

# SimPHARM™

## SimPHARM™ - Real-Time Therapeutic Decision Making for Students and Interprofessional Teams

SimPHARM™ is a web-based, virtual patient pharmacology training platform that creates a realistic clinical experience for students and interprofessional teams. It is built on mathematical models of the physiology of body systems that simulate real life reactions to diseases and drugs. This allows students to sense and feel the consequences of their therapeutic decisions. Because SimPHARM operates on a dynamic learning algorithm, every learner and team who run the case will experience it differently. SimPHARM's clinical pharmacology-based simulation software is an ideal training solution for both undergraduate and graduate level education programs.

### SimPHARM KEY LEARNER BENEFITS

#### Real-Time Training

SimPHARM utilizes a Case Based Learning (CBL) model where one minute of virtual time equals one minute of real time, empowering students and teams to make decisions, think, and respond as they would in an actual clinical environment.

#### Dynamic Decision Making

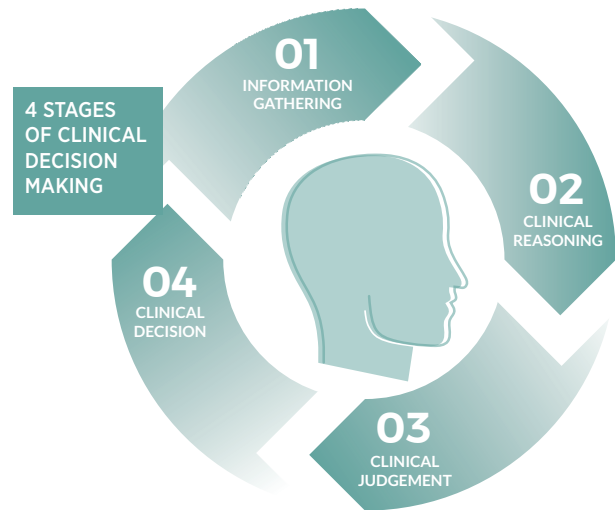
SimPHARM is built on mathematical models of the physiological body systems that support realistic clinical experiences and real-life effects of diseases and drugs, allowing the student to sense and feel the consequences of their decisions

#### Flipped Classroom Learning

SimPHARM gives students access to educational content independently while under the guidance of a faculty member, empowering them to read, review, and learn material at their own pace before entering the classroom.

#### Enhanced Debriefing

SimPHARM lets students complete a case while experiencing the consequences of their decisions and reflecting on case progress in real-time, debrief their experiences, get feedback, and compare decisions with classroom peers.



### SimPHARM ENABLES

#### Interprofessional Education

SimPHARM's interprofessional team training features replicate different disciplines working together on a common case/scenario or case series.

#### Case Building & Repository

Start with a prebuilt case or utilize the intuitive SimPHARM case building platform to create your own.

#### Dynamic Learning Experience

Give your students a unique, immersive cognitive gaming experience with SimPHARM's highly realistic virtual simulation.

#### Collaborative Video Conferencing

Enable instructors and students to discuss case details during treatment and debrief afterwards with integrated video conferencing.

#### Full Complement of Treatment Options

Create a unique learning experience with 700+ therapeutic formulations and 100+ selectable lab tests and symptoms.

#### Spectrum of Pathologies

Leverage 92 pathologies across multiple systems (from a bee sting to heart failure) with realistic time sensitive changes in lab values and symptoms.

#### Program Scalability

Scale your pharmacy, clinical, and IPE training beyond the classroom with virtual simulation that can be accessed anywhere, anytime.

**Smarter Simulation. Better Outcomes.™**

**SimPHARM's Pharmacometric Engine** is built leveraging the most up-to-date drug lists, categories, formulations, side-effects, and interactions, and acts in accordance with pharmacokinetic and pharmacodynamic principles. The following resources are utilized in combination to construct a highly realistic, physiologically accurate experience within SimPHARM:

British National Formulary, 78e. (UK). <https://www.bnf.org/>

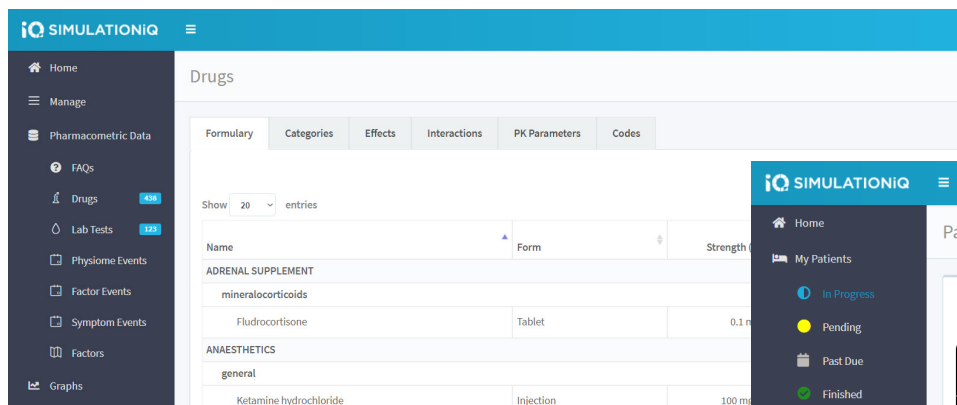
Drug Information Handbook, 28e. (US). <http://webstore.lexi.com/Drug-Information-Handbook>

New Zealand Formulary, online. (NZ). <http://nzformulary.org/>

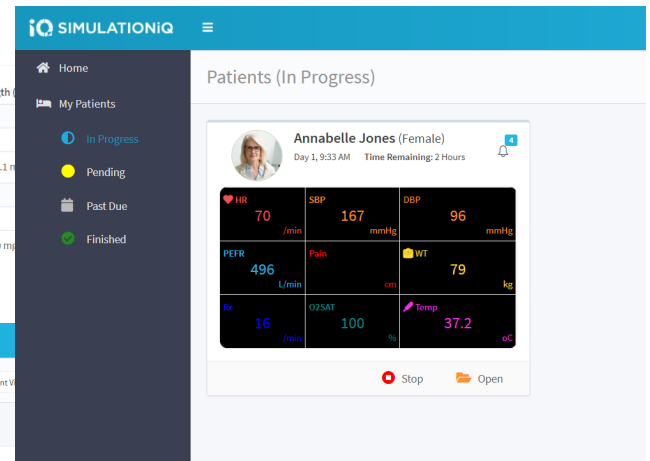
Stockley's Interactions Checker, online. (US).  
<https://about.medicinescomplete.com/publication/stockleys-interactions-checker/>

Goodman and Gilman's: The Pharmacological Basis of Therapeutics, 13e. (US).  
<https://accessmedicine.mhmedical.com/book.aspx?bookID=2189>

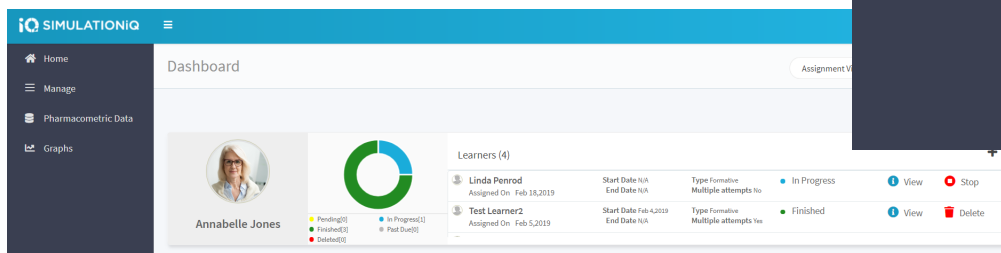
*Prescribe Medications and Order Labs*



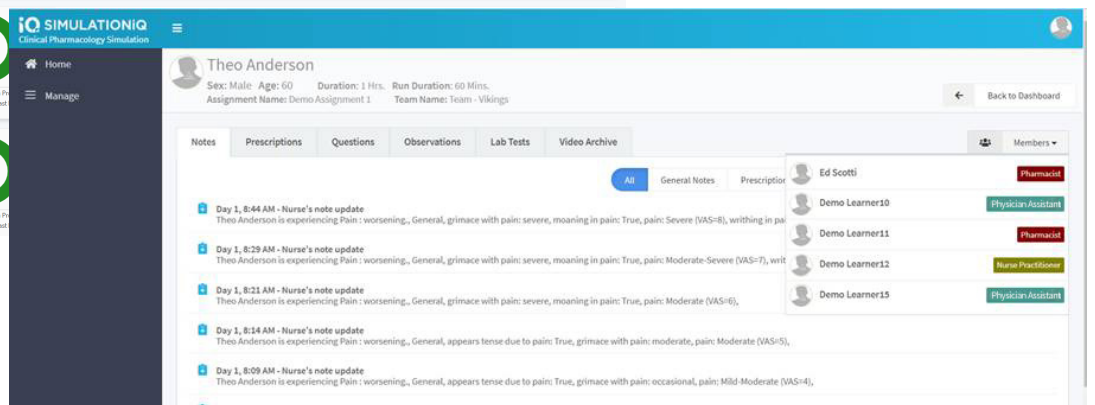
*View Patient's Vital Statistics*



*Manage Cases and Track Progress*



*Assign Multiple IPE Team Members*



**Smarter Simulation. Better Outcomes™**

EMS' mission is to advance the quality and efficiency of clinical care through smarter simulation, leading to better outcomes. EMS helps to build mastery around: clinical skills, collaboration, communication, and competency for improved patient safety and quality of care.