

# PERSPECTIVE

## Hospital killer: Did he only want to watch, like arsonist?

By John Barbour  
Associated Press

ANN ARBOR, Mich. — The poisoner still is at large.

The insidious work performed by a person or persons unknown apparently has stopped, now that the FBI is stationed in the hospital.

But for the better part of two terrible months, he or she or they shook the Veterans Administration Hospital here to its psychic depths, and, say doctors, took at least one life and could have taken over a dozen more.

"Someone with intent," they say, introduced paralyzing doses of a muscle relaxant into life-supporting fluids dripping into the veins of critically ill patients, sending them into respiratory failure. As many as 15 have been the random targets of the poisoner.

What possible motive — mercy killing? excitement? madness? — is unknown. What is likely is that someone on the hospital staff posing as such — doctor, nurse, orderly — is the killer. Someone, a doctor close to the case says, "very clever, very sick."

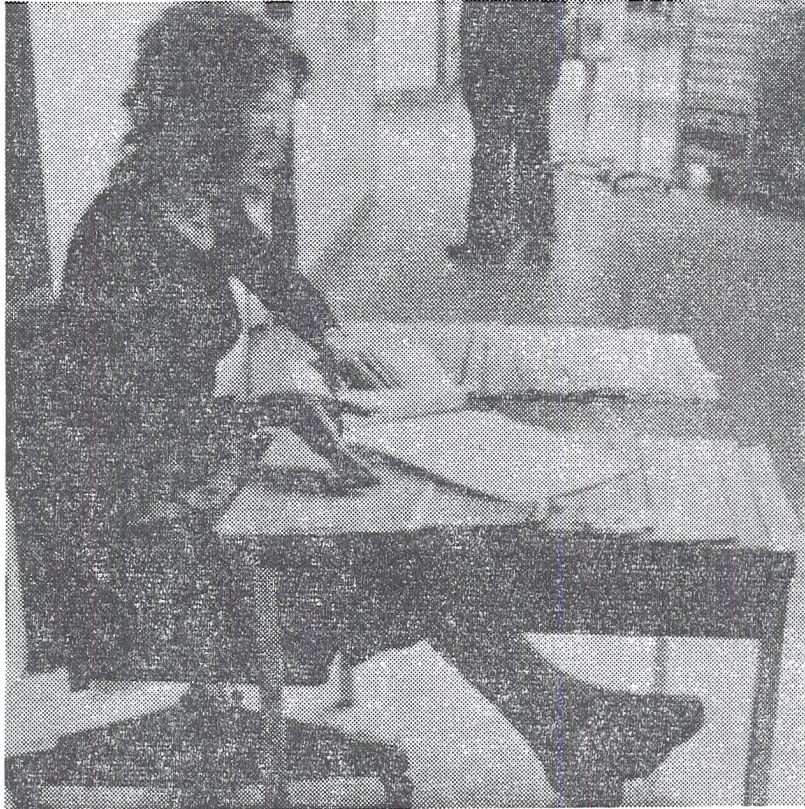
Both the life-supporting solution of salt and sugar and the poisonous doses of the muscle relaxant are clear, colorless fluids.

Only the persistent questions and the professional frustration of a 38-year-old women doctor finally exposed the cause. Only the close observation and quick work of nurse-doctor teams revived many patients and prevented a higher toll.

Looking back now in self-criticism, they say that what happened was perhaps not as gradual as it was first viewed. But . . .

In late July, Dr. Anne Hill, chief of anesthesiology, began to worry seriously. A number of her patients, seemingly in good condition, fell into respiratory arrest. Their breathing stopped.

Anne Hill is fastidious about her work, which is to guide patients through the stress of surgery, the challenge of death, keeping their vital signs — breathing, heart rate, blood pressure, body chemistry — on par. Her patients complain because she keeps them in the recovery room too long. She keeps track of them well after they are out of all conceivable danger.



**AN ATTENDANT GUARDS THE WARD**  
Intravenous patients inside were attacked

That was what alerted her. How could it be, she asked herself, that patients who were feeling well enough to complain, who looked and acted alert, suddenly fall into respiratory failure 36 hours to 14 days after surgery?

She and her staff addressed first questions first. What new medications were they given? Was there a change in the intravenous solution? Was there the chance that a medication had been mislabeled by the manufacturer?

Nothing. Nothing even linked that the rash of respiratory arrests could have been caused by error.

A VA hospital is a busy place at its slowest. Although it might carry only 300 patients, the Ann Arbor hospital gets extremely critical patients, those who cannot afford expert specialized treatment close to home, or those who need the expertise in surgery and heart care and cancer therapy available only in a high-grade medical complex.

Indeed, the staff of the VA hospital also works at the prestigious University of Michigan Medical Center less than a mile away, making it, doctors say, one of the finest in the country.

Anne Hill doubles as an associate professor at the University of Michigan medical school and served two years at University Hospital as an assistant chief of pediatrics. She graduated in 1962 from Queens Hospital, Belfast, served in public health in Singapore, is a fellow in anesthesiology of the Royal College of Surgeons.

July, it happened, was the heaviest surgical month in her two years at the VA hospital. Because respiratory arrest is not uncommon it was easy at first to miss or dismiss the increase of "Code 7s" as (the hospital terms them) as the aberration caused by "a lot of very ill patients."

But Dr. Ronald Bishop, chief of medicine, remembers fielding complaints of overwork from the respiratory staff.

Dr. Hill was so troubled by the increase in Code 7s she asked the acting chief of staff, Dr. Duane Freier, to set up a study. On Aug. 4, Dr. Hill and a cohort

began digging into the files to see what, if anything, the stricken patients had in common. The only thing they found was that all of the patients were on intravenous solution.

On the morning of Wednesday, Aug. 13, Bishop was in the office when a night-shift resident came in to report what had transpired.

"You wouldn't believe it," he said. "We had nine Code 7s last night."

Thinking back now, Bishop says, he didn't go over the report "as critically as I should. But the cases were mostly older patients with respiratory problems."

That same day he was preoccupied by another, unrelated development. A patient committed suicide.

Also on Wednesday, Dr. Hill reported her findings on the chart check to Dr. Freier, and suggested a panel be convened to study the mounting respiratory arrests, specifically in interview closely those persons who were first on the scene in each case.

Thursday, the 14th, there were more Code 7s, but nothing like the number the day before.

Anne Hill's suspicion grew, and she can't remember when or how the idea came to her — whether it was during her troubled sleep, or whether she heard it from someone else, or whether it was just there when she blurted out the terrible idea to Dr. Freier.

"Could there be someone running around doing this? It didn't seem like I was talking, but I was saying, 'nothing has been charted. Could it be that someone is not charting?'"

She was so astonished at the charges she was hurling into the air that "I didn't believe I was saying it."

The next day, Bishop went to the intensive care unit to find room for a critically ill patient. He went over charts, trying to set priorities. Could someone be moved to make room?

It was 4:20 p.m. Suddenly one of the patients in the unit stopped breathing. Quickly nurses and doctors applied an Ambu bag, a kind of rubber device that can be squeezed, forcing air into the patient's lungs.

Doctors followed up by slipping a tube through the patient's mouth into his windpipe, and hooking him up to a breathing machine.

The patient was being artificially respirated within a minute.

While doctors and nurses stabilized him, word came that a second patient had stopped breathing across the hall in the coronary-care unit. This patient was hooked up to heart monitors, and they showed that although

breathing had stopped, he had good pulse and his heart was beating normally.

Dr. Hill was meeting with her small staff in her office on the fourth floor. It was about 4:40 p.m. when she got word of a "code call. She grabbed her resuscitation kit, and everyone ran down to ICU.

The patient who had arrested was a very ill man. But everything was under control. Then she heard the call from the coronary care unit. She dashed across the hall.

The patient was being ventilated by mask, and she tried to slip the endotracheal tube into the windpipe, but the vocal chords closed around it and she had to apply a local anesthetic to relax them.

Minutes later in the ICU, a third patient stopped breathing. He too was given artificial respiration.

Dr. Hill now was certain that the patients had been administered a drug that had paralyzed their breathing ability. There are a number of such drugs available in the hospital, used when doctors want to place a patient on artificial respiration. But which drug?

She decided to try a quick test, stimulating the nerves in the forearm with electric needles and watching the contractions in the hand of her conscious but paralyzed patient.

The nerve-response pattern matched the response from a curare-like drug called Pavunol. She called quickly for the antidote — an ampule of neostigmine with atropine to moderate the side effects.

"I had hoped I was wrong," she said. But if the antidote worked it meant her worst suspicions were true — that someone was running around the hospital paralyzing patients.

Before she injected the antidote, she asked the patients: "Open your eyes. Squeeze my hand. Lift your head. Take a deep breath."

He could do none of these things. But two minutes after the injection, he opened his eyes and squeezed her hand.

She went to the second patient and repeated the antidote. Again, he opened his eyes, and squeezed her hand so hard it hurt. After the third patient was treated and reacted similar, she went back to her office and just sat for a moment. "I wanted to be alone."

She realized she had forgotten to get urine samples to test for the presence of the drug. They were drawn and placed under lock and key.

Dr. Freier called the FBI.

The investigation rocked the hospital.