

Extra!

EAST NORRITON

BULLDOG BULLETIN

VOLUME 8, NUMBER 3

Special Issue: Meeting SimMan

SUMMER 2017

Peeking into the world of medicine

PHILADELPHIA—*East Norriton Bulldog Bulletin* staff members traveled recently to Einstein Medical Center Philadelphia's Simulation Center on a special reporting trip.

Medical students and other healthcare professionals can practice treating patients through simulators at the center. They use high-tech mannequins to practice medical procedures.

The Sim "people" are designed to be as realistic as possible. They can breathe, blink, talk, cry, sweat, and cough. They can even have a pulse. At the SimCenter, medical students can train on an adult, a newborn, and infant Sims.



Illustration by Sabrina Lin

Einstein has had simulated mannequins for almost 30 years. The SimMan the reporters saw is the third generation.

Besides learning about SimMan, the reporters dressed up in scrubs like doctors. They wore sanitary uniforms that hospital

employees wear, including hairnets and face masks.

During the morning visit, they used a simulator to perform a bronchoscopy. The procedure imitates what it would be like to in-

(Please see A taste on Page 2)

Reporters encounter SimMan

PHILADELPHIA—"Please give me something for this pain! It hurts. It really hurts," said an agonized patient at Einstein Medical Center Philadelphia.

However, this wasn't any ordinary patient. It was SimMan. SimMan is a wireless human patient simulator that represents an average life-size adult patient. He is used by medical students to gain experience for real-life scenarios.

SimMan has a wide variety of features, from a heaving chest to pupils that dilate. The *Bulldog Bulletin* staff members got an inside look at SimMan and

other high-tech mannequins on their reporting trip to Einstein in mid-May.

SimMan makes realistic heart, lung, and bowel sounds. He also coughs, moans, breathes heavily, and vomits. SimMan even sweats and squints his eyes as if he were a real, distressed patient. He is also equipped with an adjustable airway and pulses that are monitored on computers.

SimMan has the ability to mimic many problems in the body. SimMan might seem like a human but

(Please see SimMan on Page 2)

SimMan makes an impression

(Continued from Page 1)

the robot is completely mechanical. The SimMan is programmed to behave in certain ways when different things happen. For example, if a student doctor gives the SimMan the wrong medication, the SimMan might simulate dying. The SimMan is the most human-like and advanced medical robot today, according to Einstein experts.

The *Bulldog Bulletin* staff observed that SimMan's mouth can turn blue—a sign that he lacks oxygen. By learning to spot such symptoms, medical students become familiar with signs of cardiac concerns and other medical problems. They then become better able to detect the problems on living patients.

A *Bulldog Bulletin* reporter performed CPR on SimMan, and the machine evaluated how well she did. Medical students can use this kind of feedback to better improve their CPR skills.

When SimMan's heart rate isn't where it should be, one can shock SimMan and experiment until his heart reaches a normal rate.

SimMan has speakers allowing for vocalization and sound effects for patient interaction. Doctors in the control room can speak into a microphone as if they were SimMan, giving medical trainees a more realistic patient experience.

Bulldog Bulletin reporters said they enjoyed a chance to put themselves in a medical student's shoes and experiment with SimMan.

Sydney Dillard, an eighth grader, got the opportunity to shock SimMan's heart. "It was confusing at first, and I imagined med school must be hard," she said. But when she brought his heart rate back to normal, she said, "I felt like I had just saved a life."

Another eighth grader, Gabrielle Piccirilli, said "It was amazing how realistically SimMan simulated a real human. He blinked, sweat, spoke, had a pulse and even felt human."

Working with SimMan gave the *Bulldog Bulletin* an inside look into the ever-changing and advancing medical field.—By Gabrielle Piccirilli, Sydney Dillard, Dean Millard, Youssef Mohamed, and Sam Rodriguez

Did you know?

CBS 3 Philly health reporter Stephanie Stahl reported on the *Bulldog Bulletin's* experience at the Simulation Center. Check out the story at: www.HealthyNewsWorks.org



Illustration by Sabrina Lin

Students experience what medicine is like

(Continued from Page 1)

sert a tube down a patient's nose and windpipe into the lungs. This can be used to find cancerous tumors in the lungs or to suck out an object lodged in the lungs.

The reporters said the visit was terrific.

Camryn Keller, an eighth grader, said "It was really interesting. I never knew how far the medical field has advanced in technology."

Jacey Captis, a sixth grader, said "I thought it was kind of interesting how the simulator did a lot of things. It shows me how amazing technology is today."

Sabrina Lin, an eighth grader, was intrigued by the whole experience. "This was a very cool and informative trip," she said. "It was also very interactive, which I really enjoyed."

—By Beatriz Alcala-Ascencion

Procedure gives view of airways

Bronchoscopy has nothing to do dinosaurs or horses.

It's a procedure that allows doctors to look inside a person's airways and lungs using medical equipment called a bronchoscope.

Bulldog Bulletin reporters recently learned about the procedure from Dr. Charles Bortle, director of Einstein Medical Center Philadelphia's Simulation Center. The reporters spent a morning at the center in mid-May.

If you ever need a bronchoscopy, you first will receive an anesthetic that doesn't put you to sleep completely. You will not feel the pain and you won't remember it. The doctors will then put the bronchoscope tube through your nose, down the windpipe, and into the lungs. A tricky spot is getting the tube past the vocal cords. To make it easier, a numbing agent is administered. This keeps the patient from coughing.

After that point, the doctors will go into the airways in your lungs called the bronchi. The bronchoscope has a camera so that doctors can check for cancer or other problems. If they do find cancer cells, they can send a needle down to collect those cancer cells. This process enables them to identify what type of cancer it is and what treatment is necessary.

A number of the *Bulldog Bulletin* staff took turns practicing with the bronchoscope. They could use a button that simulated sucking mucus and administering a numbing agent.

This simulator helps medical students practice the procedure without any risk of injuring a patient.

—By Camryn Keller

Getting first aid insights

First aid is an important skill for doctors. First aid is the emergency care given to someone who faces a sudden medical problem and needs immediate help. Doctors and nurses train on how to administer first aid using high-tech mannequins at Einstein Medical Center Philadelphia's Simulation Center. Tom Snyder is the education coordinator at the Simulation Center and he answered some important questions about first aid.

If someone collapses randomly, Mr. Snyder said, a bystander should see whether he or she is uncon-



Illustration by Jacey Captis

scious by checking for a pulse. Someone should call or send for help immediately, he stressed.

If a person is unconscious, Mr. Snyder said the next step is to make sure the person's airways are clear so he or she can breathe.

These tips are certainly only the tip of the iceberg when it comes to knowing about first aid. A good way to be a good citizen and help others is to take a first-aid class to learn skills like (cardiopulmonary resuscitation (CPR), Mr. Snyder said. It could save someone's life!

To learn more, search for CPR at KidsHealth.org.

—By Valerie Noguera and Chani Ellis

Helping premature babies

When babies are born, it's usually a happy time for their family and friends. But sometimes newborn babies can have some problems. However, thanks to technology, potential problems for these tiny patients can often be solved.

Health experts at Einstein Medical Center said babies who are premature (born too early) could have dangerous health issues. Some issues include delayed body development, chronic ear infections, fevers, and neurological or nervous system impairments.

Treating these babies can be difficult because they are much smaller than the traditional patient. Some babies born early can weigh as little as one pound. That is why at Einstein's Simulation Center, doctors train on mannequins so they can save these little ones in real life.—By Brenda Lopez, Elizabeth Campos-Barragan, Dulce de la Luz Castro, Anali Hernandez-Rojas

Check out your medical smarts!

Unscramble words found in this issue. Answers below.

1. isnamm	1. High-tech mannequin
2. eiainmdcto	2. Something that helps prevent or treat an illness
3. iwyara	3. A passage to the lungs
4. rnhcobyospco	4. Procedure to check out the airways and lungs
5. rmtreuaep	5. Born too early
6. rbsusc	6. Clothing doctors wear
7. gusln	7. Breathing organs
8. rheta	8. Muscle that pumps
9. rcadcai	9. Relating to the heart
10. luesp	10. Thumping in the arteries

Thank you Einstein staff

The *Bulldog Bulletin* reporters wish to thank the staff of Einstein Healthcare Network for spearheading our recent field trip to the Simulation Center at Einstein Medical Center Philadelphia.

We appreciate all the information about and insights into medicine that we received from Tom Snyder, NREMT-P, the education coordinator at the Simulation Center, and Charles Bortle, Ed.D., Director of the Simulation Center. We also want to extend our gratitude to Einstein public relations, marketing, and communication staff for organizing the trip. We really appreciated the lunch, too!

"The Einstein trip was great because students got to see what it felt like to be a real journalist going out on a story, taking notes and doing interviews, and then coming back to the newsroom (our classroom) and writing their stories under deadline," said Victoria Strickland, *Bulldog Bulletin* faculty advisor.

Einstein Healthcare Network is Healthy NewsWorks' Community Healthcare Champion.



Illustration by Stella Menzies

Answers to word scramble

1. SimMan
2. medication
3. airway
4. bronchoscopy
5. premature
6. scrubs
7. lungs
8. heart
9. cardiac
10. pulse

East Norriton Bulldog Bulletin

A publication of East Norriton Middle School in the Norristown Area School District. Student staff members include Beatriz Alcalá-Ascencion, Elizabeth Campos-Barragan, Jacey Captis, Michele Chavez-Ascension, Maggie Daniels, Dulce de la Luz Castro, Sydney Dillard, Chani Ellis, Jocelin Florez-Tellez, Estrella Gomez-Medina, Anali Hernandez-Rojas, Camryn Keller, Sabrina Lin, Brenda Lopez, Stella Menzies, Dean Millard, Youssef Mohamed, Valerie Nogueta, Jose Ortiz, Jessica Piccari, Gabrielle Piccirilli, Samuel Rodriguez, and Darian White. The *Bulldog Bulletin's* faculty advisor is Mrs. Strickland.

A Healthy NewsWorks® project www.HealthyNewsWorks.org

Healthy NewsWorks is a member of New Beginnings Non-profit Incubator at Resources for Human Development.

This document is protected by applicable law. All rights reserved.