

Vasoreactivity Testing a Must in Idiopathic PAH

BY BRUCE JANCIN

SAN DIEGO — Only 1 in 20 individuals with idiopathic pulmonary arterial hypertension can be successfully managed long term with oral calcium channel blockers, but even a slim chance of using this simple, inexpensive therapy is so attractive that acute vasoreactivity testing to identify suitable candidates is warranted in all patients with the disorder.

The best agent to use for this testing, which is done during right heart catheterization, is inhaled nitric oxide, Dr. Lewis J. Rubin said at the annual meeting of the American College of Chest Physicians.

“It’s very potent, it’s short acting, it’s a very good identifier of patients who have vasoreactivity—and when you see it, there’s no question about it. Within a few breaths of nitric oxide in a responder, you will see the pulmonary artery

pressure come down. It’s not subtle at all,” said Dr. Rubin, professor of pulmonary and critical care medicine at the University of California, San Diego.

Roughly 10% of patients with idiopathic pulmonary arterial hypertension (IPAH) will demonstrate a dominant vasoreactive response on testing and therefore are suitable for a therapeutic trial using an oral calcium channel blocker. Earlier studies had put that figure as

high as 20%-25%. Moreover, only about half of acute responders will maintain that response long term on calcium channel blocker therapy, as defined by New York Heart Association class I or II status and sustained hemodynamic improvement without additional PAH-specific agents.

Reasonable alternatives to inhaled nitric oxide for acute vasoreactivity testing are intravenous epoprostenol (Flolan) and intravenous adenosine. Calcium channel blockers should never be used for the testing, a point emphasized in the latest American College of Cardiology/American Heart Association expert consensus document on pulmonary hypertension, coauthored by Dr. Rubin (*J. Am. Coll. Cardiol.* 2009;53:1573-1619).

It’s never too early to have the “insulin talk”

Some conversations may be hard to initiate. Take the “insulin talk,” for example. According to the American Diabetes Association, insulin is the most effective agent for lowering blood glucose.¹ It works as part of an overall diabetes treatment plan, which may include diet, exercise, and other diabetes medication. Having the “insulin talk” early may help patients accept insulin as a potential treatment option to help them achieve their A1C goals.²

The results of having a positive “insulin talk” can be impactful: in a survey, about 80% of patients with type 2 diabetes on OADs said they’d consider taking insulin if their doctor recommended it.³ So by starting the dialogue now, you can help your patients have a better understanding of insulin as an effective treatment option for lowering blood glucose.

Insulin—a chance for successful glycemic control, not a punishment for failure

Patients may focus on blaming themselves for their uncontrolled blood glucose, but you can help them focus on turning this negative mindset into positive action for managing their disease.² The United Kingdom Prospective Diabetes Study showed that by the time patients with type 2 diabetes are diagnosed, they may already have lost up to 50% of their beta-cell function, and this function may continue to decline.⁴

Because the disease is progressive, many patients with type 2 diabetes may eventually need insulin to achieve or maintain glycemic control.^{2,5} But by the time patients with type 2 diabetes are prescribed insulin, they may have had diabetes for 10 to 15 years and may already have complications due to a prolonged period of uncontrolled blood glucose.⁶ Starting insulin earlier in the disease continuum for appropriate patients can help improve glycemic control. Controlling blood glucose can reduce the risk of diabetes-related complications.^{5,6}

Treatment plans and glycemic targets should be individualized for each patient.

Insulin is indicated to help improve glycemic control in patients with diabetes mellitus.

Important Safety Information About Insulin

Possible side effects may include blood glucose levels that are too low, injection site reactions, and allergic reactions, including itching and rash. Other medications and supplements could change the way insulin works. Glucose monitoring is recommended for patients with diabetes.

THE “INSULIN TALK”

Have the talk early and as needed, to help destigmatize insulin²

- Reassure patients that using insulin doesn’t mean failure and that insulin may help replace what the body is no longer adequately making
- Turn the negative mindset of failure into a positive opportunity to take personal control of A1C

Put insulin therapy in context

- Explain the benefits of maintaining blood glucose goals and the risks associated with insulin therapy
- Talk about how insulin may be worth the effort—insulin is an effective treatment option that works as part of an overall treatment plan to lower blood glucose

Identify patients’ personal obstacles and help defuse the “scary” factor²

- Today’s insulin injections generally cause little discomfort and are administered using small, thin needles^{2,6}
- Insulin pens make insulin more convenient to administer and are discreet²
- Insulin dose may need to be adjusted up or down over the course of treatment depending on how a patient’s body responds⁵

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Calcium channel blockers should never be used for vasoreactivity testing.

DR. RUBIN

“They’re nontitratable and nonselective, and it’s exceedingly dangerous. So you either test for vasoreactivity with something that’s available and safe or you don’t do it and you let somebody who does this for a living do it for you,” Dr. Rubin said.

Only a tiny percentage of patients with PAH associated with connective tissue disease, portal hypertension, HIV infection, or other nonidiopathic forms of PAH have pulmonary vasoconstriction as the dominant cause of their pulmonary hypertension are thus candidates for calcium channel blocker therapy.

“Some people say there’s no use in testing for acute vasoreactivity in anything other than IPAH. But if you’re set up to do it and you can do it relatively efficiently, safely, and quickly, I think it’s worth doing for all patients with PAH,” the physician continued.

Dr. Rubin made a plea for physicians in the community to have no hesitation in referring their patients with PAH to experts at centers of excellence.

“This is a highly complex and rapidly evolving condition in terms of management. As treatments have diffused into the community, I think there are concerns about delays in referring patients for more complex management. This is a shared responsibility. We can’t see these patients as frequently as you can because they often come from a distance. We serve as a resource for you. We need to see these patients at intervals,” he said.

Disclosures: Dr. Rubin is a consultant and/or on the speakers bureaus for Gilead Sciences Inc., Actelion Pharmaceuticals Ltd., Pfizer Inc., United Therapeutics Corp., Aires Pharmaceuticals Inc., Solvay Pharmaceuticals Inc., and other pharmaceutical companies.