CURRICULUM PLAN
Confidence in Telephone Medicine
August 2015

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.

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(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 phone. 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 care.

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.


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.


(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. Somatizing 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:

Motivate - 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.

Explain - 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.

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

Provide Feedback - 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.

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

1. Describe the three steps in opening 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.

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

**Introduction**

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

**Objectives**

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

**Introduction**

- Telephones medicine is different than clinic medicine.
- No visual contact.
- No physical exam.
- Call at a convenient time for patients.
- Poor telephone communication can result in poor medical outcomes.
Telephone Encounter Checklist (partial)

<table>
<thead>
<tr>
<th>Opening the Encounter</th>
<th>Well Done</th>
<th>Done</th>
<th>Done Marginally</th>
<th>Not Done</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduced self</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explained role (covering for PCP)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

| 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 |           |      |                 |          |     |