

CHAPTER 1

Dorothy sat in her car, looking at the other students walking into the community college health sciences building. For the past month, since she had started classes in the college, she had come to doubt her abilities in keeping up with the class load. But every time doubt would arise, she would close her eyes and focus on the promise she had quietly made to her mother four years ago, as her mother slowly faded away on her hospice bed. Up till that time, Dorothy had not been the best student in her class, but the death of her mother brought her to focus on high school better, giving her a goal to check out a career in medicine. She wanted to attend a major medical college, but her father had suggested that she take a year with some beginning community college classes before jumping into a major college degree course. Dorothy realized that her father saw her need to build up her confidence a bit before attacking her major goal. Dorothy turned the rearview mirror toward her to check her light blue eyes and light skin for any makeup flaws, then gathered up her purse, notebook, and lab coat from the passenger seat and exited the car. She breathed in the mild northern California autumn air, ran her hand through her dirty-blond hair, and started walking up the building entrance, joining other students along the way.

Dorothy walked the hallway with a smile, acknowledging other students passing her. As she reached her lab classroom, a well-toned male student with a handsome grin opened the door for her, causing her to widen her smile in appreciation. She walked over to a center table and greeted her red-haired lab partner, Anne, before putting her notebook and purse on the table. She slipped on her lab coat and glanced back at the guy who had opened the door for her. He had reached his table in a back corner while keeping an earnest brown eye on her. She gave him another quick smile, then turned and sat down on her stool at her table. At that moment, the professor, a confident, slightly graying middle-aged man, entered the room with an earnest teaching assistant carrying a bag right behind him.

“Class, today, we are going to talk about blood types, the different antigens found within the blood, the genetics behind the different blood types, and how to properly manage blood for transfusions and testing.”

As the professor started his opening lecture, the teaching assistant began walking around the lab tables, pulling out and handing a test kit from the bag to every student in the room. When Dorothy received her kit, she carefully examined the box which had instructions printed on the underside.

“Before we get into the specifics of blood types,” continued the professor loudly, “I felt it would be a good start if each of us knew what our own blood type was and received a demonstration on how to do the test properly. As I often state, doing tests accurately is extremely important for proper medical care.”

The professor picked up a kit from the desk next to him and opened it, pulling out a small test sheet which he raised above him. The sheet had four blank circles on it. Under the circles were blank lines to write identifying information about the person being tested.

“As you can see, there are four circles on the sheet,” the professor lectured, as he turned around to the board behind him and drew four large circles. “Each circle has a specific antibody sera formula within it.”

As he lectured on, he wrote the appropriate letter or sign within each circle. “The first circle will react and coagulate with blood cells that have the A antigen. The second circle will react with the B antigen. The third circle will react with the rhesus antigen. The fourth circle is a control test to confirm the blood sample has not been contaminated.”

The professor turned from the board to face the students. “As per the instructions, each of you will be provided a water dropper to wet each circle, activating the sera within the circle. Then, you will poke your finger with the supplied lancet and put a drop of blood within the four cupped sticks in the kit. You will use all four sticks, one for each circle, to be sure the samples within each circle do not contaminate any other circle. If the blood sample within a circle coagulates, you have that antigen in your blood. If not, your blood does not contain that antigen. If the fourth circle coagulates, then you have contaminated your sample, and you will need to do it again. Everybody understand?”

A general cry of assent rose from the class, and the professor gave a go-ahead wave for the class to begin testing their blood. Dorothy looked carefully at the test and thought about the time she held her mother’s hand in the hospital, as the nurse would change blood IVs. Dorothy had never needed to have her blood tested, but she was aware of the basic blood types because of her mother’s time in the hospital. She began the process of testing her blood, even finding a little enjoyment in the pricking of her index finger. After swabbing the blood into each of the circles, she watched as the red smear in the first three circles seemed to form a tight mesh, while the fourth circle stayed a smooth red, proving the sample was not contaminated.

“AB positive. Looks like you got something from both of your parents.”

Dorothy looked behind her to see her professor looking down at the test sheet in her hands.

“No,” she replied. “I must have gotten it all from my father. I remember that my mom was O negative from the time she was in the hospital before she died.”

“Genetically, that is not possible. A parent can only give either an A or B antigen in their half of your DNA. Your father would have to give you either the A or B antigen, and your mother would have to give you the other, for you to have both A and B. As you know, O blood type means a person has neither the A nor B antigen. Either you do not remember your mother’s blood type, or you made an error in doing your test. Do you think you made an error in doing this test?”

“No, I followed the instructions carefully,” Dorothy replied defensively.

“Then, you should check with your father about your mother’s blood type. Something to think about.”

With that, the professor went on to check the results of other students down the line. Dorothy looked down at her blood type test and concentrated on her memories of her mother’s illness.

Dr. Tom Menchant leaned back in his desk chair as he scanned through a few patient files on his computer. He had a fairly busy twenty-five-year family medical practice, so he savored the occasional hour without a patient appointment to make sure his files were properly updated. As he started to go over the first file, his phone buzzed.

“Yes?” he said as he pushed the speaker button.

“Doctor, do you remember Dorothy Samuels, Robert and Karen’s daughter?” his nurse receptionist asked over the speaker.

“Of course, I do. Why?”

“Well, she’s here, and she wonders if she can talk with you.”

“Is there a medical problem?”

“Not according to her. She’s taking a health science course at the community college and wonders if you can help her.”

“And you saw I had space in my calendar and would be thrilled to help her?”

“Well, with all you did for her during Karen’s illness and the close friendship you have with Robert, I thought it would be possible that you would be able to find some time for her.”

Dr. Menchant paused in thought, then gave a silent nod to the phone. “Go ahead and send her back,” he replied to the phone.

A few minutes later, Dr. Menchant heard a small rap on his office door before Dorothy slowly opened it. He pointed his open hand to the chair in front of his desk and watched as she sat down in it, gently putting her purse on her lap. He noticed the small bandage wrapped around her left index finger.

“Thank you for seeing me,” Dorothy quietly said.

Dr. Menchant leaned forward over his desk with a genial smile. “Sue said you are taking a health science course at the community college, and you needed help with something. What can I help you with?”

Dorothy opened her purse and pulled out her blood type test sheet from the class. “Today’s lesson was on blood types, and each of us tested our own blood. According to my test, it says that I am AB positive. Does it look like I did something incorrectly?”

Dorothy handed the test sheet to Dr. Menchant. He looked it over very carefully.

“It looks OK to me, but let’s check your records,” he said with a smile. He turned to his computer on the side of his desk. Grabbing the mouse, he did a couple of clicks; then he typed some information on the keyboard. He watched the screen change as Dorothy’s patient information popped up.

“I don’t recall ever having my blood tested,” Dorothy said.

“Oh, we tested your blood when you were a baby, just to have it on file in case of any emergency, and according to your records, your blood type is AB positive,” he said with a smile, turning back to her.

“But how can that be?” Dorothy asked. “My professor told me that genetically, I had to get the A and B antigen separately from both Mom and Dad. I remember from the time I spent with Mom in the hospital that she had O negative blood.”

Dr. Menchant’s smile straightened. “I think you are probably mistaken about your mother’s blood type,” he told her with a serious tone. “You might have seen an O negative label on an IV transfusion bag, but O negative is the universal donor blood type.”

“No,” Dorothy responded with an urgent tone, “I remember telling the nurse one time that I would be willing to donate blood for her, and she told me I couldn’t because she could only take O negative blood. Could you check her records and confirm that?”

A look of concern crossed Dr. Menchant's face, as he considered her question. He forced a look of no emotion toward her as he answered her.

"I'm sorry, but officially, I cannot share your mother's records with you. It has to do with patient confidentiality."

"But my mom's dead!" she cried out.

"Yes, but your dad is still a legal guardian of those records. You will have to get his permission to let me look up that information for you. I am bound by the law."

Dorothy leaned back in her chair with a look of disappointment. "OK, I guess I understand," she said quietly. "I'll check with Dad. But something just doesn't seem right."

Dr. Menchant handed the blood test card back to Dorothy, who put it back into her purse. She rose from her chair and gave a subtle nod of thanks to him, before heading to the door. He watched her exit his office and listened carefully to her walking out to the reception area. After he heard the faint exchange of goodbyes between Dorothy and Sue, he went through his contact book and reached for the phone. After he tapped in the phone number, he waited for someone to answer.

"Robert! It's Tom!" he spoke urgently into the phone. "Yes, look! Dorothy was just here . . . No, nothing is wrong with her, but she learned something in class today, something that will lead her to the truth about her. I know you wanted her not to know, but I think you need to consider telling her the truth . . ."