



REVEAL REGISTRY[™] BOASTS 3,000 PATIENT POOL, TRANSFORMING PAH CLINICAL EXPERIENCE INTO KNOWLEDGE

The REVEAL Registry[™] is the largest Pulmonary Arterial Hypertension (PAH) reference set of real-world data from the PAH WHO Group I patient population. Enrollment for this broad, observational study—composed of 3,000 US-based patients from 56 medical centers—will be completed several months ahead of schedule and before 2007 year end.

Steering Committee members, Michael D. McGoon, MD (chair) and David B. Badesch, MD, discuss how this unique and robust resource hopes to yield data about innate disease factors, treatment protocols, and optimal outcomes for the subgroups of patients.

“The ultimate value and excitement of the Registry is the assembling of information across a long-period of time,” notes Dr. McGoon, Professor of Medicine and Consultant in Cardiovascular Diseases at the Mayo Clinic College of Medicine. He continues, “From this cross-sectional, representative patient pool, we can draw broad conclusions ranging from demographics to how physicians elect to treat PAH . . . [and] general statements about which treatments seem more or less appropriate for which patients.”

Dr. Badesch, Professor of Medicine, in the Divisions of Pulmonary Sciences & Critical Care Medicine, and Cardiology, and Clinical Director of the Pulmonary Hypertension Center at the University of Colorado at Denver and Health Sciences Center, notes that the REVEAL Registry may “increase disease awareness and knowledge of the scope of PAH, and give practitioners a sense of the underlying factors that might lead to PAH, helping to facilitate early diagnosis.”

Building Upon—and Broadening—Learnings from Other PAH Registries

Complementing data collected in clinical trials, the REVEAL Registry hopes to help clinicians design better and more informed studies and thereby, hone PAH treatment protocols.

Dr. McGoon says that REVEAL Registry data will be compared with “historical registries, to get a better grasp of how many people have PAH. Highlights in changes in treatment will be interesting. And, given the successful French registry [Pulmonary Hypertension Registry], the comparison will be worldwide.” He adds that both the NIH and French

SNAPSHOT OF PAH REGISTRIES

NAME	GEOGRAPHIC SCOPE	PATIENT POOL
REVEAL Registry ¹	56 medical centers (United States)	3,000 (≥ 3 months old)
Pulmonary Hypertension Registry ²	17 university hospitals (France)	674 (≥ 18 years old)
National Primary Pulmonary Hypertension Patient Registry ^{3,4}	32 medical centers (United States, NIH)	187 (≥ 1 years old)
Swiss Registry ⁵	4 university centers (Switzerland)	106 (≥ 12 years old)
China Registry ⁶	2 medical centers (China)	72 (≥ 9.7 years old)

1. REVEAL Registry,[™] www.revealregistry.com, 2007; 2. Am J Respir Crit Care Med, 2006; 173:1023–30; 3. Ann Intern Med, 1987; 107:216–23; 4. Ann Intern Med, 1991; 115:343–49; 5. Swiss Med Wkly, 2001; 131:346–50; 6. Chest.06-2913 2007;132:373–379.

registries found the “time between disease development and diagnosis to be 2.4 years and that the REVEAL Registry data may find this to be better, but it is “too early to say.”

Dr. Badesch explains that the REVEAL Registry dataset will indicate if “baseline patient characteristics, including demographics such as patient age, and distribution between sexes, have changed when compared with the NIH registry findings.” Dr. Badesch adds “We will also be able to better understand the distribution of patients among the various diagnoses that make up WHO Group I PAH. Furthermore, we hope to obtain important information regarding how the underlying diagnosis affects response to various therapies.”

By providing a repository of timely and relevant data, the REVEAL Registry may assist the evolving research needs of the PAH community. Physicians and researchers may be able to more readily track and study the clinical course and medical management of PAH, and generate new hypotheses and understandings about treatment therapies for patients with PAH.

Evaluating REVEAL Registry Data

By analyzing the REVEAL Registry data, Dr. McGoon says that practitioners and researchers may be able to better “recognize the type of people who get PAH, recognize what they look like early on, and facilitate clinical management decisions early on.”


Notably, the REVEAL Registry may also help differentiate clinical management of idiopathic versus comorbid PAH (associated with diseases such as HIV, congenital heart disease, drug toxicity, and liver disease). Dr. Badesch adds that the REVEAL Registry may allow us to “look at exposures and potential trigger factors—obesity, sleep apnea, cigarette smoking, altitude, and amphetamine usage. Furthermore, the Registry may enable us to look at

patients who fall on the periphery of the traditional WHO Group I diagnostic category. We are seeing many such patients in our clinics today, and have little information on their demographics and response to therapy.”

As defined by study objectives, analysis of the REVEAL Registry dataset aims to:

- Characterize the demographics and clinical course of the WHO Group I PAH patient population
- Evaluate differences in patient outcomes according to WHO Group I classification subgroup
- Compare outcomes in patients who do and do not meet prespecified hemodynamic criteria for the diagnosis of PAH
- Identify clinical predictors of short- and long-term outcomes
- Assess the relationship between PAH medications, individually and in combination, and outcomes
- Collect timely and relevant data to assist in the evolving research needs of the PAH community

About Actelion

Actelion Pharmaceuticals US, Inc. (San Francisco, CA) sponsors the REVEAL Registry and is a leader in PAH therapies. Actelion is currently working on drug discovery targeting cardiovascular, cardiopulmonary, immunological, and infectious diseases, as well as metabolic and central nervous system disorders. 

To Learn More

For more information, call the REVEAL Hotline at 1-877-REVEAL5 (1-877-738-3255), email to info@REVEAL-registry.com, or visit the registry (www.REVEALregistry.com) and company (www.actelion.com) sites.

REVEAL Registry™

www.revealregistry.com

Kathy Feldkircher, Ph.D., Senior Director, Clinical Operations at Actelion, describes the REVEAL Registry™ as the “optimal collaborative relationship between industry and the scientific community.” Dr. Feldkircher offers the following details to frequently asked questions about the management of the Registry.

What is the scope of REVEAL Registry?

REVEAL is a multicenter, broad-based, observational registry of approximately 3,000 patients diagnosed with PAH WHO Group I (Venice 2003 revision)—regardless of treatment therapies. There are also plans to enroll an additional 500 newly diagnosed patients to the registry. Dr. Feldkircher notes that the 56 participating medical centers offer “good geographic representation across the United States—and the statisticians are pleased with this.”

What years compose the data pool?

“We opened enrollment in March 2006 with an aggressive timeline of completing enrollment by the end of 2007. It is a credit to everyone involved that we are so ahead of schedule,” says Dr. Feldkircher. The patients will be followed for a minimum of five years—through 2012.

What are the patient eligibility criteria?

Consecutively consented patients (3 months or older) who meet specific hemodynamic criteria may be enrolled.

What is the enrollment process?

To enroll patients, physicians (at participating sites) ensure patients meet study inclusion criteria and obtain patient consent. Data is captured and submitted on electronic case report forms.

What type of information is collected?

Demographic data, clinical treatment patterns, and factors associated with clinical outcomes. At the time of study entry, data on past medical history, if applicable, will be collected using patient interview and review of the patient's medical record.

How is data integrity ensured?

All data are electronically monitored and site queries generated and followed until closure. In addition, approximately, 20% of the sites will be annually monitored, using the traditional monitoring approach.

How does the registry differ from a trial?

The REVEAL Registry is different from a randomized clinical trial, because there are no specific treatments or procedures that are required. Also, it is not designed to test a specific hypothesis.