



CMSC Podcast

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“A Pillar Series” featuring Dr. John Kurtzke

Operator: The conference is now being recorded.

Ms. Dottie Pfohl: Hello. This is Dottie Pfohl, Director of the website project for the CMSC, and I'd like to welcome you to this, one of our website pillar series.

And it's my pleasure tonight to welcome Dr. John Kurtzke. He needs really no introduction. Many of us perform Kurtzke scales every day of our clinical practice, and he is well known and well loved in the halls of the CMSC.

So, with great pleasure, I won't go through his extensive CV, but we will make that available for you on the sites, or his credentials. I will simply say that Dr. Kurtzke, born in Brooklyn, New York, is married, has seven children, and he is a retired Rear Admiral for the U.S. Navy and Professor Emeritus of Neurology for Georgetown University School of Medicine.

As I said, his renown is known, so it's with great pleasure and humility, and a little bit of nerves, that I greet you, Dr. Kurtzke.

Dr. John Kurtzke: Oh, how are you?

Ms. Dottie Pfohl: Doing real well, and delighted to have this opportunity to speak with you.

We--we'll keep things sort of casual tonight, but I almost don't know where to begin, because your career has been so extensive and interesting. But, I thought maybe

we could start--and of course, you can interject at any point if you'd like the direction to go a little differently--but, I thought maybe we could go to the 1960s when experimental neuroepidemiology was a pioneering concept and just ask if you could reflect a little bit on those days and factors that prompted you and your colleagues to move beyond the traditional focus.

Dr. John Kurtzke: Well, let's see. There were three of us who founded the section of Neuroepidemiology of the American Academy of Neurology. There was Len Kurland, who's now dead--.

Ms. Dottie Pfohl: --Uh-huh--.

Dr. John Kurtzke: --Unfortunately; Milt Alter, who is not, fortunately, and me.

Ms. Dottie Pfohl: I know Dr. Alter from Philadelphia fame.

Dr. John Kurtzke: Len at the time was in Mayo Clinic, but he used to be at NIH.

Ms. Dottie Pfohl: Um-hmm.

Dr. John Kurtzke: He's probably really the founder of the entire field of Epidemiology as applied to Neurology.

Ms. Dottie Pfohl: Hmm.

How did your collaboration come to be?

Dr. John Kurtzke: Well, back at--you have to go an earlier decade.

Ms. Dottie Pfohl: Uh-huh.

Dr. John Kurtzke: Back in the '50s--.

Ms. Dottie Pfohl: --Uh-huh--.

Dr. John Kurtzke: --You know, while I was still a resident, we started--we felt we had a treatment for MS. It was called Isoniazid, and that actually was where the scale really started, because it was--at that time no way to measure MS or what happens to people with it. But, that was published, and it's--it looked to be very good, but it wound up to be the basis for the first ever randomized double-blind treatment trial carried out in MS, and this--multi-centered. And this was carried out with 12 VA neurology services from around the country, but with the input of the NIH in terms of Len Kurland, and with what is the medical follow-up agency of the National Research Council, who provided all the statistics.

Well, that was my first introduction, really, to Len and to Gil Beebe, who was the statistician on that. From then on, we worked together for, oh, 20, 30 years studying first MS in people from the U.S. Army who had been diagnosed MS during the war on controls.

From then on, because those were, very simply, small numbers, we went to study all the MS from World War II, matched with pre-illness controls, and--who had been service connected by the VA. And the service-connected VA population of MS, to this date, is the only one that has a nationwide input, and it's the only one where it's possible to get pre-illness matched controls because we matched them on the military peers.

Ms. Dottie Pfohl: Yeah.

Dr. John Kurtzke: So, we worked with those, and that was published through about eight papers. And from then, after that, we started another series of veterans of the World War--of the Vietnam War, plus later service up to 1994, which included the first Gulf War period.

So, at the moment--.

Ms. Dottie Pfohl: --Yes, there has really [unintelligible]--.

Dr. John Kurtzke: --There really is even further series being attempted by a--
with a good deal of Army input, but--.

Ms. Dottie Pfohl: --Uh-huh.

Well, I do recognize that the VA has provided, really, the nation's repository of
detailed health records, and--with your permission. And we're very grateful that we are
able to have your article on Isoniazid on--.

Dr. John Kurtzke: --Oh, you have it--?

Ms. Dottie Pfohl: --Listed on the website, yes.

Dr. John Kurtzke: Oh, good Lord.

Ms. Dottie Pfohl: People are welcome to read that original article. And it is a
fascinating read, knowing, really, the effect it had on future research.

Dr. John Kurtzke: Well, it has an effect on me. I mean--.

Ms. Dottie Pfohl: --Sure did.

And so, that's where it all began, and then your--.

Dr. John Kurtzke: --Yeah--.

Ms. Dottie Pfohl: --Collaboration with Doctors Kurland and Alter.

Dr. John Kurtzke: Right.

And the whole point is that, oh, ever since I was in med school, I've been
interested and involved in MS, but I'm not a lab man. The only way that I could figure
that I might make a contribution was by [unintelligible] epidemiology.

Ms. Dottie Pfohl: Um-hmm.

How did you develop that interest in MS? What caused that fascination for you?

Dr. John Kurtzke: That's a good question. I don't know. I went to Cornell, and Cornell had more neurology while I was there than most schools had today.

Ms. Dottie Pfohl: Oh.

Dr. John Kurtzke: The dean was a neuro-anatomist. In the second year, there was a course on neurologic diagnosis that was distinct from physical diagnosis. It was taught by neurologists. And the head of neurology then was H.G. Wolff, who's still famous for headache studies.

But, he was very precise in what he wanted people to do and say. He--in that course, he had a series of single-spaced typed questions--no answers, just questions of--I think about 10 pages--which was entitled "The Irreducible Minimum To A Rational Understanding Of Diseases Of The Nervous System."

Ms. Dottie Pfohl: My goodness.

Dr. John Kurtzke: See how it stuck? [Unintelligible] which was obviously called the Unattainable Maximum by all of us.

Ms. Dottie Pfohl: Wow.

Dr. John Kurtzke: So, not only that, but we had in third year an obligatory clerkship in neurology for a month, and then in fourth year I took two electives--elective clerkships in neurology, and in between third and fourth year I spent a month at Naval Hospital in St. Albans, because I was in Reserve at that time.

And the head of neurology at that time was Fred Plum, who went into the navy as a Lieutenant J.G. and came out as a Lieutenant J.G. to be Chairman of Neurology out in Seattle, and he's a well-known neurologist, too, obviously.

Ms. Dottie Pfohl: You know, I--we all--I was joking about the scale that bears your name, but when I first started in the world of MS, someone asked me if I'd done a Kurtzke, and I thought they meant curtsy. And I couldn't for the life of me--.

Dr. John Kurtzke: --So, did you bow--?

Ms. Dottie Pfohl: --Everyone was so involved in these Kurtzke-ings.

But, this scale, this disability scale, was groundbreaking when you introduced it, and I believe that was in the mid-'50s, and it continues to be important as an instrument of--for making standard comparisons for MS.

But, I've heard it said that it was developed because of the importance of knowing whether a soldier could walk so that they could go back to the battlefield.

Dr. John Kurtzke: Not quite so.

Ms. Dottie Pfohl: Oh, tell the truth, then. What--how did that really come to you? Did it come in a flash, or is it something that developed over time, or--?

Dr. John Kurtzke: -No. What happened is--well, one of the things that Wolff demanded of his students and residents was a detailed neurologic examination covering all positives and negatives, which would take about 20 handwritten pages to do, and that carried through to--he was my Director of Training.

I trained at the Bronx VA Hospital, which is where I took most of my electives, too, and the records there had all, from the time at least from the mid-'40s, were entirely detailed on both admission and discharge with these examinations.

So, as I said, we were looking more of a way to measure MS, and there was none. So, I was able to collect, oh, I think, something like 300 records of MS patients who had

been hospitalized there, maybe 250--I'd forgotten the number--and who's records were there in detail.

So, from those, I just spent times figuring out what the patients have, what were the systems involved, how bad were they, and is there any way to separate this myriad of signs and symptoms that patients have into discreet entities that would kind of make sense and yet, which all together, would add up to being what is really a code neurologic examination. And those were what are called the functional symptoms, of which there are eight.

But, once you did that, you still needed some sort of overall scale or Gestalt of what was, in essence, wrong with the patient and how bad was it. And that's where the first--the DSS, Disability Status Scale came, and then the expanded one, because people who were doing drug trials wanted more steps.

The DSS was zero to 10 in whole numbers, and when they wanted more, the only thing I could figure out was, since this in our hands was a quite symmetrical scale with nothing--no one step standing out is being redundant, the only way to expand it was to expand everything once you pass zero, normal and before you hit 10, which was dead.

So, we had one and 1.5, two, 2.5 and so forth so that a two and a 2.5 steps would be equivalent to the old two in the DSS. And actually, I think it's--I think it's worked out fairly well.

Ms. Dottie Pfohl: Sure has.

You know, you strike me as just being infinitely curious, and I know at annual meeting I will often see you and your lovely wife. But, what's so remarkable is you're not just socializing. I will see you hour after hour sitting in on lectures and really taking in

what people have to say. And I'd love to have some clues just to--how you take that data or the curiosity, because you've certainly, in your career, turned it into answers for us.

But, where does that curiosity come from? It just seems to be unquenchable. Is that something that you can attribute to a mentor, or is it just your innate curiosity?

Dr. John Kurtzke: Well, my wife just felt I'm nosy.

Ms. Dottie Pfohl: I--she's lovely, and she's more than welcome to be part of this.

Ms. Kurtzke: No, thank you.

Dr. John Kurtzke: Where does it come from? I don't know.

Ms. Dottie Pfohl: But, you don't just--you know, you don't just ride your laurels or count on them to--.

Dr. John Kurtzke: [--Unintelligible--.]

Ms. Dottie Pfohl: --You sit in.

And I've seen you hour after hour. There's Dr. Kurtzke and his lovely wife sitting with him, but really taking in--.

Dr. John Kurtzke: --[Unintelligible] lectures. Not if she can help it.

No I think--well, one of the things I've taught for a long time is that there are three principles in neurology called LPG. That's not Ladies Professional Golf. Localization is the L, Paranoia, and then G. G is Garbage In/Garbage Out, GI/GO.

Ms. Dottie Pfohl: Oh, dear.

Dr. John Kurtzke: Location, where is the lesion, that's the whole name of the game for neurologists. And paranoia, you don't trust anybody else. You do your own exams, take your own histories.

Ms. Dottie Pfohl: Um-hmm.

Dr. John Kurtzke: But, those three points also apply to epidemiology. And instead of where is the lesion, it's where are the cases?

Ms. Dottie Pfohl: Uh-huh.

Dr. John Kurtzke: And then, the paranoia is still so, and you do--don't trust other people's findings, assess your own and--insofar as possible. And if you are reading or hearing something that's of importance, go back to the basic data that's there and either check them out, redo what you can, or at least just don't trust the articles.

I've never cited an article I haven't read--.

Ms. Dottie Pfohl: --Um-hmm--.

Dr. John Kurtzke: --And I don't mean from abstracts, either--.

Ms. Dottie Pfohl: --Um-hmm, um-hmm--.

Dr. John Kurtzke: --Because one of the best ways to make mistakes is to cite something that somebody else said was (A), and when you really read it it's not (A). It's (B).

Ms. Dottie Pfohl: Wow.

Dr. John Kurtzke: And quite often, it--you have to go not only in methods but through the details of the findings to find out if there are big holes in what is presented, if there are such. So, anyhow, that's where the paranoia comes from.

Ms. Dottie Pfohl: Well, what about the garbage in/garbage out?

Dr. John Kurtzke: Well, that's it. If you have wrong--make a wrong diagnosis, if you have wrong data, you come up with wrong conclusions.

Ms. Dottie Pfohl: With the CMSC, we pride ourselves for being an interdisciplinary organization and taking a team approach toward care. How did you get involved with the CMSC?

Dr. John Kurtzke: Oh, gee, I don't know. How did I get involved? It was June, I think.

Ms. Dottie Pfohl: June--I know you're great friends with June Halpern, and--.

Dr. John Kurtzke: --Right--.

Ms. Dottie Pfohl: --She has mentored to every one of us in nursing.

Dr. John Kurtzke: She was the one that really got me to go to attend the meetings.

Ms. Kurtzke: And Jay.

Dr. John Kurtzke: And also locally, because Jay--.

Ms. Kurtzke: --Simsarian [sp]--.

Dr. John Kurtzke: --Simsarian--.

Ms. Dottie Pfohl: --Uh-huh--.

Dr. John Kurtzke: --Whom you know, happens to be--.

Ms. Dottie Pfohl: --And quite another pillar of the organization.

Dr. John Kurtzke: Right, of my son, Robert, who's a neurologist and he's in Jim's--.

Mrs. Kurtzke: --Jay's--.

Dr. John Kurtzke: --Practice.

Ms. Dottie Pfohl: I didn't know that.

Dr. John Kurtzke: Yeah.

Ms. Dottie Pfohl: Now, I know you have seven children.

Dr. John Kurtzke: Yup.

Ms. Dottie Pfohl: Yes? And grandchildren, I suppose.

Dr. John Kurtzke: Twenty-one at last count.

Ms. Dottie Pfohl: Oh, that's wonderful. That's averaging three apiece.

Dr. John Kurtzke: Yeah.

Ms. Dottie Pfohl: That's great.

You know, you've written very extensively on so many topics. I thought maybe, because Vitamin D is such a hot topic now in MS, we could shift gears a little bit and just ask you that--if you could just touch a little bit on what your thoughts are on the role of Vitamin D in MS.

Dr. John Kurtzke: Well, it probably won't hurt if you don't take too much. In terms of being a causative factor, I'm convinced it is not--neither Vitamin D nor sunlight. They may to some degree be precipitants, but even that I suspect might not be necessarily so. So, that isn't one of the aspects that really attempts--intrigues me.

Ms. Dottie Pfohl: Um-hmm.

Are there some other factors or new factors, or demographics factors--?

Dr. John Kurtzke: Involve most--mostly with the geographic distribution in time and space--.

Ms. Dottie Pfohl: --Uh-huh--.

Dr. John Kurtzke: --Of this disease. And a lot--and that is not a very popular area. It's--the idea is that--is this disease diffusely spread? And the answer's no. Is it

focally concentrated? The answer is yes. Is it a spreading disease? And the answer is yes. And those are things that I think are of major importance. Why is it spreading?

Also, it is one that is increasingly common in women. From the earliest descriptions of MS, there was, if anything, a modest male excess. And there's a period where it's considered to be no difference, male and female. And now, there's--the difference is about three to one, female to male.

Ms. Dottie Pfohl: Yes.

Dr. John Kurtzke: And in our data, this applies not only to whites, but also to blacks and those of other races.

Ms. Dottie Pfohl: Well, certainly the world of MS care has changed so dramatically.

Dr. John Kurtzke: Oh, yeah.

Ms. Dottie Pfohl: Are there any factors that particularly excite you about the future, or any directions that just catch your curiosity and intrigue?

Dr. John Kurtzke: Well, I still think we have more--I think if we--until we get an answer to what this disease really is, we're going to be groping around the periphery. And it--with, obviously, gains because the armamentarium now is much, much more than it was even 10 years ago, 15 years ago.

So, there are gains, without any question, but even the most rabid treatment guru would be the first to admit that these are not the cure, and they are not the stoppage of the disease process. And I think we have to find out what this--what is really the cause. And I think there is a cause, and I think it's definable. And I think you--epidemiology will not

give those answers, but it will certainly point, I think, the lab people in more specific ways than it has and has been the situation thus far.

Ms. Dottie Pfohl: CMSC often talks about building the workforce of the future. Do you have any thoughts about how we go about not only developing that workforce but mentoring the next generations? And the reason it comes to mind is because I know you've been the recipient of the Dystel Prize--.

Dr. John Kurtzke: --Um-hmm--.

Ms. Dottie Pfohl: --And recently, the CMSC has established a fellowship in your name--.

Dr. John Kurtzke: --Uh-huh--.

Ms. Dottie Pfohl: --With just this understanding of how can we then allow the next generation to, as they say, stand on this shoulders of giants like you. Have you any thoughts about mentoring, or turning our thoughts, then, to developing that next generation?

Dr. John Kurtzke: Well, I think what you people are doing is the way to go, plus the academies, plus--American Academy in Neurology is fostering such developments, too. And I think I have nothing to add, in fact, because these I think are the most practicable things going.

One of the--well, what's going to happen in medical healthcare in general is anybody's guess right now, I would, think. But, I do not envision the time when there will not be a need for neurologists, or for a team such as your CMSC has been fostering, in order to treat patients with MS and patients with other diseases appropriately.

Ms. Dottie Pfohl: You've been so generous with your time, but I wonder if we could just take a couple more minutes just to talk a little bit about the concept, the evidence-based medicine that just seems to permeate everything we hear now, because I know you have at least shared thoughts about the interface between epidemiological neurology and evidenced-based medicine.

Dr. John Kurtzke: Epidemiology is one major facet, I think, of evidenced-based medicine in the sense that, the more you know about a disease, the more likely you are to come up with the appropriate treatment.

Ms. Dottie Pfohl: Um-hmm.

Dr. John Kurtzke: And in essence, actually, treatment trials are applied to epidemiology.

Ms. Dottie Pfohl: Sure.

Dr. John Kurtzke: So, in that sense, I'm all for evidence-based medicine.

But, I think we have to realize that there will never be a day when every aspect of every disease has been documented in terms of the best therapy. There's just not that many people, time, dollars or experts in existence to do that. And I think we have what we have, or try to expand on what we have, but the essence still is that an individual doctor treating his individual patient still has to use his own best judgment--.

Ms. Dottie Pfohl: Uh-huh.

Dr. John Kurtzke: --In the care of the individual.

And this is one reason this is never going to be--or medical care, in my view, is not and cannot be set down as a set of boxes to check off on a computer chip. People vary too much.

Ms. Dottie Pfohl: That's right.

I have a group that calls themselves the snowflakes, because no two of them are alike.

Dr. John Kurtzke: No two of them are alike. Okay.

Ms. Dottie Pfohl: What do you think are the biggest hurdles we face as far as being researchers in neurology with MS today?

Dr. John Kurtzke: I don't think there's enough work being done in epidemiology of MS. I think there's a huge amount that can and should be done, but this is not a very popular or fundable area in large measure. I mean, who one needs another prevalence study of MS, is what is said, or we've got two--in--this country lags behind most other European nations by far in the amount and quality and depth and extent of neuroepidemiology.

Ms. Dottie Pfohl: Sort of a flip side to that [unintelligible]--.

Dr. John Kurtzke: --The reason for that is funding.

Ms. Dottie Pfohl: Funding, sure.

Dr. John Kurtzke: Yeah. No tickee, no shirtee.

Ms. Dottie Pfohl: What avenues of research in MS, though? Are there any that give you a sense of optimism?

Dr. John Kurtzke: Are there clues? Yeah.

Well, I think work on the Faroes [sp] is a major asset, so far as I'm concerned. I think similar works would be highly desirable.

Ms. Dottie Pfohl: Um-hmm.

Dr. John Kurtzke: MS is a changing disease geographically.

Ms. Dottie Pfohl: Um-hmm.

Dr. John Kurtzke: The more we know about that, the more we're going to be benefiting, going forth.

Ms. Dottie Pfohl: Well, you've certainly given us a great deal to think about. Just in preparing for this conversation, our Creative Director or Producer, David Katahara [sp], came up with a whole list of interesting links relating to your work and topics of interest.

So, we will post them as we will some other things, your information, your historical information. And as I said we have information on the Web about you, and also that original article.

So, it's with enormous, enormous gratitude that I thank you for your time this evening, and--.

Dr. John Kurtzke: --Oh, you're perfectly welcome--.

Ms. Dottie Pfohl: --And now, I know it will bring much interest and pleasure to those who come to the--hear the podcast on MSCare.org.

Dr. John Kurtzke: Okay, great.

Thank you very much.

Ms. Dottie Pfohl: Thank you so much, and goodnight to Mrs. Kurtzke, too.

Ms. Kurtzke: Goodnight.

Dr. John Kurtzke: Goodnight, people.

Ms. Dottie Pfohl: Bye-bye now.

Dr. John Kurtzke: Bye.