Training doctors has always been challenging: there are obvious drawbacks when 20-somethings with more enthusiasm than knowledge are let loose on live patients. But recently, a small but growing number of institutions have added a new dimension to medical training: they're allowing would-be doctors to hone their skills on virtual[1] patients at virtual clinics without the risk of real-life disastrous consequences.

Students at one such program follow the medical histories of 20 computerized patients over the course of the year. Every week students log on to a website to read about their patients' latest symptoms and treatments. In mid-August, for example, virtual patient Axel Brooks comes into the emergency room with an inch-long cut in the palm of his left hand. The cut is stitched up and Axel is released; but when it's time for his next appointment, he calls to cancel, saying he had his neighbor, a surgeon, remove the stitches. "It's frustrating when they cancel," jokes a med student. "You look forward to seeing their progress."   5

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Kidding aside, programs like this help broaden students' clinical experience. Traditionally, med students spend two years concentrating on basic science, then another two years learning by watching and doing in the hospital. But nowadays people with routine diseases like pneumonia are frequently treated as outpatients[2], which means fewer chances for young docs to learn. To compensate, one school has an online program with 100 virtual patients. Among them is Harvey Hartley, a 33-year-old obese smoker seeking help for crushing chest pain. Students monitor Harvey's heartbeat and breathing through a headset and then order tests and drugs. If he's discharged too early, he dies. (The actor playing Hartley found the experience so realistic that he was prompted to lose 50 pounds and quit smoking.)   15

Perhaps most important is that virtual clinics offer second chances that just aren't available in real life. A simulation at another institution has students don virtual reality headsets to treat a gravely injured car crash victim. When they don't act fast enough — or they do the wrong thing — the patient dies. But the scenario gives them a chance to review their actions and ask: "What went wrong?" ... and miraculously, the clock turns back. In the forgiving world of virtual clinics, a better outcome is only a mouse click away.   20

1 *virtual* – existing in a computer-generated world that seems to be real but isn't
2 *outpatient* – person who visits a hospital for diagnosis or treatment without having to stay overnight

1. What impresses the writer about the virtual car crash in paragraph 4?
   a. It doesn't penalize students for making mistakes.
   b. It offers training without putting patients at risk.
   c. It allows students to improve their reaction time.
   d. It lets students practice making important decisions.

2. What point does the writer make about the rise in outpatient care?
   a. It gives students less opportunity to observe patient progress.
   b. It means patients are more likely to be treated by medical students.
   c. It results in patients being at greater risk than they were in the past.
   d. It puts more pressure on medical schools to produce better doctors.

3. The writer mentions what happened to the actor who played Hartley ...
   a. to show how medical students can benefit from the training.
   b. to stress the dangers that are faced by obese smokers.
   c. to illustrate how believable the virtual simulations are.
   d. to describe a typical scenario that medical students have to deal with.

4. What is the main idea of the passage?
   a. It's unwise for medical students to treat patients before they have virtual training.
   b. Participating in virtual clinics is now mandatory at most U.S. medical schools.
   c. Virtual reality is proving to be a valuable training tool for medical students.
   d. Medical students who get virtual training have a better chance of succeeding.

5. What do Axel Brooks and Harvey Hartley have in common?
   a. They are outpatients suffering from the same virtual ailment.
   b. They are typical of the virtual patients that students encounter.
   c. They have a history of not showing up for appointments.
   d. They are trained actors who portray patients at virtual clinics.