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PODCAST

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A good meme is worth a thousand words

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In episode 27 of the OFID podcast, OFID Editor in Chief Paul Sax, MD, interviews Aditya ("Adi") Shah, MD – Chief ID Fellow and Assistant Professor of Medicine at the Mayo Clinic and creator of the cult ID Twitter following #StewardMeme. The duo discuss Dr. Shah's clever social media commentaries and what drew him to ID.

Hello, this is Dr. Paul Sax. I'm editor in chief of *Open Forum Infectious Diseases (OFID)*, and this is the OFID podcast. And as a reminder, that's O-F-I-D not "Oh-fid." Today is a first for the OFID podcast, because we've invited an ID fellow. Yes, an ID fellow. Dr Aditya, or "Adi," Shah, who's the Chief ID Fellow and an Assistant Professor of Medicine at the Mayo Clinic, is joining us today. He's coming to us from warm and sunny Rochester, Minnesota. Adi, welcome to the OFID podcast.

Thank you, Dr Sax. Yeah, it's a negative two degrees. So, shorts weather is in Minnesota right now.

Start us off by just telling us a little bit about yourself – in particular how you found yourself going into medicine.

Sure. I'm originally from a [relatively] small town in Surat in India. I went to medical school in Mumbai, after which I went to residency in Chicago (Go Cubs!) and then I moved to Minnesota to do my fellowship at the Mayo Clinic.

Growing up, I was always interested in forming human connections, speaking with people, talking to people, and I was also very interested in science. So I thought medicine was a good marriage between these two interests of mine, so much so that it feels like a way of life more than a job for me. Growing up, my brother and I also watched my parents grow and be successful in their medical careers, despite being from a humble background. That motivated us both a lot to go into medicine.

So you're a doctor, you've described it beautifully, you're interested in both people and science and that is actually a really good combination for a physician. But why did you choose infectious diseases?

Well, going into residency I knew I wanted to do infectious diseases. I saw a lot of tropical infections back when I was practicing in India. I liked the thinking aspect of an infectious disease doctor along with the skills required to be an infectious disease doctor require that you be a good general internal medicine doctor. Because I like medicine as a whole and I want to keep in touch with all parts of medicine, ID just felt like the right combination of skills that are needed to be a good ID doctor.

Excellent. I think a lot of us chose to go into ID because we imagined ourselves as being the best internists in the hospital. Someone once joked that you take the best cardiologist in the cardiology division and that's maybe the best cardiologist in the hospital. But the second best might be an ID doctor.

That's a good way to put it.

So, let me now shift to the reason why you, Adi Shah, are appearing here on this podcast. You have gained a large and I would say quite enthusiastic following on social media – Twitter in particular – for your extremely humorous posts [under the handle @IDdocAdi]. Let me describe them if I can.

Sure.

They usually include a very carefully curated short video. I'm going to say it's a GIF, although I know some people say GIF, but I think GIF, with an ID-oriented comment. And many of them have an antibiotic stewardship theme. For example, I will share one of my favorites, which shows an adorable baby panda who is clinging to a little ball and little cute music is playing. And your caption is, "Me, when the team wants to use unneeded meropenem."

Now, I would say that's a classic Adi Shah #StewardMeme if I've ever seen one. And, you've now created that hashtag phrase. When did you start posting things like this and what inspired you to do it?

I got on Twitter in March of 2018 after an airplane incident where we, with the healthcare team, were able to help a patient on the flight. But after that, for more than a year, I remained largely anonymous, kind of a lurker in the background. In May of this year, I stumbled upon this medical meme made by an account called @scratchpadMD, where the GIF was a wedding scene where a man is preventing a lady sitting next to him from catching one of those wedding bouquets. And that, to me, reflected a daily ID occurrence on service when ID tells the team

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that you don't need metronidazole when the patient is already on vancomycin and piperacillin tazobactam.

That kind of made me laugh and I'm thinking, "Oh, maybe I can make something similar with these funny looking arrows," and I posted it, and within a day or so that got more than a hundred retweets and several thousand likes and comments, people laughed, people shared. And, it made a nice teaching point that you don't really need metronidazole when you already have vancomycin and piperacillin tazobactam. Caveats are obviously there, but in general you don't need them.

That's how this started, and people have asked me as to how I'm making them. There's really no science to it. If I find a video or a GIF funny, I assume that others will find it funny as well. And if a medical situation coincides with the situation in the video, then I just put it out.

I'm so surprised that my really weird and convoluted sense of humor has been appreciated so much by so many people. And now I've essentially made many memes of diagnostic and antimicrobial stewardship, including the utility of MRSA [methicillin-resistant Staphylococcus aureus] swabs, the controversy about procalcitonin, the big issue of urine culturing, contact precautions for various ID conditions, and the importance of vaccines.

Obviously, my big one is antimicrobial stewardship as to when you don't need antibiotics and when you do need antibiotics. That has garnered so much popularity, has gotten thousands of retweets, millions of impressions and several hundred thousand views / interactions. People have reached out to me more than 30, 40 occasions to use this meme for educational purposes on PowerPoints. And I was thinking, "Seriously? You're going to really use the meme to teach people?"

The basic point is if it's less than eight to 10 seconds, and if you'll laugh at it, and if it makes a point, and if you remember it in a clinical situation moving forward, there is no bigger win-win situation than that, right? So, that's how this is going.

So were you a funny kid growing up? In school, were you the class clown, or is this something that you've arrived at relatively recently?

In school I was a studious kid, Indian doctor parents, that kind of stereotype. But, my sense of humor is owing to my grandfather. He was the funniest person I've ever known, and I spent so much time with him. And, I would call it more sarcastic and quirky and then making a point. Whereas, where you make a point without making the other person feel bad and both you and the other person laugh, that is the best joke, I feel, in times that we live in, where everybody seems to take everything so seriously.

I wouldn't say that I'm a super funny person. I would just say I'm a sarcastic person. People laugh when I'm around, and I laugh from other people being around as well, so I like to have a good time. I guess that translates into Twitter and the analogies that I use on Twitter.

Yeah. On my blog I featured a whole segment on some of the times you made fun of medical TV shows. I've particularly enjoyed one where you showed this incredibly long line of ducks crossing the road and said, "The medical team on morning rounds entering a patient's room." These are actually pretty funny.

Some of the people who listen to this, believe it or not, are not ID doctors, but I do think there is a universality with some of them. I know that not everyone can be as up to date on ID issues and antibiotic stewardship as we ID doctors are, but I think there's a general theme to it that most people can understand. I particularly liked the one where you showed a guy standing at the ocean with his arms raised against the waves, and then "Me: clears email inbox/EPIC INBASKET ☺; 5 mins later ☺." and **he gets covered by the wave." Anyway, perfect.**

Isn't this so true? Like, that is so our life. And especially the duck thing. When I'm pre-rounding or rounding in the morning, there's this jostling for space that goes on on the floors between the various teams. We have such large teams, and that just resonated with me and the InBasket. Oh my God, don't even get me started on that. I can make memes one every day for that.

So yeah, it is pretty funny. And these memes resonate with me as to what our daily situations at work are. And you're absolutely right. In the stewardship realm, we in ID are well aware of the problems of antimicrobial resistance and antimicrobial stewardship. My attempt via Twitter is to not just reach the ID – we already know that this is an issue. But the non-ID docs and the non-medical community, if they can appreciate the importance of resistance and stewardship, then that's a great way to reach the masses, you know?

Absolutely. So, are there any particular favorites you'd like to share? I just shared some of my favorites. Go ahead. Even though it's a podcast, we can link to them.

Okay, great. One of my big career interests is diagnostic stewardship because I feel that in tertiary medicine these days, there's this plethora of resources, facilities. A) there are facilities to do tests and B) there are providers who are skilled to use those facilities to do procedures. I feel that we are overdoing the diagnostic aspect of it, "just to be sure" kind of mentality. And I feel that so many times, because of this approach, we end up having results that we don't know what to make of.

So, my particular favorite was this guy welding a rod in a fence and he welds it from the wrong side of the fence, so much so that his head gets stuck in between the fence. So, he can't really come out now because the rod is already welded, but his head is stuck between the two rods.

That made me laugh a lot, and I said, "Oh, this is exactly [it]." ID gets called so many times because we ordered this test and we have this result as positive. What do we do about it? And, if ID does not get consulted, then that might lead to inappropriate or incorrect treatment for the patient. My strong belief is that if we do not order the wrong test, we will not get the wrong result, which will then prevent the wrong treatment and harm to the patient.

Yeah. Think about all those beta-glucan consults you had, right?

Tell me about it. Or those blood cultures ordered for a patient coming in for an unrelated reason, and a contaminant popping up, and what do we do about it? Or those bronchoscopies in completely healthy patients who are just being intubated, and every possible ID test gets sent from it and some yeast is growing in an immunocompetent patient, what do we do about it?

I think we are overdoing all the resources that we have. And that's why that meme really reflected with me. And the interesting part of that was, I just put it out as a general comment, and then thousands of people from different fields – like a cardiologist will say that [about] troponin usage, a GI [gastroenterologist] doc will say an autoimmune panel, a rheumatologist will say it's a DNA panel. It resonated with everybody, and everybody associated with it. I think it's a very general meme that everybody appreciated.

Let me ask you about your colleagues a bit, and your family. I wonder, what's their response? And then also, in particular, has there been any pushback from your bosses or employers and what are some of the critical things you've heard? So that's a bunch of questions…

I'll break it down into three. The first part about colleagues, I've been lucky to have colleagues who are very supportive. I actually get sent ideas now saying, "Hey Adi, why don't you make a meme about this?" or GIFs or ideas or pictures. So they've, in general, been very supportive.

As I said, my intention is not to blame anybody. My intention is to make a teaching point, make people laugh and move on. I'm not accusing anybody in this respect. So in general, the feedback has been very positive from my employer. However, I did take off my employer name from my Twitter account because I do not associate anything that I do with my employer.

There has been a controversial situation that happened when I had only a few hundred followers. I made a meme that every patient who comes in with strep cellulitis in the hospital gets put on vancomycin and piperacillin tazobactam. I got some pushback from people on that, by people saying that it sounds accusatory, and I took that feedback. I don't believe in blocking anybody or anything like that. I just took that feedback and made sure that the next time I make a meme it does not sound accusatory. So, when I make a meme, I just ask myself, "How does this sound?" If it sounds accusatory, no matter how funny it is, I will not put it out because that is not my intention. And my family doesn't know Twitter, so they do not care about my Twitter activity.

But you might be able to get your parents and your siblings to listen to this, right?

Yes. And, as Indian parents and Indian families are, they are going to be super proud about it. And when you featured my tweet on the [*New England Journal of Medicine*] Journal Watch with the medical TV show, I sent it to them as well and they were all gung-ho about it. So I thank you for doing that.

Excellent. Now, you seem like you're a genuinely kind person, and I think that reflects in what you just mentioned about taking down what seems to me like a relatively mild comment about everybody getting vancomycin and piperacillin tazobactam.

But anyway. Another controversy is the general one of doctors and other healthcare professionals on social media. I can guess your position, but do you have any lessons, any do's or don'ts, aside from that one you just mentioned about being accusatory, for those considering use of social media for education for the first time?

Sure. There's this big discussion about social media and medicine that everybody must have some kind of a slant or general idea of what you're going to do when you come on Twitter. My view is a little different from that. I think you should just come on. I came on to learn from experts like yourself and other people in the field and I still learn from experts like you guys in the field. My general rule – and this is what I follow as a person in real life as well – is just be yourself. Don't pick a fight, and respect every opinion, even if it is totally contrary to your view. Don't go on arguing and fighting. I'm not asking you to accept it, but just respect it without picking a fight.

My philosophy on Twitter has been just learn, laugh, and engage, and don't fight or argue. That is what I would say. Now, if you're posting patient information, or those clinical vignettes that you're posting, just make sure that it is HIPAA [Health Insurance Portability and Accountability Act] compliant because these days everybody is on social media. You have to be very careful, and it's insensitive if you post something which has identifiers. Just be smart about it. Make sure that if you're putting something out, will you be able to live with negative consequences of that if it sounds negative?

One way I've approached it is, I've only gone for controversial subjects when they are ones that I believe in so strongly that I'm willing to take the negative comment. Things that to you and me are not controversial, like being a pro-vaccine physician or being in favor of gun control.

I mean, they seem very straightforward for many doctors, but boy, you can really elicit a lot of controversy. But I'm willing to do that for positions like that. But you really have to be much more careful for things that are more nuanced. Anyway, excellent advice.

Absolutely. And I'd also like to add – as attendings like yourself and consultant, I think you can be a little bit braver about it, but advice I would give to trainees is that you are still under employment and your insurance is still run by somebody who employs you. You still do not have a job. So, you've got to be really careful as a trainee, even if you're picking up a controversial topic with which you have strong beliefs. So, that would be a word of advice. Your level of comfort of addressing controversial topics would definitely be way different than, say, my level of comfort. So you have to be careful as a trainee.

Very, very good point. Okay. I'm going to ask you a question about being an ID fellow. You're a senior ID fellow, you're the Chief ID Fellow at Mayo. Tell us attending and faculty ID types, something ID fellows know or experience or do that you think we don't appreciate, or at least appreciate enough.

Yeah. I actually recently read your blog about the first year ID fellows, and that reflected so nicely with what I feel about this situation. I feel that we are in a field where the styles of practice and the spectra of practice are so wide that you might have somebody who likes to do stuff one way one week and then next week you have somebody who likes to do it a completely different way. So many times in medicine, I've been fortunate to work in environments where this has not been too much of an issue, but this is still a field where the spectra of practice is wide, and the trainee has to adjust to a different attending every week. How about the attendings also maybe try and give a little space and adjust to the trainee? How about that? Obviously, in the realm of logic when it comes to patient care, but maybe a little bit of that.

I also think that as trainees through my career, my friends and I appreciate attendings who would let us discuss our plans out loud without having to think as to what the attending wants me to say because that would hamper the trainee's learning, in my opinion. If you're just thinking, "What do they want me to say?"

Excellent advice. That makes the fellow feel like they're a contributor to the process of taking care of the patients and not just there as a data collecting slave, if you will.

Exactly. And again, I've been lucky to work in environments where the hierarchy is not an issue, it's more of a team-based approach. But I feel that is an exception and not a norm. If there are attendings at other hospitals in the country who are listening to this, maybe a more team-based approach versus a hierarchy-based approach works best for the trainee.

And lastly, attendings come and go off service in spells, right? You have service, then you have admin time. Whereas for the trainee, along with clinical patient care, inpatient you're dealing with InBaskets and emails and research and signing orders, your patients in clinic, and doing scans and faxes, etcetera, etcetera. So I think in the times we live in, the nonclinical responsibilities of a trainee are almost equal to their clinical responsibilities. So maybe some appreciation of that would also help the trainee optimize their training experience.

It's really excellent advice. I mean, there was a reason why I wrote that, because I do think the first year of ID fellowship is very difficult, and almost intrinsically so. One of the things that makes it difficult is not knowing what it's okay not to know, because the patients are so complicated. And trying to figure out what's going on with them is challenging, but you don't know yet that no one's going to know. That's one of the things you just learn from years of experience.

Anyway, Adi, what's next for you? What's on the horizon?

Right now I'm on a very busy hospital service, so that's going to take up my time for two months. July 2020 is when I'll hopefully start my first academic job after more than a decade in training, get a real job as my friends told me. I also have a very strong career interest in ICU [Intensive Care Unit] ID and stewardship, as you know. So my long-term five-year goal is if there's a patient in an ICU on an antibiotic, I feel that an ID doctor and/or an ID pharmacist must lay eyes on the appropriateness of that antibiotic.

Well, Adi, wherever you end up they will be very lucky to have you.

Thank you.

I want to thank you for appearing on this OFID podcast, and just as a reminder to those listening, I've been speaking with Dr. Adi Shah, who is Chief ID Fellow and Assistant Professor of Medicine at Mayo Clinic, and you should definitely follow him on Twitter. Thanks very much.

Thank you Dr. Sax.