“ A kid born today will *never* be smarter than AI”

- Sam Altman, CEO, OpenAI

Can AI Make Us More Human?



JAMA Internal Medicine | Original Investigation

Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum

John W. Ayers, PhD, MA; Adam Poliak, PhD; Mark Dredze, PhD; Eric C. Leas, PhD, MPH; Zechariah Zhu, BS; Jessica B. Kelley, MSN; Dennis J. Faix, MD; Aaron M. Goodman, MD; Christopher A. Longhurst, MD, MS; Michael Hogarth, MD; Davey M. Smith, MD, MAS

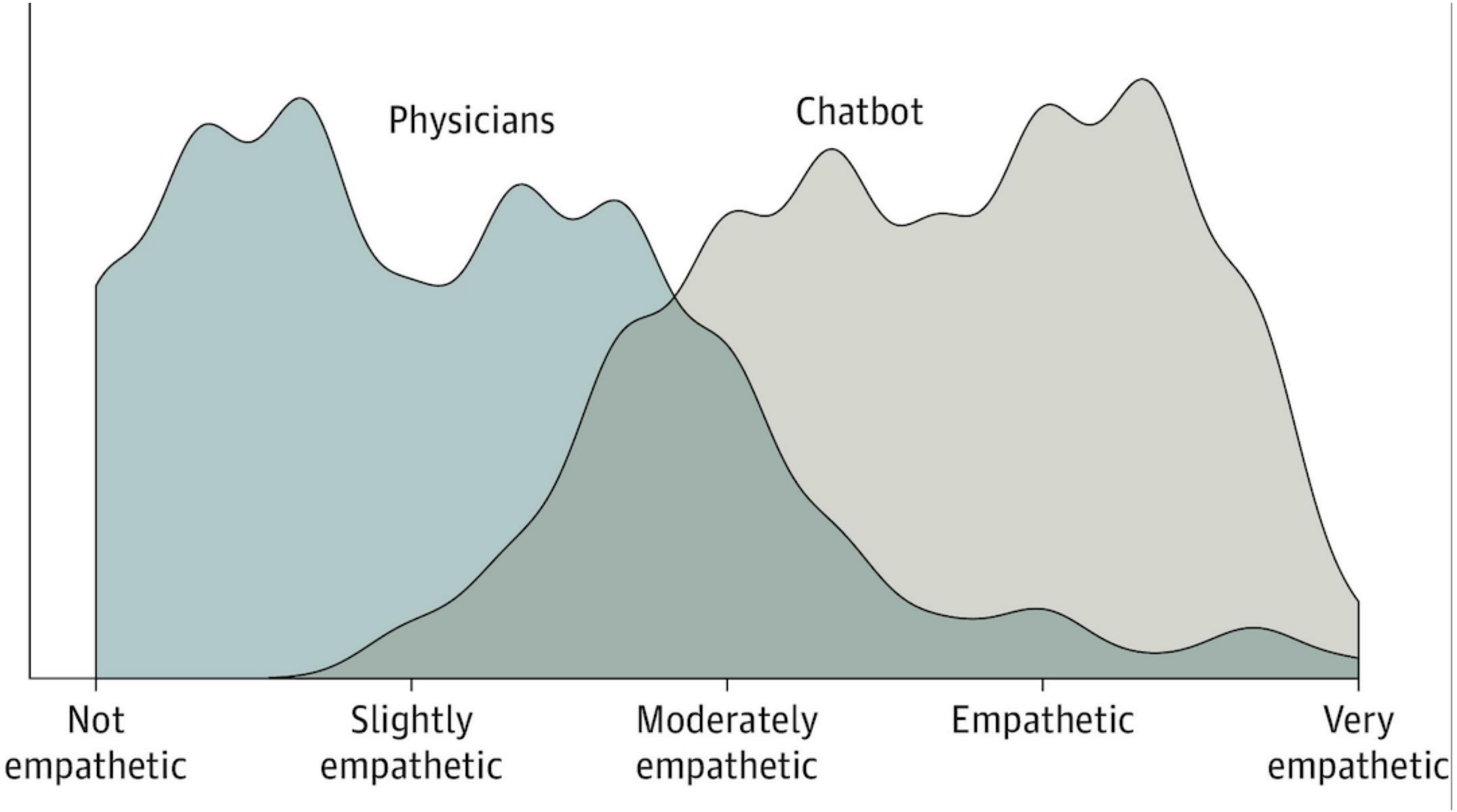
Metrics

Views	Citations	Altmetric
563,278	1,931	6473



See more details





Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum | Artificial Intelligence | JAMA Internal Medicine | JAMA Network

Loss of independence



“My daughter has to help me bathe now. I never imagined my life would come to this. I feel like such a burden.”

A

“I’m really sorry you’re going through this. Losing independence can be incredibly difficult. Many people in your situation worry about being a burden to their families. What has it been like for you to let your daughter help in this way?”

B

“I’m sorry this is happening. It’s understandable to feel upset when your health changes. Your daughter is helping because she cares about you, and accepting help is part of managing illness.”

A

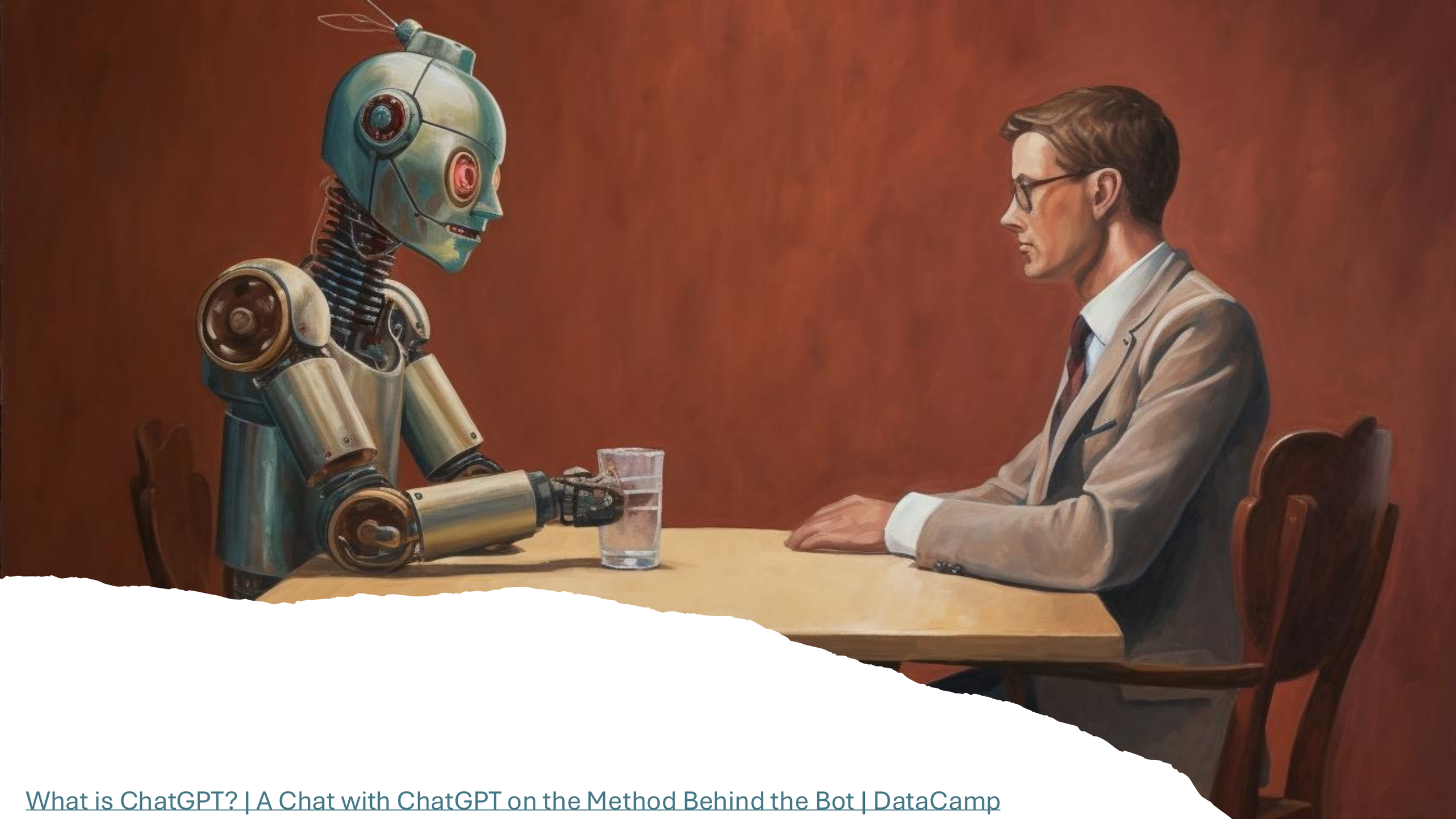
“I’m really sorry you’re going through this. Losing independence can be incredibly difficult. Many people in your situation worry about being a burden to their families. What has it been like for you to let your daughter help in this way?”

B

“I’m sorry this is happening. It’s understandable to feel upset when your health changes. Your daughter is helping because she cares about you, and accepting help is part of managing illness.”

Which response better honors the person in front of you?





What is ChatGPT? | A Chat with ChatGPT on the Method Behind the Bot | DataCamp

Step 1 Enter your information

Matthew

Gonzales

Select Role

Step 2 Choose a Patient



Alex Thompson

Age: 43

Bio: Dedicated track coach at local high school for 15 years. Married with two teenage children. Very



Esther Brown

Age: 78

Bio: Esther is a 78-year-old female former secretary who has end-stage heart failure with an



Lisa Williams

Age: 25

Bio: Lisa is a passionate and driven cardiology student in her mid-20s diagnosed with acute

Alex

- 43 y/o high school track and field coach with pancreatic cancer for 2.5 years
- Initially had response to chemo, but last round (3rd) was unsuccessful
- Admitted to hospital 2 days ago for worsening pain
- CT shows new extensive metastases in liver and lung
- Patient is tired and losing weight. Frustrated with fact that even light activity is hard
- Increasingly needing to rely on mother and neighbor to help with cooking, cleaning
- Patient was never married and has no children, but is engaged with students/colleagues





BLUE

Step 3



Alex Thompson

Age: 43 years old

Patient Descripton

Alex is a 43-year-old track coach at a local high school. He was admitted to the hospital two days ago due to worsening abdominal pain linked to his pancreatic cancer diagnosis from two and a half years ago. Although he initially responded well to chemotherapy, recent treatments have been unsuccessful. With extensive metastases in his liver and lungs, the only remaining options involve hospitalization.

Medical Background

He was admitted to the hospital two days ago due to worsening abdominal pain. He was diagnosed with pancreatic cancer two and a half years ago and initially responded well to chemotherapy, but the last (third) round was unsuccessful. After several years without disease progression, recent imaging revealed extensive metastases in his liver and lungs. There are no treatment options left except those that would require him to remain in the hospital.

Hey Alex, how are you doing today?

Hey, uh... not... not great, honestly. The pain's, it's worse today—kind of feels like something's—something's pressing in on me, you know?

How long has that been going on?

A few days, maybe longer, I—I've lost track. It's like it crept up faster than before, and now it's just... constant.

Wow, that must be a lot to go through.

It is. And it's getting harder to hold everything together—like I'm running a race I can't finish.

Since you've been in the hospital, has anybody talked to you about why they think your pain is worse?

They mentioned something about the tumors spreading—liver, maybe lungs, but it wasn't really clear. I didn't want to hear all of it then.

Well, I definitely want to think about ways that we can get your pain under control, but it sounds like there are other, bigger things happening. Do you want to talk about that more now?

I don't know if I'm ready, but... yeah, I need to know. I can't keep pretending it's going to get better if it's not.

Is it OK to share with you what the other cancer doctors and I have seen since you've been here in the hospital?

Alright. Go ahead, I'm listening.

Well, it seems that this last round of chemotherapy didn't affect your cancer as much as we had been hoping for.

Text
Voice

Chat
Type your message...

Restart Chat Choose A New Patient

Help center

Get real-time feedback on your chat performance.

Get Help

When you're finished

Click the button below to get your score, analysis, and recommendations for improvement.

Get Conversation Feedback

Hello, Doctor



Hi, Alex. Good to see you. I heard you were in the hospital.

Yeah, it’s been rough. Just not feeling myself, too much pain and fatigue. I can hardly do anything.



I’m so sorry to hear this. Must be tough.

Yeah, it’s been hard.. Especially not being able to teach my students



It sounds like it’s really affecting your life … your quality of life



Absolutely, doctor. It’s affecting everything. I can’t coach, can’t even look after myself properly.. My mom’s been helping a lot though.

I’m glad she’s been able to help. I’m curious. Did the doctors who took care of you in the hospital share why the pain is worse?

They did… said something about my disease progressing.. Metastases in my liver and lungs. But I don't know, it's all been a lot to take in

That is a lot to take in.

Yeah, I don't want to believe it honestly.. I just want to get back on the field, back to my students. I can't bear the thought of leaving them.

Alex, I can see how much you care about your students and your work. I'm really sorry you are going through this. It sounds like you are worried about not being there for them. Can you tell me more about that?

I've always been there for them. They look up to me, and this.. It's not right. They shouldn't this.. They shouldn't see me like this

I can tell you love them very much

I do, and it scares me thinking about what it would be like without me there for them.

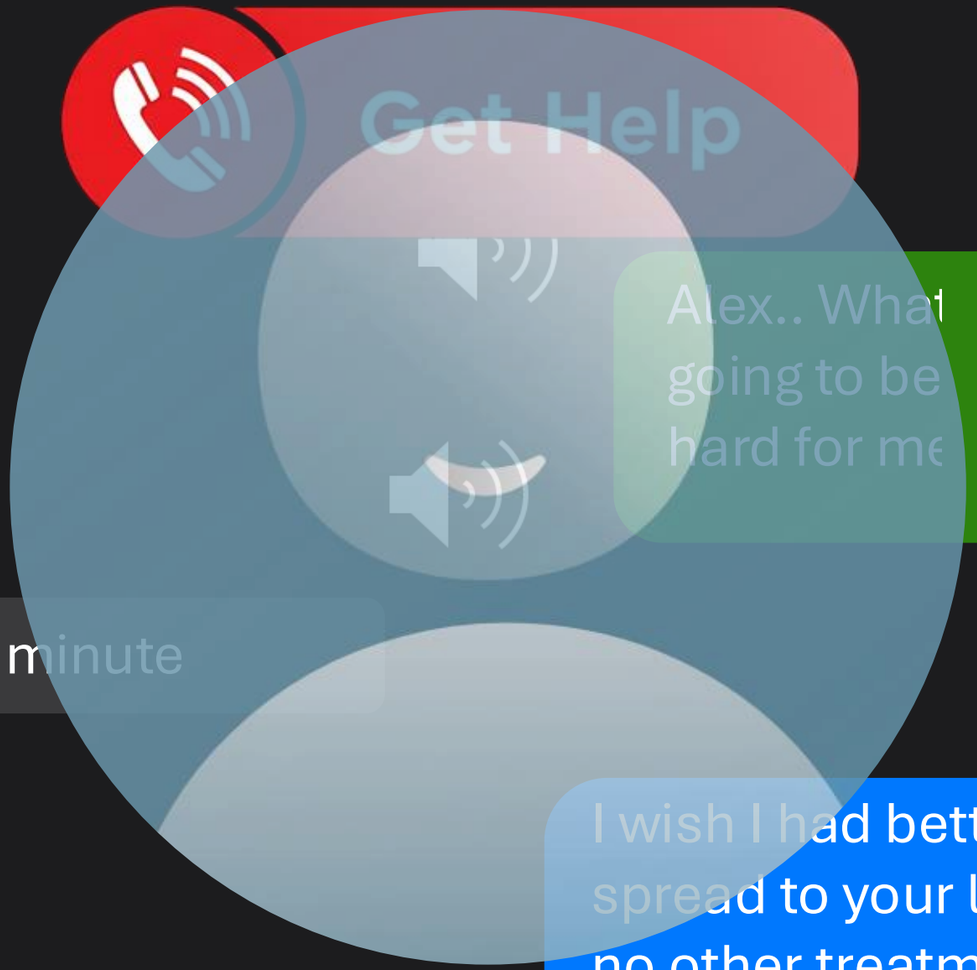
This can be scary for sure.

I'm wondering if you and I might talk more about what lies ahead now... now that we know your cancer has gotten worse.

Are you saying.. Am I dying, doc? This isn’t what I was wanting to hear today …



Are you saying.. Am I dying, doc? This isn't what I was wanting to hear today ...



Alex.. What ext is likely going to be ear.. And hard for me

I.. I see. Okay. I think I need a minute

I wish I had better news. Your cancer has spread to your liver and lungs and there is no other treatment we have to slow it down... So.. Yes.. Your time is short and you are dying.

I.. I just didn’t’ expect it this fast.. It’s too much. It’s a bit heavy for me to process. What about mom? She doesn’t even think it’s this serious..

