Jamie rolls over, attempting to get more comfortable, and feels a throbbing, burning sensation in her right leg. Unable to get comfortable and having a feeling of dread, she pushes the nurse call button.

A few minutes later, Wanda, the night nurse, comes in. “Morning, Jamie. What can I help you with?”

Jamie grabs her small white board and marker and writes: My right leg is killing me. It’s throbbing and burning.

“Ok, I’ll need to have a look.” Wanda goes back to the door and turns on the lights. Removing the blanket, she examines Jamie’s right leg. Just looking at the leg, Wanda can tell it’s swollen and significantly larger than the left. A light touch reveals that it is warmer than expected. A light squeeze elicits a grimace on Jamie’s face.

“Ok, Jamie, I’m going to do the Homan’s test. I am going to push your foot up to stretch your calf. You let me know if this is painful.”

Performing Homan’s test causes Jamie extreme pain and she tries to wriggle up the bed away from Wanda.
“Ok, that was definitely painful for you. I won’t do that again. Take a couple of deep breaths and relax. Are you feeling short of breath? Any pain in your chest?”

Jamie shakes her head ‘no’ to both questions.

“Ok, I will be right back. I want to check your vitals and then I’m going to call the resident to come and see you.”

Wanda comes back to find Jamie holding her white board towards her. What is wrong with me? it says.

“Good question. I think you may have a blood clot in your calf from being on bed rest and not moving around, as you would normally do at home. This is not an uncommon thing, but we need to treat it, and for that the resident needs to come and see you.”

Jamie relaxes a little bit but still appears tense.

Wanda completes her assessment and finds Jamie’s chest is clear, RR is 20 per minute, HR 80, BP 110/64, SpO₂ 95% on .35 FiO₂ via tracheal mask (TM).

<table>
<thead>
<tr>
<th>Day: 12</th>
<th>Pulse Rate</th>
<th>Blood Pressure</th>
<th>Respiratory Rate</th>
<th>Temperature</th>
<th>Saturation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time: 05h30</td>
<td>80</td>
<td>110/64</td>
<td>20</td>
<td>–</td>
<td>95% on .35 FiO₂ TM</td>
</tr>
</tbody>
</table>

“I’m going to call the resident and see what he or she has to say. I’ll be right back as soon as I know something.”

Wanda sits and organizes her thoughts before calling the resident. She writes the following on a scrap paper:

**S:** Woke complaining of pain in right leg, states it’s throbbing and burning

**O:** Vital signs not changed, no temp, chest is clear, SpO₂ 95% on .35 FiO₂ TM, right leg is warm to touch, grimacing, positive Homan’s test

**A:** DVT in right leg from decreased mobility

**P:** Resident to see and confirm, heparin infusion?, ultrasound, VQ scan

Comfortable she has everything ready, Wanda calls the resident-on-call and communicates her concerns and findings using the SOAP notes she made.

The resident agrees and says she will be up to see both Wanda and Jamie right away.

A few minutes later, a tall, slightly disheveled woman in a short white lab coat is standing in front of the nursing station.

Looking up, the unit clerk says, “Yes?”

“Good morning, I’m Dr. Betty Johnson, resident-on call for Medicine. Wanda called me about Jamie Douglas.”

“Oh yeah, right. Ok, both Wanda and Jamie are in Room 22 down the hall to your right.”
“Thank you.”

Betty walks down the hall to Room 22 to find both Wanda and Jamie.

“Hi, I’m Dr. Johnson, resident-on-call. You called?”

“Thank you, Dr. Johnson, for coming so quickly. This is Jamie Douglas who we discussed on the phone.”

“Yes. Can I see your leg, Ms. Douglas?”

Jamie pulls the sheet off her legs and Dr. Johnson assesses and confirms Wanda’s findings.

“Ok, Wanda, I agree. Looks like a DVT. I would like to start a heparin infusion and I will check with the senior resident and the staff man to confirm starting. Pharmacy can help with the dosage. I’ll call Ultrasound and Medrad for VQ. I would recommend that you get Ms. Douglas here ready for a trip to the X-ray Department. I would like these done stat to confirm and ensure no untoward effects.”

“Thanks, Dr. Johnson. Do you have any questions, Jamie?”

Jamie shakes her head ‘no’.

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**Time: 06h00**

“Ok, Jamie, I’m going to take you to X-ray now for the two tests that Dr. Johnson talked about. One is an ultrasound of your leg, which has no special requirements, and the second one will require an injection of dye into your IV while they take pictures of your lungs.”

Jamie nods and waves her hand, indicating she is ready to go.

**Place: X-Ray Diagnostics Department**

Wanda moves Jamie’s stretcher closer to the check-in desk. “Hi, I’m Wanda and this is Jamie. I called earlier to confirm an ultrasound and V/Q scan stat, as ordered by Dr. Johnson.”

“Yes, yes, right you are. Down the hallway to your right. The door should be open and Adele is waiting for you in Ultrasound, Room 2. Second door on the left.”

Wanda steers the stretcher down the hallway to find Room 2 open and Adele typing data into the ultrasound machine.

“Good morning. This is Jamie Douglas.”

Turning around, Adele smiles. “Be right with you. Just finishing up from the previous case. Please push the stretcher in here to the right of me. Thank you.”

Wanda gets the stretcher in position, applies the brakes, and slides the side rails down.
“Thank you for waiting. The last case went longer than I expected. Ok, so this is Jamie Douglas, and you are having some leg pain?”

Jamie nods and points to her right leg.

“Ok, so what I am going to do is put some cool gel on your whole right leg and run a small probe up and down to check the blood flow in your leg. The gel will be cool and the probe may cause you a bit of discomfort as sometimes I need to push firmly to get better pictures. Ok? Do you need any pain medication before I start?”

Jamie shakes her head.

Adele grabs the gel from the warmer on the left side of the machine and squirts a small amount on Jamie’s right femoral area. She places the probe on the gel and begins the scan.

Wanda looks at the screen and then looks at Jamie and sees a bit of worry and curiosity on her face. “Adele, what are you seeing there?” Wanda asks.

“I’m looking at the femoral vein and femoral artery to see if there are any blockages. You can tell the vein from the artery. When I push down, the vein collapses, but the artery has a muscle around it and it is resistant to collapsing easily. You see the blue and red flow that indicates venous and arterial flow. Everything looks good here. Next, I need to check her popliteal area or behind her knee. Can you help position Jamie so I can get a good view?”

Wanda helps Jamie move onto her left side so that her right popliteal area is accessible to Adele.

“Ok, Jamie, same thing. A bit of gel and some movement up and down with the probe. Might be uncomfortable since your calf is sore.”

Adele begins the scan, explaining everything she is doing. Suddenly Adele stops her explanations and stares intently at the screen.

Jamie then motions with her right hand. Wanda responds, “Yes, Jamie. It looks like something is different on the screen. Adele, what’s going on? What do you see?”

Adele looks up from her screen. “Ok, not official as this needs to be reviewed by the doctor, but it looks like there is some clotting in the popliteal artery. I need to do some more scanning of Jamie’s calf, but it looks to be that you were correct in thinking it was a DVT.”

Adele finishes off the scan and wipes all the gel off Jamie’s leg. “Are you ok, Jamie?”

Jamie grabs her white board and writes, I am never getting out of here.

“Yes, this appears to be a setback, but it’s not a bad one. Let’s see what all the tests show and what the doctors say and then go from there. Hopefully, it won’t hold you back too much.”

Adele then turns to Wanda, “Next is VQ, right?”

“Yes. Can you help me with the stretcher? It’s pretty tight in here and I feel like I would be banging back and forth
Adele laughs. “I’m not sure I’m a better driver. You can see a number of marks on the wall from me pushing stretchers. Maybe the two of us will be better.”

Adele helps push the stretcher to the nuclear medicine exam room for the VQ scan.

“Hey, Jenny, your patient is here. Ms. Jamie Douglas.”

A slim woman in a white lab coat looks up from her computer screen. “Great. Can you help me get her on the exam table?”

“Sure.”

The three health professionals position the stretcher beside the nuclear medicine exam table, and assist Jamie in moving across onto the table.

“Thank you, everyone,” Jenny says.

Jenny goes to a cupboard and gathers the equipment for the ventilation part of the V/Q scan.

“Ok, Jamie, I’m going to have you breathe in a special gas that will go into your lungs. As you are breathing, I will take some pictures with this large camera. The camera is going to sit very close to your chest. During this time, please do not move around or we may have to do the test again. Your nurse will be in the room, so just wave if you need something.”

Jamie nods.

“Ok, positioning the camera now. Still ok?”

Jamie makes the ok sign with her left hand.

“Now, breathe normally, and I’m going to start taking pictures now.”

Over the next five minutes, black and white pictures of Jamie’s lungs appear on the screen.

Wanda looks closely at the pictures. “To me, her lungs look like the lungs in the pictures.”

Jenny smiles. “Yes, it appears ventilation is good. Nothing abnormal to my eyes, but the doctors will have to look as well and give the final say.”

Jenny then moves to Jamie’s bedside and pushes the camera away from her chest. “Ok, done the first part. In the next part, I am going to inject a medication in your IV that will show how your lungs are perfused. This will take a bit longer and, again, the camera will be close to your chest.”

Jenny then gathers the radioactive injection from a secure area in the room. Double checking the IV and confirming its placement, she then injects the substance into Jamie’s IV port closest to the insertion site. Then she lowers the camera again to be almost sitting on Jamie’s chest.
“Ok, Jamie, starting the second test.”

Jamie makes the ok symbol again with her left hand.

Over the next 15 minutes, new pictures appear on the screen outlining the perfusion of the lungs.

“Jenny, what are you seeing?” Wanda asks.

“From my perspective, everything looks normal but, again, the doctors will have to take a look to confirm.”

Time: 07h30

Wanda, tired from night shift and from pushing a stretcher throughout the hospital, heaves a sigh of relief as she moves the stretcher into Jamie’s room.

“Jamie, do you think you can wriggle over to your bed?”

Jamie looks over at the bed and then nods.

“I need to chart all of this activity, so give me a couple of minutes to catch up, and then I will get Dr. Johnson to come and talk to you.”

Jamie grabs her white board and writes, *I am ok right now, very tired, pain med when you back?*

“Most definitely. I will bring something for you.”

Wanda finds an empty workstation and adds her charting to the progress notes. After completing that, she finds Dr. Johnson reviewing the V/Q scan and the ultrasound test.

“Hi, Dr. Johnson. Can you talk with Jamie Douglas about her tests?”

“Please call me Betty, and yes, I would be happy to. Did you see anything on the tests?”

“Adele in ultrasound said there were some blockages in the popliteal area and the V/Q scan looked normal.”

“I agree. I need to review the tests with the senior resident and the staff doc, but that looks like just a DVT with no complications. So what do you recommend for treatment?”

“That’s an easy one: heparin IV bolus based on weight, then a continuous infusion based on the normogram. Although I’m not sure, possible SC injection of dalteparin, or warfarin PO may be used. We should check the B.C. and Canadian guidelines.”

“The medications are very much correct. I just spoke to the pharmacist-on-call and he said that since it is a localized DVT and there is no lung involvement, dalteparin SC and warfarin PO would be his recommendation. He recommended 200 U/kg SC daily of the dalteparin and five days of warfarin until her INR \(^1\) reaches at least 2.0.”
“Ok. Should we go discuss this with Jamie? Should we have Jamie’s husband present as well? I can set up the speaker phone so he can be present.”

“That is a great idea. Give me five minutes and I will meet you in the room.”

“Sure thing.”

Epilogue

After a further three days of hospitalization, Jamie was discharged home on warfarin PO, daily blood work, and weekly follow-up at the Respiratory Clinic for her tracheostomy.

1. international normalized ratio