

Tommy the robot nurse helps Italian doctors care for coronavirus patients

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Image 1. One of the six robots at the Ospedale di Circolo Hospital in Varese, Italy, on April 8, 2020. The robots help health care professionals assist coronavirus patients. Photo: Luca Bruno/AP Photo

Help has arrived at an Italian hospital, in the form of Tommy, a robot nurse.

Tommy is one of six new robots helping flesh-and-blood doctors and nurses care for coronavirus patients at the Circolo Hospital in Varese. The city is in the northern Lombardy region that is the epicenter of the outbreak in Italy.

The coronavirus is a flu-like illness. It began in China and has been spreading across the globe since December 2019.

The nurse robots are child-sized, with large blinking eyes. They are wheeled into rooms and left by a patient's bedside. That allows doctors to look after others who are in more serious condition.

Communicating Remotely

Gianni Bonelli, director of the Circolo Hospital, described the robot's features. "It has a monitor, a tablet. And the tablet, of course, has a microphone, a way to communicate both visually and through the audio between the patients and nurses and doctors remotely."



Robots like Tommy can measure blood pressure and oxygen levels for the patients in the Intensive Care Unit, including those who are hooked up to a ventilator. A ventilator is a machine that helps people breathe. It moves the air in and out of people's lungs. These two measures provide an important picture of the patients' health conditions.

"It's not a way to substitute the human factor," Bonelli said. That is something that patients rely on, and "we know how important it is for them."

Reduced Risk Of Infection

Most importantly, Tommy and his high-tech teammates allow the hospital to limit the number of direct contacts doctors and nurses have with patients. Fewer visits mean a reduced risk of infection. The robots also help the hospital limit the number of protective masks and gowns staff have to use.

The task of fighting the coronavirus has been enormous, and it takes a toll on the overworked medical staff. However, it takes a while for patients to realize that robots may be just what the doctor ordered.

"You have to explain to the patient the aim and function of the robot," said Dr. Francesco Dentali, director of intensive care at the hospital.

"The first reaction is not positive, especially for old patients. But if you explain your aim, the patient is happy because he or she can speak with the doctor," Dentali said.

More than 4,000 Italian health workers have contracted the virus treating patients in Italy, and 66 doctors have died. The shortage of masks and other protective equipment has been one of the biggest problems for the national health system since the illness surfaced at the end of February.

Preventing Risk Of Spreading Virus

Tommy is the name of the son of the primary doctor of the Intensive Care Unit at the Circolo Hospital. Health professionals are avoiding going home after their shifts to prevent the risk of spreading the virus to their families.

"So this primary doctor said, 'Well, at least they have someone next to them that I can call with my son's name and feel like I'm at home,'" Bonelli said.

Tommy and his fellow robot nurses have one more advantage. They are not subject to exhaustion, so after a quick charge of batteries, they are back at work.

Quiz

- 1 Which sentence from the section "Reduced Risk Of Infection" BEST explains how robots reduce the risk of coronavirus infection in hospitals?
- (A) Most importantly, Tommy and his high-tech teammates allow the hospital to limit the number of direct contacts doctors and nurses have with patients.
 - (B) The task of fighting the coronavirus has been enormous, and it takes a toll on the overworked medical staff.
 - (C) "You have to explain to the patient the aim and function of the robot," said Dr. Francesco Dentali, director of intensive care at the hospital.
 - (D) The shortage of masks and other protective equipment has been one of the biggest problems for the national health system since the illness surfaced at the end of February.
- 2 Which section from the article BEST explains why the robot nurse is called Tommy?
- (A) introduction [paragraphs 1-4]
 - (B) "Communicating Remotely"
 - (C) "Reduced Risk Of Infection"
 - (D) "Preventing Risk Of Spreading Virus"
- 3 Which answer choice describes two central ideas of the article?
- (A) Although many patients respond negatively to Tommy initially, once they understand the robot's purpose and functions, they are happy to have one in the ICU with them.
 - (B) Shortages of protective equipment have been persistent during the coronavirus outbreak, and Tommy the robot will help reduce the amount of protective equipment required to care for patients in the ICU.
 - (C) Italian doctors have been at the epicenter of the coronavirus outbreak for months, but a new robot nurse named Tommy could change the way coronavirus patients are treated.
 - (D) Tommy the robot nurse has multiple features to help doctors monitor patients in the ICU, including video and audio links to doctors and the ability to measure patients' blood pressure and oxygen levels.
- 4 Which statement would be MOST important to include in a summary of the article?
- (A) Ventilators, which are machines that help people breathe by moving air in and out of their lungs, are used to treat many coronavirus patients.
 - (B) Many Italian doctors are not going home during the coronavirus outbreak to prevent spreading the disease to their families.
 - (C) While robot health care assistants like Tommy could be useful in many places around the world, they are so far only being used in Lombardy, Italy.
 - (D) Tommy will help doctors by limiting their exposure to infected patients and reducing the amount of protective equipment they need to use.