Hi! This is Dr. Thomas Bersot, President of the National Lipid Association and I would like to welcome you to Lipid Luminations hosted by Dr. Larry Kaskel and presented by the National Lipid Association.

Cigarette smoking is the leading preventable cause of illness and premature death in the US claiming over 400 lives yearly. Joining me today is Dr. Douglas Jorenby, Director of Clinical Services for the University of Wisconsin Center for Tobacco Research and Intervention and we are going to talk about smoking cessation strategies for the 21st century.

DR. KASKEL:
Dr. Jorenby, welcome to the show.

DR. JORENBY:
Thank you, its a pleasure.

DR. KASKEL:
Well, I would like to start with an obvious question. Why should we actually be treating tobacco use?

DR. JORENBY:
Well, as you said it's the leading preventable cause of illness and premature death, we know that for people that smoke, it is robbing them of somewhere close to 14 years of their lives. Another way to think about it that may be brings the point home more starkly is if you look at people who use cigarettes as a product, you know, using them as directed according to the package insert if you will, that's...
going to kill between a third-and-a-half of the people who use those cigarettes. That’s a pretty shocking rate.

DR. KASKEL:
That is high. I mean, the 14-year number is interesting. Does that number still apply to people, let’s say if they quit later in life or does that number kind of get telescoped?

DR. JORENBY:
Well, we certainly know from Surgeon General’s that there are benefits to people quitting even later in life, even in their 60s and beyond. Obviously, if you wait that long before you quit, you are not going to see the same changes in life expectancy, although people’s quality of life goes up even when they quit later in life and I think that’s an important factor to think about, but certainly whatever we can do to help patients stop smoking earlier in that trajectory, earlier in their smoking career, the bigger the benefits they are going to get later on.

DR. KASKEL:
Dr. Jorenby, what do we know in the year 2008 about how smoking actually contributes to cardiovascular disease and by stopping smoking how that benefits the arterial tree?

DR. JORENBY:
Its certainly a big benefit and I know one of the things that is very salient in the folks that we work within our Smoking Cessation Clinic is in terms of the cardiovascular facts, people quitting realize those more quickly, almost really than any other form of improvement in their health that they get from smoking. Within a year, their risk of sudden cardiac death is cut in half. Within 2 to 3 years, the risk goes down to almost like that if they never smoked. If you look at that in terms of risk of lung cancer, they got to be quit for 10 to 15 years. On the more micro level, there are a number of effects that are going on when people are smoking. There is good evidence that their low density and very low-density lipoprotein concentrations are up, their high-density lipoproteins go down, they have got more C-reactive protein, and certainly the act of smoking is constricting their blood vessels in an acute way so that the blood pressure goes up and because they are getting carbon monoxide every time they inhale on a cigarette, they are taking away oxygen; at the same time nicotine is forcing the heart to beat faster, to work harder.

DR. KASKEL:
Well, you brought up nicotine and a lot of people feel that nicotine is the enemy and I try and say that its really not nicotine, its all the other crap that’s in the cigarette and the nicotine obviously is what helps to addict you, but that will not really kill you.

DR. JORENBY:
Absolutely, and I mean that’s really the paradox at the heart of things is that it is nicotine that keeps people coming back for the next dose and the next dose, but outside of some very narrow exceptions, you know women who are pregnant or maybe somebody who is immediately post MI, you are absolutely right, it is not what causes the health problems that we have known now for decades are related to smoking; and in fact it sort of let us down one of the main treatment pathways, which was people as far back as the 70s were
thinking, is there a way that we can give people nicotine without the tar, without the carcinogens, without the carbon monoxide that come from smoking tobacco and then use that as a way to get them disentangled from this entirely?

DR. KASKEL:
So, in your Smoking Cessation Center, what’s your experience been with the nicotine replacement therapies, i.e. the nasal spray, the inhaler, the gum? I mean you have people that stay on nicotine forever and you are okay with that.

DR. JORENBY:
Well, we do have a small number of people and I think that’s borne out when you look at national use patterns. There are a small number of people that seem to be on nicotine maintenance therapy. It’s more common with the ad-lib therapies; you mentioned the nasal spray and the inhaler as well as the gum and the lozenge. Those are things that a small number of people will use sometimes in real limited amounts over a long period. You don’t see that as much with the patch, I think partly because its delivering a steady state of nicotine and that’s just not as rewarding for folks.

DR. KASKEL:
Do you have a favorite that you have seen worked better than others?

DR. JORENBY:
We use all of the FDA approved therapies, sometimes in combination as well. If you look at the most current state of the art, which is the US Public Health Service Clinical Practice guideline that was just released in May of 2008, that’s the third addition of that, that found that all of the FDA-approved therapies were effective relative to placebo. It particularly found that if you took just say the nicotine patches as sort of our fundamental treatment if you will, the one that’s used most commonly, the one that we have the most research evidence about, and compared everything to that, the 2 that stood out were combination therapies, combinations of nicotine replacement like the patch plus nicotine gum and a relatively new non-nicotine treatment, varenicline and both of those were superior in meta-analyses to the patch as a standard preference treatment.

DR. KASKEL:
You mentioned the fancy name for Chantix.

DR. JORENBY:
Yes, ha, ha, ha, ha.
I can’t pronounce it, but tell me about your experience with that and has it been remarkably different than the other available treatments or just another tool in our chest?

**DR. JORENBY:**

Well, it's certainly a tool and I think its one for people to consider very seriously. As you mentioned a couple of minutes ago, sometimes you have to fight that educational battle with patients who think nicotine is the enemy and sometimes its just simpler to go with a non-nicotine option rather than rehash that ground. You know, certainly in terms of the data that have been published in the peer review literature so far, varenicline looks very positive. The odds ratios are 3 times or more better than placebo. Now, a lot of those have been from studies that were done pre-approval; and we know from past history, pretty much every smoking cessation treatment looks best at that point because those phase 2 and phase 3 studies are generally done with pretty healthy smokers, there are people who are really motivated, they are given instead of optimal settings and once it gets out in the real world, it starts to go down some; but with varenicline, there is something fairly unique about the molecule that is unlike anything else we have in our clinical bag of tricks and that is it not only is an agonist in the sense it reduces the withdrawal symptoms, it makes quitting less than pleasant for people, but the unique thing is that at the same time, it has antagonist properties. So, it's blocking some of the rewarding enjoyable effects of nicotine when people are smoking and that seems to be something that helps folks who are unable to quit with maybe the preexisting therapies and be able to stay quit.

**DR. KASKEL:**

If you have just turned in, you are listening to Lipid Luminations on ReachMD XM160, The Channel for Medical Professionals. I am Dr. Larry Kaskel and my guest today is Dr. Douglas Jorenby, Director of Clinical Services for the University of Wisconsin Center for Tobacco Research and Intervention and we are talking about different smoking cessation strategies for the 21st century.

**DR. KASKEL:**

You mentioned varenicline and kind of sounds like the methadone of sorts for getting people off their nicotine. How long can you keep someone on that therapy?

**DR. JORENBY:**

The FDA approved it normally for 12 weeks of use after people’s quit date. There is one study our there in the literature that looked at extending treatment out to 6 months and saw some benefit to that so that the FDA offers prescribers the option of going out 6 to months. I know there are people that are interested in whether maybe even longer might be beneficial, but that’s still pretty much up in the air.

**DR. KASKEL:**

And in your experience in the post marketing of that medicine, have you seen any of the adverse effects that I see in my e-mail every day?

**DR. JORENBY:**
We have not seen a lot of that. It's something that you know, we educate folks about ahead of time and we are fairly aggressive in terms of our followup, really encourage people after their quit date. We have an open-ended support group as well as reaching out by phone to folks, which is good practice. We know that that kind of contact regardless of what medicine people are using helps them stay quit, but I think particularly with varenicline that's a great way of checking up on folks to make sure that they are not experiencing any of those side effects that the FDA has released some warnings on post approval.

DR. KASKEL:
And talking about the followup with your patients, have you found that it's just important to touch base with them anyway, be it through internet, phone calls, something to kind of just keep on them.

DR. JORENBY:
Absolutely, that was one thing that came through very clearly in the Public Health Service Guideline meta-analysis was there is a very strong dose response relationship in terms of followup that the more of it that we do, the more often we contact people, the more time we spend with them, the more likely it is that they are going to quit and it really does not seem to make a huge difference how you do that and traditionally it has been kind of face to face, either individual followup in the clinic or with support groups, every state in the union now has access to telephone-based quit lines, which are a great way of giving people more followup and a more counseling and support without having your clinic schedule explode in your face and I don't know you may get more e-mail from patients than I, but for a lot of folks that's a very convenient way to stay in touch as well.

DR. KASKEL:
And how do you feel about non-FDA-approved methods such as laser therapy or hypnosis? I mean, are you okay with anything that works or do you feel it really has to be approved?

DR. JORENBY:
I think it goes back to what works and the three that have historically been very attractive to people as you said, you know, hypnosis, this newer so called laser treatment, which is really just a variation on traditional acupuncture and there have been a small number of studies that if you look at those, if you look at the Cochrane meta-analysis and the Public Health Service guidelines pretty much echo their conclusions that there is not evidence that hypnosis or traditional acupuncture were based on a very small number of studies, thus so-called laser treatment or laser acupuncture is actually effective in helping people quit, but I understand from a lot of folks why they are very attractive because all of them seem to offer the opportunity for people to quit without really wanting to. You know, hypnosis is probably the best example because it's like the hypnotist puts the whammy on you and you stop smoking whether you want to or not. Unfortunately for most people it's a case of not that generally they are lighting up with the walk-in away from the visit.

DR. KASKEL:
Well, on that note, Douglas Jorenby, thank you very much for coming on the show.

DR. JORENBY:
Yeah, its has been a pleasure speaking with you.
Thank you for listening to Lipid Luminations presented by the National Lipid Association. For more information, visit www.lipid.org.