

The Fabry Registry Board of Advisors

European Board of Advisors

Dr. A. Burlina | Bassano del Grappa, Italy
Dr. U. Feldt-Rasmussen | Copenhagen, Denmark
Dr. A. Fouilhoux | Lyon, France
Prof. D. P. Germain | Garches, France
Dr. L. Golan | Prague, Czech Republic
Dr. P. Lee | London, United Kingdom
Dr. G. Linthorst | Amsterdam, Netherlands
Prof. J-E. Mansson | Molndal, Sweden
Dr. J.P. Oliveira | Porto, Portugal
Dr. A. Ortiz | Madrid, Spain
Prof. J. Strotmann | Kiel, Germany
Prof. A. Tylki-Szymanska | Warsaw, Poland
Dr. B. Vujkovic | Slovenj Gradec, Slovenia
Dr. S. Waldek | Manchester, United Kingdom
Prof. C. Wanner, (Chair) | Würzburg, Germany

Japan-Asia Pacific Board of Advisors

Prof. Nan Chen | Shanghai, CHINA
Janice Fletcher M.D. | North Adelaide, AUSTRALIA
Wuh-Liang (Paul) Hwu M.D., Ph.D. | Taipei, TAIWAN
Dr. Toya Ohashi | Tokyo, JAPAN
Chih-Chao Yang M.D. | Taipei, TAIWAN
Han-Wook Yoo, MD, PhD | Song Pa-ku, KOREA

Latin American Board of Advisors

Prof. Ana Maria Martins, M.D., Ph.D. | São Paulo, Brazil
Sandra Ospina, M.D., | Bogotá, Colombia
Juan Manuel Politei, M.D. | Buenos Aires, Argentina
Guillermo Valadez Juvera, M.D. | Obregón, Mexico
Carmen Varas, M.D., | Coquimbo, Chile
Jacobó Villalobos, M.D. | Caracas, Venezuela

North American Board of Advisors

Ademola Abiose, M.D. | Iowa City, IA
Maryam Banikazemi, M.D. | New York, NY
Daniel G. Bichet, M.D. | Montreal, QC
Joel Charrow, M.D. | Chicago, IL
Lorne Clarke, M.D. | Vancouver, BC
Christine Eng, M.D. | Houston, TX
Robert Hopkin, M.D. | Cincinnati, OH
Michael Mauer, M.D. | Minneapolis, MN
Manesh R. Patel, M.D. | Durham, NC
C. Ronald Scott, M.D. | Seattle, WA
Katherine Sims, M.D. | Boston, MA
David G. Warnock, M.D., (Chair) | Birmingham, AL
William Wilcox, M.D., Ph.D. | Los Angeles, CA

International Board of Advisors

Dr. Juan Politei | Buenos Aires, Argentina
Prof. C. Wanner | Würzburg, Germany
Katherine Sims, M.D. | Boston, MA

Fabry Registry Minimum Recommended Schedule of Assessments

Minimum
Recommended
Schedule of
Assessments Patients
Under 18 Years of Age

Minimum
Recommended
Schedule of
Assessments Patients
Age 18 Years and Over



A program sponsored
by Genzyme

Fabry Registry Minimum Recommended Schedule of Assessments

Patients Under 18 Years of Age*†

	Upon Enrollment	Every 6 – 12 months ^A	Every 24-36 months	At time of an event or therapy change
GENERAL				
Medical History, with particular focus on:				
Gastrointestinal Symptoms				
Pain	■	■		■
Sweating				
Heat & cold intolerance				
Family History	■		■	
Physical Exam	■	■		■
Vital Signs, Height and Weight	■	■		■
Blood Pressure ^B	■	■		■
Enzyme Activity and Genotype	■			
Enzyme Replacement Therapy Status	■	■		■
Concomitant Medication Assessment	■	■		■
Pediatric Quality of Life Assessment – PedsQL™ Pediatric Quality of Life Inventory	■	■		■
Pediatric Quality of Life Assessment – PedsQL™ Multidimensional Fatigue Scale	■	■		■
Pediatric Pain Assessment – PedsQL™ Pediatric Pain Questionnaire™	■	■		■
LABORATORY TESTS				
Glomerular Filtration Rate ^C	■		■	■
Albuminuria and Proteinuria ^D	■	■		■
OTHER STUDIES				
Audiologic Evaluation ^E	■		■	■
Cranial MRI – T1, T2 and FLAIR	■		■ ^F	■ ^{F1}
Electrocardiogram ^G	■		■	■
Echocardiogram ^H	■		■	■
Ophthalmology – Slit Lamp Exam ^I	■		■	
SPECIALIZED LABORATORY TESTS				
Plasma GL-3	Plasma samples for GL-3 testing should be drawn prior to the first infusion, then every 3 months for the first 18 months of treatment, then every 6 months thereafter.			
Antibody Testing	Serum samples for IgG testing should be drawn prior to the first infusion, then every 3 months for the first 18 months of treatment, then every 6 months until 2 consecutive negative results are confirmed.			
ADVERSE EVENTS				
Adverse Event Reporting	Ongoing/continuous monitoring with reporting through Genzyme Global Patient Safety and Risk Management (GPS-RM). Refer to the Safety section of the protocol for specific reporting guidelines and instructions.			

* Physicians will determine the actual frequency of necessary assessments according to a patient's individualized need for medical care. Abnormal findings may require more frequent assessment.

† Initiation of Laboratory Tests, Imaging, and Other Studies: There is variability in the clinical complications and progression of Fabry disease. Children are at risk for life threatening complications.

There are no biomarkers available to discern mildly affected from severely affected patients. In children with a family history of early presenting or severe disease, complete evaluations should be done at the time of diagnosis. Other patients should be completely evaluated at no later than 5 years of age.

^A Patients receiving ERT are recommended to undergo these evaluations every 6 months; for those not on ERT or with milder disease, once per year may be sufficient

^B Blood pressure is an important determinant of disease severity in Fabry disease. Measurement should be carefully done by a standard procedure (NIH pub#05-5267). A common method is to have the patient sit quietly in a room for at least 5 minutes and then perform 3 measurements with an age specific BP cuff or instrument. The cuff must cover at least two-thirds of the upper arm from the elbow to the shoulder. Record only the last 2 measurements.

^C Glomerular Filtration Rate (GFR) should be measured or estimated every 24-36 months until age 15, and annually thereafter. More frequent monitoring may be appropriate if abnormalities are detected. GFR can be measured as described by Schwartz et al (Pediatr Nephrol 2007; 22:1839) or an equivalent procedure. A less reliable method is creatinine clearance performed on a 24hr collection and repeated on a separate day. 24 hour urinary creatinine standards can be used to determine adequacy of the collection. If measured GFR can not be performed, serum creatinine levels should be obtained at the recommended intervals for an estimation of GFR, a less sensitive method of detecting renal deterioration.

^D First morning voided urine for protein, albumin and creatinine in order to calculate a protein/creatinine ratio and albumin/creatinine ratio. Protein, albumin, and creatinine measurements can also be performed on timed samples (e.g. 24 hours).

^E Audiologic evaluation should be performed at the earliest age that is practical.

^F First MRI should be performed at 10 years then every 5 years until 15, every 3 years after age 15.

^{F1} At the time of an event, a cranial MRI should also include DWI/ADC.

^G Electrocardiogram should be performed starting at 10-15 years. If abnormal and/or clinical symptoms arise, Holter monitoring is recommended.

^H Echocardiogram should be performed starting at 10 - 15 years.

^I Monitor yearly if retinal vessel tortuosity noted.

Fabry Registry Minimum Recommended Schedule of Assessments

Patients Age 18 Years and Over*

	Upon Enrollment	Every 6 months	Every 12 months	Every 24-36 months	At time of an event or therapy change
GENERAL					
Medical History	■	■			■
Family History	■			■	
Physical Exam	■	■			■
Vital Signs, Height and Weight	■	■			■
Enzyme Activity and Genotype	■				
Enzyme Replacement Therapy Status	■	■			■
Concomitant Medication Assessment	■	■			■
Quality of Life (SF-36®, BPI)	■	■			■
LABORATORY TESTS					
Serum Creatinine ^A and BUN	■	■			■
Urine Protein Excretion ^B	■	■			■
Lipid panel	■		■		
OTHER STUDIES					
Audiologic Evaluation	■			■	■
Cranial MRI – T1, T2 and FLAIR	■			■	■ ^C
Electrocardiogram ^D	■		■		■
Echocardiogram	■		■		■
24 Hour Holter Monitoring ^E	■		■		■
Respiratory – Spirometry Exam ^F	■			■	
Ophthalmology – Slit Lamp Exam ^G	■				
SPECIALIZED LABORATORY TESTS					
Plasma GL-3	Plasma samples for GL-3 testing should be drawn prior to the first infusion, then every 3 months for the first 18 months of treatment, then every 6 months thereafter.				
Antibody Testing	Serum samples for IgG testing should be drawn prior to the first infusion, then every 3 months for the first 18 months of treatment, then every 6 months until 2 consecutive negative results are confirmed.				
ADVERSE EVENTS					
Adverse Event Reporting	Ongoing/continuous monitoring with reporting through Genzyme Global Patient Safety and Risk Management Department. Refer to the Safety section of the protocol for specific reporting guidelines and instructions.				

* Physicians will determine the actual frequency of necessary assessments according to a patient's individualized need for medical care. Abnormal findings may require more frequent assessment.

^A Directly measuring glomerular filtration rate (GFR) is recommended if a more precise evaluation is desired.

^B 24 hour or first morning void urine for protein, creatinine and albumin.

^C At the time of an event, a cranial MRI should also include DWI/ADC.

^D If electrocardiogram is abnormal and/or clinical symptoms arise, Holter monitoring is recommended.

^E Annual 24 hour holter monitoring is recommended for males 30 years of age or older and females 40 years of age or older.

^F If spirometry is abnormal, perform yearly.

^G Monitor yearly if retinal vessel tortuosity noted.



FABRY REGISTRY

A Collective Resource to Help Optimize Outcomes

The Fabry Registry is an ongoing, observational database sponsored by Genzyme that tracks natural history and outcomes of patients with Fabry disease. All Fabry patients are eligible for enrollment irrespective of their ERT status, and all physicians managing patients with Fabry disease are encouraged to participate in the Registry. The Fabry Registry is a global outcomes assessment and disease management program that compiles patient outcomes data from routine clinical practice to provide the medical community with resources to help optimize patient care.

Role of Participating Physicians

Participating physicians are requested to submit participating patients' data on a regular basis. It is recommended that data be submitted to the Registry according to the Recommended Schedule of Assessments found in the Fabry Registry Protocol (see reverse side). In order to provide routine reports regarding participating patient status and current information to fulfill data requests, it is important that the data are submitted on a regular basis.

Benefits of Participation

Your contribution of participating patients' data to the Fabry Registry database benefits all other Registry participants, since it is pooled with other data to study trends or address specific questions.

The Fabry Registry Board of Advisors

Scientific direction and monitoring recommendations are provided to the Fabry Registry by a group of physicians participating in this Genzyme-sponsored Registry who have extensive experience in managing patients with Fabry disease. These physicians serve as primary liaisons between the Fabry community and the Registry in their geographic regions.

To enroll in the Registry or for future information, please contact:

Global:

Genzyme Corporation
500 Kendall Street
Cambridge, MA
02142-1108 U.S.A.
1-800-745-4447, ext. 15500 or +1-617-591-5500
Fax: +1-617-374-7339
Email: fabryregistry@genzyme.com

Europe, Middle East & Africa:

Genzyme Europe BV
Gooimeer 10
1411 DD Naarden
The Netherlands
Telephone: +31-35-699-1232
FAX: +31-35-699-8688
Email: Europe@fabryregistry.com

Latin America:

Genzyme do Brasil Ltda.
Praça Floriano, 19 - 26° Andar - Centro
20031-050 Rio de Janeiro - RJ
Telephone: +55-21-2156-9989
FAX: +55-21-2156-9982

Asia-Pacific:

Genzyme Singapore Pte Ltd
1 Raffles Place
#07-00 OUB Centre
Singapore 048616
Telephone: +65 64033480
Fax: +65 64033456

genzyme

A program sponsored
by Genzyme

www.fabryregistry.com