Carlecast8 – Addiction Medicine

Dr. David Graham: It's Carlecast Number Eight, Addiction Medicine. You know you just can't stop listening to this.

Once again hello, and welcome to the Carlecast. I am Dr. David Graham, oncologist at the Carle Clinic in Urbana, Illinois, and your host through these series of shows where we give you doctors discussing your health. One of the few podcasts, if in fact the only podcast, where we get doctors, experts in the field, talking back and forth about topics that interest you, interest us, and just enlighten all of us together at once.

I think our topic today is really going to take a step towards doing that. I would venture to say that not a lot of you realize that there is in fact a whole field of specialty dealing with addiction medicine. Our interview today is with Dr. Kirk Moberg. Dr. Moberg's not just satisfied with being an MD, he's a Ph.D. as well. He trained in internal medicine and then went on to get his specialty certification in addiction medicine.

During my talk with Dr. Moberg, I learned tons. I learned a lot about just the basic areas of addiction medicine. It certainly goes way beyond the whole twelve step programs and a lot of people sitting around drinking coffee that may be a stereotype. I also learned of a lot of new advances in the field that may make a huge difference in the years to come in our helping people get off some of these substances that are, in fact, really dangerous to their health, to their careers and to just their overall life.

So, without further ado, we have a little bit of a longer interview today. Not too long, though. Let's get to it with Dr. Kirk Moberg.

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Dr. David Graham: I'm here today with Dr. Kirk Moberg. Dr. Moberg's not only an MD, but also a Ph.D. He is board certified in internal medicine and has taken the added step of getting letters of certification in addiction medicine as well. Really glad to have you here, Dr. Moberg.

Dr. Kirk Moberg: Thanks, Dr. Graham.

Dr. David Graham: I wanted to speak with Dr. Moberg because the whole area of addiction medicine is becoming much more prevalent in our medical society and in general society as well, and Dr. Moberg, being an

expert in the field, I think can give us a lot of insight. I think the first question we have to ask, Dr. Moberg, is what is addiction, anyway?

Dr. Kirk Moberg: Addiction is a chronic relapsing disorder that is similar to a lot of chronic disorders such as diabetes mellitus or hypertension. It's characterized by a variety of different symptoms. Some of the most common ones that people are most familiar with are the presence of withdrawal syndrome; that is symptoms that occur when the addicts stop using the substances abruptly; tolerance, which is the phenomenon of the need to take the substance in increased amounts or at greater frequency to get the same effect. But there's some other symptoms that are just as important, such as the giving up of important social or other activities in order to get the substance, the attempts to cut down using the substance and being unsuccessful in doing so, the presence of negative consequences from using the substance and the person continues to use. These are some of the diagnostic criteria that go towards defining an addict.

Dr. David Graham: Now when say substance, we can mean a lot of different things, right?

Dr. Kirk Moberg: That's right. There are a certain subset of drugs that are addictive, and they would be your opioid drugs, stimulants, depressants, which would include alcohol, nicotine, hallucinogens, which would include drugs like cannabis or marijuana.

Dr. David Graham: So, working in a field of addiction medicine, what sort of services then do you have for patients and their families?

Dr. Kirk Moberg: There's a wide spectrum of services that are analogous to the kinds of services that would be provided for any other kind of diagnosis, depending on how severe it is. Medical detoxification for the person who needs a withdrawal syndrome that needs to be managed; primary treatment, this involves intense treatment for the addict who learns skills to avoid relapse and this can done in either the inpatient or the outpatient setting. Then there's continuing care, which is a several month follow-up period after the primary treatment to make sure that the addict stays connected in the recovery community and employs recovery skills to avoid relapse.

Dr. David Graham: But you give services to more than just the addict? Do you help treat the patient's family as well?

Dr. Kirk Moberg: That's a good point, David. Addiction is a family disease, and many times the members of the family are suffering just as the addict is suffering. We offer family services to members of the family who seek them in terms of counseling, in terms of setting boundaries so they understand what they can do and what they can't do in terms of supporting the addict.

Dr. David Graham: Now, one of the reasons I thought it would really be interesting for us to have a chance to talk is, certainly we have a lot of this stereotyped idea with what happens with addiction treatment, and that is the groups, Alcoholics Anonymous, Narcotics Anonymous, the various 12 step programs that certainly have a degree of effectiveness. But we've got, from my understanding, some really interesting new things coming down that maybe take things another step ahead.

Dr. Kirk Moberg: The real exciting thing about addiction medicine right now is that research has been able to isolate the areas of the brain that are involved in addiction. So we actually know where in the brain the addiction center is, if you will. As a result, there are some drugs that affect certain neurotransmitter systems that can help the addict stay abstinent.

Dr. David Graham: Want to give us some examples and some of the new things that are out there?

Dr. Kirk Moberg: Well, there are a couple of drugs that have been recently approved by the FDA for the alcoholic. One of those is naltrexone. Naltrexone is a drug that's about ten years old as far as its approval for treatment of the addict. It has been shown to reduce relapse, and it's also been shown to help prevent a slip from turning into a full-blown relapse. A slip is when an alcoholic might take a single drink, and on naltrexone, studies have shown that this person is less likely to go on to take more and more drinks if they take that first drink. In both of those situations, it's been helpful to reduce relapse. It works by blocking the reinforcement in the addiction center in the brain.

Another drug, which has only been on the market in the United States for a couple of years, although it's been used successfully in Europe for well over a decade, is acamprosate. Acamprosate treats alcoholics for what is known as the protracted withdrawal syndrome. Everyone is probably familiar with the acute withdrawal syndrome that consists of sweats and shakes and can progress to a life-threatening phenomenon known as delirium tremens or DTs. But what's not as appreciated as well is this protracted withdrawal syndrome that starts after the acute withdrawal syndrome is over and can

last for months. This withdrawal syndrome is characterized by some very subtle symptoms such as irritability, distractibility and intense craving for alcohol. It makes it very difficult for these patients to engage in group therapy or in individual therapy.

Acamprosate affects a neurotransmitter system called the glutamate system, and it settles that system down so that the cravings decrease and the distractibility and irritability decrease, which makes these patients able to engage in therapy in a much more productive way. I've used acamprosate in several patients and I've seen a lot of good results.

Dr. David Graham: Now a lot of the drugs that we used to use to try and achieve these goals in the past had some side effects that we really didn't like very much, whether it was sedating the patient or actually the drug causing an avoidance reaction, making you horrendously sick if you ever drank. Do these drugs have those same kinds of side effects?

Dr. Kirk Moberg: Naltrexone has caused some nausea in some patients, and that can be a factor in discontinuing the drug, although a lot of patients get over that nausea. Acamprosate is much less with respect to any kind of side effects, and the dosage can be adjusted to alleviate those side effects. Neither one of those are addictive drugs, and neither one causes any kind of sedation or impairment on the job, so people on either one of these drugs can work at their jobs. They can participate in all of life's activities without any kind of problems.

Dr. David Graham: So you're telling me now for the vast majority of people that are appropriate to take these drugs, we have a treatment that's going to improve the chances that they stay off alcohol or other substances, that's not going to make them sick and allow them to continue to be a good, productive member of society?

Dr. Kirk Moberg: That's correct, and just to clarify, with these two drugs I'm only talking about alcohol. Although naltrexone has been used for opioid addiction as well, but not with as good results, but naltrexone and acamprosate are primarily for alcohol.

Dr. David Graham: Are there people who shouldn't take these drugs?

Dr. Kirk Moberg: Naltrexone should not be used in people with pre-existing liver disease. There is some risk of making the liver disease worse. Acamprosate needs to be monitored very carefully in people with kidney disease.

Dr. David Graham: How about other forms of addiction, other substances that people becoming addicted to? Are we getting close, or do we have a similar type of treatment for those folks?

Dr. Kirk Moberg: Well, one real exciting treatment we have for opioid addicts now is called office-based opioid treatment. And it's based on the old methadone maintenance treatment centers, which is based on an idea called maintenance therapy. That is, you substitute an opioid drug for the opioid drug that the person was abusing, but it's done under a controlled environment. A long-acting drug is use so the patient does not have the fluctuation of the acute intoxication and the subsequent withdrawal phenomenon that one gets with some short-acting drugs like heroin, morphine or Demerol.

These drugs can be given once a day and have only been legal to use since 2000, when President Clinton signed the Drug Addiction Treatment Act, which allowed for scheduled drugs to be used to treat opioid addiction in the outpatient setting, outside of a methadone maintenance treatment center. It was, however, not until about two, two and a half years ago, when the federal government through the FDA approved the combination bupinorphine suboxone or bupinorphine by itself to be used for this purpose. So really what we have are only those two formulations that are legal to be used for opioid treatment.

Physicians who prescribe these drugs have to have a waiver from the Drug Enforcement Agency, and they have to exhibit certain qualifications to get that waiver. They either need to be a psychiatrist board-certified in addiction medicine, or certified by the American Society of Addiction Medicine, or they need to take a course which teaches them how to prescribe bupinorphine.

We've just started using bupinorphine in the outpatient setting about six months ago, and we've seen some very good results with that. The idea behind it is that the opioid addict's brain chemistry has been altered in the long term. Normally the brain produces chemicals called endorphins, and these endorphins are suppressed when opioids in the form of abused drugs are introduced into the body.

When the abused drugs are removed, the endorphins don't resume to normal levels right away, in fact, it can be months or years before they do that. During that time, the patient has a state of being unwell, uneasy or just they don't feel right. As a result, like the protracted withdrawal, they're

distractable, they're irritable, they have intense drug cravings and they're at high risk for relapse. Putting patients on a long-term opioid like bupinorphine alleviates these symptoms, and in a controlled environment, ideally, these patients can be maintained and eventually weaned off. While they are on the drug, they can be employed, they can participate in society, and the quality of their life is certainly much better than when they were abusing the opioids.

Dr. David Graham: As a person or family member realizes that they're in a situation like this, and they want to try and connect with an addiction medicine physician, is it pretty easy to find a person with your type of qualifications?

Dr. Kirk Moberg: It depends on where a person would be living, in urban areas it's much easier to find a physician who's certified by the American Society of Addiction Medicine. In some rural areas it's more difficult. However, the American Society of Addiction Medicine maintains a website so that people can find which physicians are certified and there's also a website maintained by the federal government so that people can find out who the suboxone prescribers are in their area.

Dr. David Graham: So these certifications then help people be sure that the doctor they're talking to has the level of experience and knowledge to help them with these problems.

Dr. Kirk Moberg: That's correct.

Dr. David Graham: Well, Dr. Moberg, this has been really enlightening for me, and the advances that are being made are truly impressive. I look forward to seeing and hearing more about these advances in the future, and I really want to thank you for your time helping us learn about this today.

Dr. Kirk Moberg: Thank you.

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Dr. David Graham: Well, once again, I really want to thank Dr. Kirk Moberg for what was a fantastic discussion on an area that a lot of us don't know nearly as much about as we should. I did a little bit of chemical dependency training when I was going through my residency in medical school, it wasn't that long ago, and this is so far head and shoulders above anything we ever talked about doing that it just amazes me, the advances

we're making on a problem that's really a great scourge to society. So kudos to Dr. Moberg for the work he's doing in a difficult area, and for the advances that the whole field are making in an area that we certainly have lots of use for and will continue to have lots of use for in years to come.

What else is going on in medicine? A question I ask on every one of these shows, where I go looking around trying to find other topics that have at least something to do, a little bit if nothing else, with the topic we've been talking to the experts on. I talked to Dr. Moberg about addiction medicine.

One of the biggest addictions in the country, if not the world, is tobacco. And there's a lot of talk back and forth about what tobacco can do and what tobacco can't do, not only to the people who smoke, but the people who get exposed to the smoke in the house. Well, here's a study that just scares the heck out of me. This is from Dr. Steven Hett, he's from the Cancer Center at the University of Minnesota, and in the May issue of the journal "Cancer Epidemiology Biomarkers and Prevention," we heard about a study that was pretty darn impressive.

The whole question raised in this study, in infants and babies living at houses with smokers, how much cancer-causing agents do they really get exposed to? And this is a scary study. What they did is they got urine from 144 children aged three months to twelve months. All these children lived in houses where at least one parent was a smoker, and they looked in the urine for something called NNAL.

NNAL is something that's made when the body processes another chemical called NNK. NNK is a known cancer-causing agent that's found, really, only in tobacco. So we're looking for something that's broken down in people who are exposed to cancer-causing agents from tobacco only, so we can't blame it on chemicals in the house, we can't blame it on new furniture, we can't blame it on new construction or whatever else we want to. This is only from smoking. What they found is that lots of these children, at least half of the kids that they tested, had detectable levels of this breakdown product, the NNAL. That's a scary thought.

Now, if you looked at the children who had these detectable levels, people in their family smoked an average of 76 cigarettes a week, or about four packs a week, less than a pack a day, a little over half a pack a day. So most smokers that you talk to, they'll think only smoking half a pack a day isn't any big deal. Well, it can be a real big deal to your kids. There were about half the kids that had no detectable levels of NNAL, even though we knew at least someone in their family smoked, but the number of cigarettes by

those family members was actually only about 27 a week, or a pack a week in those houses.

How interestingly enough, they look at the urinary levels of this chemical, the NNAL in the infants, and it was higher than the levels seen in older kids and adults exposed to secondhand smoke. Why? A lot of hypotheses abound, nothing's proven. Can the infants not move around and get away from the smoke, like the adults and the older children can? That's a real possibility. We're just not sure.

The other scary thing was actually reported by the same group in an earlier study. They looked at newborns in parents and particularly mothers, who smoked during pregnancy, and they had detectable levels of this same product, the NNAL, in their urine as well. And in fact, the level of NNAL in the urine of these newborns was even higher than the levels found in the infants where the parents smoked. Meaning, smoking in your house: bad. Smoking when you're pregnant: even worse, when we're talking about what you may be exposing your children to.

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Dr. David Graham: Well, that brings us to the end of this eighth Carlecast Show. Once again, I really have to thank Dr. Kirk Moberg, MD, Ph.D. And expert in the field of addiction medicine for a talk that was just incredibly enlightening and gave us all something to think about in times to come.

Well, I hope that you are subscribing to this podcast, either through our website, www.carlecast.com, or through iTunes, through Podcast Alley, or any of the other pod-catching software and sites that are available out there. We don't mind you downloading each show directly from each website or looking at the transcripts, we're happy to provide that service to you. You can, of course, listen to the show streaming from the website as well, but if you subscribe, you're always going to know when a new show is available and you won't have to worry about missing something. We'll directly feed it into your computer when the new shows are available.

Once again, I need to thank Derek Miller and his music from "The Pen Machine Sessions" that provides us our introduction, our bumper music, our outro music and just really fits in nicely with the whole podcast. He's providing this music to us without copyright expenses and we thank him for that. In the future, we've got some interesting shows to come, including experts on mammography, a talk with a blood bank specialist about whether or not we need to be worried about transfusions around the time

of surgery, what can we do to avoid transfusions with surgery, et cetera, and we've got some other interesting topics lined up as well.

I'd always love to hear your suggestions for topics, we have the email or "Contact Us" section on our website, carlecast.com. Please send us email, let us know how we're doing. Constructive criticism is always appreciated, kudos we never mind a bit, and if you just want to write in and tell us how great we are, we'll take that any day of the week.

I say this every time, I have to say it this time as well, please do not write asking me about specific case questions or something involving your personal history or your family's medical history. I can't answer those kinds of questions. The lawyers get really upset when I start doing that and the last thing I want to do is upset a lawyer. But, topics for shows, topics for stories we might investigate for you, we're happy to get those any time.

So until next time, we're going to be trying to keep these on an every other week schedule, and I think we can do that. I am, again, Dr. David Graham, oncologist at the Carle Clinic in Urbana, Illinois, looking forward to talking to you next time, and until then, stay healthy.