint with open-ended questions					
Used silence and/or neutral utterance					
Identified patient's primary cause of concern					
Assessed/Addressed_patient's emotion					
Asked for details, including intensity and progression of symptoms					
Uncovered pertinent positives and negatives (ROS)					
Obtained relevant past medical history					
Asked for Medications/Allergies					
Summarized patient's concerns					
Processing Information					
Stated opinion about nature of problem					
Stated opinion about seriousness					
Recommended appropriate triage					
Co-developed a plan for management with patient					
Closing the Encounter					
Summarized the plan					
Educated the patient about assessment and plan					