DESIGNING A TUBERCULOSIS STANDARDIZED PATIENT PROGRAM FOR MEDICAL STUDENTS



A Founding Component of the International Center for Public Health

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PREFACE

It has increasingly been recognized that tuberculosis is easily diagnosed and treated. The complications of late diagnosis, inappropriate handling of latent TB infection, and inappropriate treatment is increasingly leading to missed diagnosis, missed opportunities for TB prevention, resistance or multiple drug resistance.

Obviously, all medical school curricula must include TB to increase awareness, and lead to proper diagnosis and treatment.

The New Jersey Medical School National Tuberculosis Center, has, for several years, recognized that TB has been considered by students somewhat "unsexy." In an effort to counteract this perception by medical students, we introduced the use of standardized TB patients.

Since we introduced TB standardized patients in 1985, the concept has taken hold and indeed has become a very popular part of the New Jersey Medical School's undergraduate medical teaching and has been replicated in several institutions through the U.S.

Because of numerous requests for our protocols we are pleased to present them in this volume. Your comments and feedback on the usefulness of these materials in your program would be greatly appreciated.

Lee B. Reichman, MD, MPH

INTRODUCTION

Although rates of tuberculosis (TB) continue to decline in the United States, TB education is important for health professionals and preservice professionals to sustain the trend toward TB elimination. The New Jersey Medical School National Tuberculosis Center has been part of TB elimination interventions by creating the TB Standardized Patient (SP) Program for medical schools. This manual will provide the tools for creating a TB SP program in your medical school.

What Is a SP?

An SP is a person trained to consistently portray one type of patient for teaching purposes. Although SPs are not actual patients, their training allows them to portray an actual patient for educating students who are learning about a specific medical condition. Not only does the student learn from interviewing the SP, but the SP gives the student immediate feedback about his/her skills. This manual will discuss TB SPs.

Why Use a SP?

Use of an SP allows greater flexibility for practice of both interviewing and clinical assessment, without risking harm to an actual patient. The SP is best used with first- or second-year medical students who are beginning to learn patient interviewing skills and clinical assessment. This manual's protocol is geared toward second-year students who are beginning their *Introduction to Clinical Studies (ICS)* course. However, SPs can also be used for senior level medical students, as well as for residents and fellows to review their interpersonal and clinical abilities and to receive feedback on these skills.

Who Is This Manual for?

This manual is designed for medical school faculty who are interested in implementing a TB SP program to advance the teaching of TB in the medical curriculum. We recommend that the faculty work in conjunction with a state or local health department TB program and other TB experts to receive further aspects enhancing TB treatment adherence. For example, these aspects can include directly observed therapy (DOT) and physician and health department collaboration. In this way, the SP program can be multidimensional, including both medical and public health aspects of TB.

Your medical school may have an established SP program for other medical learning activities. If so, you may have a set of SPs already in place. If no SP programs exist at your school, you will need to recruit SPs.

Overview of the SP Process

The TB SP program employs three types of patients with TB — a patient with reactivated TB, a patient with HIV infection, and a nurse with TB exposure. The medical student has 7 minutes to interview each patient. There is no physical exam involved. After the 7 minutes have elapsed, the student will receive feedback from the patient, based on a checklist completed by the SP. The feedback entails whether the student has covered all the issues involved in the particular scenario and a subjective assessment of how well rapport was developed between student and SP. In addition, at least one of the interactions should be videotaped for students to see their interviewing style. A faculty or staff member of the medical school should be available to review the tapes with the students to discuss the clinical aspects of TB, points which the SPs will not be able to address.

Recruiting SPs

You may work in a facility that already employs SPs for other medical teaching and be able to tap into the existing pool of SPs. If SPs are not available, you may at least consult with others doing SP work to find out how they recruited their SPs.

We recommend using people with acting experience. Individuals in the acting field can adjust to various roles and not be emotionally tied to their character. For example, if a character is to challenge the student during the interview, the SP should not feel uncomfortable with this task.

SPs can be recruited through local colleges and schools that offer drama as part of the curriculum or extra-curricular activities. Often, actors look for a challenging variety of roles. College students are also often available during the daytime hours when you may require their work. There are also local community drama groups, which can provide you with different types of people to play your roles. You can contact local community groups to see how they publicize to recruit actors and use similar strategies. In your affiliation with a local hospital, the volunteer office may have individuals who are available to work during the day when your SP activities will most often be scheduled.

We do not recommend using healthcare workers as SPs due to their knowledge of some medical terminology and concepts. The SPs should provide feedback to the students based on the lay person's perspective. Although one of the roles that you will see in this manual is a nurse, the students should learn to make no assumptions about the knowledge of any patient.

Compensating SPs for their time varies depending on the part of the country you are in. If you work in a school that already uses SPs, you should be consistent with what is already offered to SPs for interview simulations. If a physical exam is involved, SPs usually get paid more. A recent study on SP rates throughout the country indicated that the ranges varied from \$8 - \$20¹ per hour. Please note that you are asking the SPs to provide a specialized service which utilizes skilled acting and training. You may also want an SP to be present to monitor the sessions and be available as a back-up in case an SP is absent.

Training the SPs

The SPs need an orientation to the program prior to starting. You will need to explain the objectives of the program, the SP roles, how to play the SP roles, and how to give feedback to students. An orientation manual for the SP is on page 16 and covers these topics.² At this time you can discuss with the SPs any "housekeeping" topics, such as the amount of wages for their services, parking arrangements and directions, importance of attendance, and timely arrival to the sessions. The sample confirmation letter on page 25 can be modified and sent to the SPs prior to coming to an orientation session.

At the orientation session, familiarize the SPs with the process of the program. You may use the following materials as training aids:

- Patient Role Description (page 26)
- Patient Intake Information (page 46)
- SP Student Evaluation Checklists (page 51)

¹ Linda Morrison, SP Program Director at Southern Illinois University School of Medicine, January, 1999.

² Standardized Patient Orientation Manual was created by Ann C. Smith of the University of Medicine and Dentistry-New Jersey Medical School, Newark, New Jersey.

These are materials the SPs will use for the interview sessions. The following are the essential points to cover during training:

- The importance of the SP's role in student teaching
- The process of the SP session (time of each interview, feedback mechanisms, and rotation of patients)
- Confidentiality surrounding discussion of student performance
- Importance of constructive feedback to students based on checklist and own impressions
- Importance of being "standardized", i.e., using the same symptoms, chief complaints, life circumstances in all student encounters
- Being adaptable to student's interactive style
- Ability for the SP to refer clinical questions back to the instructor
- The role that is being played and what salient points need to be emphasized

Figure 1 contains a sample slide presentation, which covers the essential topics. The above points are well covered in the orientation manual and can be used to guide your discussion with the SPs. You should address each patient role and have two of your coworkers act out the role for the SPs to model. Of course, the SPs may also improvise their role, but the important characteristics such as specific symptoms and lifestyle particulars, as discussed in the patient role sheets, should be adhered to.

You may also have a clinical staff member interview each SP prior to the actual activity with medical students. This way the SPs can practice their roles and receive feedback from the staff member as to how realistic the interaction felt.

The Process

The SP program can be modified depending on your resources, number of SPs available, time allotted, and budget. The SP sessions may have to be held over several days and be coordinated with other medical student course activities. You should schedule the sessions to last about 3-4 hours total, which is approximately 1 hour for each group of students (with a break in between groups). Most SPs cannot work effectively for much longer than 3-4 hours, as they will be portraying the same role repeatedly. However, it should be worth the SPs time to be able to work for at least a few hours. If your class-rooms require specific set-up, including video camera use, it is also worth the time of your staff members who are running the sessions to have sessions that run a few hours at a time. Again, all this varies, dependent on your individual program and resources.

We recommend scheduling your SP sessions after the students receive a lecture at the medical school about TB. This way, there is already a familiarity with TB. As part of the syllabus materials or as a handout at the time of the lecture, distribute an introductory memo and TB information for the students to review (page 32). This *Student Study Packet* has a brief review of TB as well as the relevant points for completing the SP interaction. The students should be fully prepared for the program to apply their knowledge.

For the actual program, you require SPs, rooms to complete the interviews, and places for the students to sit outside the rooms. You can set-up for as few as one SP interaction. This manual provides three scenarios, so interactions can be done in multiples of three. The example below is the set-up for six students at a time. For this example you will need:

FIGURE 1.

Sample slide presentation for SP orientation

TB Standardized Patient Orientation

Patient Role - Overview

- The patient comes in with symptoms as outlined in the profile
- The patients personality traits, work history, and other important information are included as well

Agenda

Interview - 7 minutes
 Completion of checklist - 3 minutes
 Feedback - 5 minutes
 Next student arrival - 2 minutes

Timings may vary depending on the type of patient you are portraying and other factors

Scenario - 3

- After the checklist is completed, the patient should call the doctor back into the room
- The patient should give feedback to the doctor based on the checklist and provide some comments about the interaction

Feedback -2

- Feedback should include comments on doctor's: • Empthy
- Clarity in explanations and questions
- · Rate of speech and understandability
- · Confidence (or over confidence)
- Body language
- Comfort
- Ask: Did you feel comfortable with the doctor?

patient. A SP can be used to train students in communication and interviewing skills

What is a standardized patient

(SP)?

A Standardized Patient (SP) - sometimes called a "Simulated Patient" - is a healthy

person who has been carefully trained to

behaviors, and physical characteristics of a

portray the medical history, emotional

Patient Role - 1

- Needs to react to the doctor's interactive style as realistically as possible
- Example 1: If doctor provides a reasonable explanation for why you need to provide certain pieces of information, then be willing to reveal that information
- Example 2: If the doctor asks you a sensitive question without explaining why it is being asked, you may become defensive and choose not to

answer the question

The Scenario - 1

- The doctor will come into the exam room and should introduce him herself
- Proceed with the conversation as you would normally do so with a doctor, using the unique pre-defined characteristics for your patient's role

Checklist

- The checklist is a way of indicating whether an aspect of the interview occurred or not
- Write in comments at the end of the sheet to explain the quality of the "interpersonal skills" indicated at the end of the checklist

Feedback - 3

- Please stay within the time limit for feedback
- You are NOT to provide feedback on the medical information that was provided; just give feedback on how you felt as a patient
- Interaction may be videotaped; a member of the school's faculty will provide medical feedback

Your role

You will be trained in:

- · The details of the case including:
 - medical history
 - Personality
- Giving feedback in communication and interviewing skills

Patient Role - 2

Portray the body language that you would normally display based upon how you are feeling and the demeanor of the doctor

- Example: If the doctor allows free conversation and appears friendly, you may look more comfortable
- Example: Since you feeling quite ill, you may want to appear that way

The Scenario - 2

- When the interview is over, a warning bell will sound. If the doctor does not leave the room, you should gently inform the doctor that the interview is over and that he/she should leave the room and wait outside until called back into the room.
- While the doctor is not in the room, the patient should complete the checklist

Feedback - 1

- Intermix positive and negative comments to the doctor
- Provide examples of both positive and negative things that may have been done, if you present something negative, provide an alomative way the student could have addressed an issue that would have made you feel better or convinced you of the point they were trying to get across

You are a teacher!

- · Do not break role during the interview
- Do not talk about interviews or specific doctors' interview skills with others
- BE POSITIVE; you are part of the educational experience for future doctors?

- Six SPs (two of each type)
- Six small classrooms, preferably all in a row down a hallway; should be soundproof
- Six desks/chairs set-up outside each classroom
- Two video cameras with tripods (optional)
- Stopwatch

The doors to the rooms should be labeled with the type of patient being seen (page 41). The six patients are from three patient types — a nurse, a patient infected with HIV, and a patient with reactivated TB. The student will see three of six SPs representing all three types of patients.

- 1. One SP should sit inside each classroom with a student sitting outside at a desk/chair (see Fig. 1).
- 2. Outside the classroom, the students will get a brief, written profile of the patient. The students should assume that they already have received this information via an intake prior to the patient interview (page 46).
- 3. The six students sitting outside the classrooms will receive brief instructions about the process from a facilitator (page 49).
- 4. After the instructions are given, the students receive about 3 minutes to read their patient profiles.
- 5. The students are then instructed, all at the same time, to knock on their assigned classroom doors as they would normally do in a patient-exam situation.
- 6. On entering the rooms, the students must interview the patient based on a pre-established set of objectives listed on the patient profile. As the students enter the rooms, the facilitator should time the interactions with a stop watch. The facilitator is not present in the rooms during the interactions.
- 7. At the end of 7 minutes, the facilitator should knock on the room doors to let the students know that their interview is finished. Remote controlled buzzers can also be used instead of knocking.
- 8. The students should then leave the rooms, regardless of whether the interviews have been completed, and sit back outside in their assigned chairs.
- 9. The SP should then complete the written checklist already in their possession (page 51). On completion, the SP should call the student back into the room.
- 10. The SP should have an informal discussion, about 2-3 minutes, regarding the interview process. The SP should use not only the checklist, but his/her own criteria, based on how (s)he felt as a patient.

STUDENT STATION ROTATION — The students rotate through each interaction based on a preassigned order (Figure 2). You may give the students name badges, which have the letters representing the order in which they see the patients. For example, if they see the nurse first, the patient with reactivated TB second, and the patient infected with HIV third, the badge will read "NRH." The rotation will have to vary for students so that they are all seeing different patients at the same time. You will also need to color code the badges so that you have two groups of students seeing two sets of the same SPs at the same time.

FIGURE 2.

Room set-up Round 1



The entire rotation of six students interviewing three patients each take about 40-45 minutes. It is recommended that you allot 1 hour for this process so that your facilitators and SPs receive a break between groups of students. However, staying on time is imperative. This means letting students know ahead of time that they must be punctual for their assigned group time and they cannot participate in the process if they arrive late. This is important since students have to do their rotation at the same time so that they can be timed.

VIDEOTAPING — A valuable part of the interview learning experience is for the student to see him/herself completing the interview. Dependent on your resources, at least one of the patient interactions should be videotaped to be reviewed by the student and a medical/TB education staff member at a later time. Students can sign up for appointments (page 56) or meet with someone directly after the interview process, on an individual basis, to review that tape. The taping is also a good way for the SP program coordinator to see how the process is progressing and to give useful feedback to the SPs. A guideline for reviews of the tape is in on page 57. The review should take no longer than 15 minutes and should include the following:

- The student's assessment of his/her skills as an interviewer
- The student's perception of the SP program
- The reviewer's assessment of the communication skills of the student
- The reviewer's evaluation of the TB information provided during the SP interaction

If the videotape review cannot be done, the student should at least be able to have a taped copy of the SP interaction for self-review. If videotaping is not possible at all, the SP feedback must be very thorough. The SP program coordinator should occasionally be present during a student interview to gauge the feedback of the SPs and see how the process is working over all.

EVALUATION — The students should complete a written evaluation (page 44) of the interaction process at the end of the videotape session or the interview session. A summary of the evaluations will provide the SP program coordinator with feedback as to how the process progressed and what the students' view of the program was.

The Role of the SP Program Coordinator

The SP program requires careful coordination. The person who coordinates the entire program needs to be available to accomplish the following tasks:

- Contact should be made with the office of medical education so that scheduled SP sessions can be coordinated with the other medical student activities. The availability of the session schedule and reading materials for students to review should also be coordinated with this office so that these materials can be given to the students as part of their syllabus materials. A standard policy should also be developed, in conjunction with the office of medical education, for students who have excused absences and may require alternative activities and/or need to reschedule their SP session time and date to complete their course requirements. The policy should also cover inclement weather when SP session(s) may need to be postponed or canceled.
- Student name badges with name, color designation, and order of interviews need to be created ahead of time.
- Videotapes should be prelabeled with student names. It is helpful to also label the tapes with the order in which the students are doing their interviews, even if only one of the interviews is being taped. Prior to the start of the interviews, the tapes can be placed in the rooms, next to the cameras, so that the tapes can be changed between interviews while students are reading their scenarios.
- All SP checklists should be placed in the SP rooms for the SPs to complete after each student interaction. The checklists should be collected after the entire session is over. They can be shared later with the student during the videotape review.
- Appointment sign-up sheets and reminder forms for the students should be provided for the videotape reviews. Sign-in sheets may be provided as well, particularly if attendance at the activity needs to be reported to the medical education office.
- Door signs to the SP interview rooms and patient profiles should be placed at the designated student seating areas outside the interview rooms.
- SP working hours for payment need to be tracked.
- Rooms/space for the SP program should be reserved in accordance with your school's procedures.
- A budget can be developed for costs related to the SP program. This is especially important if you have to provide documentation for departmental records or grant funders.

• The needs and concerns of the SPs must be addressed in a timely fashion. SPs provide a specialized role, which is difficult to fill. If session scheduling is difficult to spread over several days, SPs may need to work for many hours at a time, sometimes for an entire day. Therefore, it important to make their experience easier and more comfortable by providing food/refreshments and breaks as needed. Many SPs provide their services for the benefit of teaching students and should be acknowledged as valued employees.

These tasks are time-consuming, yet important. Therefore, if one person cannot accomplish all the tasks, an assistant should be available. An SP as an assistant is a good choice, as (s)he understands the process well and may substitute if an SP is absent.

Other SP Learning Activities

The one-on-one interviewing situation is the ideal learning environment. However, if a very limited number of SPs are available and time is limited as well, other models may be used.

GROUP TEACHING — Group teaching involves a trained interviewer portraying the proper and improper techniques of TB interviewing in front of a group. The students may participate in a discussion of interviewing techniques with the use of the SP and videotape reviewer checklists.

PROBLEM BASED LEARNING (PBL) — In the PBL format, students are given cases and are asked to independently work on key components of the cases in small groups to learn about illnesses from diagnosis to treatment and follow-up. An SP can easily be worked into a case. Students can receive the information about the patient ahead of time and decide among the group's members an approach to interviewing the patient. Students can divide the interview into various categories, depending on the size of the group. These categories are:

- Interview introduction
- Current symptom assessment
- Past history and education
- Diagnosis plan
- Treatment plan
- Follow-up

If the PBL instructor wishes, the case can be furthered to a second interview by adding additional information. An interaction can be developed after test results such as tuberculin skin-test readings, chest X-rays, and acid-fast bacilli (AFB) smear results have been made available. The instructor should use the videotape review form to give feedback to the students. The SP can use the designated check-list that would be used in a one-on-one interaction to evaluate the group, with special attention to individual interviewing skills.

Modifying the SP Scenarios

The scenarios and description of the program included in this manual have been used successfully as is, but have been modified at times. Depending on your resources and the demographics of the population that your participants may encounter, you may also wish to modify some characteristics of the SP scenarios. For example:

INTERPRETERS — If there is a large nonEnglish-speaking population in your area, you may include a nonEnglish-speaking SP in your sessions. This person would also require an accompanying SP to act as an interpreter. We recommend, if possible, using SPs who speak a language that most students may not be familiar with for both the patient role and interpreter role. In this way, the learning experience of communication through an interpreter is maximized. A scenario of this kind can take more time for the interviewer to complete. Therefore, you can allot more time for such a scenario or modify the existing conditions of the scenario. The SP giving feedback should look for the interviewer to make eye contact with the patient throughout the interaction and refer to the patient in the first person voice as opposed to the third person voice. The Patient Role Descriptions section (page 26) contains an interpreter SP scenario.

It is essential that the SP who plays the patient is fluent in the language being spoken to create a realistic scenario. The interpreter may not be fluent. In reality, non-professional interpreters may be called in or brought in by the patient who are not fluent, but are present for convenience purposes. In this case, the interpreter SP should not attempt to look as though he/she is fluent, but just play the role naturally.

Because it takes longer to complete an interview using an interpreter, extra time allotment is essential. It is recommended that an interview take about 13 minutes, with 3 minutes allowed for the SPs to complete their checklist, and 5 minutes for feedback. Both the interpreter SP and then patient SP can complete the student checklist and provide feedback together. Obviously, at least one of them should be fluent and literate in English as well as the language used for the role.

The interpreter case in this manual involves a foreign-born patient with history of BCG vaccination. In this case, the patient should question whether a skin test is really needed, as the history of this vaccination exists. This prompts the interviewer to explain to the SP that BCG vaccine does not contraindicate giving a TB skin test. The interviewer should mention that the TB skin test can still be given; this fact should be included as part of the checklist that the SP must complete. However, as with all SPs, (s)he should not be responsible for the medical explanation for giving the TB skin test in this case. This clinical aspect can be covered in the student study packet or in the videotape review session.

CHILDREN — If you have an SP with a child, you may also have this child participate in the scenario. The interviewer will have the challenge of having to address TB exposure to the child. The SP can also ask the interviewer about exposure and how to prevent transmission. The checklist in this scenario should cover whether the interviewer addresses use of barrier protection and covering cough as well as follow-up skin testing of close contacts per health department regulations. In the case of the nurse with TB exposure, the interviewer should not suggest methods of barrier protection to prevent TB exposure to the child since the SP most likely has latent TB infection, has no symptoms, and is, therefore, not infectious. Children, particularly infants and toddlers, can also have needs (e.g., feeding, toileting/diapering, crying), which must be dealt with by the SP as they occur. The student can learn about the challenge of caregiver responsibilities during the interview process. The other advantage of integrating a child in a scenario is that an SP will not have to find child care for the time (s)he is working for you.

Putting It All Together

What you see in this manual has been used successfully at other medical schools. You should feel free to create your own patient scenarios and make other modifications as needed, such as tailoring the SP scenarios to the demographics of your local patient population. Overall, no matter which format you use, the TB SP program is an innovative way to help students learn about TB and the interviewing skills involved in working with a TB patient.

PROGRAM TOOLS

The following section contains the materials you will need to conduct the SP program. Some materials may be photocopied directly, while others should be retyped adding information specific to your program.

TUBERCULOSIS SP PROGRAM ORIENTATION MANUAL

Provide a copy of this manual to the SPs prior to the orientation session. On the second to last page, add the SP program coordinator's contact information in the blank box and phone number on the last page.

TUBERCULOSIS STANDARDIZED PATIENT PROGRAM ORIENTATION MANUAL

Welcome to the Tuberculosis Standardized Patient Program. We are happy to offer you a position as a Standardized Patient.

What is a Standardized Patient

A Standardized Patient (SP), sometimes called a "Simulated Patient", is a healthy person who has been carefully trained to portray the medical history, emotional behaviors, and physical characteristics of a patient. Many of the roles the SP portrays are taken from actual cases. Other cases are written with specific objectives in mind. SPs have a remarkable way of portraying patients so effectively that they cannot be distinguished from actual patients when interviewed by experienced clinicians and interviewers (physicians and/or students). We will help you gain that same level of confidence. A SP presents as a "patient" in the classroom, laboratory, or clinic and will be used for training in communication skills and medical interviewing skills to various professional students in training.

Your Role as a Standardized Patient

1 The first job of a SP is to realistically simulate the role of a patient. You will be trained in the details of the case. During the training you will be given particulars of the history, personality, and abnormal physical findings of the patient. As a SP, you are not intended to be a replacement for a student's experience with actual patients, but you are to be a highly realistic learning and assessment resource for the students to develop skills in interviewing and examination techniques.

2 Your second job as a SP will be to document and assist the student in learning interviewing and communication skills. This involves completing an evaluation checklist that is developed specifically for the case you are portraying. This checklist provides information that was obtained or omitted by the student. You will be trained in how to complete this form, while being consistent. When required, you will also learn how to provide feedback to the students pertaining to their performance during their encounter with you.

You may be trained in one or several of the SP roles, depending on the demographics of the case, your interests, ability, and availability.

At no time will you be asked to compromise your health or privacy.

Evaluation Checklist

The **CHECKLIST** contains all relevant aspects of the patient's case history that should be elicited by the student. As a SP you will be required to complete a checklist immediately after each student encounter.

Two questions "Why use standardized patients?" and "Why not have students practice on ACTUAL patients?" have frequently been asked. Here are some reasons why using SPs offers advantages in education:

Availability

SPs can be scheduled during times convenient for students and faculty. This provides a reliable teaching environment for effective and efficient learning. It is not necessary to rely on actual patients at any given time.

Repeatability

The SPs responses are consistent from student to student -- each student gets the same information. This level of consistency would be unusual using an actual patient in a real situation.

Control

The role the SP portrays can be adapted to the level of the student's performance. A case presented to a first-or second-year student will be less complicated than one presented to a third-or fourth- year student. Because the outcome is known, a performance standard can be established for evaluation purposes.

Adaptability

Simulation can be adapted to the educational needs of the students. When SPs are used in a group setting, different aspects of a problem can be discussed in front of the SP with no risk to the "patient's" welfare. Because there is no risk to the SP, the student can repeat an item without feeling anxious about fatigue, pain, or emotional strain on the "patient."

Eliminates the risks involved in using actual patients

In a testing situation, there may be as many as 25 students who need to see the same patient. If we were to use an actual patient who is already not feeling good, the stress of repeating information or submitting to frequent examinations would be very tiring and upsetting. Consequently, standardization would be compromised; the first student to see the patient might not obtain the same information as the last. Using a well SP eliminates this possibility. The welfare of the patient is preserved and student encounters are standardized.

Student anxiety

Interviewing and conducting physical examinations on SPs in a teaching situation relieves students from the worry of doing or saying something harmful to a real patient. Therefore, anxiety is lessened. This is not to say, however, that when students are in an exam situation, they do not experience some anxiety.

They do, and this is a normal response indicative of the stress they are facing in the evaluation of their skills.

Feedback

The SP provides valuable feedback to students on their professional manner, attitudes, and communication skills at a crucial learning stage. With training, you will learn how to tell students how you felt about their interpersonal skills. You'll address issues such as was the student interested, concerned, and understanding while (s)he interviewed you in the "patient" role. Did (s)he actively listen to you? At this point, you may be asking yourself, "How will I be contributing to the education of medical students?"

Teaching interviewing skills

As mentioned, the SP's primary role is to portray an actual patient. This will help students gain confidence in their ability to interview and complete a physical examination. In a teaching session, the simulation will be used as a focus for learning about a problem. For instance, in a Problem-Based Learning (PBL) session where there are a few students, students can observe and try a variety of approaches to interviewing the SP. The group may decide to begin the simulation over, several times with different interviewers, or to change interviewers at a given interval — each picking up where the last one left off.

Simulation may also be used to demonstrate in large groups.

Feedback may follow the simulation.

Performance Evaluation

Patient simulation is used to assess clinical skills or competence. You will be asked to rate a student's performance immediately following the encounter. Your session may be videotaped for review by the course director and/or student at a later date.

WHAT TO EXPECT DURING TRAINING

Training time will depend on the role to be portrayed. During the training session(s), all the details necessary to accurately and realistically portray the case and teach and evaluate the students will be discussed.

The training time will depend on the complexity of the case. Over time, you may be trained for several different cases. The more experience you have, the less time it takes to train for new cases.

Training session

This session is devoted to orienting you to an overview of the illness and complaints of the patient you will portray. If it is a particularly difficult case, you may be asked to view a simulation of the role. The simulation will help you model or mimic the role as it should be performed.

Finally, you will be interviewed by a clinician who has no information about the case. After the clinician interviews you, the "patient," (s)he will provide objective feedback about the reality or believability of your simulation. If this session indicates that your simulation is less than accurate, more practice may be needed.

Summary

You will be trained...

- In the history of the case
- In the physical findings
- In the skills of feedback for interviewing skills
- To complete the evaluation checklist

There may be times when you will be asked to provide FEEDBACK

FEEDBACK is given to students at the end of an interview. Feedback helps students to become aware of their behaviors and to maintain or modify this behavior. It is given in a constructive manner—intermixing positive and negative comments (sandwiching) and carefully explaining the behavior, which elicited your feedback.

Your feedback should cover all the important aspects of the student's interpersonal skills, including the following points:

- Were you made to feel comfortable, relaxed, or reassured?
- Was the student rushed, brusque, or disorganized?
- Did the student show interest in or understanding of your problem?

- Was there interest in you as a person and were you made to feel important or unimportant?
- Did the student express him or herself clearly and use words and terms understandable to you?
- Did the student listen carefully or were you interrupted or cut off in mid-sentence?
- Were you invited to ask questions and to express concerns or worries?
- Were you told what to expect during the examination?
- Did the student seem competent, organized, and confident?
- Was there "closure" to the encounter? In other words, did the student tell you the possible diagnosis and give you the treatment plan?

RULES TO FOLLOW

YOUR role as an SP is a valuable learning resource for students, if used properly, and if you maintain a high quality simulation. You will assist in this learning process and increase your enjoyment if you remember the following:

- Never break role
- Do not speak with the students "out of role" before or during the simulation
- If, at any time, you are in need of a review or if you have questions or concerns with the simulation, contact the SP program coordinator
- Do not talk about students in public places. Comments about specific student behaviors or actions are inappropriate in public
- Do not discuss students with other SPs as it may influence their interactions

IF YOU HAVE ANY PROBLEMS, COMPLAINTS OR, COMMENTS, BRING THEM TO THE ATTENTION OF:

IMPORTANT INFORMATION

Cancellations

Should you become ill and need to cancel attendance at a scheduled session, please contact the TB Standardized Patient program coordinator immediately. Do not wait until the day of the session, if possible. The sooner your absence is reported, the better the possibility of getting a replacement. In the event that you are scheduled to work a weekend when the office is closed, you will be given additional phone numbers to call.

Confirmation

You will receive a letter confirming the dates of your scheduled work day(s). If necessary, you may also call the TB SP Program coordinator at (___)____. Please leave a detailed message if no one answers.

Folders

On the day of a session, you will be given a folder containing the feedback checklists. At the completion of the session, you can give the folder to the SP program facilitator.

Pay

Compensation will be discussed at the orientation meeting. Issues such as parking will also be covered.

Punctuality

Punctuality is of the utmost importance. You must be available for the full time requested. It is important that you arrive at the designated location 15 minutes prior to the start of the session. This time is your professional courtesy time to get any pertinent information during orientation sessions, receive your folder containing student evaluation forms, prepare your room, etc.

Breaks

You will get a brief break between each set of students. You may want to bring a light snack and something to read.

THANK YOU for your interest in our program.

Sample Confirmation Letter to SP

Mail this letter with appropriate information added within the bracketed sections. The letter can be printed on your College's letterhead.

<DATE>

<NAME>

<ADDRESS OF SP>

<CITY>, <STATE> <ZIP CODE>

Dear :

Thank you for accepting a position as a tuberculosis standardized patient for the <INSTITUTION'S NAME>. Yours is an important role in the education of medical students. I have enclosed a copy of this year's training schedule with room assignments. Please let me know if there is a conflict with any of the scheduled dates. I have also enclosed a copy of the orientation manual for this program. Please read it thoroughly prior to the orientation session on <DATE OF ORIENTATION SESSION> from <TIMES OF SESSION>.

The rate of pay will be <HOURLY WAGE> per hour. Please allow 15 minutes prior to each session to find parking and settle into the assigned rooms. <INCLUDE ANY INSTRUCTIONS REGARDING PARKING AND DIRECTIONS>.

If you have any questions, please feel free to contact me at (______). I look forward to working with you over the months ahead.

Sincerely,

<NAME OF SP PROGRAM COORDINATOR> Tuberculosis Standardized Patient Program Coordinator <INSTITUTION'S NAME>

PATIENT ROLE DESCRIPTIONS

Provide the specific patient role description to the SP to whom it pertains. This should be done prior to the SP orientation, to allow time for the SP to review the information. The SP Program Coordinator should allow time during the orientation and at other opportunities later on to discuss the information. Modifications can be made to these roles to accommodate any training points one wishes to teach or characteristics of the patient.

Patient with Reactivated TB

YOUR PERSONALITY:	Your last name is 'Jones' (use your own first name). You are not happy to be talking to this doctor. Your supervisor called and made the appointment. He told the doctor all about the cough you have had for a couple of weeks and told you that if you didn't go to the doctor, he might report you. You don't like talking about yourself and give evasive answers. Any questions related to HIV or other health problems make you defensive. You know that this doctor has information about your cough and history of TB.
MEDICAL:	About 2 years ago, you had a cough, fever, felt tired all the time, and were diag- nosed with TB. You received TB medication but didn't finish it because you ran out and you felt better anyway. You had another case of TB 8 months ago and were treated the same way.
COUGH	Like a smoker's cough (but you don't smoke); have had a cough for a few weeks. You don't cover your mouth during the interaction unless prompted.
PHLEGM	Every time you cough, grey to yellow color
WEIGHT	Lost 20 lbs in 3 months
TIRED	Tired all the time
MEDICATION	None
X-RAY	Had one 2 years ago and again 8 months ago
OTHER TESTS	Had a skin test 2 years ago; you were told the results would always be positive afterwards
HEALTH STATUS	No other medical problems
WORK:	You are a flight attendant who works on crowded planes for cross continental flights. Can get called to work on short notice and be away for several weeks at a time.
SOCIAL:	You have lots of friends and you don't keep in touch with any family. Live in small apartment with other flight attendants; roommates come and go (if appropriate during the interaction, ask if you can give TB to your roommates).

Patient Infected with HIV

YOUR PERSONALITY:	Your last name is Gonzalez (use your own first name). You were diagnosed with HIV infection 3 years ago and have had your ups and downs. Now you are discouraged to be sick with something else. You are weary and cough a lot during the interaction.
MEDICAL:	About 3 years ago, you went to the hospital with a bad case of "walking pneumonia." It was there that you tested positive for HIV. You probably got it from a sexual encounter.
COUGH	Worst in the morning, but all the time for the past 3 weeks. You cough throughout the interaction without covering your mouth, unless prompted.
PHLEGM	Rust-colored
FEVER	For past 3 weeks
NIGHT SWEATS	For past 3 weeks
WEIGHT	Not sure, but clothes have been fitting much more loosely.
TIRED	By climbing one flight of stairs or walking a long block
MEDICATION	For the HIV, there are a lot of them; you're not very good about taking your HIV medications because they make you tired.
TB SKIN TEST	Everyone at the shelter was tested 1 year ago — your results were negative
X-RAY	Had a chest X-ray 3 years ago at the hospital; told that you had pneumonia
WORK:	Volunteer work in the homeless shelter
SOCIAL:	You live in a homeless shelter. Your young grandchildren come to visit you once in a while <u>OR</u> your young children live with you.* When appropriate, ask if you could give TB to the children.

Nurse

YOUR PERSONALITY:	You are very anxious that you have or might get TB.
MEDICAL:	You were on duty in a ward in which there had been an "outbreak" of two TB cases. Your friend, who works in that ward, just tested positive on the TB skin test.
COUGH	None
WEIGHT	Always trying to take off a few pounds but no major weight loss
TIRED	Tired all the time, but work hard
MEDICATION	None
HIV STATUS	Negative last year
TB SKIN TESTS	Get test every year per hospital policy; negative last year
CHEST X-RAY	Five years ago; was negative
HEALTH STATUS	No medical problems
WORK:	Nurse on an obstetrics and gynecology floor
LIVING SPACE:	With spouse and two young children (grandchildren if more appropriate)

ASK STUDENT (WHEN APPROPRIATE):

"What is my risk of getting tuberculosis?"

"Is it OK to work on the ward that had an 'outbreak'?"

"What can I do to keep from getting TB from my patients?"

"Can I pass TB to my family?"

If the student assumes you know a lot about TB or asks what you know, say, "It's been a while since I learned about TB. I could use a refresher."

Interpreter/Non-English-Speaking Patient Role

YOUR PERSONALITY:	Your last name is Mitti (use your own first name). You came from another country (you can use any country, if asked) 3 months ago and are now living with your relatives and speak no English.
MEDICAL:	You have been feeling sick for a while and have finally decided to see the doctor. Your friend has come with you to assist you in speaking with the doctor.
COUGH	All the time for the past 1 month. You produce a lot of phlegm with the cough. You cough without covering your mouth throughout the interaction unless the doctor prompts you to do so.
PHLEGM	Grayish; no blood
FEVER	For the past 2 weeks
NIGHT SWEATS	None
WEIGHT	Not sure, about weight loss, but clothes have felt much looser; not hungry very often; not dieting
TIRED	Have felt weak and very tired for the past three weeks
TB SKIN TEST	Never had one; you had the BCG vaccine (TB vaccine) as a child and were told that it would prevent you from getting TB and that your skin test would always be positive
X-RAY	Had a chest X-ray 4 months ago as part of physical for immigration; the result was normal
HIV STATUS	Had a test prior test to coming to the US, which was negative
WORK:	Currently work the night shift at a factory on an assembly line

MEDICAL INFORMATION:

- You are a nice person and give your symptom history with no hesitation
- If asked about HIV, you become defensive if not appropriately explained why the question is being asked
- If TB is mentioned, you become very anxious since TB is considered to be a fatal disease in your country. Because you had the BCG vaccine, you believe that your illness must be something else
- You are not readily willing to get a TB skin test, because you are convinced it will be positive anyway because of the BCG vaccine
- You ask questions, as appropriate, about medications, tests, when you can go back to work, will you infect others, and anything else that may concern you

Interpreter/Non-English Speaking Patient-Interpreter

You are the friend of a non-English speaking patient who needs to be seen by the doctor. Your role in this scenario is to interpret.

- 1. Upon entrance of the doctor in the room, please explain to the doctor who you are state your name and your relationship to the patient.
- 2. Tell the doctor that the patient speaks no English and that you need to interpret for him/her.
- 3. Ask the doctor where he/she would like you to stand or sit during the interaction. Do as the doctor instructs.
- 4. While the doctor talks to the patient or to you, convey what the doctor or patient states. Act as naturally as possible.
 - If you are unable to find the exact words for anything, try your best to state what has been said.
 - If the doctor uses any medical terminology, tell the doctor you do not understand what has been said.
 - If the pace of the doctor's speech is too difficult to keep up with, let him/her know this

If time permits, you may have some obvious side conversation with the patient, which you do not convey to the physician. Perhaps, it can be a fear about the treatment or diagnosis

- 5. If you are not fluent in the language being spoken by the patient do your best to interpret. Do not try to appear as though you are fluent just be as natural as possible.
- 6. When the signal for the end of interview occurs, let the doctor finish his/her sentence. If he/she keeps talking, politely remind him/her that the interview is over and to wait outside of the room.

Sample Student Memo

Provide this memo to the medical students prior to the initiation of the SP Program. Fill in the appropriate information in the bracketed areas.

TO: Class of <Year of Graduation>

FROM: <TB SP Program Coordinator>

RE: TB Standardized Patient Requirements

The Tuberculosis Standardized Patient Program will run from <dates> and will be held in room(s) <room numbers>. Please see attached schedule for your session dates and time.

The program requires approximately 60 minutes. Attendance is mandatory and you must be punctual. You must wear your lab coat and name tag. Failure to participate in the program will result in an unexcused absence. You are not permitted to reschedule unless you have a conflict with other course activities. Any illness-related absence will need to be verified with a medical note.

This training program utilizes Standardized Patients (SPs). SPs are actors trained to portray a patient with a disease or condition and to interact with the medical student in an interview setting. You will receive brief instructions prior to beginning the program.

The program format will consist of the following:

- Medical history and patient education concerning TB
- Viewing a videotape of one of your interviews
- Three one-on-one medical interviews with feedback from SPs

To prepare for the session, please refer to the study materials and lecture on TB that will be given on <date>. If you have any questions, comments or concerns, please contact: TB SP program coordinator, ______ at (_____)____ – _____.

Learning Objectives

On completion of the program, participants will be able to do the following:

- 1. Conduct a tuberculosis (TB)-focused medical history.
- 2. Recommend appropriate medical interventions for TB diagnosis and treatment.
- 3. Educate patient on TB transmission, pathogenesis, infection control, difference between infection and disease, and importance of treatment adherence.

Program

The program will take about 1 hour to complete. You will encounter <number of patients> patients with TB-related conditions. You will have 7 minutes to complete each interview and will receive about 2 minutes of feedback from the SP. You will be provided with a brief patient history and an outline noting the essential points to cover.

In the interview, you will:

- Complete a TB medical history
- Provide TB education
- Explain patient follow-up

You will encounter the following three patients with whom you will need to cover the specific points described below.

Sample Student Memo, continued

A.MEDICAL HISTORY

- 1. Nature of exposure
- 2. TB symptoms
- 3. TB infection or disease in the past
- 4. HIV status and treatment, if applicable
- 5. Results of any past tuberculin skin testing

B. EDUCATION

- 1. TB diagnosis— tuberculin skin testing, chest X-ray, and sputum smear/culture
- 2. Transmission, pathogenesis, infection control, and difference between infection and disease
- 3. Treatment of latent TB infection and disease
- 4. Importance of adherence to medication regimens

STUDENT STUDY GUIDE

Provide a copy of this guide to the medical students prior to their participation in the SP program. This guide contains general interviewing and TB information.

Interviewing Skills

The medical interview should follow a logical progression using known history and two-way dialogue with the patient. You should be professional, invite questions from the patient, and be empathetic to the patient's condition. It is important to assess the patient's perceptions and understanding of TB through exploratory questions and to gauge the dialogue accordingly. Explanations should use lay person's terminology and you should constantly be aware of patient's level of understanding through verbal and nonverbal feedback.

CULTURAL DIVERSITY

Health care workers should be aware of cultural diversity in all patients. Although we must hold all patients to the same expectations for medical evaluation and treatment, means of attaining these objectives may vary from patient to patient. In working with patients who are non-English speaking and/or foreign-born, acknowledging and working with differing language and explanations of illness are important skills.

WORKING WITH INTERPRETERS

If a patient does not speak English, an interpreter is necessary. It is ideal to utilize a professionally trained and certified medical interpreter for this task. If none is available the next best choice is to utilize a third party, who is unknown to the patient. Often, however, the patient will bring in a family member or friend to interpret. This can be challenging especially if sensitive questions are being asked and confidentiality is a concern. Here are some essential points to keep in mind, when working with an interpreter:

- Introduce yourself to both the patient and interpreter. Explain to the interpreter that you will be talking to the patient directly and that he/she is to convey exactly what you have said. In turn, the interpreter should be instructed to state exactly what the patient has said back to you. This is important so that all key facts are communicated. The interpreter should also be made aware that all communications are confidential
- Address the patient directly, using first and a second person terminology
- Make eye contact with the patient as appropriate
- Avoid local and medical jargon and phrases and use simple language. Short precise questions work well
- Speak slowly and clearly. Gauge the pace at which the interpreter can convey messages back and forth
- If the patient offers views or ideas counter to your medical training, acknowledge what is being said and attempt to work within the patient's explanation without jeopardizing his/her treatment
- At the end of the interview, review the material with the patient to ensure nothing has been missed or misunderstood

Background Information on Tuberculosis

EPIDEMIOLOGY OF TB

Groups at high risk for TB infection are more likely to be exposed to *Mycobacterium tuberculosis (M. tuberculosis)*. These individuals include:

- Close contacts of people with infectious TB disease
- People born or living in areas of the world where TB is common
- Individuals with poor access to health care

- Injection drug users
- People who live or work in congregate or healthcare settings such as nursing homes, correctional facilities, homeless shelters, and substance-abuse treatment centers

Other groups of people are at high risk for TB disease because they are more likely to develop the disease once infected. For example, people with immunocompromising medical conditions, especially HIV infection, are at the highest risk of developing TB once infected.

Transmission and Pathogenesis of TB

TB is caused by an organism called *M. tuberculosis* that is spread from person to person through the air. *M. tuberculosis* organisms are sometimes called tubercle bacilli. When a person with infectious TB disease coughs or sneezes, droplet nuclei containing tubercle bacilli may be expelled into the air. Other people may inhale the air containing these droplet nuclei and become infected.

TB infection begins when the tubercle bacilli multiply in the small air sacs of the lungs. A small number of bacilli enters the bloodstream and spreads throughout the body, but the body's immune system usually keeps the bacilli under control. People who have TB infection, but not TB disease, do not have symptoms of TB and cannot spread TB to others. They usually have a positive reaction to the tuberculin skin test.

In some people who have TB infection, the immune system cannot keep the tubercle bacilli under control, and the bacilli begin to multiply rapidly, causing TB disease. This can happen very soon after infection or many years later. About 10% of people who have TB infection will develop disease at some point, but the risk is greatest 1 to 2 years after infection. For people infected with *M. tuberculosis* and HIV, the risk of developing TB disease is about 7-10% each year. TB disease usually occurs in the lungs (pulmonary TB), but it can occur in other places in the body (extrapulmonary TB). Miliary TB occurs when tubercle bacilli enter the bloodstream and are carried to all parts of the body where they grow and cause disease in multiple sites.

The tuberculin skin test is used to determine whether a person has TB infection. The Mantoux tuberculin skin test is the preferred type of skin test because it is the most accurate. Whether a reaction to the Mantoux tuberculin skin test is classified as positive depends on the size of the induration, the person's risk factors for TB, and the risk of occupational exposure to TB. Several factors can affect how the skin-test reaction is interpreted. Close contacts of someone with infectious TB disease who have a negative reaction to the tuberculin skin test should be retested 12 weeks after the last time they were in contact with the infectious TB case.

THERE ARE FOUR STEPS IN DIAGNOSING TB DISEASE: medical history, tuberculin skin test, chest X-ray, and bacteriologic examination.

1. MEDICAL HISTORY: A medical history includes asking patients whether they have been exposed to a person with TB or with symptoms of TB disease, if they have had TB infection or TB disease before, or risk factors for developing TB disease. The symptoms of pulmonary TB disease may include:

- Coughing
- Pain in chest when breathing or coughing

- Coughing up sputum
- Coughing up blood (hemoptysis)

The general symptoms of TB disease (pulmonary or extrapulmonary) may include:

- Weight loss
- Fatigue
- Malaise
- Fever
- Night sweats

The symptoms of extrapulmonary TB disease also depend on the part of the body that is affected by the disease.

2. TUBERCULIN SKIN TEST: Patients with symptoms of TB disease should be given a Mantoux tuberculin skin test. They should be evaluated for TB disease, regardless of their test results.

3. CHEST X-RAY: The chest X-ray is used to help rule out the possibility of pulmonary TB disease in a person who has a positive reaction to the tuberculin skin test and detects lung abnormalities in people who have symptoms of TB disease. The results, however, cannot confirm that a person has TB disease.

4. BACTERIOLOGIC EXAMINATION: In the bacteriologic examination, a sputum specimen is obtained from patients suspected of having pulmonary TB disease; other site-specific specimens are obtained from patients suspected of having extrapulmonary TB disease. The specimen is examined under a microscope for the presence of acid-fast bacilli (AFB). Patients with positive smears are considered infectious, especially when AFB are numerous. The specimen is then cultured, or grown, to determine whether it contains *M. tuberculosis*. A positive culture for *M. tuberculosis* confirms the diagnosis of TB disease. After the specimen has been cultured, it is tested for drug susceptibility. The results of these tests can help clinicians choose the appropriate drugs for use in treatment of TB disease.

TABLE 1. TB INFECTION VS. TB DISEASE

TB INFECTION	TB DISEASE (PULMONARY)		
Tubercle bacilli in the body	Tubercle bacilli in the body		
Tuberculin skin-test reaction usually positive	Tuberculin skin-test reaction usually positive		
Chest X-ray usually normal	Chest X-ray usually abnormal		
Sputum smear and cultures negative	Sputum smears and cultures positive		
No symptoms	Symptoms present		
Not infectious	Often infectious before treatment		
Not a case of TB	A case of TB		

Treatment of Latent Tuberculosis Infection and Tuberculosis Disease

LATENT TB INFECTION — Treatment of latent TB infection (formerly known as preventive therapy or chemoprophylaxis) is medication that is given to people who have TB infection to prevent them from developing TB disease. High-risk persons should be evaluated for treatment of latent TB infection if they have a positive skin-test reaction, regardless of their age. Others should be evaluated for treatment of latent TB infection if they have a positive skin-test reaction and they are younger than 35 years old. Sometimes treatment is given to people who have a negative skin-test reaction, such as high-risk contacts and children younger than 6 years old who have been exposed to TB. All patients being considered for treatment of latent TB infection should receive a medical evaluation to:

- Exclude the possibility of TB disease
- Determine whether they have ever been treated for TB infection or disease
- Identify any medical problems that may complicate therapy or require careful monitoring

The *usual* treatment of latent TB infection is isoniazid (INH) given daily for 9 months for all persons. Patients should be evaluated every month for signs of hepatitis and other adverse reactions to INH. They should also be educated about the symptoms caused by adverse reactions to INH and instructed to seek medical attention immediately if these symptoms occur. In addition, people at greatest risk for hepatitis should have regular liver function testing.

TB DISEASE - TB disease must be treated for at least 6 months in all cases. In some cases treatment lasts even longer if sputum smears and cultures do not convert to negative within an adequate period of time. The initial regimen for treating TB disease should include four drugs: isoniazid (INH), rifampin (RIF), pyrazinamide (PZA), and ethambutol (EMB). When the drug susceptibility results are available, clinicians may change the regimen accordingly. TB disease must be treated with at least two drugs to which the bacilli are susceptible. Using only one drug to treat TB disease can create a population of tubercle bacilli that is resistant to that drug. Drug resistance can also develop when patients do not take treatment as prescribed. Thus, to prevent relapse and drug resistance, clinicians must prescribe an adequate regimen and make sure that patients adhere to treatment. The best way to ensure that patients adhere to treatment is to use directly observe therapy (DOT), which is healthcare worker or trained outreach worker observation of the ingestion of prescribed medication.

All patients being treated for TB disease should be educated about the symptoms caused by adverse reactions to the drugs that they are taking and instructed to seek medical attention immediately if they have adverse symptoms. Patients should be seen by a clinician at least monthly during treatment and evaluated for possible adverse reactions. In addition, before starting treatment, patients with other medical conditions should have baseline tests to help clinicians detect any abnormalities that may complicate treatment.

Patients who are not receiving DOT should be carefully monitored for adherence to treatment. However, the only way to ensure adherence to treatment is to use DOT. If DOT cannot be provided for the entire treatment period, a clinician should work closely with the patient to establish a regular routine for taking medication. It is also crucial for the clinician to work with the patient to identify any barriers to adherence and provide ways to overcome these barriers. To determine whether a patient is responding to treatment, clinicians should do clinical evaluations and bacteriologic evaluations during treatment. Patients should be carefully reevaluated if their:

- Symptoms do not improve during the first two months of treatment
- Symptoms worsen after improving initially
- Culture results do not become negative after two months of treatment
- Culture results become positive after being negative

In certain situations, clinicians may also use X-rays to monitor a patient's response to treatment. The treatment of TB can be complicated, especially in patients who fail to respond to treatment, relapse, have drug-resistant TB, or have adverse reactions to medications. Clinicians who do not have experience with these situations should consult a TB expert.

Infection Control

The infectiousness of TB patients is directly related to the number of tubercle bacilli that they expel into the air. Patients who expel many tubercle bacilli are more infectious than patients who expel few or no bacilli. Patients are more likely to be infectious if they:

- Have TB of the lungs or larynx
- Have a cavity in the lung
- Are coughing or undergoing cough-inducing procedures
- Have AFB on the sputum smear
- Are not receiving adequate treatment

Infectiousness appears to decline very rapidly after adequate treatment is started, but how quickly it declines varies from patient to patient. Patients who have been receiving adequate treatment for 2 to 3 weeks, whose symptoms have improved, and who have three consecutive negative sputum smears from sputum collected on different days can be considered noninfectious. Patients with extrapul-monary TB are *not* infectious, even initially.

TB can be spread in many places, such as homes or work sites. TB can also be transmitted in healthcare facilities. TB is most likely to be transmitted when healthcare workers and patients come in contact with patients who have unsuspected TB disease, who are not receiving adequate treatment, and who have not been isolated from others. All healthcare facilities should take measures to prevent the spread of TB.

People with TB disease are most likely to transmit TB before the disease has been diagnosed and treatment has started. TB patients who are receiving treatment are less likely to be infectious. TB patients who may be infectious should be instructed to cover their mouths and noses with disposable tissues when coughing or sneezing.

If a patient is suspected of having TB, (s)he should be immediately placed in an environment where transmission to others is unlikely. In many cases, hospitalization of a patient until noninfectious, can be warranted. Patients should be kept from work or school at least until noninfectious and well enough to resume normal activities. All this should be done without compromising the dignity and comfort of the patient.

Contact Investigation

If a physician has a suspected case of TB under his/her care, this should be reported per state legal regulations. For infectious cases, it is then customary for the local health department to begin a contact investigation process. The patient will be interviewed regarding his/her close contacts. Close contacts are those who have had prolonged, close contact with an active TB case. Those contacts will generally have a TB skin test and a medical evaluation.

PATIENT ROOM LABELS

Place a copy of each patient room label on the door in which the specific patient will be interviewed.



H Infected with HIV



Interpreter

PATIENT INTAKE INFORMATION

Provide this information to the students just prior to entering the interviewing rooms. It may be given all at once or separately before seeing the specific patient.

Patient with Reactivated TB

According to a phone conversation a clinic nurse had with the patient's supervisor, Patient Jones has been treated for TB several times in the past and is now coughing and looking ill. Patient Jones works as a flight attendant. The flight supervisor forced this patient to come to your clinic. You are the first physician to see this patient today.

TASKS:

- 1. Obtain a focused past and current history for symptoms, diagnosis, and/or treatment of TB infection and disease
- 2. Recommend and explain TB testing
- 3. Educate patient about:
 - Transmission and pathogenesis
 - Treatment of TB disease and importance of adherence
 - Risk of drug resistance
 - Infection control

Patient Infected with HIV

According to information a clinic nurse took over the phone, Patient Gonzalez is homeless and infected with HIV. The patient is presenting with a severe cough and feels "lousy." You are the first physician to see this patient today.

TASKS:

- 1. Obtain a focused past and current history for symptoms, diagnosis, and/or treatment of TB
- 2. Recommend and explain TB testing
- 3. Educate patient about:
 - Transmission and pathogenesis
 - Connection between HIV and TB
 - Treatment of TB disease and importance of adherence
 - Infection control

Nurse

According to information a clinic nurse took over the phone, Nurse Meadow works as an Ob/Gyn nurse and is concerned about having gotten TB while working on a floor that recently had an "outbreak" of TB. You are the first physician to see this patient.

TASKS:

1. Obtain a focused past and current history for symptoms,

diagnosis, and/or treatment of TB infection and disease

- 2. Recommend and explain TB testing
- 3. Educate patient about:
 - Transmission and pathogenesis
 - Infection control for TB at the hospital
 - Difference between infection and disease
 - Treatment of TB infection and disease

Interpreter/Non-English Speaking Patient

According to information a clinic nurse took over the phone, Patient Mitti has been coughing and generally feeling ill for a month. Since the patient does not speak English, the caller stated that a friend would be present during the visit to assist with the conversation.

TASKS:

- 1. Obtain a focused past and current history of symptoms, diagnosis and/or treatment of TB.
- 2. Recommend and explain TB testing.
- 3. Educate patient about:
 - Transmission and pathogenesis of TB
 - Connection between TB and HIV
 - Treatment of TB disease and importance of adherence
 - Infection control

Facilitator Verbal Instructions

This information may be modified to fit your format, number of patients, room set-up, and time constraints.

"Hello. Welcome to the Tuberculosis Standardized Patient session. My name is ______ and I am the TB Standardized Patient Program Coordinator (OR FACILITATOR). A standardized patient is a person trained to portray a specific role, in this case, a TB patient. Today you will be seeing three patients who come into your office for a TB-related diagnosis. One is a nurse, one has a history of TB, and one is infected with HIV. You will know a little bit about each patient you see, based on the patient profile at the desk/chair where you are seated. This is information that has been collected ahead of time about the patient. You can assume that you already know this information and can use it during the patient interaction.

After you read the information in front of you, you will be instructed to knock on your patient's door at the same time . You will then have 7 minutes to complete an interview. All you are doing is an interview — you are not doing a physical examination and you are not taking any notes. Therefore, we ask you not to bring anything into the room with you, so that you may concentrate on the interview process. When 7 minutes have elapsed, you will hear a knock on the door. You then need to finish your sentence, leave the room, and sit down in the chairs that you are in right now. If you are done before 7 minutes, you may leave the room early if you wish.

After a minute or so, the SP will call you back into the room and give you some feedback on your interaction, based on a checklist. After the feedback is over, please sit in the chair outside the room you just exited. When all the students are done receiving their feedback, I will ask you to switch to the next patient. You will know the order in which to see your patients based on the order designated on your badge. For example, if your badge says "NRH" you will see the nurse first, the patient with reactivated TB second, and the patient infected with HIV last. If your badge is blue, you will stay on this side of the hallway, and if your badge is red, you will stay on the other side of the hallway.

In one room, you will be videotaped. The purpose of the videotaping is to further review your skills and get additional feedback. You will make an appointment <POINT TO THE SIGN-UP SHEET> with a reviewer who will provide that additional feedback, not only on your interviewing skills, but on the clinical information that you provided, as well as answer any TB-related questions that you may have. After the review, you may keep the videotape. Are there any questions?"

STUDENT EVALUATION BY THE STUDENT

Provide this form to each student upon completion of the videotape review.

Tuberculosis Standardized Patient Program Evaluation

Please use the scale to rate the areas below. Circle the number, which pertains to your rating.

	Excellent 5	Good 4	Average 3	Fair 2	Poor 1
Organization of the program	5	4	3	2	1
Comments:					
Quality of background information received priot to the program	or 5	4	3	2	1
Comments:					
Quality of feedback given by the standardized patient(s)	5	4	3	2	1
Comments:					
Level of improvement in your clinical skills after participating this program	5	4	3	2	1
Comments:					
Level of improvement in your interviewing skills after participating this program	5	4	3	2	1
Comments:					
Level of increase in TB knowledge after participating this program	5	4	3	2	1
Comments:					
Quality of feedback given by the faculty review (Name of Faculty Reviewer:	er 5	4)	3	2	1
Comments:					

What changes would you make to improve this program?

Additional comments:

SP STUDENT EVALUATION CHECKLISTS

Provide copies of these checklists to the appropriate SPs. They should each receive one copy for each student they evaluate.

Patient with Reactivated TB

Please indicate, by checking the appropriate boxes, whether the student asked/talked about or completed the information listed on the left. Please add comments below.

Student Name ______Date _____

COMMUNICATION	DONE	INCOMPLETE
PRESENT ILLNESS		
Constant cough		
Twenty-pound weight loss		
Tired all day		
Present medication		
Phleam		
PAST HISTORY		
Diagnosed with TB multiple times		
Received medication		
Did not complete past medication		
HIV status		
PATIENT EDUCATION		
TB spread through air		
Cover mouth when coughing		
Incomplete medication makes TB stronger		
Questions answered		
TESTING PLAN		
Chest X-ray now		
Phlegm (sputum) smear/culture now		
TB skin test on close contacts		
INTERPERSONAL SKILLS		
Maintained good eye contact		
Asked short questions with explanations		
Checked patient understanding		
Used simple words		
Invited questions		

Patient Infected with HIV

Please indicate, by checking the appropriate boxes, whether the student asked/talked about or completed the information listed on the left. Please add comments below.

Student Name _____Date _____

COMMUNICATION	DONE	INCOMPLETE
PRESENT ILLNESS		
Constant cough		
Phlegm		
Fever		
Night sweats		
Weight loss		
PAST HISTORY		
Infected with HIV		
No TB in the past		
Previous skin-test result		
Previous chest X-ray result		
PATIENT EDUCATION		
Connection between TB and HIV		
TB spread through air		
Cover mouth when coughing		
Questions answered		
TESTING PLAN		
TB skin test now		
Chest X-ray now		
Phlegm smear/culture if positive X-ray		
INTERPERSONAL SKILLS		
Maintained good eye contact		
Asked short questions with explanations		
Checked patient understanding		
Used simple words		
Invited questions		

Nurse

Please indicate, by checking the appropriate boxes, whether the student asked/talked about or completed the information listed on the left. Please add comments below.

Student Name _____Date _____

COMMUNICATION	DONE	INCOMPLETE
PRESENT ILLNESS		
No symptoms		
Worried about TB		
No cough		
PAST HISTORY		
No TB in the past		
HIV status		
Skin test negative last year		
X-ray normal 5 years ago		
PATIENT EDUCATION		
TB spread through air		
No symptoms, you are not contagious		
Infection vs disease		
Wear mask with TB patient		
Isolation for infectious TB patients in hospital		
Medication for treating/preventing infection		
Questions answered		
TESTING PLAN		
TB skin test now		
Chest X-ray if positive skin test		
Phlegm smear/culture if positive X-ray		
INTERPERSONAL SKILLS		
Maintained good eye contact		
Asked short questions with explanations		
Checked patient understanding		
Used simple words		
Invited questions		

Interpreter/Non-English Speaking Patient

Please indicate by checking the appropriate boxes, whether the student asked/talked about the information on the left. Please add comments below.

Student Name ______ Date _____

COMMUNICATION	DONE	INCOMPLETE
PRESENT ILLNESS		
Cough		
Phlegm		
Fever		
Night sweats		
Weight loss		
Tiredness		
PAST HISTORY		
No TB in the past		
HIV Status		
Previous skin tests		
Previous chest X-ray		
PATIENT EDUCATION		
TB spread through the air		
Cover mouth when coughing		
Multiple-drug medication regimen		
Importance of taking medications properly		
BCG history does not mean you will not get TB		
TESTING PLAN		
TB skin test now		
Chest X-ray now		
Phlegm (sputum) smear/culture if positive X-ray		
INTERPERSONAL SKILLS		
Maintained good eye contact		
Spoke directly to patient		
Checked patient understanding		
Used simple words		
Invited questions		
Spoke at an adequate pace (not to slow or too fast)		

Video Review Appointment Reminder Sheet

This sheet should be given to students to fill in and keep after they have made an appointment for a videotape review session. Directions on other relevant information should be added.

Tuberculosis Standardized Patient Program Videotape Review

The videotape review is the second part of the TB Standardized Patient Program. It takes about 15 minutes and gives you a chance to obtain feedback on your patient interviewing skills. Attendance at the videotape review is mandatory.

Your scheduled appointment is on:

Date______Time ______

DIRECTIONS:

<Directions to area where review will be held>

If you have any questions, please call the TB SP program coordinator,

at (____) ____-

VIDEO REVIEW CHECKLIST

Provide copies of this form to the faculty or staff who will be reviewing the student interviewing videos.

Video Review Checklist

Use this list as a guide for discussion with the student about the SP interview process. The reviewer should be knowledgeable about the principles of effective healthcare interviewing as well as the fundamentals of TB. If only reviewing one of several interviews, please ask the student how the other sessions progressed and discuss salient points about communication and clinical TB skills with him or her.

Please indicate by checking the appropriate boxes, whether the student asked/talked about or completed the information listed on the left.

Student Name _____ Date _____

COMMUNICATION	EXCELLENT	SATISFACTORY	NEEDS IMPROVEMENT
Established good rapport with patient			
Asked symptoms in an orderly manner (one at a time)			
Asked sensitive questions (e.g., HIV status) appropriately			
Determined patient's understanding of TB before giving explanations			
Gave correct factual information (e.g., TB infection vs. disease, treatment lengths, testing needs, etc.)			
Checked patient understanding			
Explored any lifestyle factors/external or internal barriers (e.g., taking other medication, taking medication in the past, transportation, etc.) that may affect ability to adhere to treatment plan			
Used lay person terminology			
Completed interview in a logical manner (i.e., present status/symptoms, past history, testing plan, treatment plan) with education provided throughout			
Was convincing about the cure of TB and patient's role in the treatment plan			
Was nonjudgmental of patient lifestyle or questions asked			
Had appropriate body language (e.g., eye contact, non-crossed arms, comfortable distance, confidence, etc.)			
Had appropriate verbal communication (spoke slowly in medium volume, paused to listen to patient, etc.)			

New Jersey Medical School National Tuberculosis Center

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