Information Source	Everygene	Invitae Arrhythmia and Cardiomyopathy Comprehensive Panel | Test catalog	CardioNext by Ambry Genetics | Genetic test for inherited cardiovascular diseases
	Everygene	**Invitae**	**Ambry**
Patient/Family Cost			
What is the cost for me to do the test?	Free	Insurance accepted; financial aid if qualify; Unlock program which includes sponsored, no cost testing for under insured or no insurance	Insurance accepted; $0-$100 (Average out of pocket cost)
If my genetic test result is positive, how much will it cost for my family member to get tested?	Free; entire panel offered called Everygene Genetic Cardiomyopathy Test/Complete Genome Sequencing - 50 genes	Free if ordered within 150 days of family member's test result for that mutation only	Free if ordered within 90 days of family member's test result for that mutation only
Test Process			
Can the patient order the test directly?	Yes	Must be ordered by a doctor and licensed genetic counselor (ordering provider)	Must be ordered by a doctor
How long will it take to order the test?	3 Minutes	5 Minutes or Less	n/a
What kind of sample do I need to provide for the test?	Cheek Swab. Sample collection kit sent to your home.	Sample types: buccal, whole blood, salivia and genomic DNA. Sample collection kit sent to your home.	Blood or Saliva or Cheek Swab. Sample collection kit sent to patient's home or physican's office.
Who receives the results?	You, the patient	Ordering provider	Ordering doctor
How long does it take to get the results?	4-6 Weeks	10-21 Calendar Days (Average 14)	14-21 Days
Genetic Counseling			
Is post-test genetic counseling included in the cost of the test?	Yes, via a video call	Yes, via telephone	Yes, choice of phone or video call
Is pre-test genetic counseling included in the cost of the test?	No	No	Yes, if physician orders it, it will be included in the cost of the test
Genetic Test Details			
What is the type of genetic test performed and it sensitivity?**	Exome/ 99%	Targeted Panel/ >99%	Targeted panel/ >99
What is the name of the test and what is the number of genes tested for with this genetic test?	Everygene Genetic Cardiomyopathy Test/ Complete Genome Sequencing - **50 genes**	Arrhythmia and Cardiomyopathy Comprehensive Panel (100 genes with an additional optional 68 genes that your physician could consider ordering in one test sample)	CardioNext - 92 genes (CustomNext-Cardio allows the choice of an additional 75 genes)
Is the laboratory that performs the test CAP/CLIA Certified?	Yes	Yes	Yes
Which types of results are returned to me?*	Pathogenic/Likely Pathogenic	Positive/Negative/Uncertain	Pathogenic/Likely Pathogenic/VUS
FAQs			
Who can I contact for more information?	Customer Service: Phone: 914-391-0535 Email: support@everygene.com Chat function in patient protal or contact your assigned genetic counselor https://everygene.com/cardiomyopathy-test	Client services: Phone: 800-436-3037 Monday through Friday, 5:00 am to 5:00 pm Pacific time/8 am - 8 pm Eastern time Email: clientservices@invitae.com https://www.invitae.com/us/providers/test-catalog/test-02101	Genetics Customer Service: Phone: 949-900-5500 Email: info@ambrygen.com https://www.ambrygen.com/providers/genetic-testing/29/cardiology/cardionext
Where can I go to see the frequently asked questions?	Everygene FAQs	Invitae FAQs	Ambry FAQs

***Definitions of Pathogenic, Likely Pathogenic and Variant of Uncertain Signigicance (VUS).**
When you get genetic test results, you may see words like pathogenic, likely pathogenic, or VUS. These describe how sure scientists are that a DNA change is tied to health issues, such as inherited cardiac disease.

Pathogenic means the change is known to cause health issues.

****What's the Difference Between Whole Exome Sequencing and Targeted Panel GeneticTesting?** Whole Exom Sequencing (WES) and targeted genetic panels both look at DNA to find changes that could effecgt your health. The main difference is how much DNA is studied.
-**WES** looks at nearly all of your genes, the parts that give your body instructions (called exons). This is helpful when it is unclear what condition is present, or when rare conditions are suspected. It can also find unexpected changes not related to the original testing[1]. -**Panel testing** looks only at a set group of genes linked to a specific condition (like cancer or heart disease). It's used when doctors already have an idea of what they're looking for. It's faster, costs less, and gives fewer unexpected results[2].
Targeted panel genetic testing looks closely at a small group of genes that doctors know are linked to certain health problems. This test is faster and cheaper because it only checks the important parts related to the condition doctors think is causing your symptoms[3].

References

[1] National Library of Medicine. (n.d.). What are whole exome sequencing and whole genome sequencing? MedlinePlus Genetics. https://medlineplus.gov/genetics/understanding/testing/sequencing/
[2] Manickam, K., McClain, M. R., Demmer, L. A., Biswas, S., Kearney, H. M., Malinowski, J., ... & Rehm, H. L. (2021). Exome and genome sequencing for pediatric patients with congenital anomalies or intellectual disability: An evidence-based clinical guideline of the American College of Medical Genetics and Genomics (ACMG). Genetics in Medicine, 23(11), 2029–2037. https://doi.org/10.1038/s41436-021-01242-6
[3] Rehm, H. L. (2013). Disease-targeted sequencing: A cornerstone in the clinic. Nature Reviews Genetics, 14(4), 295–300. https://doi.org/10.1038/nrg3463

Who are some of the cardiomyopathy patient advocacy groups I can contact? (Clink on the following links to each group; in alphabetical order)

- Children's Cardiomyopathy Foundation (CCF)
- Danon Foundation
- Dilated Cardiomyopathy Foundation (DCMF)
- Genetic Cardiomyopathy Awareness Consortium (GCAC)
- Heart Charged
- Hypertrophic Cardiomyopathy Association (HCMA)
- LMNA Cardiac Disease Network
- Mended Hearts
- PLN Heart Foundation
- Sudden Arrhythmia Death Syndromes (SADS) Foundation
- Sudden Cardiac Arrest Foundation
- Team Titin
- WomenHeart