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2018 NCSBN APRN Roundtable - Balancing Diagnosis Error and Conservative Care: Principles of Conservative Diagnosis Video Transcript

Event
2018 NCSBN APRN Roundtable

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Presenter
Gordy Schiff, MD, Associate Director, Brigham and Women's Center for Patient Safety Research and Practice; Associate Professor, Medicine at Harvard Medical School; Quality and Safety Director, Harvard Medical School Center for Primary Care

- [Gordy] Again, mainly the disclosures, this work is really being funded by the Gordon and Betty Moore Foundation. The project is called PRIDE, Primary-care Research in Diagnosis Errors. And they wanted us to do two things, develop a network for sharing errors, and we're trying to do that in Boston.

By the way, if anybody is in Boston and would like to be part of that, please get in touch with me. But the other thing they were interested in doing is having us develop this concept of conservative diagnosis. And people who know me politically would hardly call me a political conservative but we think this term is important and we'll talk about how we came upon that to use that. So we're going to talk about some of the issues related to conservative diagnosis, particularly as they applied advanced practice nursing.

I'll give you an overview of this project that we're doing. I'll orient you what we mean by a conservative. Then we're going to talk about a case again but in this case, it's going to be my back. See if you have my back or not. And then we'll talk about these 10 principles, and conclude. So, again here was the report.

And, after the report was issued, here's another Don Berwick quote. Berwick, who reviewed the report for the institute, cited one crucial omission. The Committee decided not to address over-diagnosis, a diagnosis that is made that is not helpful to patients. "They might not define that as an error,"Berwick says, "but I think the task of addressing over-diagnosis is critical."

I'm sure Mark, and I've heard Mark comment about why they limited the scope. This report is long enough as it is and there's many issues. And you know, that may have been a good or not too good decision but here's Berwick's take on it. Interesting. And then, Hardeep Singh, who is also mentioned and he's probably the leading researcher in this field by a mile.

And Hardeep says…was asked by The Wall Street Journal, how can doctors avoid overdiagnosing and incurring unnecessary costs and overtesting? And so what Hardeep said is doctors

usually need to balance, to strike a balance between ordering additional tests and procedures that often come with their own risk versus underdiagnoses, by not investigating.

There is so much now a national conversation about overdiagnosis, overtesting, overtreatment in health care that we need to really talk about this misdiagnosis. So, he says, "What we need is to find the midpoint of the pendulum, not swing the pendulum too far in either direction, that's what we need to strive for and it's not going to be easy."

So I'd like to kind of challenge this pendulum model, this concept, with a different concept. And you know, this idea about trading off under versus overdiagnosis, and instead say that diagnosis errors and over-diagnosis are two sides of the same coin, that it's not really too much of one and too little of the other and striking a midpoint but rather thinking about them as one in the same, and how are we going to do that?

And so that's what we're really going to do in this next 45 minutes. So the first question is, what to call this? You know, as I mentioned, we're calling it conservative diagnosis and we're trying to actually get our paper published around this. And I'll tell you about some work we did about conservative prescribing, and that's where this comes from. But is it more judicious, more mindful, more patient-centered diagnosis, more shared diagnosis, more a listening type of diagnosis, relationship-based diagnosis?

And all these were part of our lunch conversation, probably many of years just now. Is this more modest, prudent, caring, realistic, honest? There's a lot of words. More appropriate diagnosis, more cautious, more skillful, smarter, effective, optimal, more thoughtful? I actually probably should add more, team-based.

So what are we calling this this kind of new type of diagnosis? So we chose a term conservative diagnosis, number one, because we think we need some general principle. So how many people here have heard of Choosing Wisely? Everybody heard of Choosing Wisely? When they come up, each specialty society is coming up, and it's been very successful, a list of tests or procedures or treatments that they think really shouldn't be done so frequently or at all.

But what we're saying is, let's look at all these, and let's take a step back and let's see the bigger picture of sort of general overarching principles. And we need to do the right thing for the right reason. So doing fewer tests just shouldn't be to save money, and putting the patients in the middle of that, but it should be about more appropriate testing, and better testing, better care.

And it also has to be based on respect for the clinical challenges, uncertainty, and anxieties. So when patients come and they want a CAT scan for their headache, it shouldn't just be about saying no to them and not appreciating what the worries are and actually even the clinicians are ordering tests. Again, and in most cases, it's not because they are trying to make money or do the wrong thing, there's really uncertainties and that's how they are responding to this.

So, how can we all work together to do the right thing for more appropriate use? So, we've, really, more than a decade ago, had a project based here in Chicago at University of Illinois in Cook County out of the former committee. So we wanted to promote better prescribing. The attorney general said he just

sued Neurontin, Warner-Lambert Pfizer for overpromoting this drug, Neurontin, for unapproved indications.

And so they were interested in people, educating doctors and clinicians and social workers about how to use prescribing in a more appropriate way. And I think this is still a big problem. We've now had a new project on conservative prescribing. So, as Mark mentioned, I'm actually interested in it. I do a lot of drugs and in terms of drug quality improvement. And what we did in their project is we've develop these principles.

And again, these articles are online and we can talk about them. We developed these 24 principles. And so we said... so the question was, can we do something like this for diagnosis? And even the patients picked up on this, you know, no matter what your politics or conservative approach to medication is a good idea. So here's what we tried to do with diagnosis.

We wanted to combine these fundamentals of a good diagnosis. And these are things you've already heard this morning especially from Mark's talk, a need for a differential, listening to the patient, careful exam, matching the syndrome to your findings, understanding the test limitations, weighing things in the good Bayesian way, you know, sensitivity, specificity, predictive value positive, with four critical paradigms that are different or more critical.

One, is this thing called the precautionary principle. And I'm going to tell you what that is. How many people have heard of the precautionary principle? Yeah, it's so... And then primary care principles. Again, this is another bias of my part. I'm a primary care doctor, but I actually…we put the first draft of these together with several specialists, pulmonary specialist.

So it's not just hopefully too much a bias about primary care. Mark is a specialist. He's a nephrologist. I think you would subscribe to many of these. Key patient safety lessons. So how can we bring in some of the things we're talking about this morning with this? And then a sort of a critique of the overuse of, you know, market medicine, marketing of tests, longer-term time horizons.

So what do we mean by the precautionary principle? It turns out that this is something, especially in ecologic and environmental thinking, that it was from, comes from a German concept of forecaring. It carries a sense of foresight and preparation, not merely caution.

It says when an activity rises, raises threats to harm of human health or environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. So, this is actually against a risk benefit model. So you could say, "I'm going to open a factory, and I'm going to put mercury in the water."

Now, what's wrong with putting mercury in the water? Has anyone ever done a randomized-controlled trial of mercury versus no mercury in the water? And so the risks are really kind of…no one's ever proven anything wrong with putting mercury in the water.

I'm using this as an extreme example here. And what are the benefits? We're going to have 1,000 new jobs. Our town is going to get new jobs and new school. We'll have industry and everything will be great. And so we do a risk-benefit analysis. And so there's no proven risks, some theoretical risk but you

know, those people who worry about these things, you know, they're often wrong.

They have nothing to go by. But this principle says, "No.Wait a second. If we don't know what the risks are, then we have to err on the side of precaution." Until proven otherwise, we have to say, "You have to prove that it's safe to put mercury in the water." Or they'll say, "How can I do that? You know, what kind of trial?"

Well, that's up to you, but we need to have some precautionary approach. And believe it or not, a number of governments in Europe have established sort of their basis for decision-making or there's the burden of proof. If you want to introduce a new drug or a new test but mainly they're talking about environmental toxins, then the burden of proof is on you to show that it's safe.

So placing the burden of proof on the proponents of an activity, so you want to err on the side of precaution rather than disrupting natural ecosystems, exploring alternatives to possibly harmful interventions, worrying about the social and environmental issues, and mainly more participation, more transparency in decision-making around these things. So, how do we move this into what we're talking about today and what's the relevance?

It's really sort of thinking critically about using tests and referrals. And until there's sort of a good reason to do a certain screening tests, for example, I have a new screening test for ovarian cancer, the burden of proof should be on me that the benefits outweigh the risks, because of the, you know, the harms. So, what I'm going to do is, and I have back in my luggage, I should have pulled it off, but I carry with me this back cushion now.

And I would say probably about a year ago, I ran into one of our friends' wives, and she carries this thing around with her. And for lack of a better word, I just thought she's like a nudnik, you know what I mean? She's so upset with her back, and she says this is a very great thing and she needs to do this. And so, of course, I didn't say that out loud of course, or even say anything bad, but you know, lo and behold, last summer, my back went out.

And I had a really bad summer. And one of the reasons I'm introducing this into this talk is, I had this talk the first give... it is this conference on overdiagnosis in Canada. There's a group that meets. Sometimes they're even meeting at the same time as our diagnosis in Error Medicine Conference, which is really too bad that these things are separate. So I'm trying to bring these ideas and these movements, and work together.

And so I kept saying, "I should be going down in my office working on this presentation and this paper. Instead, I'm at home.You know, my back is hurting me." And so, at one point, I just said, "Well, forget it. I'll just talk about my back as part of the talk." But as I thought about it, I think there's some real lessons here. How many people in this room have had sort of back problems?" Yeah, I mean, probably, I mean, most of the population, at some point, but some, you know, you talk to people.

And the other thing that was happening with me is everybody has a story about, you know, what works and what weird things. But from a the diagnosis, Choosing Wisely thing, is now agreed that under…except under unusual circumstances, structural pathology, conservative care is a treatment of choice for back pain.

And by the way, we heard about AHRQ. You know, AHRQ was ended as an agency over this back pain thing. I don't know how many people know this story. This is the AHCPR. You remember this, Mark? The Agency for Health Care Policy and Research came up with guidelines, and they came out with sickle cell and heart failure, I think the number three was back pain. And they looked at the evidence, and they said, "It looks like back surgery doesn't have strong evidence in most cases."

And the back surgeons and, I think, Newt Gingrich who was a Republican Congress, they said, "end of the agency." They eliminated the agency, and it was able to kind of reform under AHRQ. But this back thing is really…back pain is really a big political controversy. But Choosing Wisely, if you look through this, it's just a very strong imaging tests for lower back pain.

You do not need an X-Ray, CT, or MRI. And who's recommending this? The family physicians and neurologic, neurosurgeons, they got to onboard, and occupational medicine, the ACP, that's my group, the Internist, North American [inaudible] societies. And I think there's two more that are signed on to basically saying, against recommended use of imaging.

Meanwhile, my back is killing me, and I want something done and I want to know what's wrong. So I went to my doctor, my PCP, and the first thing, and this is a little…again, a little exaggeration. She's very good and I'm very happy with her but I just felt, you know, she basically says, "Well, you have low back pain and you know there's nothing to do. Wait six, eight weeks. We'll just watch you and treat you conservatively."

And I can't tell you how dismissed I felt. She wasn't saying, "You're a crock or there's nothing wrong with you," or "I don't care," but she didn't really feel my pain. "[inaudible], you know, go home," and you know, so what am I supposed to do? Suffer with this? There's nothing to do, nothing.

In fact, there's no need to even be seen. I think she finally decided to see me. Take some NSAIDs, she gave me a referral to PT, which took three or four weeks, which felt like three months for cancer in the tonsil. And all I want to say is, "Don't you know how much I'm suffering?" I mean, I want to know what's wrong. I want to do some…of course, at the same time, I'm aware of these guidelines but I'm just…there's two sides of my brain are talking or my body is talking to me.

Number two, what is nonspecific low back pain? So, I have pain. It's shooting down my leg. So I have some sciatica. And it feels to me that nonspecific is what I call a patient who I think there's nothing wrong with them or there is something wrong but it's just there like crocky kind of patient. Nonspecific, it feels like a pejorative, stigmatizing label or it certainly felt like to me as I was suffering through this.

And then you know, and plus they did an exam. They didn't find anything. So how good is the physical exam for differentiating things? It turns out a lot of these physical signs are not very good. You know, the straight leg raise test which we do as clinicians, it's a lousy test. I do it all the time and tell patients, "Oh, there's nothing wrong. You know, straight leg, negative."

And isn't my nerve roots a red flag anyway? And, then the next question, doesn't the treatment differ depending on the diagnosis? If I have a disc or if I have cancer? I'm 67 years old, I'm a man, could I have prostate cancer? Wouldn't there be different treatments depending on if we could really make a

precise diagnosis?

Because here, we are saying, no diagnosis. Isn't earlier versus delayed diagnosis better? It turns out there's literature that I found out, and in effect, I met one of these people at this conference in Ottawa. If pain is established and somehow these neurons in your brain for more than six to eight weeks, it's almost impossible to get rid of.

Something permanent hardwire sets in there. And you can see how this is all tied with the opioid crisis and people turning to opioids. So, at least this guy's theory and the literature he shows with both human and rat models is you have to get rid of this pain early otherwise it's going to sit so the rest of my life, I'm going to have this back pain.

And again, as I said, how do you know it's not cancer? And why isn't care from a specialist expert better? Why shouldn't I get referred to somebody who's a specialist? This Choosing Wisely things, just the PCP. I'm doing all sorts of funny things here because I'm usually wearing my PCP hat doing the exact same thing my doctor does. Do your exercises.

So, I went to physical therapy. And each time, they show you three new exercises. So this is literally, you know, I'm still trying to work and see patients and write my talks for this conference. You can spend an hour and a half doing your back exercises. So of course, and they go back and say, "Oh, my back's not better." "Oh, did you do all your exercises?"

You're obviously a non-compliant patient. No wonder your back is still hurting. You're just not doing your exercises. So then they have a thing as I read the literature, yellow flags. I know about red flags. I didn't even know about yellow flags. This is a new one for me.

Any hands? Mark, you know what a yellow flag is? - [Female 1] They're like [inaudible].

- Very good, yeah. Tell it to everybody else what is it.

- So, yellow flags are more like social or economic influencers of pain and previous life experiences with pain that might predispose you to have a more intense for different experience in the general population.

- Yeah. So, I've once...this isn't true. You know, I used to be on antidepressant medicines. This is not true in my case. I wonder if this person's back pain is one of those yellow flag. That's a yellow flag. Or this person got hurt at work, yellow flag.

Maybe they're just doing this for the money. They just want to get compensated or not go back to work. Or just anything in general you don't like about the patient, you call it a yellow flag, and that's definitely more reason not to go to do testing. And so…..like your psychologic factors that drive the outcomes. And then, isn't my doctor just focused on curbing cost anyway?

So it turns out because she's in the same plan I am, I am financially rewarded every time I say no to an MRI of the back. I don't know how it works out in my final compensation thing but you could imagine if patients understood this fully, properly. You mean I have to suffer so you can make money? This doesn't

make... I don't understand this.

So if there was true transparency around that, she is rewarded financially every time she says no. Now she may be saying the right thing but how do I trust her anymore because she's either has financial conflict of interest like we have to declare at the beginning. And then this whole thing about back to work, the whole idea is to get people back to work, all these back programs, avoiding disability is central in the literature.

And then the guidelines, arbitrary. One size fits all. What's the evidence for the six-week cutoff before we start worrying more? And what about a 50-year-old versus a 25-year-old versus a 67-year-old? So these are the Choosing Wisely thing. So basically I was left on my own to learn from others. And I didn't include it.

I probably should have. I didn't know if I have…I didn't know I have little extra elbow time here. I learned from people all sorts of things. So, this biomed at 7,000. Do people know about this? When we went on vacation at the end of the summer, and somebody's aunt had benefited, and they insisted I get it. And it was in Chicago.

And I did get it midway airport. They brought it down to me and we had carried up until we go…we still have a college here back in Michigan. And this...it's a bionic raise that radiate heat. It seems like a sort of a giant heating pan on steroids. But it actually was one thing that helped me tremendously. And then people have all these different exercises and different things they do, and acupuncture and I even had somebody come in do some acupuncture.

So, I sort of felt like I was left on my own. And all the while, should I be having surgery? Should I be having an MRI? What's going on? I guess it's worth telling you that eventually this thing did subside. Actually this biomed and the yoga and acupuncture didn't seem to help, but the PT was very helpful, etc.

But I've learned a lot of tricks. And everybody has something to tell you, and you learn from this. So, where does this fit in? So shouldn't I have had my MRI? Well, who's to say this? We get a misdiagnosings in terms of, even that patient I mentioned this morning who had a spinal epidural abscess. So, how are we going to get there?

So we came up with these 10 principles for a more conservative approach to diagnosis, which again as I'm saying, I'd like to think there are two sides of the same coin of better diagnosis, more caring. So the first one, first principle builds on this Osler quote, "Listen to the patient, he or she is telling you the diagnosis." So, we need sort of a new model of caring that really makes the patient feel like they're being listened to, maybe in a way that I didn't feel like I was being listened to, like I was being dismissed.

So right now, patients feel the only way that they're being taken seriously is if they order an MRI, then they're taking my back pain seriously, and if they don't, then they're being…they don't understand how much I'm bothered. And we have to change that. So there has to be a new model about being thorough and attentive and caring. It's not just about ordering a lot of tests.

It has to be centered more in the patient's concerns. "What was I worried about? Why do I want this MRI? What is, you know...did my father die of prostate cancer? And this is what I'm worrying about."

So we need to hear the patient. Emphasize a patient's role in co-production, hearing what matters most, what their fears are, and basically engaging the patients in monitoring.

So we need a plan. "So, it's been five weeks or four weeks.In four more weeks, if this isn't better, this is what we'll do." So we have to have a plan that will work out together, and figure out, "Well, how am I going to get through those next four weeks? I mean, you know, I'm a busy man. I have to go to nursing conferences and talk, you know." So we...but we have to make a more meaningful model for patient caring and shared decision-making.

You've heard some of the outlines today. I think fundamentally, it's sort of what nurses do already. Maybe we need to just be learning from nurses, maybe that's what this principle boils down to. So number two, principle number two, is developing a new science of uncertainty. And this is something that's getting sort of growing attention in the literature, about uncertainty and acknowledging our uncertainties.

It's sort of interesting because precision medicine on one hand which Obama, who we saw this morning, you know, was promoting is sort of an answer to health care future. But as we get more and more into this genetic testing, this precision medicine, we actually are getting more uncertain. So people get their genes run and then things are even more confusing.

You have this risk for something and we don't know what it means. And you do MRIs and CAT scans. There's incidental findings on your kidneys and your adrenals. And so we're going to have to be able to tame this uncertainty beast. So how are we going to do this? Number one, we have to become more comfortable with talking, with recognizing that it's sort of a ubiquitous problem in medicine, that we're not certain.

We can't come in, say, 100%, this is…your back pain is nothing, and we know what it is for sure, because there are these uncertainties. We need to do this both collectively, all of us together as well as in our individual encounters with patients. So, in order to do this with the individual counters, we know that need to do a little language to use.

So we're right now, we have a project with a medical student and we're working with some of the patient groups and SIDM to try and come up with what's the right language. If I go in and say, and I think I said this already this morning, "Okay. It looks like you have a sore throat, but this could be cancer, of course." And person goes home and says, "Well, that wasn't very reassuring. Now I'm even more freaked out.I just thought I could get some penicillin or something, but now I'm going to not sleep about cancer."

So, we can't quite do it like that even though cancer was in the differential and turned out to be the right diagnosis. But we also can't say, the other thing about, "There's nothing wrong with you. I'm 100% this is, and don't come back with me again with this sore throat. I'm tired of hearing you complain about it." So we need something in between there that's really more sensitive. We need things that are reassuring but honest and transparent, and mainly design the safety nets. "If this isn't better in three weeks, we expect most sore throats to get better, yours probably will, you know, the door is open or call me if it's worse, or if you develop any bleed, if you cough off any blood," or whatever the right set of language.

So we're trying to develop that language, both to teach young doctors or even for a handout for patients. And I think we even had some good suggestions around our lunch table and I was taking some notes. So number three, this is, in some ways, the most interesting. And this is based on a person.

See, we have his picture. His name's Kurt Kroenke. And he's here in Indiana. Anybody know who Kurt Kroenke is? You've ever heard this name? He's one of my heroes. And he's done studies about symptoms that people present to primary care with.

And you know, he studied 1,000 patients. I'll give you some data in these next couple of slides. But anyway, we need to look through this, the evidence about common symptoms, and we need to recognize that many of them, the majority of them, often, we don't actually figure out what's wrong with people.

So why did my back hurt actually? What was the lesion in my back? "Okay. Well, I still don't know. I mean, did I have a poor form as muscle pull?Did I have a disc? I don't think I have cancer, but you know, okay." So, often symptoms either defy explanation and/or they're self-limited and they go away.

So we just need to know that that's the rule rather than the exception, and we need to design our diagnosis around that. We need to appreciate this growing problem with somatic symptoms, unexplained somatic symptoms. I'll show you some data on that. And we need to rethink this. So, here's some of Kurt's work. He looked at 1,000 patients with you know, I'm sure this is bread and butter to all of you who do primary care, chest pain, insomnia, there's back pain, abdominal pain, and 38% had at least one, some had multiple.

Did diagnostic testing in two thirds, organic etiology in only 16%. So, you go to the doctor to find out what's wrong with you. What's the organic etiology? What is the cause of my back pain or my headache or my fatigue? And you know, 85% of the time, we don't know.

Honestly, when we're really looking at this in a research way. So he concluded, "The classification, evaluation and management of common symptoms needs to be refined. Diagnostic strategies emphasizing organic causes is inadequate," because that's what we do. We work people out for organic causes and we've ruled them out, and then we say, "You're left with psychosomatic, or "You're crazy," or "There's nothing wrong with you."

And so, this is a…the growing rate of people in the slides cut off unfortunately, but what this is showing you is that the fastest growing one here, this is people with these non-specific ill-defined conditions. You can see this is musculoskeletal, this is endocrine, and cancer or this is the primary care.

This is in these. And here it is again. So, this is the annual increase in real expenditures from 2000 to 2010. Again, the fastest growing one is these ill-defined conditions. So, this is the sort of terrain in which we're in, and it's the fastest growing. About a third of cost services is the ill-defined or musculoskeletal.

But again, you can just see, it's the fastest growing contributor of people coming to the doctor and being seen. So, what we're saying about this, really, is that, we're going to need to have a new way of thinking about this. I think some of the points that were in this bullets here...let me just go back. You know, that there's a lot of overlap between things that are stresses and social determinants that people experience,

and we're going to need to really have a fuller context and a fuller appreciation, and work with people over time as well as be supportive of them.

So, the next one, the fourth of these principles is maximizing continuity of trust. And this is one that really, we're swimming upstream about because as we look in the United States and compare to other countries, continuity of care is really much less than other countries. So, if you were to ask about Australia, I bet that they have much more continuity of care.

Meaning, you go to the same doctor, the doctor knows you, the clinician and nurse practitioner knows you, and that makes a big difference. It allows you to be conservative. So I have to assert [SP] my patients that when they go to the emergency room, they get all sorts of CAT scans and MRIs and referrals and worked out for things. And that's the same patient who I see every time in the clinic. You know, they have total body pain.

And you know, of course I'm not…don't want to be dismissive but I also know that they don't need imaging to rule out things when I see them. And I can only do that because I have continuity of care in knowing the patient's baseline, etc. Informational continuity, of course, we heard about this, If records are not intrappable, if they've already had a biopsy of their prostate.

I have one man, just last week, I saw he had biopsy at 20. Biopsy of his prostate just two years ago, and his PSA is high, but I don't have his old results, but we need to have this information so we don't repeat things. But these relationships actually have to be trusted and requires financial neutrality. So, this business about rewarding the doctor for doing more tests, "I own the MRI machine down the street, I'm going to order a lot of MRIs," and you know, you get kickbacks that way or get incentivized you to order fewer, it's just not going to work for having patients work with us, and be trustful in continuing that relationship.

It's sort of poisonous, poisonous conflicts of interest. And one of the things I said, and I said this when I presented this to the conference, Diagnostic Error Conference, that end up the headline in the newspaper, one of these reporters was there, is I get my cell phone number to every patient I see. And, you know, for their piece of mind, I said, "Look, if this gets worse you can always reach me. You know, you have my office number but as a backup, you have this number."

And, you know, I have a couple of patients that probably misuse that, but by and large, it's actually a good peace of mind for them and for me, because I know that there will never be a situation where they say, "We just couldn't reach you." So that provides a reassurance, and allows me to practice more conservatively. "These symptoms you're having, do not seem like just chest pain. It does not seem serious but if it gets worse, call me or something."

I have a very low threshold, and that's a part of this principle, I believe. Taming time. So we've heard about time repeatedly, and looking at my time here even. So, we need adequate time for clinical encounters. That's the only way we're going to be able to practice. We heard about an emergency room study. I still haven't been able to find this study.

So I hope...that one doctor saw six patients an hour on the average, and the other doctor saw three patients an hour in the ED but that doctor ordered twice as many tests. So you see somebody, back pain,

MRI. Sore throat, you know, throat culture. So you just order all these tests. You don't have to bother taking a history or you're talking to explain why you don't need an MRI.

But in order to really do this in a more conservative, thoughtful way, we're going to need the time in two ways. One, is the time during the encounter, but the other is this watchful waiting. To be able to engineer watchful waiting, and it has to be sort of systematic, follow-up is part of that, understanding when early definitive diagnosis represents the most conservative strategy.

So that sometimes where really getting on people early is smarter and better, but then the others, we can probably try to use watchful waiting. It's part of our test of time. And again, to do that…so one of the things we've tried to do, I mentioned at the end of the last talk, and we want to probably do more of this, is to make it so that patients automatically get a callback from an urgent care visit and say, "How is that sore throat? How is that headache? And you know, if it's not better, press 1."

And then they'll speak to me or the nurse practitioner. And so not only does it create a safety net for the patient, but it also it's a learning system. So we'll learn that the last 100 sore throats, how many do we get it right versus wrong? We want to do this with a telemarketing, telephone-diagnosis service called TeleDoctor. We're hoping to work with them to do that. So, these are all things of the future that I think we need to do to be able to tame time and create feedback safety nets.

Linking diagnosis to treatment. So, it turns out that we need to very closely link what we do diagnostically with what we're going to do therapeutically. So, if it doesn't make any difference, if we're going to treat back pain for the next six weeks all the same anyway, then maybe we don't need to do a lot of test and localize it anatomically.

However, if there's a distinction between giving one treatment versus another, and we need to decide on that and it actually makes a difference, then the diagnosis becomes more important. So this idea about linking diagnosis and treatment, I think, is something we don't talk about enough.

And you know, we need to have restraint in the low risk non-urgent situations. We actually need to understand where the marginal benefit of various strategies is. So, yes, this treatment will work like, [inaudible] I'm just thinking of the sore throat thing. If I give penicillin to an adult, their throat will get better, what is it?

0.4 days sooner than without penicillin. So, yes, it's better to make the diagnosis, strep pharyngitis, I guess, but what's the…does it really make that big a difference? You could say Tamiflu would be another one for influenza. They get better in half a day sooner or something, 8.8 days sooner now.

Maybe there's other infection control issues, reasons to treat. So the marginal difference versus something will make a big difference. And so, what are the situations where the treatment is critical? Sepsis would be one and it would be the other.

So, this is this whole thing about testing, that there's a lot of words on the screen. There's whole courses that we teach to doctors and nurses about sensitivity and specificity and false positive but it turns out, people just do very badly on this. They don't do this well in their head, and we need to work on how to make improvements.

Probably the EMR will help us do some of these calculations. Many of the tests are chosen wrong. The sequencing is wrong. Should we do all these tests at once or should we do one at a time and see what that shows, how to do this. And often we spend more time on testing than beneficial activities. So even in the emergency room, somebody is very sick, we sometimes...or in the ICU, we send them down for tests down to the radiology suite rather than having them be closely watched by the nurses or start treatment.

So we just need to figure out all the ways that we can make tests smarter. And the most important one, and again we've come up with a table, I didn't include it here, of the harms of testing, the unappreciated harms of testing. So there's the sort of the direct harms, that somebody can have anaphylaxis from the renal contrast dye or you know, they puncture their aorta from doing a cardiac cath, there's sort…or the radiation, the direct radiation, or there's...Rebecca Bindman-Smith has done a lot of work on this, but probably there's a large number of cancers now that are now being caused by the radiology testing that we're doing.

But then there's the indirect harms about the cascade effects and the incidental findings we find, and the harm that we do. And so, you know, prostate cancer is a good one, all the harm we do from the screening, I think we mentioned this a little further along. And then there's the false reassurance and the overdiagnosis. So, there's a lot to talk and think about here. But I think, better use of testing. And the one thing I would just say is the tests are not subject to the same rigor, the drugs are.

So the FDA approves tests but they mainly just have to make sure they're not killing people, and doing bad things in the…you know, they're not contaminated or going to electrocute patients, but they don't really look at whether the tests really improve outcomes. As opposed to a drug, you have to show if you're going to give a new drug for cancer that, you know, approves survival or response rates, you don't have to do that with introducing new tests.

And most of the time, these tests, these studies are done on the new tests, are done by the developers of the drugs, of the test. So I have a new, you know, 3D ultrasound machine, and I'll show that the doctors can pick up lesions. You previously could only get a 2-millimeter lesion, my new one, you can pick up a 1-millimeter lesion. But I've designed that test. I invented it.

I own the profits from that test. So, those are not the kind of evidence we need to really decide whether we should be using that test and in which situations. So, what can we learn from diagnosis error that we can then apply to be more conservative? And I guess, to say this very succinctly and quickly, it's, let's learn about all the bad things that can happen and anticipate them, and then we don't have to…and we worry about them, and then the rest, we don't have to worry about.

So, you know, we could say with the back pain thing, if I have fever or a red flag or you know, history of cancer or something. And once we're sort of thought about those things, then we can safely keep in the conservative zone. So keeping these both set of concerns, awareness at the same time will allow us to practice conservatively.

Anticipating were safety fails, learning from failure, and then again, hardwiring ways to prevent that. So we talked about this diagnostic pitfall concept this morning. And then, so I'll just do these last two

principles and then a couple of summary slides. So cancer. So, I think there's a large contingent of oncology nurses here. How many people are oncology-related?

Really, you're the only one? It seemed like several people I met. So okay. So we don't have to worry about cancer. We don't have to address cancer because no one's afraid of it. Well, it turns out that every era has its dreaded disease. And I think cancer for whatever, for many good reasons, is that for our era.

But let's be clear. This is a cancer, abnormal mitosis. We never diagnosed cancer when it first happens. Every diagnosis of cancer is in effect delayed. I mean it's spread beyond this first abnormal time. So we do have this idea that diagnosing cancer earlier is better, and this lesion is resectable.

But in many cases, that's not always true. And it turns out actually…and then on top of that, it's easy to overlook since virtually any symptom, you know, any cancer can present with any symptom, and any symptom can be cancer just about, so this and it's the leading malpractice allegation.

So this is like, you know, somebody comes to the emergency room with pain, we have to do total body scanning because we can miss cancer and then be sued. So, we're just have to kind of think of different ways of doing this. I think I've included some slides. So this is from the inventor of the PSA, Richard Ablin. And, this test is so controversial, I'm even reluctant to raise this here, but I don't know how many people follow the controversy.

But in 2012, finally the message that this doctor wants to convey, he's the…I just told you that people who invent these tests really tried to push him. Popularity has led...this is from the inventor of the PSA test. "The test's popularity has led to a hugely expensive public health disaster.It's an issue I'm painfully familiar with. I discovered PSA in 1970.As Congress searches for ways to cut our health care system's costs, significant savings could come from changing the way we use this to screen from prostate cancer."

Why is it still used if it's no good? And again, this is in 2012. This test was...the U.S. public health test said, "We should stop using this test for screening." 2017, now they're saying, they're changing again. So, here's another [inaudible]. "Why is it still used? Because drug companies continue peddling the tests, advocacy groups push prostate cancer awareness by encouraging men to get screened. Shamefully, the American Urological Association still recommends screening. The NCI is vague on the issue.I never dreamed that my discovery four decades ago would lead to such a profit-driven public health disaster. The medical community must confront the reality and stop the inappropriate use of PSA screening. Doing so would save billions of dollars and rescue millions of men from unnecessary, debilitating treatment."

Now, this is a very strong statement. And I don't think I would read it if it was for the average critic of this test which there are many. But this is the guy who invented it. It's much more complicated than this, and we're actually trying to figure out new and better ways of talking to men about whether to take this test or not. But this is a test that's definitely being over-ordered and overdone and definitely could probably, in most cases, causing more harm than good.

So we need to figure that out. This is a picture, and this is a kind of thing we're going to need to be able to do to talk to patients about this. So, on one hand, you have men with screening, and these are men

without screening, and there's a few that'll die from prostate. You can barely see this up here.

You can probably see the numbers. So men dying from any cause is 200 in both groups, the men that were diagnosed and treated for prostate cancer unnecessarily is 20, men that get a false positive biopsy is 180, and the men that are unharmed and alive is just majority. So, there's a little tiny number of people that potentially will help a lot of other people can be harmed.

There's some disagreement about these numbers, but we need to get some consensus around this and be able to talk to men about this. It's gotten more complicated. One of the reason is because it's not so harmful to screen people because we're not doing interventions in certain patients now. So, it's because the treatments are so bad that we're not doing them on everybody, and we're therefore harming fewer people that the test might not be quite as bad.

So you can understand how confusing this is to us and to the average patient. We want to figure out how we can conservatively think about this problem and this thing. So, the last one is, what about all the bad guys, the specialist and the ED physicians who are, you know, don't practice conservatively at all and they're the villains in this plot here? Well, it turns out that this idea about diagnostic stewardship and having them be the ones just like infectious disease, antimicrobial stewardship used to be, they were the ones who just used all the broad spectrum antibiotics and were you know, overusing them.

They've now seen a new role for themselves as looking over the stewardship of the antibiotic use, anti-microbial use in hospitals, making sure it's more conservative. There's a literal compelling reason because the drugs are getting…these bugs are getting resistant to these drugs, but these ER doctors and specialists can also become drivers of non-conservative diagnosis, help us re-engineering, especially because there's a growing number of ED visits for, just nationally.

By the way, the number of primary care visit is going down nationally in recent years. There's just been a couple of studies, so that's of concern. So people are going to urgent care centers or emergency rooms, they're not going to their primary care doctors. So maybe everything I'm talking about is swimming upstream in that regard a little bit too.

It turns out, U.S. has the worst after-hours access of any nation. So in many other countries, you know, people can come home and their health center is open until 9:00 down the street or they can have after-hours access. So the people in the emergency room really understand some of the, you know, critical urgent diagnoses and can help us, and of course, a specialist need to understand what's a better use of tests, what's a wiser use of tests.

And so we're going to need that help. And again, this idea that poor knowledge of the patient to non-reliable follow up like the ED says, "Well, we're not going to be able to know whether this person's going to come back or not, so let's run all these tests now," when that shouldn't be the basis for decision-making in the average primary care that has a continuity relationship. So, I said sort of misguided approaches of how we're going to use less tests and referrals, high deductible, co-pay, co-insurance, multi-tier, having patients have more skin in the game, these are all…these are the standard approaches.

The stuff that we've just been talking about are kind of weird ideas. You could say they're old fashioned, they're swimming upstream, but the health economists and health policy be aware when to hold down

use of these tests, it's just make it harder for people to get them. And we're going to sort of ration by ability to pay. Well, I guess, I would rather ration by the rational use of the test and more appropriate use of the test.

Utilization review or prior authorization make the doctors go through more hassles. So if you want to get the MRI, you're going to have to call three insurance clerks and fight with them, and that will hold down the number well. That's fine but that's just going to burn me out more and you know... blame the patients for their anxiety. It's a patient's fault that they're worried that this back is something serious or the headaches.

They're just nervous Nellies. These are America's...or the worried well, and it's kind of their fault. And so, to the extent to which we bark up that tree I think we're going to be going against the grain of where we need to go. Blame the physicians, because physicians are truly have uncertainties and there's a lack of clarity and evidence about what's best to do in the number of these situations.

Witnessed PSA as a good example. Cutting down access, making it harder for people to get in to see you with higher co-pays and blocking consults. You can't get referrals or out of network, and etc. And even this malpractice caps is sort of seen as a way that we can, you know, patients miss something. We miss something, patients can't sue us.

These are, I would sort of say in general, are misguided ways of holding down costs and getting more appropriate utilization. And then this is Wendy Levinson who's summarizing [inaudible]. "Most countries found that bringing cost into the discussion diminishes both physician and patient engagement." However, it's different in different countries. So, this shouldn't just be about holding down costs, explicitly rationing at the clinical level is likely to cause more harm than good.

This is an old article from David Mechanic. So, in conclusion, conservative diagnosis should be first and foremost a way of respecting patients and our own limits in medicine. So it should be listening to the patients, respecting the patients, concern for the patient, working with the patients.

It's not fundamentally about saying no to people. We can't ignore the legitimate fears and uncertainties, rather it's saying yes. It's about saying yes, enabling, helping, supportive, worrying, safety nets, creating a new science of collaboration around uncertainty. So again, rather than less is more, I would say more is less.

More support for the patient, more careful watching, more hearing from the patient, more understanding of the tests and how to use them and what their limitations are, more focused testing, you know, which would ultimately lead to more worry-free lives and fewer diagnostic errors. Oh, thanks. This is the team of people we've been working with on this project, so.

Thank you. - [Female 2] Microphone's on here. Do you have a couple of minutes for questions, if there are some, Gordy?

- Hey, of course. Yeah, sure.

- Okay, good. I have one. So, you mentioned that there might be slightly fewer primary care visits. And I

know on a call I did recently I was quoting a study that looked maybe back five years, and reported that urgent care visits have grown 1,700%. So there are now more than 10,000 urgent care centers in the United States.

You mentioned the follow-up calls, maybe to urgent care, is there...is this kind of begging for a solution where primary care and urgent care can create continuity for patients? I guess what I was hearing is that, a lot of patients who have a primary care provider still go to urgent care for sick visits because they can't get in to their primary care provider for the sick visit.

Is there something we can do there that would connect these dots better?

- Yeah. Let me try just a few parts to the answer.This is a very hard one to both take apart and pull back together. There's a book that I recommend. I think I recommend it. It's called Next in Line by Tim Hoff. It just came out. We're actually going to have him speak in a few weeks.

And he talks about the transformation of primary care into sort of this corporate assembly line that is part of what we're talking about here. And one of the points he makes...and again, it's a very profound book. He's had earlier books just studying primary care and now this one. And he's in the business school. He's coming from a kind of a different place.

No, he's not a clinician. He's in the business school at Northeastern. One of the points he makes is, we've degraded primary care so much that from the patient standpoint, going to one of these urgent care centers versus going to see your own doctor seem the same. And that's a sad commentary. He's sort of saying, we've traded our birthright as primary care continuing, continuity clinicians you know, who have these special relationships with patients, which by the way, patients yearn for that.

When you ask patients what matters to them, that matters a lot to them. You know, convenience also matters, but…and we ask doctors, what matters to them? It's having relationships with patients. So here are both groups of people, it's sort of a sad story of what's happening in American medicine, that people yearn for these meaningful relationships, where somebody knows them and listens to them, etc. yet we've traded that offer, this other thing, so that it's become…so from the patients' point of view, what's the difference?

One versus the other, they're all the same. So, one point will have to be that we have to really make primary care work in a better, more convenient way for patients. So, patients should be able to call after-hours or talk or could be seen. So we've probably failed. So, we've traded our sort of easier lifestyle, you know, an 8:00 to 5:00 lifestyle.

We've given up our birthright for like a pot of porridge like that story in the Bible. That's our birthright, is this relationships with patients. So, one, we need to really think about how we're going to transform primary care. And some of it might be with…not might be, it is going to be with teams. So, you know, I can do more with help with more teamwork, with more nurses, with, you know.

So we need to figure out how to re-engineer primary care to make it work better for patients. The second thing is we should probably recognize the reality that people are going to be seen in these other settings, and we should probably, we should engineer the kind of safety net and follow up they were talking

about. And you know, that could work in a number of ways.

They could have their own system of saying, "We'd like to follow-up on you to see what happened,"or maybe they could be better integrated into our primary care system. Partners, boy, should I say this in public? I don't even know what I'm saying here. Partners has an urgent care, I work for Partners, which is the two Harvard hospitals now, there's the larger group of hospitals. And they have…there's Partners urgent care.

And one would have thought that they would have thoughtfully set up a network of urgent care centers, but they just…there's some fore profit company that's come in that runs these things, it's from Texas. And we actually went. My wife sprained her ankle, the care was terrible and there's no connection with us. The EMRs don't communicate. So patients think that they're part of sort of an integrated system.

So what I'm saying is, we need a truly integrated approach to doing this, not just somebody who thinks they can chop out, or curve out of part of the market and save somebody some money. So, we're doing sort of the wrong thing for the wrong reasons. So, I think you know, patients feel your convenience, we should respect that.

I guess that's about all I can say. I guess, shall I say one more thing. What we're really interested in, and we should think about sort of telemedicine ways so patients don't have to come in every time to see me. They should be able to have access to me in lots of different ways. So we can avoid visits but I need to have some compensation for that probably. If I have all my other work and I'm just doing this as sort of extra work at the end of the day, which is actually what I'm doing currently, then that's not a viable model.

I mean, I have one or two clinics a week, but these people like my son is in primary care, he's got eight…he had nine clinics a week, and he just can't do it. He said he already had to reduce his time. He's going to get burned out. So we have to create better models to allow all that to happen. - [Donna] Hello, I'm Donna Poole.

I'm from Washington State. I'm a psychiatric nurse practitioner, and I have just loved this presentation because it really fits like a glove with what I do. I provide a lot of consults. Most of my career or a lot of my career, I've done consultation in primary care, and the patient that I love to work with is the crock.

And what I found is that primary care doctors hate working with the crock because they feel like they can't do anything. But truthfully, primary care providers are the key to working with these patients. And what I always advise them is if the patient has complaints, there's no medical explanation, that's the patient you need to see more frequently.

You need to see that person every week. You need to do a physical exam. You need to make sure they're not going to the emergency room you know, getting MRIs and blood tests and everything else. And that we really need…that's a patient you really need to develop a relationship with so that they can let you know what's going on. And what I tell the patient is, you know, "We can't find what's wrong with you right now but that doesn't mean that we don't believe you're pain and that doesn't mean that we can't help you.You need to come to see us regularly so we can keep track of your health."

And I find that the primary care doctors who take this to heart and do it just to have magnificent relationship for their patients, and those patients get better. And the ones who say, you know, "Come back and see me in a couple of years," those patients end up you know, running up great bills at the urgent care.

- Well, whatever nice things you said about this talk, I've returned the favor there, that I really agree with what you're saying. That's a very nice comment. The thing you said at the end I think is the most important. We can actually help these people. I mean, this person who has terminal cancer who you know I wisely diagnosed at the ends of stage and refer them for oncology is not going to get better, but these people, I can actually really make a difference.

I mean, even something as simple as writing a housing letter so that they don't get thrown out of their housing when they start screaming or something funny happens, but working with people, knowing people, having them trust you, these are all…it's hard to put a dollar value on that. And keeping them out of the emergency room, not just to save money for the emergency room or decongest our emergency room, but actually, they're just going to have bad things done to them, inappropriate things done to them.

And, I say this not out of bragging but out of modesty, these are very hard people to work with, but they can be very gratifying because you can really make a difference. And often, not always, often they're very appreciative of your efforts. There's equal number of days I go and they just say, you know, "I hate you Dr.

Schiff and I'm going to fire you. You never listen to me, and there's so many things wrong with me. And all you do is dismiss me, but…"Then they'll come back and say, "You were really right.I didn't need the antibiotics, and I'm so glad." Anyway, but that's…we're just going to have to train a generation of practitioners.

And maybe it's not going to be the doctors, maybe it's going to be the NPs and the psychiatric people. And we need to work as a team because I have care management nurses, and people like you to the extent which I have other people I can share the load with, then I can do it. If I'm doing this myself, my back is going to be broken literally and figuratively.

So, thank you for you being there individually and collectively, yeah. - [Female 3] I just wanted to say that I'm in South Carolina, and I have a Real Health Clinic down there. And I really…you know, I usually tell my patients, I don't have X-ray vision, so I really have to work on a short string in making diagnosis and coming up a treatment plan because my patients are often poor and underserved. So, I don't have a lot of litigious patients because they know that, you know, I can only do so much and I'm only a one-person show.

But the other thing that...my question to you is, why isn't there more house calls? I mean, I often visit with my patients. I know why they're having gout when they're eating shrimp all day. It seemed like that...when I was trained, nurses were taught to be in the communities that they served, go to weddings, funerals, whatever. But it seems like today, the doctors are just going 9:00 and 5:00.

And it seems like that's missing at the front-end, not you know, teaching them that it's more than just clocking in and clocking out. So I guess, I think we need to bring that back. And I'm wondering why it

was lost in the first place.

- Well, somebody said to me, this group here, "I guess they're so glad at Harvard to have you from Cook County,"but it turns out it's not true. I'm not completely beloved by the powers to be there. And it centers around just what you've just talked about. And if people want to Google it or write me an email, there's an article in JAM.

After feeling very bad, I actually…I said why I'd even leave Cook County. I work in this patient safety center with all these heroes that I mentioned in Boston but I was accused of crossing boundaries and getting too close to patients. And of course, we all are aware of the Me Too movement and sexual boundaries.

And there's this whole movement around boundaries where, you know, they found like 12% of male psychiatrists were sleeping with their female patients. And in 2% or 3% of female psychiatrists were sleeping with their male patients. And so, that's probably a boundary that should not be crossed. But this idea about having other kinds of relationships with your patients, you just mentioned weddings, and funerals, and people's homes.

But the lawyers are saying, giving a patient a ride home. What do the lawyers in my hospital say about me giving a patient a ride home? Actually, that wasn't one of the things I was recently accused of, but we just collected some data on that. My crime was giving a patient $38 to help her pay for her medicine.

We tried everything. We just…it was Friday afternoon, which frankly was just the easiest thing to do with that. It wasn't even a magnanimous thing. It was just a convenience which path of least resistance. But that was... we've crossed these boundaries that these lawyers have set up, and you know, and as medicine becomes more corporatized, that's where the Tim Hoff book resonated for me, that we're you know, that instead of having this relationship with the patient effect, one of the things in that book is about people branding.

So the idea is that they should brand with partners and not brand with Dr. Schiff. That's the Partner's... So it's a whole retail marketing ethic. So, I guess those are some of the reasons, is because of the way the health care system is going. Another thing is you know, just small town doctors. I mean, what's...versus, you know, I mean, there's just less people part of communities, and that's a trend obviously we can individually change although we can try to understand it and resist some of the worst parts of it.

So, I think knowing our patients, being part of the community with the patients. Like, I was told, if you go to a party and you hear one of your patients is going to be there, should you be at a cocktail party, should you go to the party or tell the host you're not? These are cases in Massachusetts board, case law thing.

So there's all this stuff. And I think there's a certain amount of hypocrisy because I think people do you know, some of this has to do with poor people and being part of community rather than richer people. So we've just finished a national survey on this. If you anybody's going SGIM, we're presenting it.

But a lot of doctors still continue to have these relationships with patients. We surveyed primary care

doctors, and a lot of doctors, about two-thirds, consider it acceptable. So the things that these sort of lawyers and their institution say are not acceptable, giving people rides home, helping people out to find, with a job, or taking care of her friend. Again, these are all to me, contextual things.

I don't take every patient home every day but in certain circumstances in the right context. So, I think that's…I never thought we'd be talking about that part of my thinking today, but I think it's germane, and thank you for your comment. - [Female 4] We have just one more and that will [inaudible]. -

[Female 5] Your comment about time. You made thoughtful comments about time and taking time. How does that fit with RVUs?

- Let's see. Short answer for time. So RVUs is literally, it's that sort of the time clock. So you have to, in order to generate your salary, you have to see a certain number of people to generate a certain number of RVUs.

And I can't…if you see you know, 20 patients a day to earn your RVUs, and then of course, then you have to be taught to opcode to get as much RVUs as you want and check off for every pap smear to get those. But that's a fee for service. Treadmill, they run, but it, at least, reimburses you for the number of patients you're seeing.

So there's some positive thing. When you move to the opposite, which is a capitated system, then there is in some ways another kind of incentive to see this few…to also see people quickly because you're not generating that income when you see them. So, both of them play out in kind of weird, distorted ways. I guess, in my ideal system and the way they do it to most of the world, they pay doctors a salary, and then they should figure out how to then best use my time in the most efficient productive way.

And I think that that can go against the grain of a lot of the sort of market thinking and pay for performance. But that's…but RVUs and fee for service is considered to be part of the problem for driving up costs now, you know, in terms of creating unnecessary visits and stuff. But it still does encourage me to see more and more patients in order to make my quota.

- Thank you so much, Gordy.