Intro and Guest Introduction

All right, welcome everybody. I'm here to do the kind of shit that happens. You got us kind… One quick question before we go. So what's your policy on cussing here?

That's free. Free and open. Literally call the Jafford cast, just another fucking ER doctor. Welcome everyone to this episode of the Jaffercast. I am your host, Dr.

Mark Papadakis. Nobody particularly special, just another fucking ER doctor. This week, I have Dr Kenneth Swanson on here with me, infectious disease specialist and one of my former classmates as well.

We're gonna be talking about measles, vaccines, and in general, tips about how to be a better doctor for those of you physicians and even nursing who are listening to the episode aswell.

So, without further ado, let's get him in here. All right. I'm here with our guest for this week, Dr. Kenneth Swanson. Kenny, how are you doing? I am great.

How are your Mark? Doing fantastic. Thanks for being on the show. Really appreciate it. Well, absolutely. It's my pleasure. So Kenny tell us a little bit about yourself.

Obviously at this point, you're my colleague. You, we, and I went to medical school together. Uh, but tell a us little more. Were you trained, were you currently working, things like that?

So my background is a bit all over the place. And I think that actually makes life a lot more fun. so I was originally from the suburbs of Chicago. I went to college at Michigan State University where I got a bachelor's of science in zoology with a concentration in animal behavior and neurobiology.

Really? Yeah. I did not know that. That's new for me. We're learning new things. So, you know, the classification of organisms, both beneficial symbiotic and detrimental to us is really been part of my background for a long time.

And as you know, I went to medical school at Toro College of Osteopathic Medicine and a place that really broadened my cultural background and understanding of the world, Harlem, New York, and also- Right in the heart of Harlem.

125th Street, man, right there, crossing the Apollo, everything.

Medical Training and Career Path

Absolutely. It also really broadened my food palette too. There's so many great things to eat there too, which was always a lot of fun. And then I went on to do my residency in Park Ridge, Illinois, outside of Chicago at Advocate Lutheran General Hospital.

Then I moved to Milwaukee to pursue my fellowship in infectious disease at the Medical College of Wisconsin. Your residency was in what? What did you actually do your residency training in first?

Internal medicine. Okay, so internal medicine followed by infectious disease fellowship. And how long was that fellowship for? Mine was two years. The fellowships for infectious diseases can really vary widely.

Normally, it's two-years. If you do an extra research year, then it becomes three years, and then there are some places, some universities, you can go as long as four or five, six years, if you really want to do a lot of research.

And then I went on to take my attending position at Aurora St. Luke's Medical Center in Milwaukee, which is the flagship hospital for the system in the state and is now actually merged with Advocate.

So it's all through Northern Illinois, most of Wisconsin, and they've even merged another group in American Southeast Atrium Health. It's a pretty large system.

And you guys get, obviously if you're at the, we call the mothership, right? So you were, you at main big hospital, a lot of side like little hospitals, but then you get I'm sure transfers from your outlying hospitals all the time.

And those cases, infectious disease, must steal a, lot, of stuff. We do. we are the main referral hospital for the state for, the Aurora system. and we even get some from the upper peninsula of Michigan.

There are a few large systems within the State of Wisconsin. there's also Frederick and the medical college. And then there's also University of Wisconsin system too.

So I'd say there are three major, major hospitals in the state, all within a couple hours drive of each other. Then that leaves the whole rest of the State to refer down here, unless you're in Northern Wisconsin, then you can come here.

But sometimes you end up going up to Mayo and Minnesota, which is close. So there's a lot of talk about healthcare deserts, especially in the US. You're all the way in Wisconsin, we're talking about Illinois.

Obviously, Wisconsin isn't not necessarily rural America, but there are definitely parts of the state that farmland and there is really, you know, general lack of civilization outside of your small towns.

Do you find that the people coming to you from these outlying hospitals have not received a care, medical attention, or are they perfectly well taken care of in their own community and they just get complications that they can't handle?

And that's an interesting question and that really does vary as you would expect anywhere. Now what you'll notice in a lot of the major major metropolitan centers in this country, especially in the American East Coast, what your used to, is there does tend to be a little bit more of a gradual transition to urban, urban to rural, right?

You're going to get the big city, then you'll get the suburbs, and you get to the exerts and the farmland. That's a little bit more of a rapid transition in the state of Wisconsin, whether you're in Madison or Milwaukee or in some of the other places.

You know, you make that transition very, very quickly. If you want to drive from the heart of Milwaukee into straight up farm land, It's not that long of a drive.

You know, if there's no traffic on the highway, whether you're going west on 94 or north on highway 43. Oh, gosh. On a normal day, 25 minutes at the most.

It is not a far drive, but again, it depends what you are going towards. I'm sure you'll have people who listen to this from here that might say, well, no, If you driving this specific direction, It'll take you 35 minutes, but generally speaking though, you can make that transition quickly.

But then there are places in the state where I would definitely consider the availability of care a little bit difficult. And that especially is true within VA.

When I was in fellowship, I wasn't in VA and there were a lot of places where telehealth was really the main thing, where people would have to transfer in, although the VA footprint has expanded.

I don't know what's going to happen now with the funding issues. But I was going say now there's a push between not even just the overall federal government.

Healthcare Access and Rural Literacy

I mean, Medicare and Medicaid have been paying less for telehealth over the course of the last five years, let alone the fund discussions occurring right now.

Yeah, but before segueing into that, I'll answer your previous question. Some of the systems here have done a really good job setting up hospitals and clinics in areas that would otherwise be pretty underserved within the state of Wisconsin.

But I do find that the healthcare literacy could be better in a lot of rural and middle of urban areas. Whereas in some cities, you'll find that disparities in healthcare literacy among patients is very clearly different in rural areas as they are in the city.

Whereas here, I find healthcare, literacy could be better across the board. I really do feel that way. And you're seeing a lot of the same healthcare concerns in patients who live out in The Dairies or out and these places.

In the rural areas, as I do see in the middle of the city, you're seeing a lot of diabetes, or seeing the obesity. I've actually joked that there should be an epic dot phrase for the Wisconsin patient.

Diabetes, hypertension, obesity, it's the truth. And that's not a judgment on the patients. That's just, I think, unfortunately, an education problem in general.

Yeah, and it's indicative of health care in America right now too, which is a lack of reliable education. I've said this before in other episodes, a lot of a reliable educational, it is lack too much information sometimes out of fingertips and lack the ability to parse through that at a reasonable rate to figure out which reliable, not, anecdotal, more evidence-based.

It's also a difficulty with doctors and healthcare people in general getting to those parts of the country to educate people and provide these care because at the end of day, home remedies still exist just because they can't find a doctor.

They can afford a Doctor or medication and things like that. It makes sense that… You know, you talk about how, the whole, that area that you're serving right now, there should be an epic dot phrase.

I've felt the same way when I was training in Harlem, it was the thing, diabetes, hypertension, obesity. We should also need a dotphrase and it's a lack of diet, exercise, lifestyle, but a lot of these people have poor access to any of those things, which makes them more at risk.

So it wasn't even just a discipline issue. It's an access issue too, for these things. And I would even take it a step further because when it's not only the information, it is not just the access.

It's what do you do with it? And why? Why should someone listen to someone telling them what to do? You know, we come and we see a patient. By the time we've seen them, sometimes they haven't seen a doctor and it isn't just access, It's why should I listen to this yuppie over here, right?

Why should i listen this person who has no common experience with me? Right? You know, they don't understand my life. They're not out there on the combine, They haven't gone to the school of hard knocks in the street like I can.

You're a city boy. Right. And so I think part of it is people feel othered a lot by the healthcare system. Our establishing credibility begins when we walk in the door.

They might assume that we have preconceived notions about who they are based on their background and what they look like. and they have that about us too.

Honestly, why shouldn't they? I've heard a term that at first really made me angry called medical gaslighting of doctors, you know, not listening to people or making them feel small or make them feeling stupid.

And at the first I got mad about that. I go, we don't do that and I think for part of it is we do not do it intentionally is what I should say. It's very similar to another article I read about people in memory centers referring to older people with elder speak.

Oh, hi sweetie. Hi, can we go to the bathroom? You know I talk to other people like they're human beings. And when you're giving them advice on how to do it, share your own experience.

You know, there's this big taboo against that. I don't think we should shy away from that when it's relevant. We should be telling people, hey, you know here's why I think this will help you.

It's your decision, the X, Y and Z based off of your life and experience, which hopefully they would have given you some information on that and part of the way that I do that, I try to bridge that gap.

The second I see some new patients in clinic is I say, look, I've read your chart. I spoke with doctors so-and-so who sent you here, but I want to know why do you think you're here in my clinic right now?

You're in the infectious disease clinic. Why are you there? And that's something that I agree and that something I have to do better of as well because oftentimes people present to the emergency department because their doctor sent them in and they don't have a good understanding of why they're there to begin with.

That's not a small percentage either. It's a pretty decent percentage. And for me, it's frustrating because I'm in emergency medicine. What do you mean you don't know why you're here?

What's your emergency? And, you know, at the end of the day, they're presenting to you because something is wrong, either because they realized something was wrong or somebody else told them, hey, something's wrong.

Go there. And it's our job to parse through that. Somebody wakes up at three o'clock in the morning, one o´clock, and they check their blood pressure.

They come to the ER. Like, well, my blood is high. Well, why are you checking your blood at one, three in morning? Well, I woke up and I couldn't breathe.

Okay, let's talk about that, you know? So yeah, it's being able to sit with a patient and relate to them to some degree to give them care that you are confident in is best, but now you have to in some way convince them this is the best thing for you.

And here's why. That's a challenge. We talked, you and I personally, about this many times, how different generations see us differently. They react differently, so a generation that's much older than us was instilled to them that this is a doctor.

You listen to him, You don't ask questions. you don' ask for clarification. Don't intervene with your own personal concerns. It's you go to the doctor, listen, go home.

And for now their children who, you know, they come home and say, I saw the doctor. What'd they say? Well, what do you mean you don't know? They said, it'll get better.

That's it. And then their Children now calling us and calling up and saying, Hey, What happened? What did you say here? Didn't you ask this? So now there's a generational issue that we're seeing with older patients, especially in the ER where, Older person comes in, I see them for X or Y.

I send them home and their kids are calling up and saying, what'd you do to them? They didn't tell me, they didn' know what you did. It's like, well I went over it with them.

Yeah, went it over with, but they just kind of like looked at me nodded, smiled and said, okay, thank you very much. Goodbye. And that's not right. That's right, and it's hard, given how the pressures we have for volume of patients to take a beat and say, Hey, repeat back to me what you heard in your words.

And cause sometimes we can do that, but sometimes time is, is pressing. Then it is important to do it because sometimes when I'm busy and I don't do, that then it makes more work later when, as you're saying, the kids call back or they call that.

Right. and that is hard. I think that that a real issue that you've brought up and a really good point. The problem with our profession, in my opinion, is that it's kind of like Congress.

It's being run by people, so many people over the age of 60 nowadays, you know, like the dinosaurs, the doctors who have retired, but are still in power to some degree, who are so making the decisions and the big agencies and all that.

And there's very little input to it with the younger generation too. The older generation, you know, the baby boomers, obviously, and some of the Gen X, they respond to, well, I'm the doctor, here's what you do.

And I say, okay. But the vast majority of people nowadays are not, that's not what they're doing. You know? It's their, They have access to medical data that usually was only restricted to Medical Professionals and they don't really, can't interpret the data.

They know it's there. they can read it, but they cant interpret it. and now you have a wave of, Well, I know what I'm going to do, what's best for me, and what works for you.

So therefore I'll take your opinion with a grain of salt, or I will take it in part, but I am going go ahead and do what i do. Or they're going shop. They're gonna shop around for the person who they agree with and who agrees with them.

And therefore, okay, you're now my doctor. You're the one I agree. We've clearly seen that leads to some shit. I would actually take a step further because what i found with people is is your point you know there's the paternalistic nature of medicine where you notice hi i'm the doctor i walk in my white coat i have authority here's what im gonna do and when people respond to that.

I actually haven't found it to be positive. I stopped wearing a white coat in fellowship. When I started at my job almost four years ago, it hasn't left the plastic, frankly, and people have different opinions on that.

Like I have some partners that wear it and some who don't. And what I had found just for me personally, I can only speak from my opinion because I don t know what it's like to someone who is a minority physician, right?

Because what happened Sometimes people have their preconceived notions. And I'll just say I understand that people see a white guy, they're more likely to see me with the presence of authority.

Building Trust With Patients

That's wrong. Like that's messed up. But unfortunately, that is part of people's cultural gestalt here, at the people speak. What I have found personally for me, again, I can't speak for anyone else.

I don't know what it's like to be a woman in medicine. Because I know for several who have told me that, unfortunately if they are not wearing the white coat, people assume they were a nurse.

Which that a whole separate discussion that I no need to talk about. Yeah, I've had colleagues who they wear the white coat and people still think they're a nurse.

Like, it's just, you know, they see a woman, and they are like, oh, get the nurse! I know right? And I'm hoping that

that's different and I do practice in a city, in city setting.

So luckily that is not as prevalent as it was in some places, or as is in places where, people have a slightly different set of values. But for me, what I found is taking off my whitecoat, there is a little bit less space between me and the patient.

I feel out the situation, of course, but what a lot of people respond to, regardless of their generation, if I speak to them like a human being, not like, a disease or a case, then…

They tend to respond better, and they tend take my advice more. If you let them know, hey, this is what I'm telling you, I am not perfect, but based on my experience and the best available data right now on your current condition, This is What I recommend.

Or I'll say, Hey, there's two equally good options here. Here are the risks and benefits of either one. You make the decision and I'm here to support you and help you the best I can." And people do tend to respond to that and give their intelligence credit.

And you tailor the information and the delivery thereof based off of essentially where they're at. And when people start to go down the rabbit hole about things that are not well supported, even if it's a firmly held belief, I've told a couple of colleagues, if a patient goes down a rabbit hold, jump in with them, meet them where they are, and then bring them back using language that they will understand.

Or try to listen to their experience and try and use their experiences to help guide them in a direction that you feel is the safest option. Do you find that your younger colleagues respond better to that advice than your older ones?

Do have older colleagues, do you have younger college? I don't even know your group really. And that's a really good question. I have found that as anyone gets older, the ability to change your approach is difficult.

Some of my older college have been very very agile with things. They've been able to respond. So my oldest colleague started our group, I believe in the late 70s, and he's still going.

He's in his 70's right now, he has actually been to pivot really well on things, we have a nice wide variety of ages in our groups. And granted I can't always get through to patients, but I do my best.

I think that's what patients really want to know is that you have their best interests at heart, you respect their values and their intelligence and you're trying to help them meet their goals.

Yeah. And that's, that the thing at the end of the day, every doctor is going to approach, not every doctors going get through to every patient. You know, there's going be preferences based on a variety of factors, many of which you cannot control.

If you're an asshole, you can control that, but if you don't know you are an ass, so you cant control, thats a problem too. You know, some patients respond better to that too, you know.

And if you talk to them like you're out having a beer, they might actually listen to you more. I try not to use ivory tower language, or sometimes what I'll do is I use the medical term for something and then I say, hey, let me translate that into English for you.

People tend to like that stuff too and that actually does, I think, dovetail really well into the discussion on measles and all things surrounding that controversy.

And you also have people who are very educated, you know, or at least book smart, educated. And so when I told a patient recently, I had a patients with a pretty bad asthma attack who later on I ended up admitting and I said, okay, we're going to give you a few medications, albuterols and inhaler.

We're gonna do a steroids, so I imagine we'll give magnesium. And his knee-jerk response is, well, magnesium is not a medication, it's an element, we all have it.

And he's not wrong. I said, you're correct. We all do have that, but we combine it with magnesium and sulfate and mix it into a liquid and then it becomes more of a meditation that we can give to you.

you know, like respecting somebody's knowledge and intelligence and say, okay, you recognize magnesium as an element. So what exactly are you giving me here?

We all have that. How's it going to help me to say to further now being able to define, well, this is how it's going help you. And this one thing I teach my residents, which is you got to know your medications that you're using.

Because when a patient asks you about its details, if you can't answer it to some degree, I'm not saying you have to every single bit of pharmacology, but if answer why we're giving you common medications for common things, then that's a problem.

And you are going to lose the trust of your patient, or they're going let you do it because you're the doctor, but they are not going like it. That's going reflect poorly on you, more as an individual, less on the institution, whatever the case is.

It's something I call, I tell residents, it's suddenly I called humble credibility. You know, if you make it clear to your patients that you're aware of your limitations and you made those limitations clear, you don't want to do like, oh, hey, by the way, i am terrible at this, but I'm really good at.

This, You don' know you have to phrase it that way. But what we can say is I'll give you an example where if I making a decision to give someone in an antibiotic for name your condition, right?

And they'll say, is this going to cure me? What else say? Is this? What I'm doing right now is trying to cure you. Will this come back? Maybe. Can I guarantee success?

No. I am trying give you the best possible chance of success here. What I'll say is it'll treat this current infection, but to reduce your risk of having this happen again, you need to take care of the core problem, and that's the swelling on the leg.

That's taking your diuretic, your water pill, as some people call it. Once it's safe to do so, once the cellulitis is dealt with. And here are my limitations to trying to treat your condition, but what I'm doing right now will help you now.

One of my things that when I have residents or trainees is, well, my first thing that I say is whenever you have a new patient, the two T's, check the teeth and toes.

It'll tell you a lot about a patient and their current state of health. The other thing is it helps to give a shit. You know, if you care about a patient, you know you don't just see them as a gown or something.

It's exhausting physically, mentally and time-wise to kind of to do that, but you get better outcomes. But when you're trying to tell someone, I think our generation responded better to this too, is here's the treatment I'm giving you and here is why based off of this information and hear the limitations of it.

And this is where this, and here are the areas that this treatment may fail. So I need you to partner with me to let me know if you're experiencing this symptom, that symptom or that symptoms.

Because that'll tell me that, this isn't working the way it's supposed to. And then we'll follow up. One, they're forced to understand what we're doing and why.

Two, again, shows they are dealing with a human being that cares. Or at least understands where they coming from and understands their concerns. That's a better way to put it.

Yeah. Right now, as of this recording anyway, measles have now hit a 30-year high. Measles cases have hit 30 year high in the United States. We reached at least a thousand cases in The U. S.

And it's mostly among the unvaccinated communities. Obviously Texas pockets here and there in Northeast, but it spread from Texas out to the overlying states.

Now we have to talk about vaccines to some capacity. we're going to have a separate discussion on vaccines later on, You mentioned about limitations. And I think at the past five years, the limitations of vaccines have kind of been an underlying theme of the, shall we say the anti-vax argument, which is, well, I know so-and-so who got X disease and they got vaccinated.

You know, none of us in healthcare, and none us who are physicians look at that and are surprised by that, we look them and say, yes, yeah, that's expected.

We anticipate there being breakthrough infections even among vaccinated individuals, whether that be measles, whatever, rubella. Obviously COVID and flu have been bigger discussions the past five years, but how you are infectious disease.

First of all, do you deal with a lot of vaccine preventable illnesses where you're at right now? Well, I'm not in pediatrics and I'll start with that.

But as far as vaccine-preventable illness, how many do I see? Not that many, to be honest. I did recently have a patient with fresh heart transplant who got pertussis and he thankfully did okay with treatment.

And pertussis being that whooping cough, right? That really like bad, like kind of coughing. I can't do without actually hurting myself, but it's not a pleasant, if you ever heard a child or even adult with that cough.

It sounds painful, incredibly painful. Yep. And it is easily vaccine preventable. People do die of it. This gentleman did okay, fortunately. But as far as vaccine-preventable illnesses, I'll say that there's a wide breadth of them that I'm dealing with consistently.

But there's a large number of people with vaccine preventable illnesses that I deal with, mostly influenza and COVID. You know, I see a lot of that. But to qualify it, talking about limitations, something that i do have to make very clear to people is that the influenza in COVID vaccinations aren't necessarily there to keep you from getting those illnesses or to keeping you dying of them and keep being hospitalized.

And I think in 2020, 2021, you got the COVID vaccine, and it was the first time in a while that we had a vaccine that actually prevented illness.

Vaccines, Hesitancy, and Risk Communication

And people are equating it, at least in my circles, with the MMR shot, where you've got MMS shot. You didn't get the diseases. When you get to first doses of COVID vaccines, people did not get COVID, At least until the Omicron variant came out, when it became a little bit more milder and changed so dramatically that the vaccine wasn't as effective.

But even now, we're still seeing people who get the influenza and the COVID vaccines not being hospitalized with them. They're sick, but they're not so terribly sick when they need to be hospitalized.

And we had a pretty bad flu season this past year. I don't know if you felt that out in Milwaukee and Wisconsin as well. Yeah, I did. That's a good point.

Early on, yes, it really did prevent illness, just not anymore, and I think setting the expectation really again, helps to bridge some gaps and has helped me to get people vaccinated.

And then, you know, I've heard people give reasons for not getting COVID shots, but one newer phenomenon too is people got the original series of the COVID shot, so they're not giving the booster.

But some of conspiracy theories are out there. I do try to address those as well. What, as far as the measles go? So you obviously don't deal with pediatrics.

We had a whole segment, a show on pediatric fevers, and I actually recently talked a bit about the RSV vaccine, where there's data that shows the Rsv vaccine significantly reduced hospitalizations in infants and pediatrics with RsV.

How do you approach the topic of vaccination now? Because you don't just work primarily, you see patients who are sick from other chronic diseases that are more at high risk.

from disease that can easily be more treatable and more managed with vaccination. Emission pertussis being one, how do you approach that conversation?

Well, and I'll start with saying sometimes we do have to give these MMRs even to adults, especially people who are anticipated to be immunocompromised later, because then they won't be able to get live vaccines.

So that's one area where we see that. How do I approach the vaccination conversation. Well, I start by trying to see where the patient is at with it, see what vaccines they've already gotten.

And that can help me to launch into the conversation of, well, what have you already got? And what might you be willing to hear from me now? That's where I started.

I try to figure out their life experience and what their hangups might be and address those in a respectful way. What are the common hang ups, shall we call them?

What the are common issues that you've seen people have with the vaccine? It's not all autism. Right? Like autism obviously is a big one out there. We're not going to address that here, but autism is obviously being one.

Are there any others that you've seen? A couple as well. Well, especially when people do ask me about vaccinating their children. Again, I don't do PEDs, But you know, we need to have a really good backbone of understanding about how these things affect children and adults and what the risks of adults transmitting infection to children are.

Cause a lot of people are exposed to the children or children exposed them routinely. So a of the issues that I hear from people is, well, this is lot shots all at once.

Am I going to feel terrible tomorrow or is this a lot for my immune system to take all at once? Or, Hey, will this make me sick even temporarily with the illness you're trying to vaccinate against?

So those are some of the things I hear. Then you get some other fringe like, Oh, is there a microchip in this? Will it make my sterile? Well, it may, you know, make, my arm blow up or one time I had.

I caught cellulitis in my leg after I got a shot in the arm. Therefore, that's what did it. Or, you know, I do get legitimate questions about these things.

Another one is Guillain-Barre. People ask about that too. And that is a complication that people need to be made aware of. But also, we as doctors are aware as well, but that as a possibility.

Obviously, with COVID, where we saw myocarditis as the side effect in younger people with the COVID vaccine. but the caveat to that, is well COVID itself causes myocarditis, especially in younger people.

So the incidence of the, when we say something like an, like incident where we talk about the number of cases with it, the incidents of a younger person getting myokardiasis with COVID is a lot higher than the people getting

Myocardiitis with the vaccine.

And the Myokardiases that get from the vaccines is oftentimes very, very short-lived as opposed to somebody with Covid-19, they can wind up in the hospital, sometimes the ICU with Myrokardiasis.

And one other vaccine that we talk about that, we talked about with our patients, but doesn't get enough press time is the shingles and the pneumonia vaccine.

So that's obviously geared towards older adults, what pneumonia, the vaccine doesn' t treat or prevent all pneumonia. It prevents a certain strain of pneumonia Can you talk abut that a little bit?

Yes, I will. But first I'll say, yeah, with the, something I say that a lot of this, some of the side effects of COVID vaccine, you'll get all those things, but worse with COVID itself.

With the myocarditis point, usually not only sick with myokardiasis when you have COVID, also the respiratory failure. So there's that and then long COVID and all that.

And that's another discussion. Um, so the pneumonia and shingles shots, and I also take. that a step further for the meningitis ones, Menveo for, you know, ACYW and then for B strains.

They call it the pneumonia vaccine because you're vaccinating against the most common pathogen that causes pneumonia, streptococcus pneumonia. So, but what people also don't realize is strepococus pneumonia across the board is also the more common that cause meningiasis as well.

So I do talk to patients about that as well, that it doesn't prevent all types, but why not give yourself a vaccine that will significantly reduce your risk of getting pneumonia from the most common pathogen.

And the way that is with the newest vaccinations, the courses are shorter than they were and the side effect profile is better and immunogenicity is really, really good too.

So the way I talk about it with patients is that when you get to these ages or demographics or risk factors to get pneumonia, your risk of a fatal outcome with pneumonia is so much higher.

And that's why you want this vaccine because it's going to reduce your risks of getting really sick or even dying. So measles can cause something called encephalopathy.

It's not meningitis per se, but it can caused complications like en cephalopasy. What is encephalapsy, first of all, and is it deadly? Is that what's, is that, what kills people?

It is like something else from the measle that kills, people, how does that work? So enCEphALopathY being altered mental status, that's more of a side effect or a downstream effect of enCephalitis, which is the rare, bit serious effect, of having the measles.

So that's an extreme example. And that does happen enough that that is a problem. The most common problems with measels, really, you're going to start with the most recognizable, I'll say, is the rash, which is pretty common, right?

You get conjunctivitis, cough, so you can get pretty sick with it. We'll talk about the things that really concern people. How often are people hospitalized with the measles?

We hear people say measle isn't a big problem. And then I'll circle back to that question. There was data out fairly recently that something like 10 to 15% of people require hospitalization due to illness of measlez, mainly kids.

That really does depend on your age group. This is really something that impacts children more. some data that showed something like 20%, 20, 25%. And I'm sorry, it's not an exact number of kids under five require

hospitalization for various issues.

We don't worry about exact numbers anyway. It's fine. Don't. Not only is that I pulled numbers out of my ass all day long. That's fair. So not only, is it the encephalitis, but I'll get to the more common one.

Pneumonia is a problem. You know, especially in kids with weakened immune systems. And then when you get up to like 5 to 20, it's like 10% of hospitalization or down to 10%. And when your over 20 it is usually somewhere closer to 5-10%, maybe 7% is something I read.

But pneumonia is a common complication in kid's. Encephalitis, I'll get to that now. That's only something like one in a thousand cases. It is serious.

Subacute sclerosing panencephalytis. If it sounds bad, its because it IS bad. The longer the Latin name, it's usually pretty bad. What is it Conrad Fisher said?

The difference between the English word and the medical word is the cost of tuition. And so what it is, is its brain inflammation. It's panencephalitis.

Pan being not a kitchen utensil, its everything. You get encephaleitis, which literally means inflammation of the whole brain. And sclerosing means it hardens, it gets scar tissue.

It's horrible. That's something that can kill people, right? And so, what was it? Something like three confirmed deaths of measles as of last time I looked in the United States.

And it's a horrible way to go. Your brain is getting inflamed or your lungs can't get air, you know? So when you die of the measels, It is a bad, bad death.

One thing that people don't appreciate is, American hero, Lou Gehrig, He was one of three kids. Two of them died of vaccine preventable illnesses. Now, they weren't vaccine-preventable then.

One of him died to the measles. And that's one the reasons why the MMR shot is recommended for those born after a certain year, just because it was so prevalent.

you know, decades ago that it was thought that, well, you don't need the measles if you're over this age because you probably already had it. It was so prevalent.

Yes, we've seen childhood mortality drop significantly since these vaccines were introduced, specifically the MMR vaccine, because these kids were dying from measels and rubella and pertussis and all these terrible diseases.

I think the average life expectancy has increased, not because people are living to older and older ages, but because the amount of children dying has decreased.

So, so much that the age of the person has just increased dramatically, even over the past 16 years. Right. That's true. I was reading a statistic that I believe in the year 1800, the, average child had about a 60% chance of living past age five.

Measles Severity and Complications

Was it 40 to 50%? Terrible. Yeah. And that's also why people decades ago had more and more children. You started, marriage was at a younger age and as soon as you were married, you had kids because there's a good chance that of the four or five kids you have, two would probably die before they reach the age of five or something like that.

Right. Again, Lou Gehrig was one of only three to survive childhood. Abraham Lincoln had already lost a child before he even left Illinois for the presidency.

But getting back to measles, you brought up an interesting point and we also discussed about vaccines preventing illness and how I discussed how a lot of the ones like COVID and the flu no longer really expected to prevent illness or expect you to, they're there to you from dying.

As you mentioned, the measles vaccine is an interesting one because it does prevent illnesses, but then herd immunity is the other thing that really prevents illness.

If nobody's getting the illness, no one's going to get it. Whereas the measles vaccine MMR is very effective anyway. You have over 90% effectiveness even from one dose of preventing that when you're exposed, say someone with the Measles is around you and you've gotten even one does you have 93% Prevention rate, two doses is 97%. And that's important to know for parents with children because the second dose of the MMR vaccine is not given until the age of five, four.

I want to say, I have to look that up. The second dosage of M MR vaccine isn't given, until basically the kid goes to school, preschool, kindergarten.

So the first dose is given when they're one year old, when the hit their 12 month birthday. And so in the interim though, you're thinking, well, gee whiz, how effective is one dose of this vaccine?

Pretty goddamn effective, believe it or not. And there's always concern with the measles outbreak, like how do I protect my child who's in 19 months? You know, and the answer is if they've been vaccinated, they're already pretty well protected, but it's how, do, uh, How do we protect our child?

If they are six months, the answers is herd immunity. It's the idea that if you've vaccinated if your around other people who have been The ability of the virus to get to your child is significantly hindered already.

But, and this is another question I have for you is, how contagious is measles? Very. Very, yeah. The answer is going to be very. Well, the way I was going express that is…

It's the type of isolation you put someone in who is sick with it, right? One of the few that's airborne. So in the hospital, everyone's wearing an N95 near the patient.

It is very, very transmissible. How transmissable is it? Are we talking like if I'm sitting next to you in a subway car for five minutes, am I going to get measles just from sitting like that?

It depends. Am I coughing? Am i aerosolizing these things, you know? And also the part of it too is you don't always have to be, you know, one of the benchmarks we use is are people showing symptoms, right?

So the contagious period really for this virus, about four days before the rash appears and about maybe four day after the rush goes away you can still be contagious.

You can really spread it again through airborne transmission. coughing, sneezing, direct contact with an infected person's respiratory. So if we're sitting next to the train and you kiss me, you're going to get the measles or even if you touch something.

Well, Kenny, that's fine, though. We go way back, but not that far back. Or if you know, I hadn't washed my hands after I sneezed and we shake hands, such a face, you're going to get it.

And let's say that somebody's in a restaurant and they're coughing and the were diagnosed with the measles and you come in after them. They're not, they are longer there and then you coming in, after then, can you potentially get.

I don't know the exact time, but if it's still hanging in the air, you can. I mean, it is so infectious that if someone's unvaccinated, something like 90% of un-vaccinate people who come into contact with someone are going to get the measles.

And it also, keep in mind too, has got over a 75% secondary attack rate. What does that mean? So, you know, if you get it and there's other people who are household contacts, someone who gets it is going to transmit it a lot more frequently.

Without getting too academic, to explain what exactly that is because I'm getting a little bit too much into my… into my ID group, but it's like if 10 people, let me give a better example here.

It's basically, what it basically measures is how many, and to keep it in English, it is, how may people become infected with the disease after being exposed to somebody with it, right?

So if somebody, if ten people live with someone who has measles and eight of them get measle, that's an 80% secondary attack rate. Okay. That makes sense.

Yeah. I can, I like whole numbers, you know, are like decimals I'm terrible at math. So whole number is like 110. Perfect. Is there, is there a treatment for measles?

You get an adult now who comes in, who's hospitalized with measels for whatever reason. Um, they get pneumonia. Obviously you can maybe treat the pneumonia, maybe.

I don't know, actually, can you treat the pneumonia complicated by measles? Is it a bacterial pneumonia or it's a viral pneumonia? So direct treatment, there has been some talk of vitamin A being helpful, but really prevention is the main thing.

There is post-exposure prophylaxis, which you can do. Some people before we get, I mean, don' want to get too much into details on that, But there is a window of exposure when you get vaccinated and also get into venous immunoglobulin if you have to.

So for those who have not been vaccinated or who had been vaccinated but exposed, who is that useful for? Non-vaccinated and especially with individual immune status compromised, that's the main one.

But as far as treatment goes, vitamin A is something people have talked about. But where I will see it if I do is mostly when I'm treating people for secondary bacterial infections.

Okay, so vitamin a let's talk about that a little bit you are You're obviously infectious disease. You don't deal with toxicology in any capacity. Vitamin A is a common vitamin that's found in many different foods.

People take it as a supplement. It can help with vision. I understand it to be, you know, some people say that, oh, take vitamin A or K, pruder eyesight, whatever.

But vitamin a is part of a family of vitamins, A, D, E and K which are fat soluble, meaning you intake them via whatever means, supplements, food and storing in your liver.

And when it gets low, your lever releases it to keep a steady supply there. Not everybody is deficient though in vitamin A, right? So now you have a situation where somebody comes in who overdoses on vitamin and you're seeing encephalopathy, en cephalitis, not from the measles, but from vitamin a overdose, complications with liver disease, liver failure, things like that.

Prevention, Treatment, and Closing Thoughts

If you get somebody who comes in with the measles, you, your hospital, or your clinic, whatever, have a protocol that says, we need to give this person vitamin A.

Or no. Most of the time when people get to meet with measle is because they have the secondary pneumonia. But that's good to know. People come, by the you see these patients, they've already had a secondary infection and you're more focused on treating the second infection, not the primary source.

Largely because there's no treatment for the, primary, source, right? Correct. And it's, that where things really, really shit hits the fan. By the time they have a secondary infection, a second complication, can you give any semblance of a number, ballpark number of survivability?

I don't have ball park number even a really a broad one because frankly yet we're not seeing enough of the secondary We're not seeing enough of the measles in adults yet to give a good answer on that.

Really more of my- So that's a Good thing. Right, so far. You know, where I see more that is with influenza and COVID. And when people get those, you know back during the Delta wave, the survivability was very bad, because not only were we seeing people with severe COVID, but they're also sometimes needing some pretty significant immunosuppression, high steroids, or example, anti IL-6 treatments, as you And then people's immune systems would be way down and we would have to prophylax against pneumocystis.

But when people were getting secondary bacterial pneumonias, that was pretty bad. They were sick enough already to get that, but I was also seeing a lot of secondary fungal pneumonia too with aspergillus or even mucormycosis, the survivability there was really tough.

And those are terms you don't hear every day, right? Like, mucosal, aspergillus, you're like, holy shit, what are those things? Those are very rare infections for a reason.

They only affect a very small percentage of population, mostly those who are immunocompromised for one reason or another, which is why it's always important that if you are going to If you know you're going to be immunocompromised for any reason.

You know, organ transplants, even like undergoing surgery or like high dose steroid usage for your asthmatics is some form of immuno-compromisation. Even like diabetes can sometimes be immune to compromise because you are not getting the blood flow to certain organs.

Your body is highly, highly inflamed from just persistently elevated glucose levels. Like that's also a sort of immune compromise that people disregard to some capacity.

That's true, that's very true. And that another tragic things that when you see them, by the time you get that sick, you can't always solve the problem even though you want to and you try your best.

Prevention, it's funny that you have infectious disease talking about prevention because many people think of infectious diseases as outbreak. The movie outbreak, right, from the late 1990s or even the movie Contagion in the early 2010s.

They think infectious disease as going finding patient zero and developing like the cure, but really I think a big takeaway from our talk today is prevention really is worth a pound of cure.

An ounce of prevention is really worth the pound. That's the truth. And that's really where the value lies. You know, once the horses are out of the barn, it's hard to get them back in sometimes.

All right. Well, that wraps up for this episode. Dr. Kenneth Swanson. Kenny, thank you so much for being on the show. Infectious disease is a very broad topic.

I know we touched on vaccines. We talked about measles, COVID, a little bit of COVID a bit a flu. As the next flu season gears up, I want to have you back on here to at least talk about influenza and talk some other stuff that's out there too.

You know, we have some good information presented here today, but we can definitely do more of a deeper dive into some of the other topics too I'd be happy to talk about that and come on again, that'd great.

And you did touch also on HIV, I think that would be a good one to discuss too. Yes. That would also piggyback

really well too on talking about patients and the lack of othering and talking of destigmatization of certain things.

Yeah, all those topics we need to address more of, just between you and I, but also in the healthcare in general. We need you to do a better job of communicating these things, Again, Dr.

Kenneth Swanson, one of my personal best friends, infectious disease, stellar physician doing the dirty work out there in Milwaukee, Wisconsin. Thank you again so much for being on here.

I really appreciate it. Alright, that wraps up another episode of the Jaffercast. Thanks again to Dr. Kenneth Swanson for joining me here to discuss vaccines, measles, infectious disease, what we can and cannot really do as a physician, and just tips overall about healthcare in general.

It was a heavy episode and some political undertones as well, but hopefully next time we'll have them back on here, talk about other topics relating to infectious diseases, namely STIs, maybe some other stuff as well, we'll see.

If you enjoyed this episode, please don't forget to like and subscribe and turn on notifications. I love constructive feedback, and ultimately, this show is designed to help you, the listener, or viewer make informed choices about your own health and to raise awareness about the issues facing healthcare at large.

You can leave your thoughts in the comments section below for those who are watching on YouTube, or email them to me at jeffordcast.gmail.com. If you're in the healthcare field and interested in being on the show to discuss topics in healthcare, please feel free to reach out as well.

if you are a listener who wants to actually hear about a particular topic, Please feel to email and I will do my best to cover it, try and get the appropriate specialist on, or I'll just ramble onto the void myself and see what happens.

As with anything, don't take my word for it. Do your own research, talk to your doctor, and remember, at the end of the day, I'm just another fucking ER doctor.

Make good choices everybody, we'll see you next time.