

Annex 1

Clinical affiliation agreement (Spanish Language course)

**Between Pacific University School of Physician Assistant Studies,
Oregon, USA and IHCAI Foundation, San Jose, Costa Rica**

Programme description

**The *Latin* Spanish Patient
in the environment of tropical medicine.**

IHCAI 010 B

Short term Intensive Medical Spanish Course.
Adapted for Physician Assistant students

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1. Introduction

IHCAI Foundation and the San Francisco de Asis Hospital in Grecia, Costa Rica have been running the course IHCAI 010 “The *Latin* Spanish Patient in the environment of tropical medicine” very successfully. It is a four week intensive course for senior Medical students and residents. IHCAI offers eight sessions every year.

Now IHCAI presents a customized version of the Medical Spanish training for physician assistants. At the beginning, we intended to simply reduce the course’s contents and goals in order to adapt the course to the shorter period available. However, we realized that because time is a very important variable in terms of the results achieved in the IHCAI 010 course, it was necessary to build a different course.

The goals should be different in terms of the expected level of Spanish that one average student may achieve. The methods used should assure the course’s quality and guarantee the achievement of the expected Medical Spanish proficiency level.

We accepted the challenge and we have now a first version of the course’s programme, contents, and methods in its adapted form. However, it is necessary to insist that it is not a reduced version of the IHCAI 010 course, on the contrary, it is another course with different goals and methods that will allow the participant to achieve a lower but acceptable Medical Spanish proficiency and the Tropical Medicine contents will be presented with a different depth. Experience shows that students with a very limited knowledge of Spanish can, in the time of four weeks, ascend in the scale from beginners low to intermediate low or even intermediate medium¹.

This course is adapted to the Curriculum of Physician Assistant students at Pacific University School of Physician Assistant Studies as an introduction to Medical Spanish as a second language. IHCAI does not intend to teach advanced Medical Spanish in the two weeks.

2. Course Identification

- * This is an intensive Medical Spanish Course focusing on the interaction between the health professional and the patient with a Tropical Medicine component as a learning model. Other medical problems such as chronic diseases and different medical aspects are also considered in the learning models
- * The course gives three credits. Grades: High Honors (Students who obtain this grade may receive the Exceptional Student award) / Honors/ Pass Satisfactory /Fail
- * Two weeks (16 days) 96 hours /
- * Eligible participants: Second year Physician Assistant students and professionals.

¹ This classification reads as follows according to the course evaluation test: Beginner (low, medium, high), Intermediate (low, medium, high), Advanced (low, medium, high)

- ? Course grants the Intermediate Medium level Medical Spanish Certificate.

3. Course Format

- * Two weeks intensive grammar and Spanish pronunciation, comprehension and vocabulary sessions from 9 to noon. Afternoon sessions are from 1 to 4: 00 pm. (both sessions have a break)
- * Lectures and seminars on Tropical Medicine. (Lectures and seminars are in Spanish, handouts are bilingual)
- * Medical chart analysis and comprehension. Simulated interviews with peers.
- * Medical interviews and analysis on 3 different levels of complexity. The interviews are video recorded sessions with simulated patients.
- * Access to clinical rounds in the Internal Medicine and Pediatrics services and primary care health posts. These options are available according to students' needs and performance.

4. The Family Experience

An important part of the IHCAI program is living in a Costa Rican family. Course participants have breakfast and dinner with the family they live with. The course participants are directly exposed to every-day situations in two ways. A class session on Spanish vocabulary commonly used in the household paves the way for the experience in the family. The multimedia and interactive classes, and the interactions with physicians and other health professional in the team are the second form of exposure to the every day language.

Objective

- * To expose the student to the transcultural experience by living with a family and by enhancing the colloquial vocabulary of the student. To increase the understanding of the health culture of the Latin community.

5. The Human Body

IHCAI staff and faculty teach both scientific and popular anatomical terms in small group sessions using pictures, live models, and other aids. The intensive student-faculty interaction allows fast progress. Of course, interactive multimedia programs are also available, but an introduction to Spanish grammar is essential at every level.

Objective

- * Relate the normal physical examination to normal anatomy according to the Spanish terms using either bio-medical or colloquial terms.

6. Medical History.

The Spanish Patient course is a real version of the complete history and physical exam using the active communicative-interactive method to learn Spanish. The participant continues to have access to the Spanish grammar and composition. At the completion of the Basic Spanish Grammar Skills and training in a Spanish basic medical interview the student will be able to:

Objectives

- * Apply techniques for effective communication.
- * Negotiate the agenda of the interview
- * Converse in non-biomedical terms and differentiate colloquial from scientific terms.
- * Be able to see, listen to, and understand a patient.
- * Recognize and respond to emotion-laden topics.
- * Identify the patient's health beliefs and cultural constraints to accept treatments.
- * Use an appropriate mix of open and close-ended questions adapted to the Spanish language
- * Allow sufficient time to the patient to answer questions and to understand the meaning of the answer.
- * Use appropriate non-verbal cues
- * Perform a basic problem-oriented medical interview.
- * Recognize the chief complaint and skills to re-question when the vocabulary is unknown or when the pronunciation was not understood
- * Take history of present illness
- * Obtain essential past medical history
- * Practice communication, interview, and examination skills during the two-week course

7. Patient Interviewing.

The simulated patient program is an essential method implemented by IHCAI Foundation in all its programs. IHCAI acknowledges the student's requests to work with patients, but ethical and legal issues prohibit exposing patients to students who lack clinical training and fluency in Spanish. The standardized simulated patient model allows the student to interact with community members, using their Spanish, refining their medical knowledge, and practicing their interview technique.

IHCAI is applying these methods as they are described and used in different Canadian, North American and European Universities and programs. However the interactions with the Spanish Speaking simulated patient presents a totally new situation to the student whereas he/she is committed to use the medical interviewing skills and apply them in a second language. The mental process therefore goes beyond the mental translations of specific words and put emphasis in the communication process. The challenge for any students of a Second language is to enhance the communication and interaction and not to literally having a mental dictionary to translate words. The construction of the thinking always goes beyond the individual meaning of the words. To change that process is the cutting criteria for assessing the success of the learning process. The objective of the program is to ensure future physicians assistants to learn and practice the fine points of communicating with Latin Spanish speaking patients while obtaining important clinical and procedural skills. The IHCAI 010 course emphasizes the differential diagnostics of tropical diseases. The IHCAI 010B will also include some aspects of Tropical Medicine, but the emphasis will be given to other clinical and non-clinical scenarios.

Experiential learning is achieved by using real-life scenarios of family, clinical, and social problems with simulated patients seen an individual and as a member of a typical family.

The simulated patient has been carefully trained to portray social, emotional, and physical characteristics of an actual patient and family. This technique teaches students to handle sensitive patient issues, for example how to deal with the differential diagnosis of fever in relation to tropical diseases or other common diseases, adapted to the epidemiological profile of the Hispanic population in the USA. It shows them how to tackle other chronic diseases, such as cancer and abuse. Delivering bad news, talking to patients who refuse surgery and consultations with adults and children after traffic accidents or accidents in the home will also be practiced. The simulated patients provide consistent cases for the students in order for them to practice their clinical skills in Spanish and assess what they have learned. All sessions are video - recorded. The main aim is to assess the understanding by the student of the patient response to different environments and situations according to his or her cultural, social, and emotional background.

Communication between physician assistants, patients and families, or between colleagues, has rarely been taught formally or addressed in schools or residency training for medical Spanish. This is easily observed in all the Medical Spanish courses. Moreover, in most medical Spanish course books and courses, a focus is given on how to ask a patient questions but **no attention** is given to the interactions between physician, nurses, physician assistants, and other health professionals. When a patient responds to a very well formulated and correct question, with more than “si” “ no” “Mañana” or “ayer” giving much more details and talking more about him- or herself, then the student is lost. It is also possible that the patient asks questions that are not understood.

IHCAI has a lot of evidence from the accumulated experience and from other sources (Campbell Collaboration systematic reviews) that the situation of the patient has not been very comfortable when someone who is not fluent in the language of the patient asks questions. Certainly, the worst part has been when the student or Physician Assistant does not understand the patient’s comments and questions. It certainly does not help to foster trust in the medical personnel. IHCAI trainees can now practice communication, physical examinations, and procedures without putting patients at risk or waiting for a suitable patient to be available.

8. Standardized simulated patient and levels of interview complexity

The IHCAI 010_A is designed to achieve 4 different levels of Medical Spanish complexities. The IHCAI 010_B proposes three levels. Complexity level 3 is the highest expected level to be achieved by a student.

The levels are defined according to the use of different skills and knowledge such as the use of the past, of present subjunctive tenses and the colloquial and biomedical vocabulary. This is all in conjunction with the type of problems the simulated patient is presenting. In a typical interview of complexity level one the student should use the present and simple past tense and the medical vocabulary is not expected to exceed 50 words. The other levels are defined in the same way according to the average level of the group upon arrival.

8.1. Peer Interview

- * Each student is videotaped performing an interview with a peer who has prepared to portray a common medical problem using the case history in the course manual.
- * Students have ten minutes to introduce themselves, to obtain the chief complaint(s), and to develop a history of the present illness.
- * This session also serves, on a secondary level, to desensitize the students to the cameras.

8.2. Standardized simulated patient interviews

important researcher in the field of snakes, Clodomiro Picado Twight (1887 – 1944). His dream was to open a bank of anti-venoms against snake bites and it became reality 20 years after his death. The institute is dedicated to producing anti-venoms, but also to the study of venoms and toxins of animals, plants, and microorganisms. Their goal is to develop technologies to produce a wide variety of anti-venoms and to support the commercialization of the production in the country.

As the only producer of anti-venoms in Central America, the institute holds a very important place. The production of the venoms at the institute consists of three steps. First, the venom is obtained from live snakes held at the institute; then it is injected, in a diluted form, into horses for a period of approximately three months. During this time, the horses produce antibodies. In a third, stage these antibodies are purified from the blood of the horses and then the proper anti-venom is produced. The institute produces anti-venoms for both human and veterinary use.

There are two main groups of snakes in Costa Rica with very different venoms. The snakes of the group of vipers account for most of the bites and their damage is a lot more important than the ones by the coral snakes, who account only for about 10 bites per year. The venom of the family of vipers causes severe tissue damage, micro-necrosis, and edema at the site of the bite. There are also systemic consequences, such as generalized hemorrhages, severe problems with coagulation, renal insufficiency, and cardio-vascular shock.

The coral snakes are the second group of snakes existing in Costa Rica. Their distinct coloring of red, yellow, and black rings sets them apart from the vipers. The venom of these snakes is a neurotoxin and provokes entirely different reactions in the patient. There are hardly any lesions or tissue damages at the site of the bite, but the patient suffers from muscle paralysis, diplopia (double vision), excessive salivation, and dispnea, which can lead to death if untreated. The bites of coral snakes are less frequent because the snakes are a lot smaller, especially their head. A bite usually occurs when somebody manipulates the animal and is bitten in the finger. Both types of snakebites can be treated, if the person solicits medical assistance within three to five hours of the bite.

The excursion to the Instituto de Investigación Clodomiro Picado is a central part of the course on tropical medicine and provides a lot of information on snakes, their bites, and venoms. There are approximately 600 snakebites per year in Costa Rica whereof 10 – 12 are lethal. A large number of people become disabled due to the effects of the venom and therefore snake bites are a fairly important health problem in rural areas of Costa Rica.

The visit includes a lecture on the snakes, their venoms, treatments of bites, and on the production of anti-venoms at the institute. A very fascinating addition is the display of a wide variety of live snakes, from the yellow eyelash-viper to different coral snakes, used for the production of the antidotes.

c) Trip to the Pacific

The trip to the Pacific contains various goals. In a program that is this intensive, it is also necessary to move the group to a different place that will provide a change in the every day monotony of the classroom. We will take advantage of this occasion to take the group to a natural environment where they can effectively combine recreation activities with academic needs. In this environment, we will focus the study of Tropical Medicine on the topic of Malaria. It is important to note that the natural richness in terms of biodiversity and beauty of the landscape of the tropics cannot be understood by imply looking at photos and books, the immersion into these areas are not only useful, but also necessary. A second important part of the trip will be the lecture on “The other Costa Rica”.

14. Tuition

**Tuition is US \$ 795 (This course Tuition is only valid for Pacific University School of Physician Assistants covered by the Clinical affiliation agreement)
Financial and payment arrangements will be done according to the agreement between the two Institutions**

**Program:
For Basic Level**

Day 1 / FRIDAY	DAY 2 / SATURDAY	DAY 3 / SUNDAY
Arrival in Costa Rica Transport from the airport to host family Housing in Costa Rican families	Registration Distribution of materials Interview to assign the students to the different levels Overview and introduction to course Review of vocabulary to be used with families Bus routes and transportation	River rafting on the Río Pacuare (OPTIONAL) Not covered by tuition (cost approx. \$65, includes breakfast and lunch)

DAY 4 / MONDAY	DAY 5 / TUESDAY	DAY 6 / WEDNESDAY	DAY 7 / THURSDAY	DAY 8 / FRIDAY
Grammar STEP ONE Clinical Scenario ONE Grammar STEP TWO <i>City Tour of San José</i>	Grammar STEP THREE Scenario TWO Grammar STEP FOUR	Seminar on biodiversity and tropical medicine <i>Visit to INBio</i> Clinical Scenario THREE	Grammar STEP FIVE Clinical Scenario FOUR Grammar STEP SIX Scenario FIVE	Grammar STEP SEVEN Clinical Scenario SIX Grammar STEP EIGHT Scenario SEVEN Written Evaluation

DAY 9 / SATURDAY	DAY 10 / SUNDAY
<i>Trip to the Pacific</i> Simulated Patient 1 (PS1) Level 1 Lecture and discussion "La otra Costa Rica"	<i>Trip to the Pacific</i> Malaria Analysis and feed back PS1

DAY 11 / MONDAY	DAY 12 / TUESDAY	DAY 13 / WEDNESDAY	DAY 14 / THURSDAY	DAY 15 / FRIDAY
Grammar STEP NINE Scenario EIGHT Simulated Patient PS2 Analysis PS2	Grammar STEP TEN Scenario NINE Grammar STEP ELEVEN	Grammar STEP TWELVE Written exam Simulated Patient PS3 <i>Seminar on snake bites</i> <i>Trip to the ICP</i>	Visit to Clinics or Hospitals and participation in clinical activities	Seminar on Tropical Medicine Dengue, Chagas and Leishmania Analysis and feedback PS3 Distribution of certificates

DAY 16 / SATURDAY
Transport to the airport Return to the USA

Intermediate Level

(the only difference is the visit to the clinic on the first Thursday)

Day 1 / FRIDAY	DAY 2 / SATURDAY	DAY 3 / SUNDAY
Arrival in Costa Rica Transport from the airport to host family Housing in Costa Rican families	Registration Distribution of materials Interview to assign the students to the different levels Overview and introduction to course Review of vocabulary to be used with families Bus routes and transportation	River rafting on the Río Pacuare (OPTIONAL) Not covered by tuition (cost approx. \$65, includes breakfast and lunch)

DAY 4 / MONDAY	DAY 5 / TUESDAY	DAY 6 / WEDNESDAY	DAY 7 / THURSDAY	DAY 8 / FRIDAY
Grammar STEP ONE Clinical Scenario ONE Grammar STEP TWO <i>City Tour of San José</i>	Grammar STEP THREE Scenario TWO Grammar STEP FOUR	Seminar on biodiversity and tropical medicine <i>Visit to INBio</i> Clinical Scenario THREE	Visit to Clinics and Hospitals and participation in clinical activities	Grammar STEP FIVE Clinical Scenario FOUR Grammar STEP SIX Scenario FIVE Written Evaluation

DAY 9 / SATURDAY	DAY 10 / SUNDAY
<i>Trip to the Pacific</i> Simulated Patient 1 (PS1) Level 1 Lecture and discussion "La otra Costa Rica"	<i>Trip to the Pacific</i> Malaria Analysis and feed back PS1

DAY 11 / MONDAY	DAY 12 / TUESDAY	DAY 13 / WEDNESDAY	DAY 14 / THURSDAY	DAY 15 / FRIDAY
Grammar STEP SEVEN Clinical Scenario SIX Grammar STEP EIGHT Scenario SEVEN	Grammar STEP NINE Scenario EIGHT Simulated Patient PS2 Analysis PS2	Grammar STEP TEN Written exam Simulated Patient PS3 <i>Seminar on snake bites</i> <i>Trip to the ICP</i>	Grammar STEP ELEVEN Scenario NINE Grammar STEP TWELVE	Seminar on Tropical Medicine Dengue, Chagas and Leishmania Analysis and feedback PS3 Distribution of certificates

DAY 16 / SATURDAY
Transport to the airport Return to the USA