



Use Simulation to Replace Much-Needed Clinical Experiences Cancelled due to COVID-19

Strategies and Recommendations





KT Waxman

DNP, MBA, RN, CNL, CENP, CHSE,
FAONL, FAAN, FSSH



Carol F. Durham
EdD, RN, ANEF, FAAN



Garrett K. Chan

PhD, RN, APRN, FAEN, FPCN,
FCNS, FNAP, FAAN

Dr. KT Waxman:

Consultant for HealthImpact and the California Simulation Alliance

Dr. Carol Durham:

FNER expert and consultant for Breakthrough Learning

Shadow Health consultant

GNSH contributing developer for GNSH The 30 Minute Weekly Teams Engagement

Dr. Garrett K. Chan

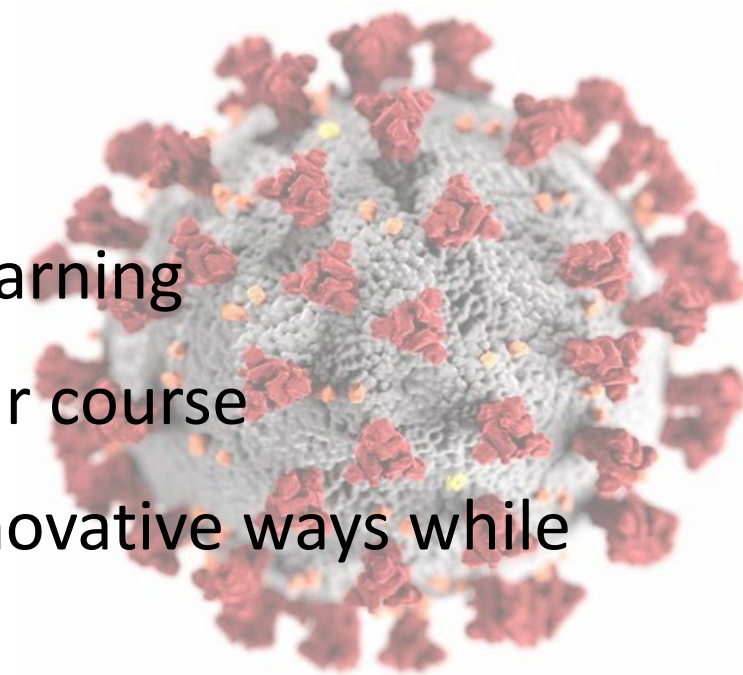
Chief Executive Officer for HealthImpact

Learning Objectives

1. Discuss strategies to utilize online simulation to meet course objectives
2. Articulate the value of simulation
3. Analyze the use of different simulation modalities in online learning
4. Review simulation regulations in most states

Our Time Together

- Discuss ways to move from face to face to online learning
- Discuss various strategies to meet objectives of your course
- Discuss impact of using innovative simulation in innovative ways while maximizing resources availability
- Understand what resources are available
- Outline faculty development plan for simulation



COVID-19, Disruptor to Healthcare Education

Change in Paradigm

Classroom

- Within 1-2 weeks all preplanning for Spring 2020 – topsy turvy
- Thrust into planning for and teaching online
- Remote teaching/learning NOT online teaching/learning (M. Mittal, UNC-CH)
- Do not let PERFECT be the enemy of good (Voltaire)
- Be realistic, adaptive, and flexible
- Expect anxiety from students as well as yourself
- Be patient and kind to self and learners

Clinical/Lab

- Many clinical sites dismissing students while they strive to manage pandemic
- Faculty charged with creating meaningful learning virtually
- Important to engage learners in strategies for clinical reasoning
- Understand transference of case to online does not equate virtual simulation – you must do more
- Hands-on learning important and hard to do virtually

COVID-19 Contingency Plans

Faculty are the designers of educational offerings

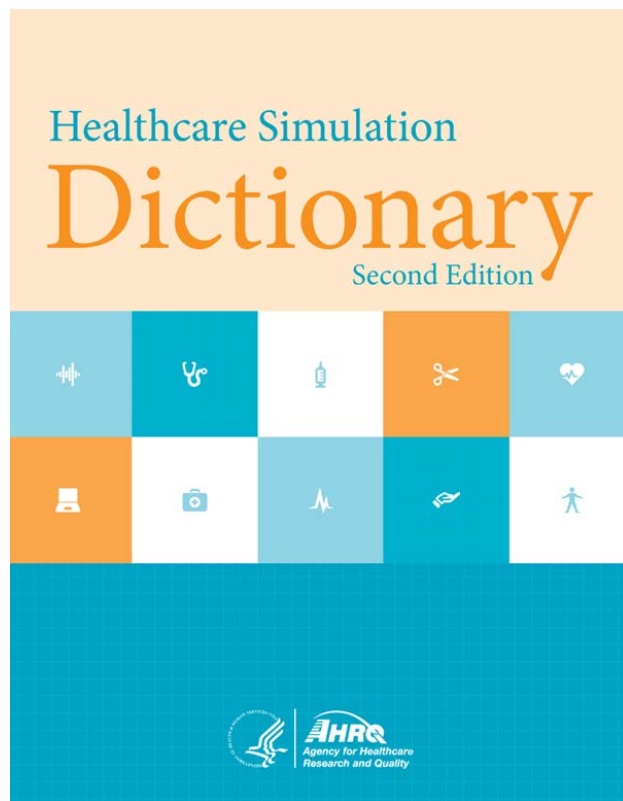
Create Interactive Strategies

- Start with what are the objectives of each encounter
- Develop meaningful learning assignments - Refer to INACSL Standards of Best PracticeSM
 - pre-work – shared mental model
 - synchronous or asynchronous prebrief
 - activities within scenarios
 - reflection
- Include a powerful springboard to immerse students in learning (video or story) scenario
- Conduct synchronous debriefing with faculty as clinical expert
 - Engage learners to make contextual connections to clinical practice

Document

- After the dust settles, schools will be accountable to accrediting agencies
- Maintain detailed accounts of what doing with rationale
- Discuss hour substitution with rationale

Healthcare Simulation Dictionary



Use dictionary to explore definitions to more accurately define your education offerings.

Select Definitions

- Simulation – “an educational technique that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspect of the real world in a fully interactive manner.” (Gaba, 2004 in Lioce, L. (Ed.) Healthcare Simulation Dictionary, p. 44)
- Computer based simulation – “the modeling of real-life processes with inputs and outputs exclusively confined to a computer, usually associated with a monitor and a keyboard ... immersive virtual reality.” (Lioce, L. (Ed.), 2020 Healthcare Simulation Dictionary, p. 12)
- Simulation-based learning experience - “an array of structured activities that represent actual or potential situations in education and practice. These activities allow participants to develop or enhance their knowledge, skills and attitudes, or to analyze and response to realistic situation in a simulated environment.” (Pilcher, Goodall, Jensen, et al., 2012 in Lioce, L. (Ed.) Healthcare Simulation Dictionary, 2020, p. 43)

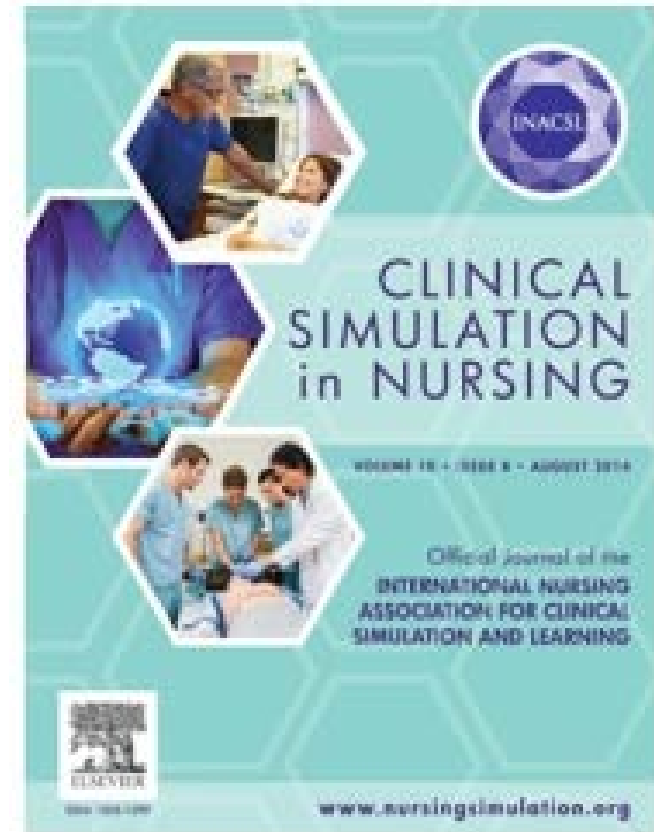
https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patient-safety-resources/research/simulation_dictionary/sim-dictionary.pdf

INACSL Standards of Best Practice: SimulationSM

Use INACSL Standards of Best Practice: SimulationSM to design your simulation activities.

Standards (Free Access)

- **Simulation Design**
- Outcomes and Objectives
- Facilitation
- Debriefing
- Participant Evaluation
- Professional Integrity
- Simulation-Enhanced Interprofessional Education (Sim-IPE)
- Operations
- Simulation Glossary



<https://https://www.inacsl.org/INACSL/document-server/?cfp=INACSL/assets/File/public/standards/SOBPEnglishCombo.pdf>

Current State of Simulation Nationally

INACSL surveyed all states
with simulation regulations:
all over the map!

AND, there is no consistency
in number of required
clinical hours per program.
So, 25% of 1,000 hours is
not the same as 25% of
600 hours.

Identified Gaps

COVID19 Impact on Students is Significant

Hospitals limiting number of students per unit

Hospitals eliminating clinical placements altogether

Simulation Regulations by State (as of March 31, 2020)

Up to 50%: Arkansas, Florida, Iowa, Kentucky, Louisiana, Minnesota, New Hampshire, New Mexico, Michigan, North Carolina, South Carolina, South Dakota, Tennessee, Texas, Washington, West Virginia, and Wisconsin (17)

***Oregon moving to 49% soon*

Up to 30%: Washington DC and Oklahoma (2)

Up to 25%: California, Illinois, Indiana, Mississippi, Nevada, Vermont and Virginia. (7)

****Remaining 25 states have no regulation about the use of simulation**

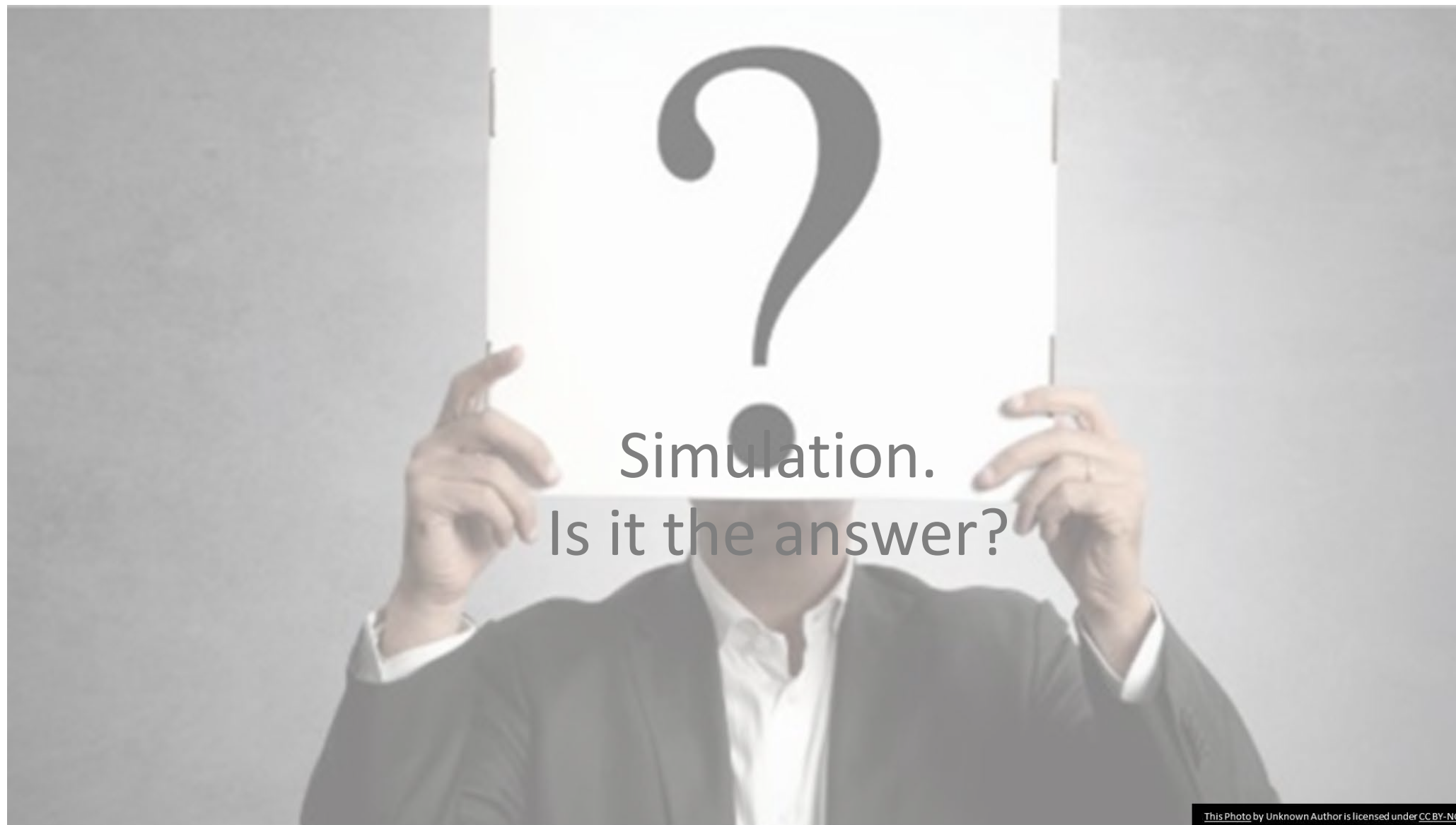
*****California, Texas, Washington and Virginia have loosened up their regulations due to COVID19**

Bradley, C., Johnson, B., Dreifuerst K., White, P., Conde, S., Meakim, C., Curry-Lourenco, K., & Childress, R. (2019, August). Regulation of Simulation Use in United States Prelicensure Nursing Programs. Clinical Simulation in Nursing, Volume 33, 17-25.

INACSL Simulation Regulations Committee. (2020, March 12). INACSL Simulation Regulation Map. Retrieved from <https://www.inacsl.org/simulation-regulations/>.

NCSBN

- <https://www.ncsbn.org/covid-19.htm>



ONLINE Simulations

Multiple vendors, many being responsive to COVID-19 pandemic by offering free or discounted products

Reference handout for a non-exhaustive list of resources

- Search for meaningful INTERACTIVE activities to engage the learner
- Review to see what best fits objectives of specific encounter
- Build each educational encounter focused on objectives creating meaningful learning experiences
- Talk to industry partners to see what they are offering





On-Line OSCEs

Objective Structured Clinical Exam (OSCE)

- Prettyman, A.V., Knight, E.P., & Allison, T.E. (2018). Objective structured clinical examination from virtually anywhere! *The Journal for Nurse Practitioners*, 14(8), pp. e157-e163.

NONPF Guidelines re: Simulation

- <https://www.nonpf.org/page/83>

Able to use simulation above the required 500 hours

- If additional clinical hours are required by the institution or a certification organization (above the minimum 500 supervised direct patient care clinical hours), these additional hours may be completed as simulation, if students have completed the direct patient care clinical hours that are necessary and required for them to be fully prepared to practice as an NP in the population focus area.

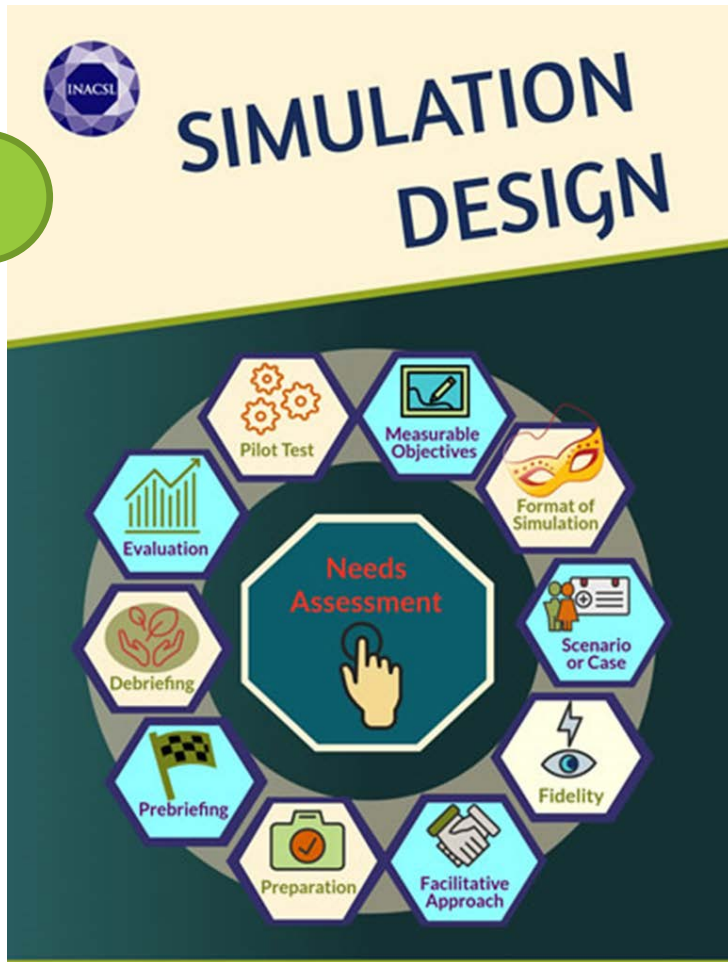
Questions and thoughts to ponder . . .

- What are the learning outcomes we want our students to achieve?
- What is the best modality to meet those goals?
- Keep track of everything you do related to simulation and how it ties to learning objectives



Faculty Sim Development

1



<https://www.inacsl.org/INACSL/document-server/?cfp=INACSL/assets/File/public/standards/SOBPEnglishCombo.pdf>

2



<https://www.ssih.org/Credentialing/Certification/CHSE>

3

Essentials in Clinical Simulations Across the Health Profession MOOC:

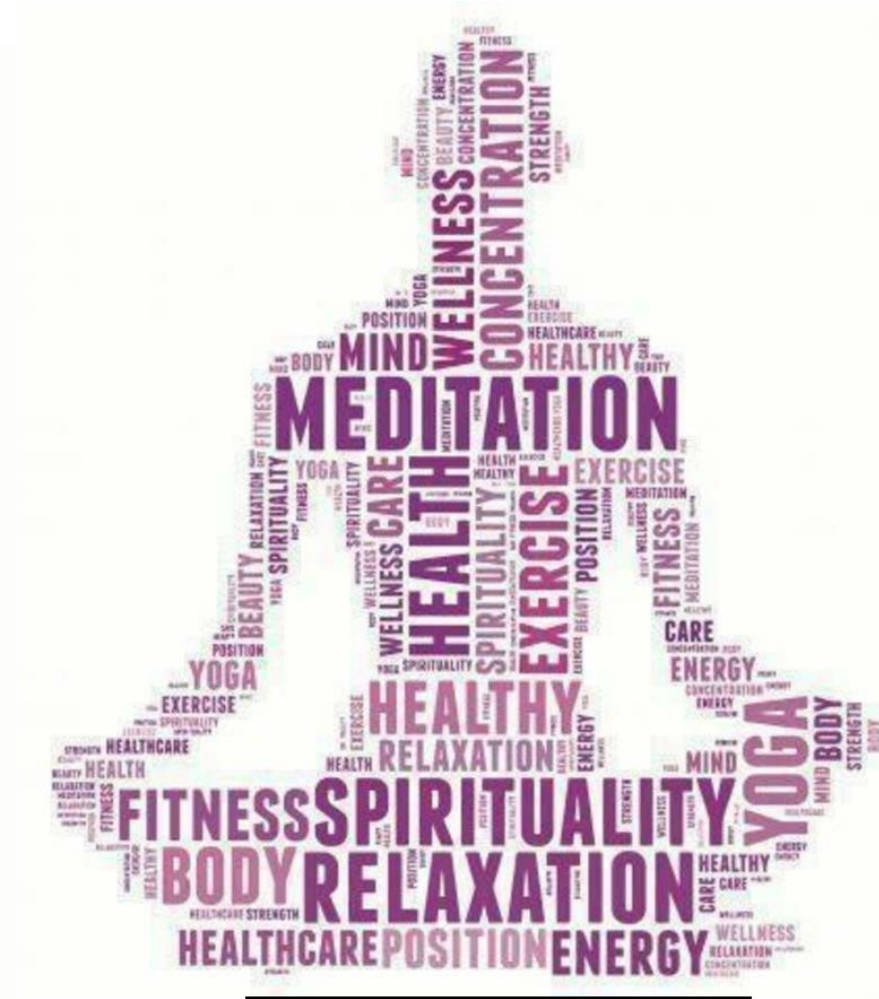
<https://www.coursera.org/learn/clinicals simulations>

Extend patience and grace to:

- ❖ Yourself
- ❖ Your family and friends
- ❖ Learners
- ❖ Administrators

Remember Healthcare Workers on front lines!

Do what you can where you are to decrease the spread of COVID-19 and the anxiety associated with the pandemic.



This Photo by Unknown Author is licensed under CC BY-NC-ND



NovEx at *HealthImpact* and the California Simulation Alliance

Healthimpact.org

NovEx@healthimpact.org

NovEx at *HealthImpact*

- NovEx was created by Drs. Patricia Benner, Tom Aherns, Pat Kyriakidis
- *HealthImpact* is the exclusive partner with NovEx to offer MedSurg I and MedSurg II Clinicals to academic institutions

Selecting the Best Clinical Replacement for Students

NovEx Clinical Replacements (NCR) are simple yet clinically relevant programs that bring real patient situations and data through virtual simulations to improve practice-readiness.



NOVEX CLINICAL REPLACEMENT VERSUS OTHER CLINICAL REPLACEMENT PROVIDERS¹

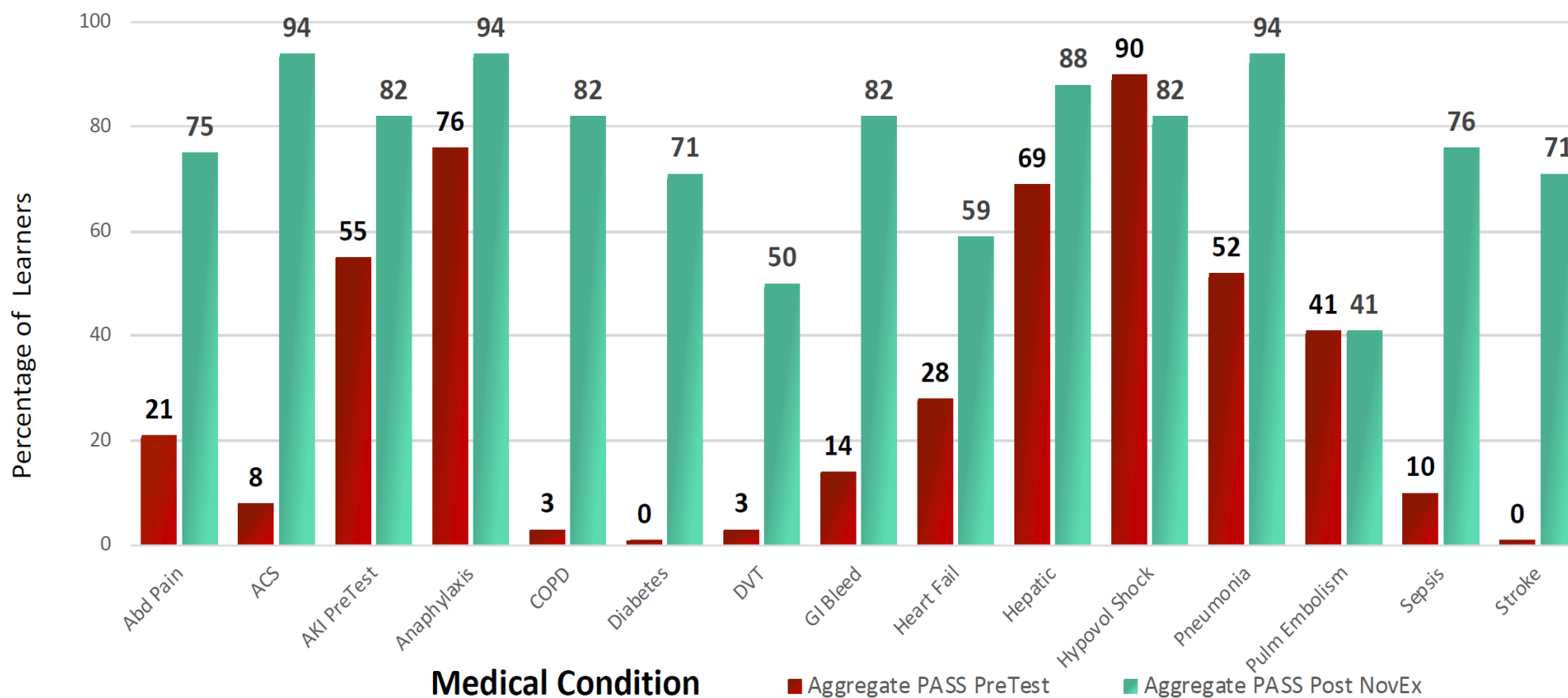
Advantages to Students & Faculty	NovEx	Program 1	Program 2	Program 3	Program 4
Student engages “AS THE NURSE”, not with Avatar Nurses	✓		✓	Video	✓
Strong focus on patient assessment	✓	✓	✓		✓
Focuses on early warning signals to reduce failure-to-rescue	✓				
Student must think & reason, without prompts or answer selections	✓				
Students must make clinical judgments using evidence-based practices, without prompts or answer selections	✓				
Student learns to provide for most urgent and highest priority needs	✓				✓
Real patient data & responses teach reliable illness trajectories	✓			✓	?
Student navigates authentic patient setting	✓			✓	
Student determines and provides for patient’s individualize needs (e.g., nursing, comfort care, emotional, safety, educational)	✓	✓			
Real-time quantifiable tracking of student’s care of patients	✓	✓			
Downloadable performance records of students	✓	✓	✓	?	✓
Real-time tracking and reporting of sentinel events	✓				

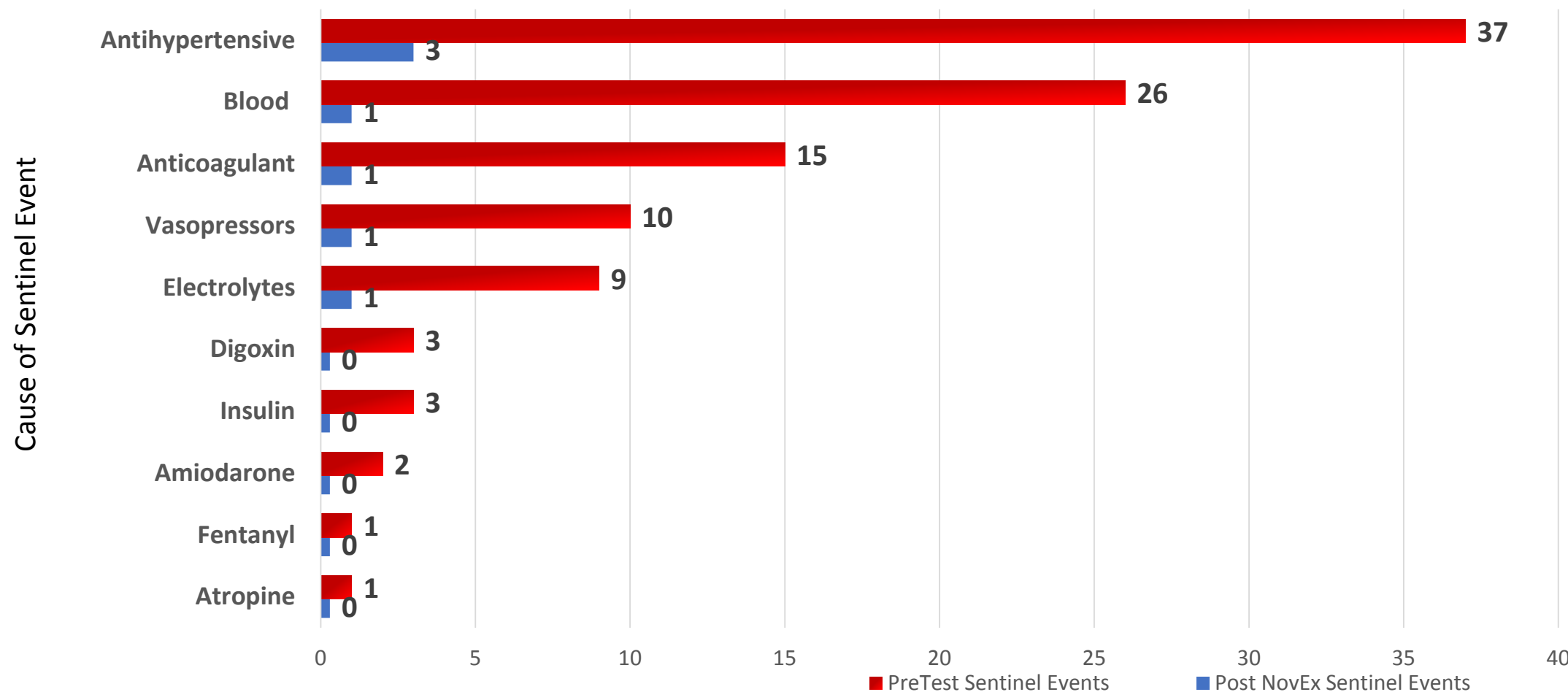
¹ Based on available public information (March 2020)

? = stated but unavailable to clarify

Quantifying the Academic-Practice Gap

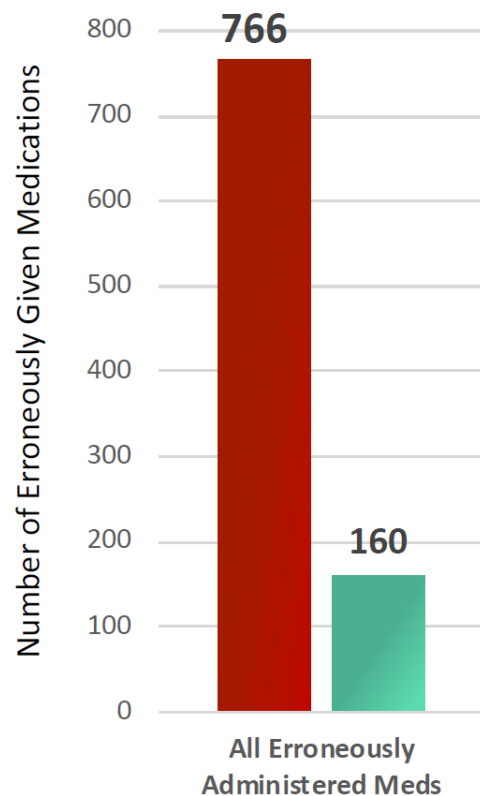
Aggregate Pre- vs PostTest Comparison: % Pass by Medical Condition



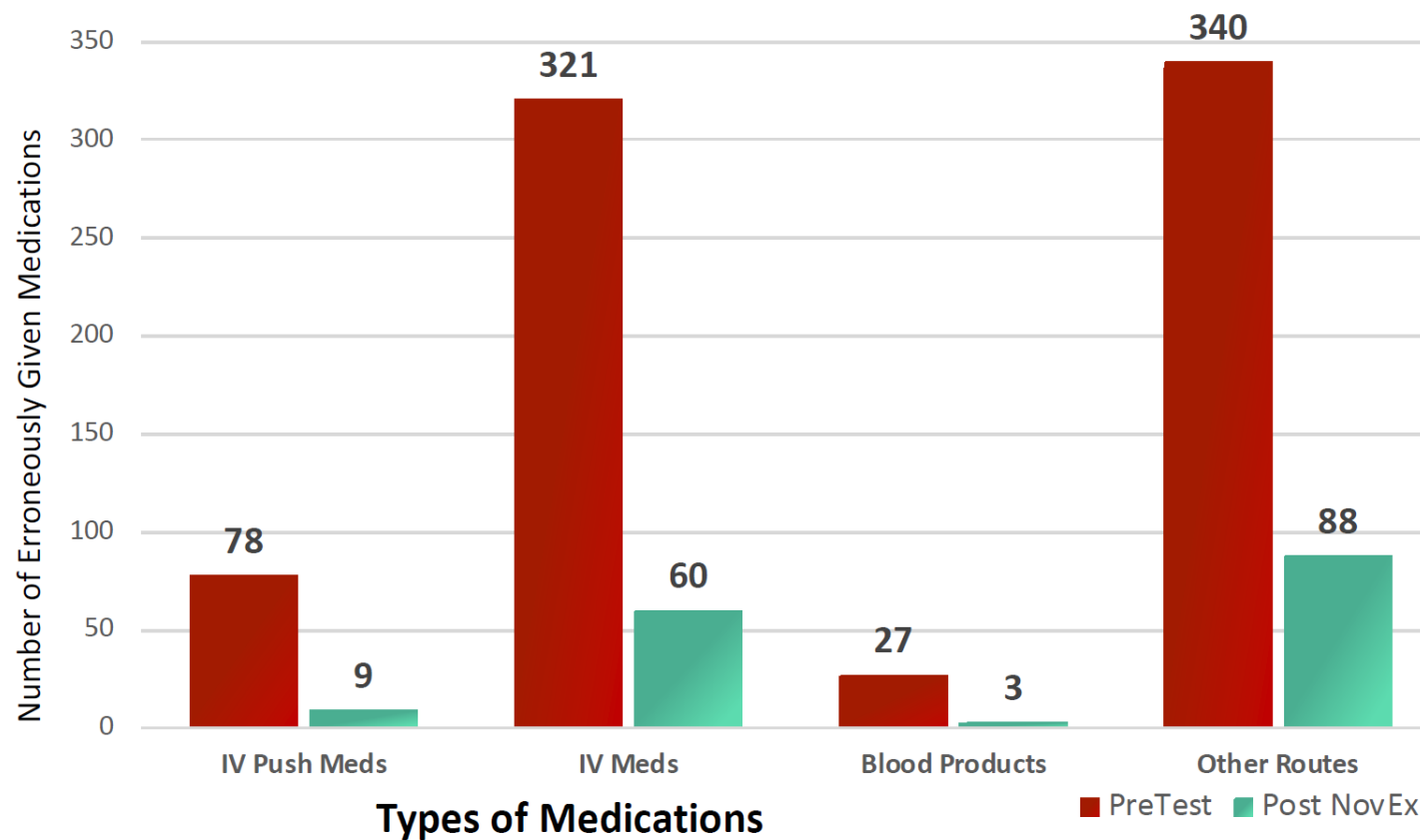


Aggregate Comparison: Number of Erroneously Administered Medications

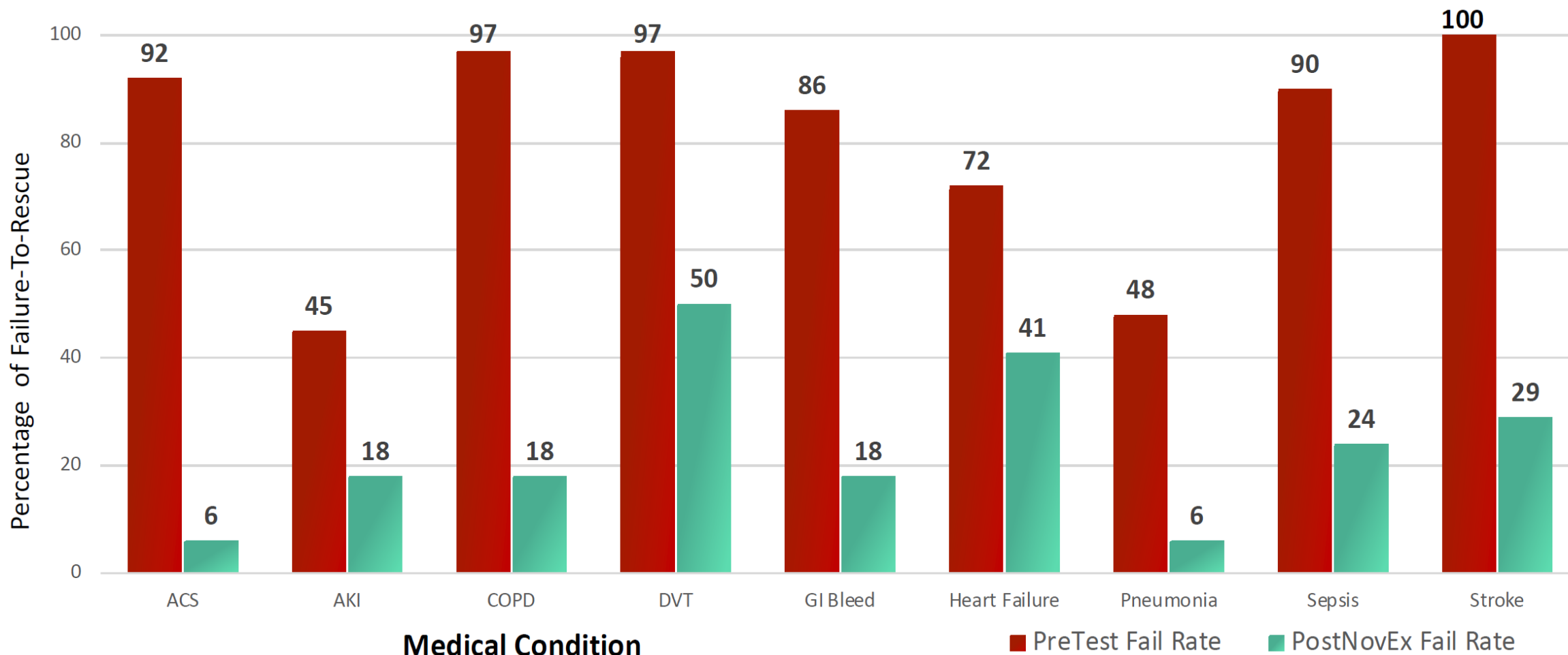
Comparison: All Erroneous Meds



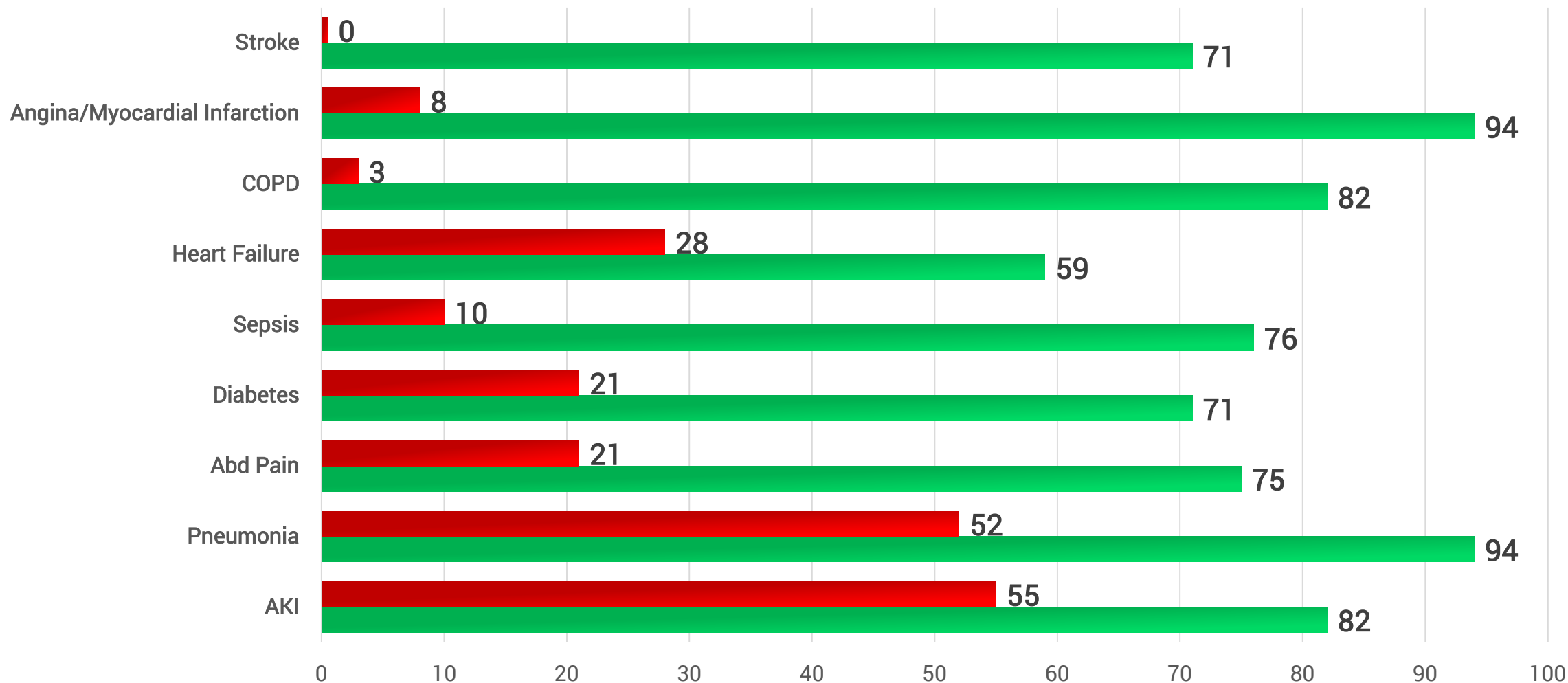
Comparison: Number of Medications by Type Given Erroneously



Aggregate Pre/Post Test Comparison: Top Failure-To-Rescue Conditions



Percent of Students Who Correctly Cared for Readmitted Patients





www.healthimpact.org

www.californiasimulationalliance.org

Thank You



CAROL F. DURHAM EdD, RN, ANEF, FSSH, FAAN

Professor

Director, Interprofessional Education & Practice

Director, Education-Innovation-Simulation Learning Environment

UNC School of Nursing

1810 Carrington Hall | Campus Box 7460

Chapel Hill, NC 27599-7460

919.966.1753 | nursing.unc.edu

KT Waxman

DNP, MBA, RN, CNL, CENP, CHSE, FSSH, FAONL, FAAN
Associate Professor

Director, Executive Leadership Doctor of Nursing Practice Program

Chair, Faculty Association for SONHP

Director, California Simulation Alliance

Editor in Chief, Nursing Administration Quarterly

Immediate Past-president, Society for Simulation in Healthcare, (2020)

Twitter: @ktwaxman

Garrett K. Chan

PhD, RN, APRN, FAEN, FPCN, FCNS, FNAP, FAAN
Chief Executive Officer
HealthImpact