Mrs. Casey Receives Blood

Welcome to the podcast for Chapter 27 of *Understanding Medical-Surgical Nursing.* In this episode, we'll review rationales for blood transfusion and related nursing care.

Jodi had never seen a woman so pale in her life! Mrs. Casey was admitted to her unit an hour ago, and Lily, the RN, was busy arranging for the doctor's orders for a blood transfusion.

After she had Mrs. Casey sign a consent form for the blood transfusion, Lily asked Jodi to take some baseline vital signs. Jodi documented them in the chart—blood pressure 106 over 54, pulse 88, respirations 16, temperature 96.7 degrees Fahrenheit. Then she looked at the emergency department report. It said Mrs. Casey had a bleeding ulcer in her stomach. No wonder her hemoglobin was so low. That explained her pale color, too. Her hemoglobin was 8.2 grams per 100 milliliters, and Jodi knew that it should be between about 12 and 16 for women. Jodi recalled that hemoglobin carried oxygen in the body, so she ducked her head into Mrs. Casey's room to see if she felt short of breath. Mrs. Casey said she had been really short of breath before the ER nurse put on the oxygen, but she felt much better now. Jodi checked to make sure the oxygen was running and the nasal cannula was in place before she left the room.

Fifteen minutes later, Lily came down the hall with a unit of blood. The ER had done the type and cross-match of Mrs. Casey's blood to speed up the process. Jodi and Lily went into Mrs. Casey's room and began their checks. Lily held the unit of blood, and together they looked at Mrs. Casey's armband.

"Can you tell us your name?" Jodi asked.

"Donna Casey," replied her patient.

Jodi and Lily confirmed the name on the armband and on the lab slip attached to the bag of blood. Next they checked Mrs. Casey's identification number on the armband—that matched the lab slip too. Finally, they checked the blood type and unit number on the bag of blood and the lab slip and made sure the expiration date was good.

"Good," said Lily, as she and Jodi signed the lab slip. "Everything checks out. All set to go."

Lily had already started an 18-gauge IV catheter in Mrs. Casey's left arm, and she had normal saline running on an electronic infusion device. Jodi knew that blood could run only with normal saline, because other fluids could cause the blood to clump up or the red cells to burst. That wouldn't do Mrs. Casey any good at all! It was running through special IV tubing that had two spikes on it—one for the saline, and a second one for the blood. Lily spiked the bag of blood, opened the clamp, and the blood started down the tubing. She pulled up a chair and checked her watch, because she couldn't leave the room until the blood had been running for at least 15 minutes—and the 15 minutes didn't start until the blood actually got all the way down the tubing and into Mrs. Casey. They wanted to be sure she didn't have a reaction.

Jodi listened as Lily gave Mrs. Casey the usual instructions. “Be sure to notify us immediately if you feel short of breath, or feverish, or chilled, or if you have any pain or itching. Really, if you feel anything at all that is out of the ordinary, put your call light on. We’ll be checking you frequently, but we like to be cautious with transfusions.”

The 15 minutes went by without incident, and Jodi left to check on other patients. When everyone was cared for, she went to find Lily. Lily asked if Jodi could check Mrs. Casey’s vital signs again in 30 minutes. “Her vitals were stable when I checked her at 15 minutes. We’ll check her once more at 30 minutes, then we can go to every hour if all’s well,” Lily said.

Thirty minutes later, Jodi returned to check on Mrs. Casey. Everything was normal—blood pressure 110 over 60, pulse 86, respirations 16, temperature 97.8 degrees Fahrenheit. “Looks good!” Jodi thought to herself. But as she wrote the vitals on the flow sheet, she noticed the earlier temperature, which was only 96.7 degrees Fahrenheit. Although 97.8 was normal, it was more than 1 degree higher than an hour ago. Jodi went to find Lily to let her know. “Let’s check her again in 15 minutes, and I’ll put a page in to Dr. Daly,” she said. By the time Dr. Daly called back, Mrs. Casey’s temperature was up to 98.1 degrees Fahrenheit, and Lily had stopped the infusion. A temperature of 98.1 was still normal, but it was climbing. Mrs. Casey was also complaining of a headache and some chills. “Is this normal?” she asked. Jodi told her that it wasn’t exactly normal, but that it did happen sometimes, and assured her that everything would be okay.

It took Jodi less than 5 minutes to get some Tylenol for Mrs. Casey. Dr. Daly had said that if the Tylenol kept her temperature stable, and if Mrs. Casey felt okay, they could start the infusion back up. Jodi knew they didn’t have long, because they had only 4 hours from the time Lily picked up the blood from the lab to complete the infusion. Any longer and germs could start growing and cause infection. And 2 hours had gone by already!

Within 30 minutes of swallowing the Tylenol, Mrs. Casey said she felt much better, and Lily restarted the blood. They got the transfusion completed before the 4 hours were up, and the patient’s temperature stayed in the 97-degree range. Jodi checked Mrs. Casey’s vital signs every half hour—she knew every hour wasn’t enough when they were concerned about her temperature.

Later that day, Mrs. Casey had a second unit of blood, but this time the lab prepared a leukocyte-depleted unit to reduce the risk of another febrile reaction. It infused without any trouble. When Jodi went to say goodbye at the end of her shift, Mrs. Casey looked terrific. Her color was much pinker, and she said her breathing felt better too. “I even feel a little less fatigued!” she said. It always amazed Jodi how fast a couple units of blood could make someone feel better.

When Jodi checked out with Lily, Lily thanked her for her good work. “I really appreciate how observant and careful you are,” Lily said. “I always know our patients are safe when I work with you.” Jodi went home feeling good about a job well done.

In this podcast, you've reviewed a blood transfusion, including a rationale for the order, the patient identification process, monitoring, and symptoms and care of a febrile reaction.