

Narrator: This story is about the diagnostic journey of Mr. Kane. The story outlines several areas where communication failures led to missed and delayed diagnosis that contributed to Mr. Kane's death. The story is told from the perspective of Mr. Kane's oldest child, Ben, who is now the primary caregiver of his two younger siblings after the tragic loss of his father. Ben is struggling to put together all the pieces of how his dad's diagnostic journey could have gone so wrong.

Individual learners should review **The Diagnostic Journey of Mr. Kane** before taking the TeamSTEPPS for Diagnosis Improvement course. Throughout the course, Mr. Kane's diagnostic journey will be referred to as a way to discuss and understand how TeamSTEPPS structured tools can help overcome communication and teamwork breakdowns related to diagnostic processes.








Objectives

- Demonstrate the impact of breakdowns in provider communication on diagnostic errors.
- Describe how TeamSTEPPS communication tools and strategies can mitigate diagnostic communication errors and breakdowns in team structure.

TeamSTEPPS®

Narrator: This reality-based case is about a patient whose diagnostic journey included a delayed diagnosis and ended in death. The case is a resource that can be used throughout the course. It has many opportunities to show where TeamSTEPPS tools and strategies may have been useful to improve communication between providers and within practices to achieve an accurate, timely, and communicated diagnosis. Specifically, the case is used as an accompanying learning exercise in Module 2 (Team Structure), Module 4 (Leadership), and Module 5 (Situation Monitoring).


Mr. Kane's Diagnostic Team

Patient and Family Members:	Primary Care Team:	Specialty Care Team:
 <p>Joe Kane, Patient</p>	 <p>Dr. Hassan, Primary Care Doctor Role: Manage routine care, coordinate referrals.</p>	 <p>Dr. Elliott, Pulmonologist Role: Manage recurrent pleural effusions.</p>
 <p>Ben Kane, Patient's Son Role: Journey narrator and patient advocate.</p>	 <p>Wendy, Primary Care Receptionist Role: Patient relationship.</p>	 <p>Dr. Marshall, Nephrologist Role: Manage end stage renal disease/dialysis.</p>
		 <p>Dr. Chen, Oncologist Role: Manage stage IV lung cancer.</p>

TeamSTEPPS®

Narrator: Before we learn about Mr. Kane's care journey, let's first meet the different individuals who make up his diagnostic team.

Ben Kane – Son



Ben Kane is the oldest child of Joe Kane.

Joe was a 49-year-old single father of three who died due to a delayed diagnosis of lung cancer.

TeamSTEPPS®


[Ben Kane, son]: I want to tell you about my dad, Joe Kane. Dad was 49 years old and had been a single father since our mom died a few years back from breast cancer. He drove a bus and worked hard to keep the three of us kids in line. He had a long struggle with his end stage renal disease (ESRD). He was on dialysis a few times a week, which worked for the most part.

The past few years of Dad's life were particularly hard, especially related to his health. He was good about his dialysis, but even so, he did miss a few sessions, which seems to have started all these problems. He missed those sessions because of work and to make sure someone could be home for my brother and sister if I had to work and couldn't be around to watch them. They ended up having to do a procedure to take fluid off his lungs a couple of times because of it.

The worst of it was last year when Dad was diagnosed with cancer. That was rough. We were all so excited that Dad was finally going to get the kidney transplant we had been waiting for. Dad was excited about the thought of not having to go to dialysis anymore. When **Dr. Chen, the oncologist**, told us it was cancer, we were shocked. How could he have seen so many doctors and nobody ever thought it might be something other than his kidneys?

Dr. Chen was really helpful. The chemotherapy and just watching him get worse was hard for me and my siblings. Dad passed away a few months ago. We are still trying to make sense of everything that happened...

Background – Joe Kane



- 49-year-old man with ESRD and recurrent, unilateral, pleural effusion.
- Has had right-sided pleural fluid drained twice in the last year by interventional radiology.
- Having a hard time scheduling an appointment to have fluid drained from around his lungs.
- Is complaining of increased shortness of breath.
- Reports no acute change in his general health.

[Ben Kane, son]: Dad had been followed by his **primary care provider, Dr. Hassan,** and **nephrologist, Dr. Marshall,** for his end stage renal disease for several years and was waiting to get on the transplant list. He had some history of high blood pressure and chronic obstructive pulmonary disease (COPD) and he smoked for most of his life, about a pack a day. He didn't really drink unless it was at a party or a family thing and he never used drugs. Ever. Not even aspirin or anything. Not unless it was from the doctor.

When all this started, Dad was getting more and more short of breath everyday. He wasn't sleeping well and had a hard time lying on his side. This had happened a few times before as well and usually he would go to see **Dr. Marshall, his nephrologist,** and they would change his dialysis around and he would get better for a bit. Two times in the past year that didn't work, so he had to have fluid drained from around his lungs. This time, he was having a hard time scheduling an appointment to get the fluid drained. The clinic was really backed up and Dad had to work, so he went back to see his **primary care doctor, Dr. Hassan,** for help.

Primary Care Provider – Dr. Hassan



Visit 1: Dr. Hassan

When I saw Mr. Kane, his shortness of breath was concerning. I assumed the issue was related to the fact that he missed several of his dialysis sessions. I reminded him of the need for consistency in showing up for his dialysis treatments.

I sent Mr. Kane to our pulmonary clinic for a thoracentesis to drain the chest fluid and told him to follow up with his nephrologist to update his dialysis plan. Otherwise, his health was good. We just needed to get that fluid under control.

[Dr. Hassan, PCP]: When I saw Mr. Kane, his shortness of breath was the concerning issue. I assumed the issue was related to the fact that he missed his dialysis appointments a few times. I reminded him of the need for consistency in showing up for his dialysis treatments.

Since interventional radiology had a backlog in their schedule, I sent Mr. Kane to our pulmonary clinic for a thoracentesis to drain the fluid and told him to follow up with his nephrologist to update his dialysis plan. Otherwise, his health was good. We just needed to get that fluid under control.

[Ben Kane, son]: Wendy, the receptionist in the front office, was able to fast track Dad's referral to the pulmonary clinic and get him seen the next day. I remember, because I had to take the day off of work so that I could be home for my brother and sister when they got home from school.

Pulmonary Clinic – Dr. Elliott



Visit 1: Dr. Elliott

Mr. Kane came to our clinic for urgent fluid removal from around his lungs. When I saw him, he told me that he had missed a few dialysis appointments, which resulted in the excess fluid, and that this had happened before. So, I did the procedure and as per usual sent the fluid to the lab. I didn't really think any more of it at the time.

I told him to make sure he didn't miss his dialysis sessions and understood that he was being managed by his primary care doctor and nephrologist rather closely and had routine followup appointments scheduled with both of them. I didn't see any need for further exploration on my part.

[Dr. Elliott, Pulmonologist]: Mr. Kane came to our clinic for urgent fluid removal from around his lungs. When I saw him, he told me that he had missed a few dialysis appointments, which resulted in the excess fluid, and that this had happened before. So, I did the procedure and as per usual sent the fluid to the lab. I didn't really think any more of it at the time.

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Nephrologist – Dr. Marshall



Followup with Dr. Marshall

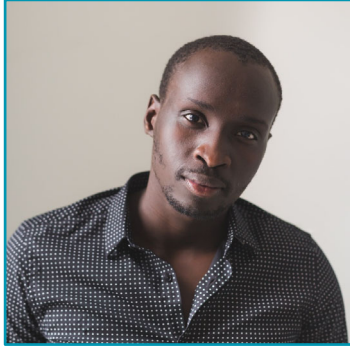
I saw Mr. Kane for a routine followup visit after he had another procedure to drain fluid from around his lungs. Mr. Kane told me his primary care doctor felt that the fluid buildup was related to missing his dialysis sessions.

Since the procedure did resolve the fluid issues and he was currently stable with having 2L removed during dialysis three times per week, I encouraged him to keep up with his routine dialysis appointments and saw no reason to change the dialysis plan at that time. We agreed that he would come and see me again in 3 months.

[Dr. Marshall, nephrologist]: I saw Mr. Kane for a routine followup visit after he had another procedure to drain fluid from around his lungs. Mr. Kane told me his primary care doctor felt that the fluid buildup was related to missing his dialysis sessions.

Since the procedure did resolve the fluid issues and he was currently stable with having 2L removed during dialysis three times per week, I encouraged him to keep up with his routine dialysis appointments and saw no reason to change the dialysis plan at this time. We agreed that he would come and see me again in 3 months.

Update on Dad



After getting the fluid drained from around his lungs by Dr. Elliott at the pulmonary clinic and seeing Dr. Marshall about his kidneys and his dialysis schedule, Dad seemed to be doing great. We worked out a way to make sure he didn't miss his dialysis sessions. He even got a clean bill of health from Dr. Hassan, his primary care doctor. "Keep up the good work!" It was all going so well...

[Ben Kane, son]: After getting the fluid drained from around his lungs by **Dr. Elliott** at the pulmonary clinic and seeing **Dr. Marshall** about his kidneys and his dialysis schedule, Dad seemed to be doing great. We worked out a way to make sure he didn't miss his dialysis sessions. He even got a clean bill of health from **Dr. Hassan**, his primary care doctor. "Keep up the good work!" It was all going so well...

PCP – 3 Months Later



**Wendy, Primary Care
Receptionist**

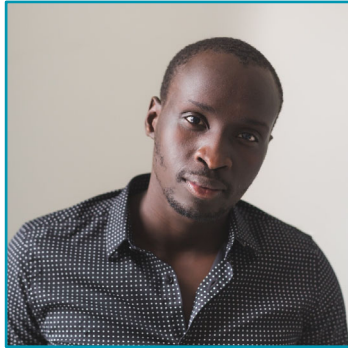
I saw Mr. Kane in the office when he came for his regular 3-month followup with Dr. Hassan. I remember remarking about how wonderful he looked compared to the last time I saw him, when I moved Heaven and Earth to get him into our pulmonary clinic.

He did mention that he had some tests done at the pulmonary clinic that he never heard back about. I thought that was strange. We are usually pretty good about that, but our medical assistant had been out for a bit. When I asked if he had talked to Dr. Hassan about the test, he said it was in the past and set up a followup appointment for another 3 months.

[Wendy, receptionist]: I saw Mr. Kane in the office when he came for his regular 3-month followup with **Dr. Hassan**. I remember remarking about how wonderful he looked compared to the last time I saw him, when I moved Heaven and Earth to get him into our pulmonary clinic.

He did mention that he had some tests done at the pulmonary clinic that he never heard back about. I thought that was strange. We are usually pretty good about that, but our medical assistant had been out for a bit. When I asked if he had talked to Dr. Hassan about the test, he said it was in the past and set up a followup appointment for another 3 months.

Update on Dad



Four weeks after that appointment with Dr. Hassan, Dad started feeling short of breath again. This was really concerning. He had not missed any dialysis treatments and now he was so short of breath he was missing work, not sleeping again, and his chest was feeling heavy all the time. He was thinking he was having heart trouble at one point. So we had a phone visit with Dr. Hassan and made an appointment with the pulmonary clinic, remembering how successful that was the last time, when he had to have the fluid drained.

[Ben Kane, son]: Four weeks after that appointment with Dr. Hassan, Dad started feeling short of breath again. This was really concerning. He had not missed any dialysis treatments and now he was so short of breath he was missing work, not sleeping again, and his chest was feeling heavy all the time. He was thinking he was having heart trouble at one point. So we had a phone visit with **Dr. Hassan** and made an appointment with the **pulmonary clinic**, remembering how successful that was the last time, when he had to have the fluid drained.

Pulmonary Clinic – Dr. Elliott



Visit 2: Dr. Elliott

When Mr. Kane presented to our clinic again 4 months later, I was frankly surprised to see him again. I remembered that we had tested the fluid the last time he was in, so we reviewed the results together. They were normal – no infection, no cells.

We repeated the procedure to get the fluid off his lungs again. This time, I also ordered a chest x ray in addition to labs on the fluid to be extra cautious. I reinforced that he needed to follow up with his nephrologist again if his dialysis plan was no longer working. I also suggested that he follow up with his primary care doctor for the results of the x ray and labs.

[Dr. Elliott, pulmonologist]: When Mr. Kane presented to our clinic 4 months after I first saw him, I was frankly surprised. I remembered that we had tested the fluid the last time he was in, so we reviewed the results together. They were normal – no infection, no cells.

We repeated the procedure to get the fluid off his lungs again. This time, I also ordered a chest x ray in addition to labs on the fluid to be extra cautious. I reinforced that he needed to follow up again with his nephrologist if his dialysis plan was no longer working. I also suggested that he follow up with his primary care doctor for the results of the x ray and labs.

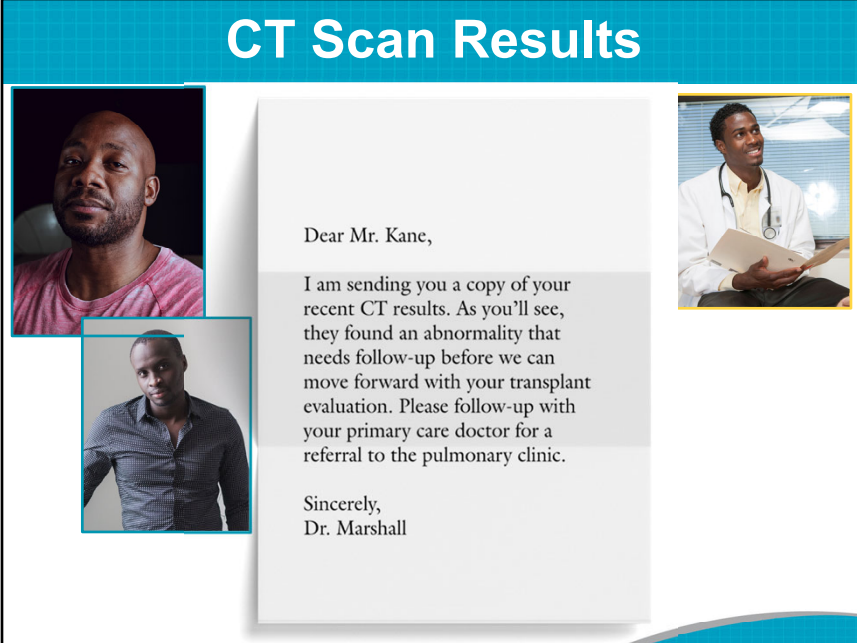


[Ben Kane, son]: Over the next 6 weeks, Dad did a lot of things. He called **Dr. Hassan** to get the results of his chest x ray and labs from the pulmonary clinic. Those came back OK.

He also quit smoking. We were so proud of him for this. I could finally stop nagging him! Dad also followed up with his **nephrologist, Dr. Marshall**, who advised Dad that it might be time to put Dad on the transplant list. I remember that day. Dad was so excited! We talked about all the things we could do when we didn't have to worry about going to dialysis 3 days a week. Maybe we could go on a vacation as a family. We were hopeful. Happy...

Dr. Marshall sent Dad for a bunch of tests that he would need to have in order for him to get placed on the transplant list. He went for a CT scan of his chest and his abdomen. All standard procedure according to Dr. Marshall. Then, we got the letter...

CT Scan Results



Dear Mr. Kane,

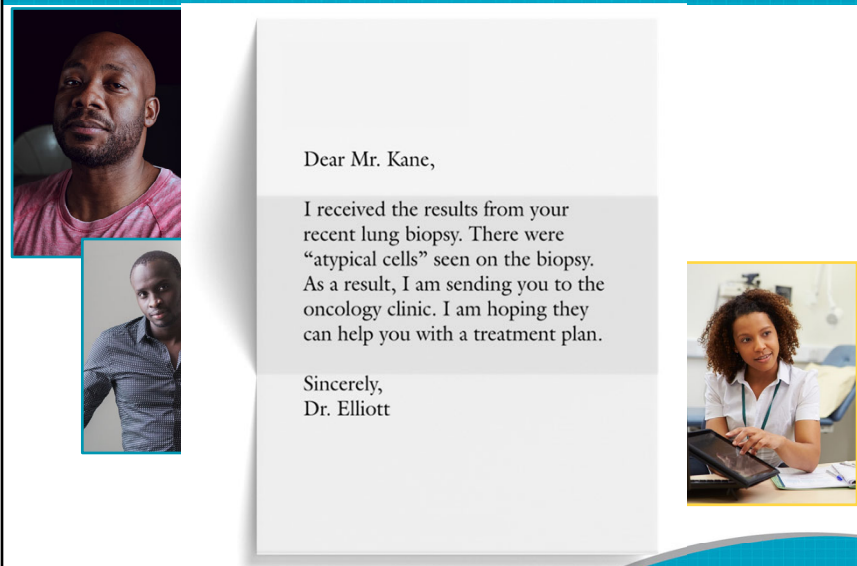
I am sending you a copy of your recent CT results. As you'll see, they found an abnormality that needs follow-up before we can move forward with your transplant evaluation. Please follow-up with your primary care doctor for a referral to the pulmonary clinic.

Sincerely,
Dr. Marshall

[Ben Kane, son]: About 2 weeks after Dad had his CT scan, we got a letter in the mail from **Dr. Marshall**. We had been so excited about the transplant and now everything seemed to be on hold again. The CT report said that there was a 2 cm peripheral apical lung mass discovered. Whatever that means.

According to the letter, Dad had to call his primary care doctor, **Dr. Hassan**, to get a referral again to see the **pulmonary clinic** for a lung biopsy. The clinic was booked, and it was important to get a biopsy as soon as possible, so we ended up having to go into the hospital to have it done. I remember thinking, this is another day off of work and another delay to getting on the transplant list. Just one more test and we can move forward.

Biopsy Results



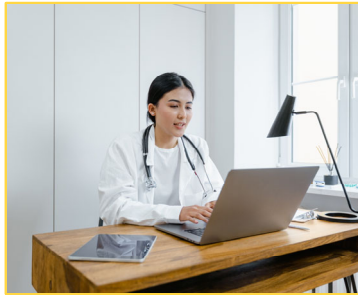
Dear Mr. Kane,

I received the results from your recent lung biopsy. There were “atypical cells” seen on the biopsy. As a result, I am sending you to the oncology clinic. I am hoping they can help you with a treatment plan.

Sincerely,
Dr. Elliott

[Ben Kane, son]: A few weeks after the biopsy, I remember that Dad was still short of breath and getting anxious about how long everything was taking. We just wanted to get through all these tests so he could get a new kidney. Then, we got another letter in the mail with the results of the biopsy. Something about atypical cells in the biopsy and needing to go to the oncology clinic as a next step. It was all so confusing, being passed around like that.

Oncologist – Dr. Chen



Dr. Chen, Oncologist

I remember Mr. Kane and his family fondly. He was referred to me for diagnosis of atypical cells on a lung biopsy that was inconclusive. We performed a thoracentesis that provided enough fluid to confirm a diagnosis of non-small-cell lung cancer.

Based on those results, I had a family meeting with Mr. Kane and his son Ben and let him know that he had a diagnosis of Stage IV lung cancer. He and his son were both surprised given that they were hoping for a kidney transplant.

We created a treatment plan for Mr. Kane that included palliative chemotherapy. Knowing that this was not curable, our goal was to keep Mr. Kane as comfortable as possible. We also had him referred to outpatient palliative care for aggressive symptom management. He initially did very well with his treatments. It is too bad we didn't find this earlier. We should have had more options for him and his family. Given him more time. A sad case.

[Dr. Chen, Oncologist]: I remember Mr. Kane and his family fondly. He was referred to me for diagnosis of atypical cells on a lung biopsy that was inconclusive. We performed a thoracentesis that provided enough fluid to confirm a diagnosis of non-small-cell lung cancer. Based on those results, I had a family meeting with Mr. Kane and his son Ben and let him know that he had a diagnosis of Stage IV lung cancer. He and his son were both surprised given that they were hoping for a kidney transplant.

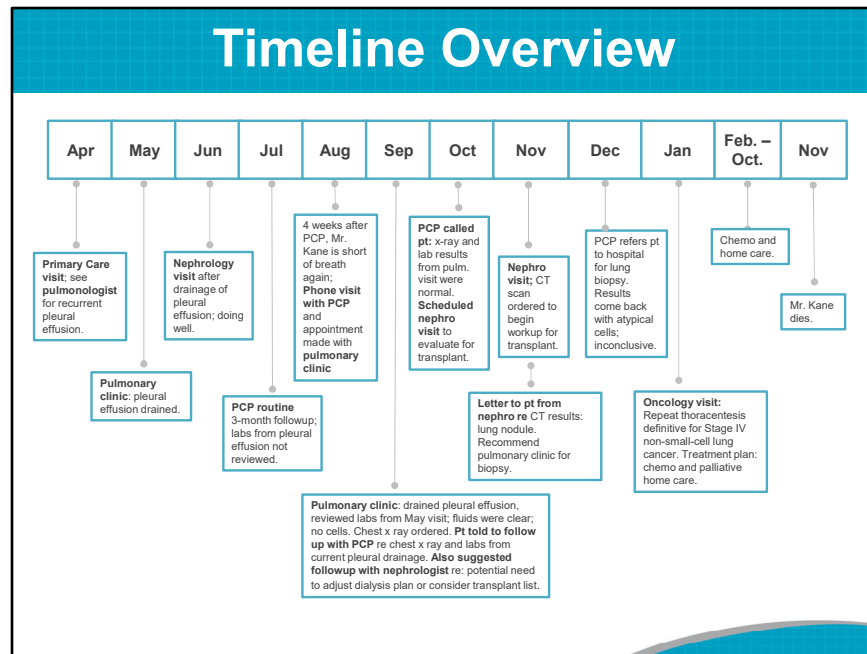
We created a treatment plan for Mr. Kane that included palliative chemotherapy. Knowing his cancer was not curable, our goal was to keep Mr. Kane as comfortable as possible. We also referred him to outpatient palliative care for aggressive symptom management. We inserted a special catheter to allow him to drain the fluid from his lungs at home regularly rather than having to come back to the clinic or hospital so often. He initially did very well with his treatments and died several months later. It is too bad we didn't find this earlier. We should have had more options for him and his family. Given him more time. A sad case.

What Could I Have Done?



My dad was a champ about chemotherapy, and I learned how to do a lot of the things, like draining fluid from his lungs, myself. Despite him fighting for us everyday, he died about 9 months after starting chemotherapy. I now take care of my younger siblings. It's a struggle everyday without him. I just wish we had known more about what was going on with his health earlier. I ask myself all the time, what I could have done. Why did it take so long to figure this out? Why did this have to happen? I guess we will never know.

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Narrator: In the case of Mr. Kane, a definitive diagnosis evolved over multiple visits with 4 different providers. Although the patient anticipated being considered for a kidney transplant when his dialysis began to fail, an eventual diagnosis of lung cancer resulted in his untimely death. Multiple opportunities exist where TeamSTEPS tools and processes may have resulted in a diagnosis that was more timely, accurate, and well communicated. This timeline is provided as a “snapshot” overview of Mr. Kane’s diagnostic journey and can help guide responses to accompanying course exercises.