

AI Patient Actor 2.0

Educator Instruction Manual

NILE Laboratory | Geisel School of Medicine at Dartmouth

Introduction

Effective patient communication is essential for healthcare professionals, yet opportunities for deliberate practice with feedback are limited by the resource-intensive nature of standardized patient programs. This platform addresses these constraints by providing scalable, on-demand access to simulated clinical encounters.

The AI Patient Actor is an open-access clinical training platform developed by the [Neuroscience-Informed Learning and Education \(NILE\) Laboratory](#) at Dartmouth's Geisel School of Medicine. The platform enables healthcare trainees to practice clinical interviewing and diagnostic reasoning while receiving immediate, individualized formative feedback.

Platform Architecture

The AI Patient Actor is powered by a mixture of frontier large-language models (LLMs) that serve as conversational agents, create clinical cases, and evaluate encounters. Importantly, the intentional design involves guardrails so that LLMs do not generate medical content autonomously. Instead, responses are constrained by:

- **Clinical case files** created by human medical educators
- **Configurations** specifying patient-physician interaction rules
- **Evaluation rubrics** designed by faculty

This design ensures educators retain full control over educational content while reducing the potential for erroneous information generation.

Key Features

- **Multilingual support:** 52 languages (text-based); emotive voice-to-voice in English and Spanish with 26 different patient voices
- **Immediate feedback:** Individualized formative feedback after every session
- **Educator control:** Create custom clinical cases and evaluation rubrics
- **Clinical fidelity:** Physical examination and diagnostic testing modules
- **Open access:** Freely available to non-profit educational institutions worldwide

Evidence Base

Deployment of the AI Patient Actor at Geisel School of Medicine resulted in a 76% reduction in late assignment submissions of clinical notes, significant increases in student comfort with generative AI, and predominantly positive student experiences (Thesen et al., 2025, MSE).

Research demonstrates that AI-simulated patient encounters develop clinical skills that transfer to human interactions. In a randomized controlled trial, students who trained with AI-standardized clinical examinations scored significantly higher on faculty-administered OSCEs compared to controls, with improved emotional readiness and reduced examination stress (Lavigne et al., 2025, NEJM AI).

Getting Started

Access

Platform URL: patient-actor.dartmouth.edu

To obtain educator access, contact ai.patient.actor@dartmouth.edu with your institutional email address. Then create an educator account.

Testing the Platform

To experience the platform from the student perspective, create a student account using a separate email address and join the 'Course 1' using code: **7AI3YW**

Creating Cases

A **Case** combines a *Case File* and a *Configuration* to create a complete patient interaction scenario for students.

Case File

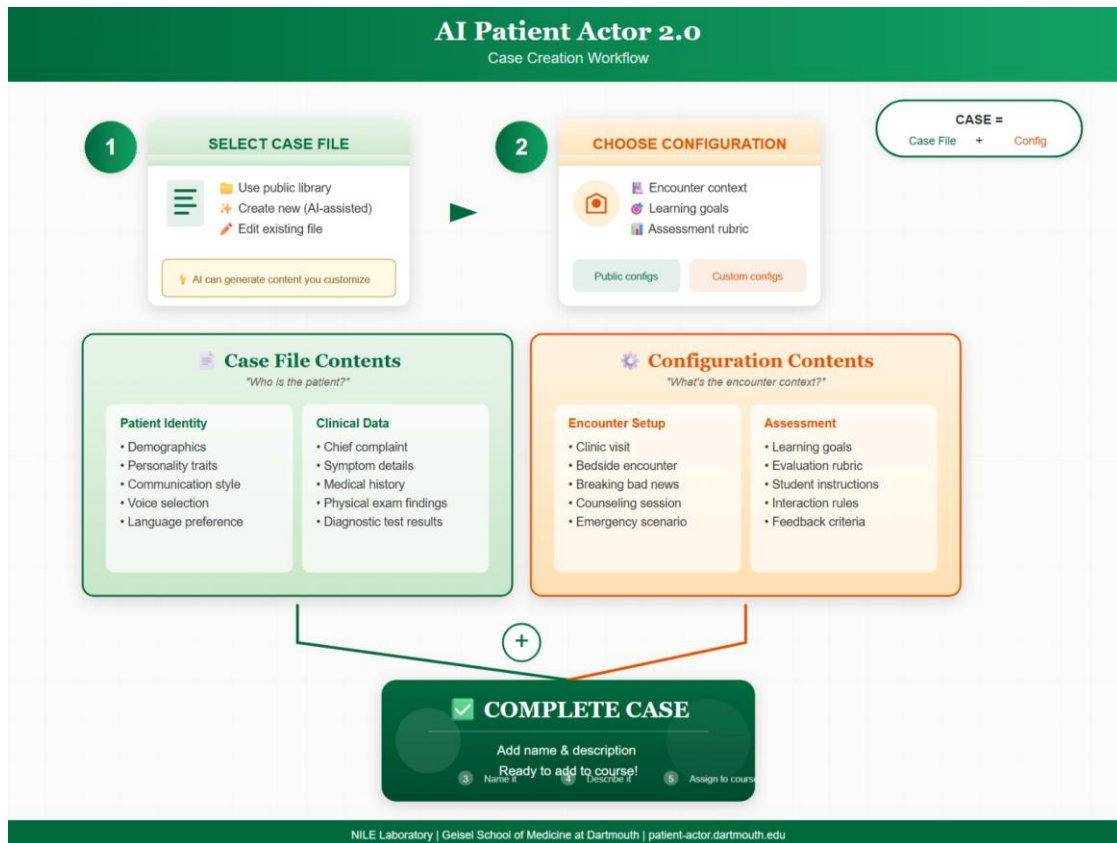
The *Case File* contains the patient's medical information including demographics, symptoms, medical history, diagnostic test results, physical exam findings, a voice and a personality. This defines *who the patient is*, how they behave and what their medical and social conditions are.

Configuration

The *Configuration* defines the context and objectives for the student's interaction with the patient. This includes the encounter context (clinic vs bedside vs breaking bad news), the assessment rubric, and specific instructions for students. This defines *why the student is interacting* with the patient and how they will be evaluated.

How to Create a Case

1. **Select a Case File.** Choose an existing *Case File* from the public library or create a new one. The *Case File* contains all the patient's medical information that students will use during the encounter. When creating a *Case File* you have the option to get AI assistance using a frontier reasoning model. You can edit every aspect of the AI-provided suggestions to meet your needs.
2. **Configure Your Case.** Select one or more *Configurations* to apply to your Case. Each *Configuration* sets the learning objectives, assessment criteria, and interaction guidelines. You can use public *Configurations* or create custom ones tailored to your curriculum.
3. **Add Case Details.** Provide a name and description for your Case. These details will be visible to students, so make sure they are clear and do not reveal any spoilers about the patient's condition.



Creating Rubrics

Evaluation rubrics can be customized to your curriculum. Default rubrics assess rapport building, open-ended inquiry, focused history-taking, differential diagnosis development, communication skills, breaking bad news (SPIKE), and counseling. The platform contains basic rubrics you can use or modify.

Tip: Use an AI chatbot to create your own rubric by giving it one of our public rubrics as an example. Then specify what skills you want to evaluate in your students. If available, specify a specific framework, such as SPIKE protocol, and provide reference materials. Then review, edit, and paste the output rubric into your *Configuration* on the platform.

Managing Courses

Courses allow you to bundle *Cases* and assign them to your students.

1. Create a new *Course* in the educator dashboard
2. Add *Cases* to the course
3. Copy the access code
4. Distribute the code to students

Student Experience

Students follow this workflow:

- Create a student account using their institutional email address
- Join a *Course* using the code provided by the instructor
- Select course, case, language, and modality (text or voice)

- 'Begin Conversation' and conduct the patient interview conversationally via text or voice
- Request Physical Examination and Diagnostic Tests (left panel) as needed
- End encounter and receive immediate feedback
- Review feedback and iterate until proficiency

Support

Contact: ai.patient.actor@dartmouth.edu

User Group Listserv: Email listserv@listserv.dartmouth.edu with body: **subscribe patient-actor** (leave title blank; please post general/technical questions and issues to the email list)

References

Lavigne, E., Lopez, A., Frandon, J., Blaizot, G., Gabellier, L., Adham, S., Bedoya, J.U., Charriot, J., Thieblemont, T., Badreddine, M. & Guenou, E. (2025). AI-standardized clinical examination training on OSCE performance. *NEJM AI*, 2(8), A0a2500066.

Thesen, T., Alilonu, N.A. & Stone, S. (2024). AI Patient Actor: An open-access generative-AI app for communication training in health professions. *Medical Science Educator*.
<https://doi.org/10.1007/s40670-024-02250-2>

Thesen, T., O'Brien, W.N., Stone, S. & Pinto-Powell, R. (2025). Generative AI as the first patient: Practice, feedback, and confidence. *Medical Science Educator*.
<https://doi.org/10.1007/s40670-025-02473-x>

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