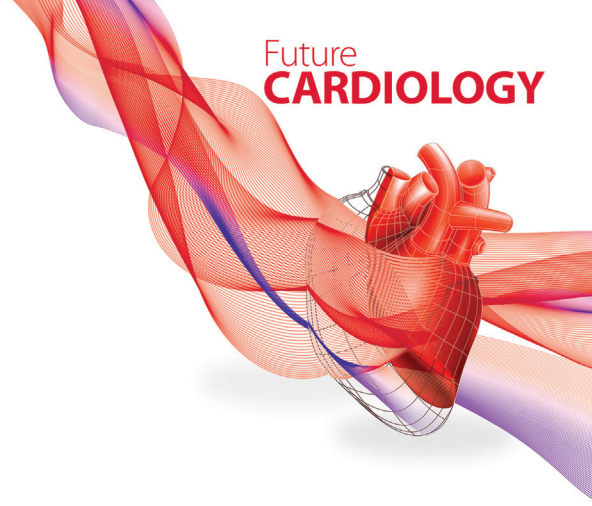
Plain Language Summary of Publication



Future CARDIOLOGY

Understanding how long people with transthyretin amyloid cardiomyopathy (ATTR-CM) live when they take tafamidis as part of their regular healthcare: a plain language summary

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Where can I find the original article on which this summary is based?

This summary is based on an original article titled 'Survival in a Real-World Cohort of Patients With Transthyretin Amyloid Cardiomyopathy Treated With Tafamidis: An Analysis From the Transthyretin Amyloidosis Outcomes Survey (THAOS)'. The original article was published in the *Journal of Cardiac Failure* in 2025. You can read the original article for free at: https://onlinejcf.com/article/S1071-9164(24)00222-7/fulltext.

Summary

What is this summary about?

This summary describes results from a **real-world study** called the **Transthyretin Amyloidosis Outcomes Survey** (**THAOS** for short). In this study from THAOS, researchers looked at people with a heart condition called **transthyretin amyloid cardiomyopathy** (**ATTR-CM** for short). Some people from this study took an approved treatment for ATTR-CM called **tafamidis** and some did not. Researchers looked at how many people with ATTR-CM were alive after two and a half years and three and a half years. They also looked at the **side effects** people had when they took tafamidis.

How to say (download PDF and double click sound icon to play sound)...

- **Amyloid:** A-muh-loyd
- **Amyloidosis:** A-muh-loy-DOH-sis
- **ATTR-ACT:** uh-TRAKT
- **ATTR-CM:** aye-tee-tee-R see-em
- **Cardiomyopathy:** KAR-dee-oh-my-OP-uh-thee
- **Tafamidis:** tah-FAM-ah-dis
- **Transthyretin:** trans-thy-REH-tin

What are the key takeaways?

In people who took tafamidis, an estimated 8 in 10 people (84%) were alive after two and a half years, and an estimated 8 in 10 people (77%) were alive after three and a half years. In people who did not take tafamidis, an estimated 7 in 10 people (70%) were alive after two and a half years, and an estimated 6 in 10 people (59%) were alive after three and a half years. The side effects people had while taking tafamidis in the THAOS study were similar to what has been reported in clinical studies.

What were the main conclusions reported by the researchers?

This real-world study supports the use of tafamidis for improving survival in people with ATTR-CM.

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Real-world study: A study that looks at what happens to people in a real-life setting rather than in a clinical study.

Transthyretin Amyloidosis Outcomes Survey (THAOS): A real-world study that collects information on what happens to people with ATTR-CM in a real-life setting.

Transthyretin amyloid cardiomyopathy (ATTR-CM): A heart condition caused by the buildup of transthyretin amyloid in the heart. Transthyretin amyloid is explained on the next page.

Tafamidis: Tafamidis works by preventing the buildup of transthyretin amyloid in the heart. This buildup reduces how well the heart can work.

Side effect: Something (expected or unexpected) that may or may not be caused by a medicine or treatment you take.

What is the purpose of this plain language summary?

The purpose of this plain language summary is to help you to understand the findings from recent research. This summary reports the results of a single study. The results of this study may differ from those of other studies. Health professionals should make treatment decisions based on all available evidence, not on the results of a single study. Tafamidis is approved to treat the condition under study that is discussed in this summary.

Who is this article for?

This plain language summary may help people with ATTR-CM as well as their caregivers and family understand the results of this study. This summary may also be useful for healthcare providers who treat people with ATTR-CM.

Who sponsored this study?

This study and plain language summary were **sponsored** by Pfizer.

Sponsor: A company or organization that oversees and pays for a clinical research study. The sponsor also collects and analyzes the information from the study.

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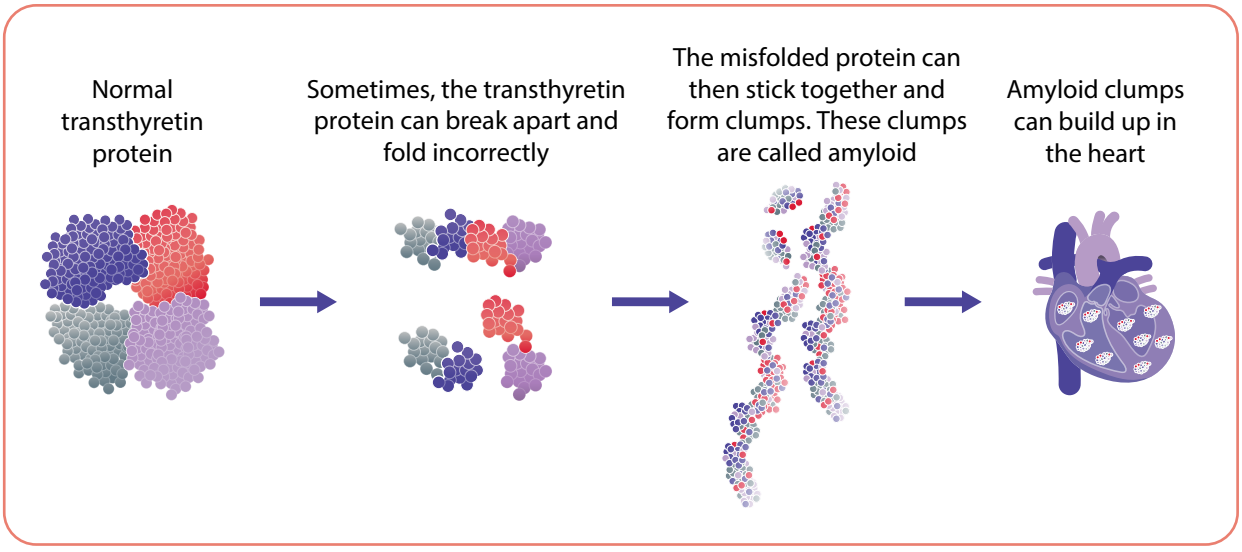
What is transthyretin amyloid cardiomyopathy?

Transthyretin amyloid cardiomyopathy (also known as ATTR-CM) is a rare heart condition. ATTR-CM occurs when a **protein** in the body called transthyretin breaks into pieces and forms abnormal shapes. The abnormally shaped transthyretin protein can form clumps called amyloid, which builds up in the heart.



As a consequence of amyloid building up in the heart, the heart muscles become thick and stiff so the heart can't work hard enough to pump blood around the body. This leads to heart failure.

People with ATTR-CM can have heart-related symptoms such as:

- Feeling tired all the time
- Shortness of breath
- Problems with the rate or rhythm of their heartbeat

There are 2 types of ATTR-CM:

Variant ATTR-CM is caused by a faulty **gene** called a variant that makes the transthyretin protein more likely to form amyloid.

Wild-type ATTR-CM occurs with aging. It is not due to a person's genes.

Sometimes amyloid can build up in other tissues and organs besides the heart. When amyloid builds up in the nerves, this can cause people to have symptoms such as:

- Tingling
- Numbness
- Pain

Some but not all people with ATTR-CM have nerve symptoms.

Protein: A building block of the body. Proteins make up body structures and are needed for the body to function.

Gene: A section of DNA that tells cells of the body how to make a protein.

What is tafamidis?

Tafamidis is a medicine approved to treat people with ATTR-CM by the US Food and Drug Administration (called FDA) and in several other countries. Tafamidis works by stabilizing the transthyretin protein so that it is less likely to break apart and form abnormal shapes. This helps to stop amyloid from forming and building up in the heart.

Tafamidis was approved for ATTR-CM based on the results a **phase 3 clinical trial** called ATTR-ACT. The researchers wanted to know whether tafamidis helped people with ATTR-CM compared to placebo. A placebo looks like the study drug but does not contain any active medicine.

In ATTR-ACT, people took tafamidis or a placebo by mouth for up to 30 months. People who took tafamidis could receive 80 milligrams a day (the currently approved **dose** for ATTR-CM) or 20 milligrams a day.

Phase 3 clinical trial: A clinical study where researchers test how safe a new treatment is and how well it works when a large group of people take it.

Dose: The amount of medicine taken at one time.

Quality of life: A measure of a person's well-being. It can include how they feel about their physical health or their emotional well-being. It can also include their ability to take part in daily activities, family and social life, their employment, or their financial position.

Researchers found that people who took tafamidis were less likely to die than those who took placebo. They were also less likely to be admitted to the hospital because of heart problems. People who took tafamidis reported better **quality of life**.

What did this study look at?

The Transthyretin Amyloidosis Outcomes Survey (THAOS for short) is a real-world study. THAOS collects information on people with ATTR-CM from around the world. This analysis from THAOS looked at what happened to people with ATTR-CM who took tafamidis as part of their regular healthcare and those who did not. Information was collected from December 2007 to June 2023.

Researchers wanted to look at how well tafamidis works and what side effects people have in a real-world setting. They measured how well tafamidis works by seeing how long people who did and did not take tafamidis lived.

Specifically, researchers looked at:

- How many people with ATTR-CM were alive at two timepoints: after two and a half years and after three and a half years.
  - » For people who took tafamidis, this was two and a half and three and a half years after they started taking part in THAOS or after they started tafamidis (whichever was later).
  - » For people who did not take tafamidis, this was two and a half and three and a half years after they started taking part in THAOS.
  - » Researchers chose these timepoints because these are the timepoints most often used in clinical studies that look at how well medicines work for ATTR-CM.
- How many people with ATTR-CM had side effects when they took tafamidis.
- How many people were hospitalized while taking part in THAOS.

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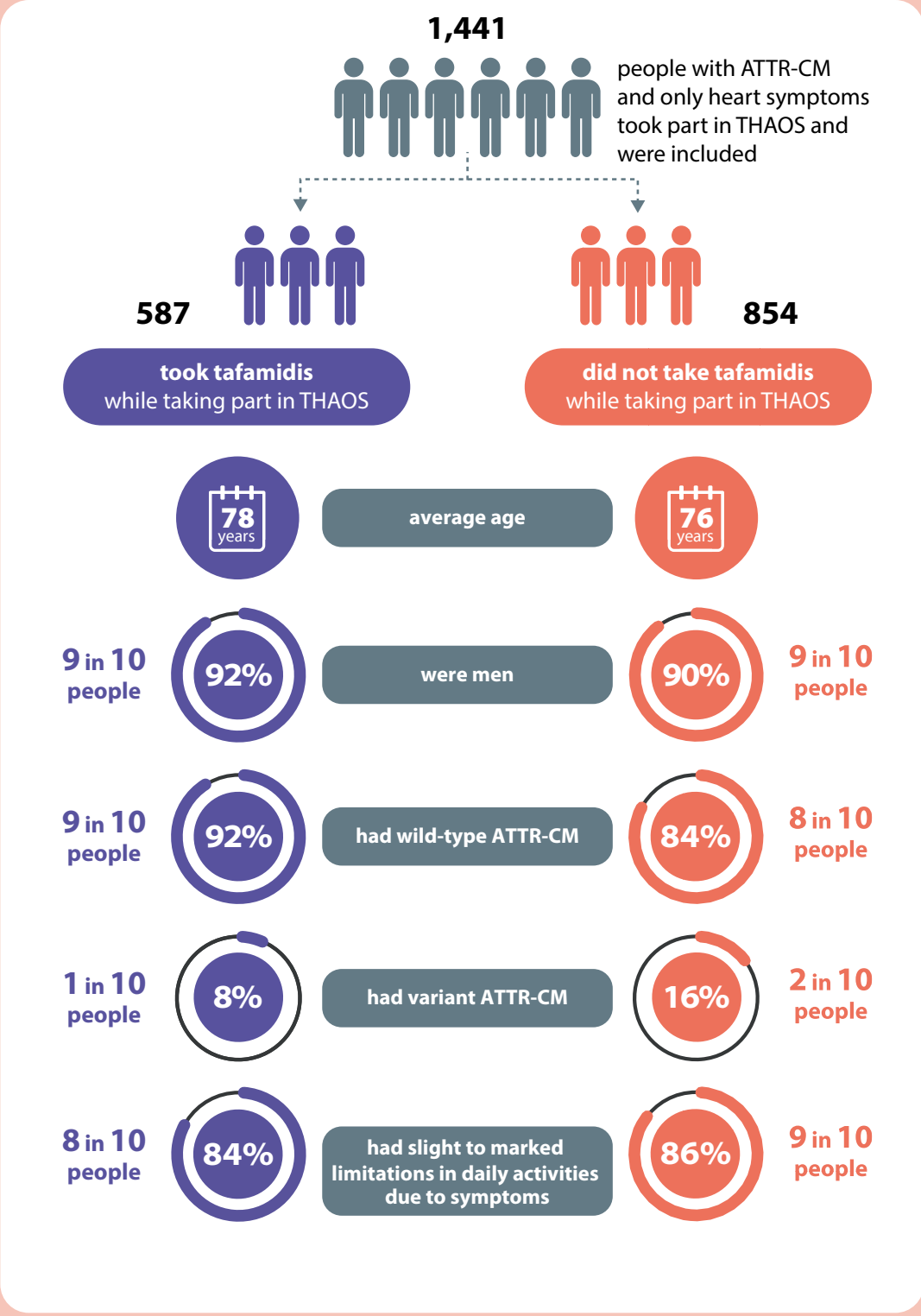
Who took part in this study?

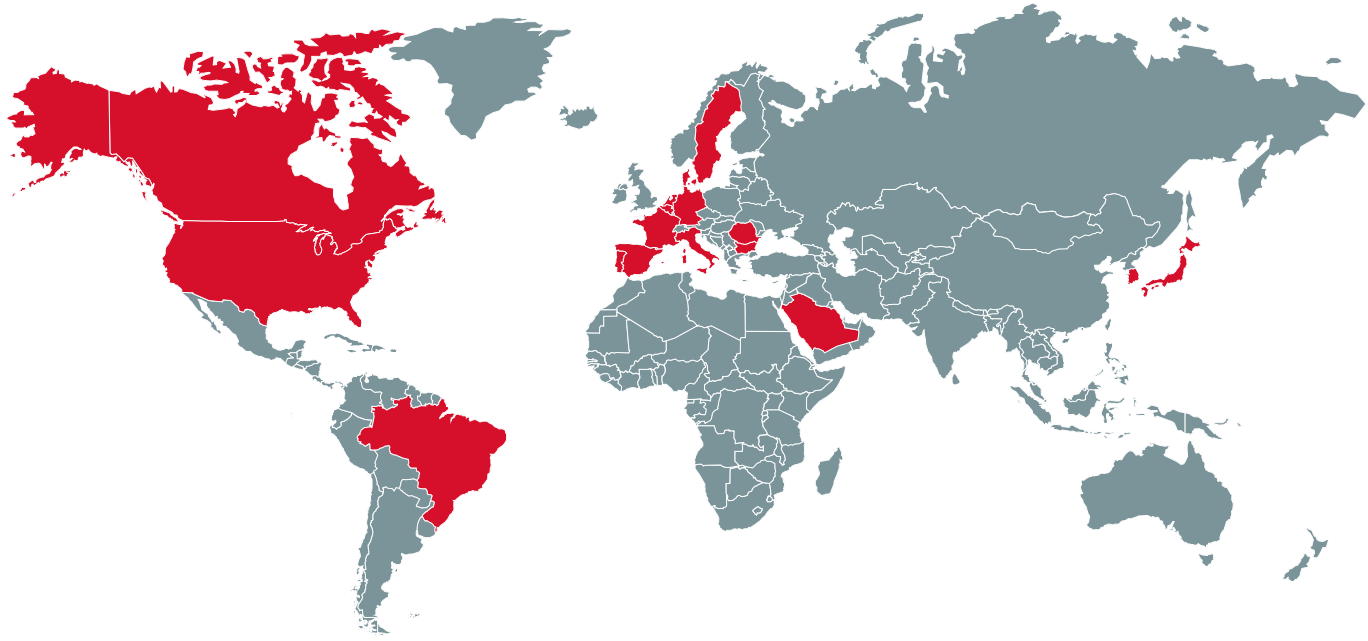
This study included people from THAOS who had ATTR-CM with heart symptoms and no nerve symptoms.



People in this study were from 18 countries:

- Belgium
- Brazil
- Bulgaria
- Canada
- Denmark
- France
- Germany
- Italy
- Japan
- Netherlands
- Portugal
- Romania
- Saudi Arabia
- South Korea
- Spain
- Sweden
- United Arab Emirates
- United States

A majority were from the United States.



THAOS enrolled people with ATTR-CM between 2007 and 2023.

The majority of people **(7 in 10 people or 73%) treated** with tafamidis started participating in THAOS between **2019 and 2023**

The majority of people **(6 in 10 people or 55%) not treated** with tafamidis started participating in THAOS between **2013 and 2018**

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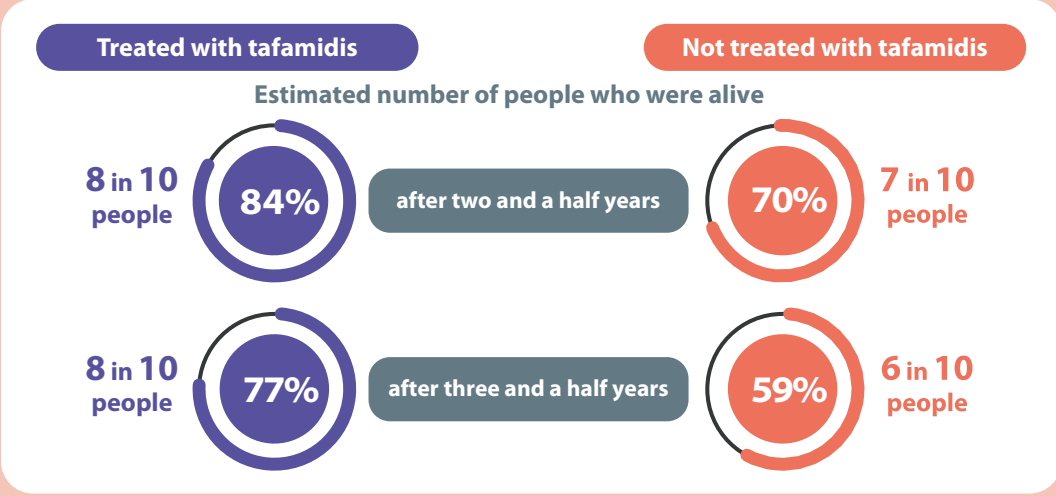
What dose of tafamidis did people in this study take?

What were the results of the study?

How many people were alive

First, researchers looked at the number of people who were alive after two and a half and three and a half years among all people with ATTR-CM.



These numbers were about the same when researchers looked at people with wild-type ATTR-CM and with variant ATTR-CM separately.

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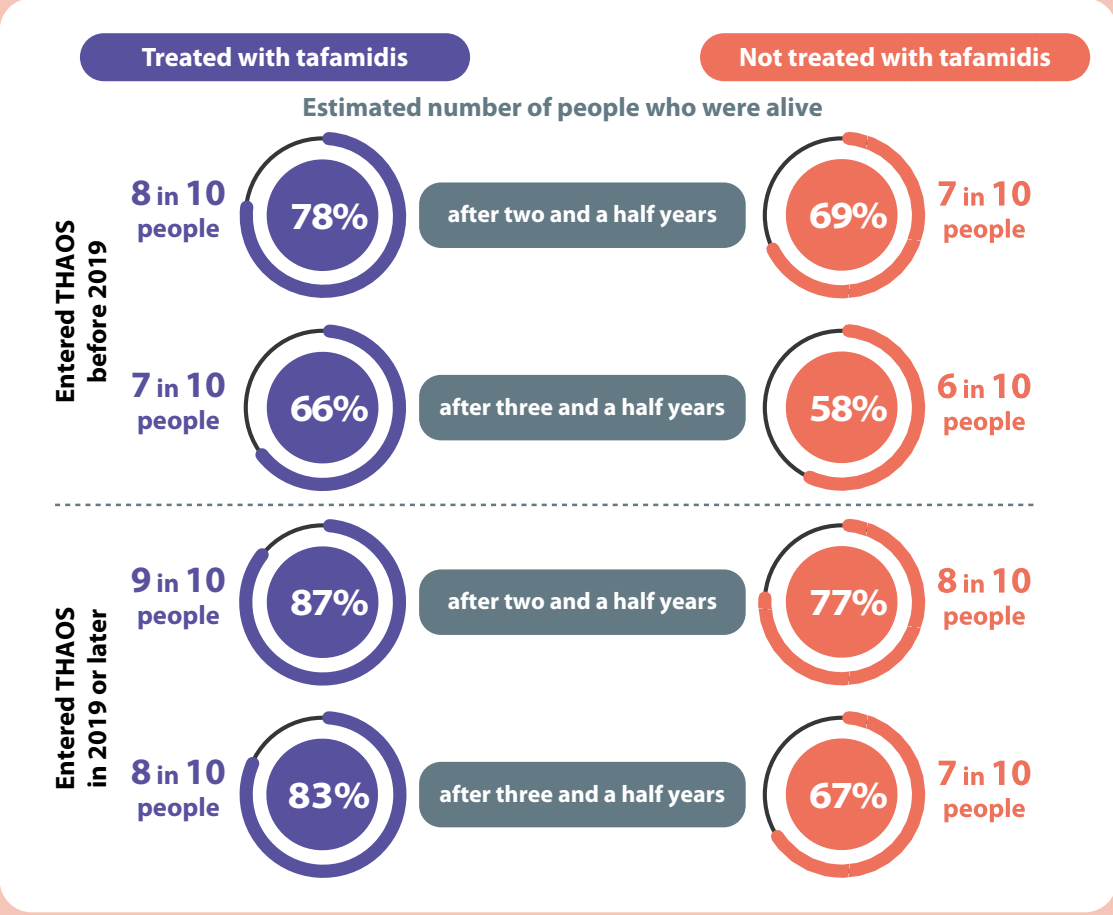
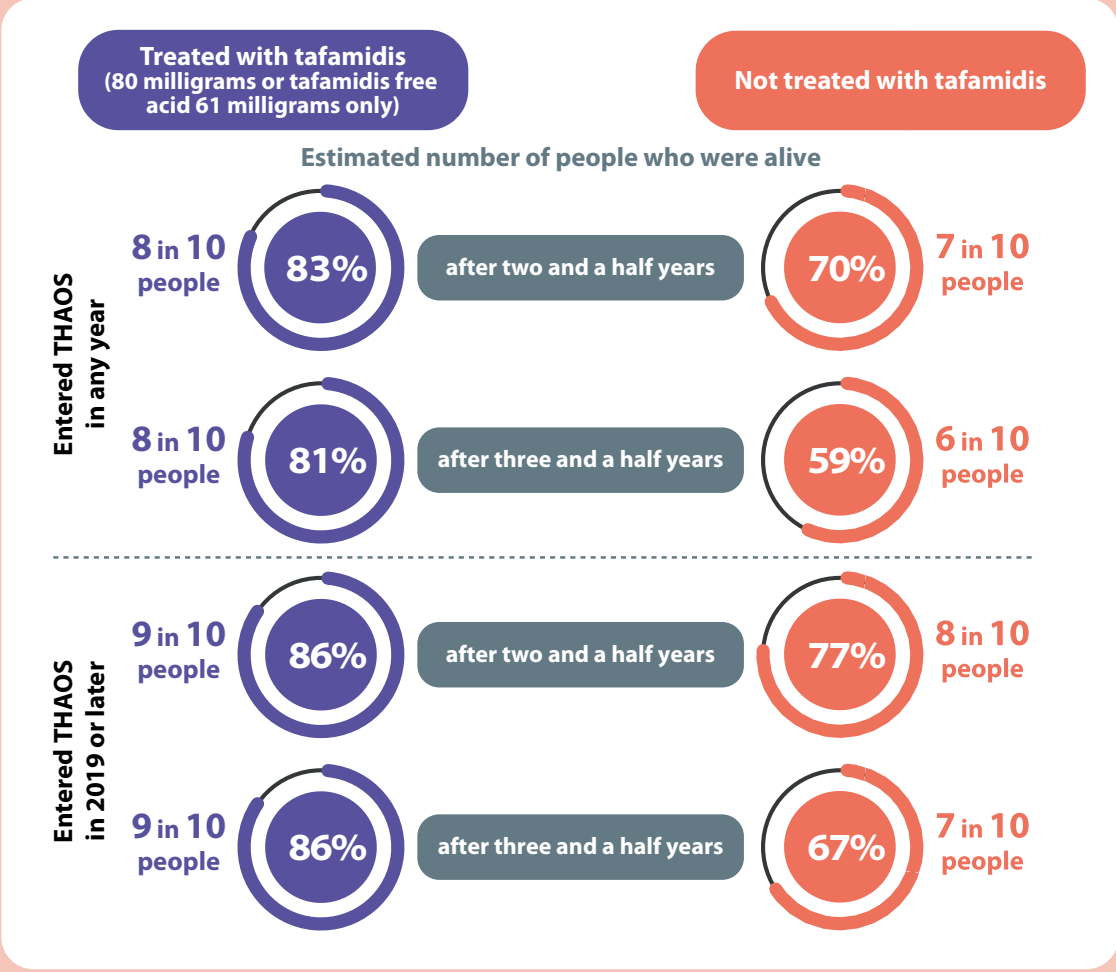
Researchers also looked at how many people were alive according to when they started taking part in THAOS. They looked at people who started THAOS before 2019 and people who started THAOS in 2019 or later.



Finally, researchers looked at how many people were alive when they received tafamidis at the currently approved dose (80 milligrams). They looked at people who received tafamidis 80 milligrams and started in THAOS in any year, and in people who received tafamidis 80 milligrams and started in THAOS in 2019 or later.



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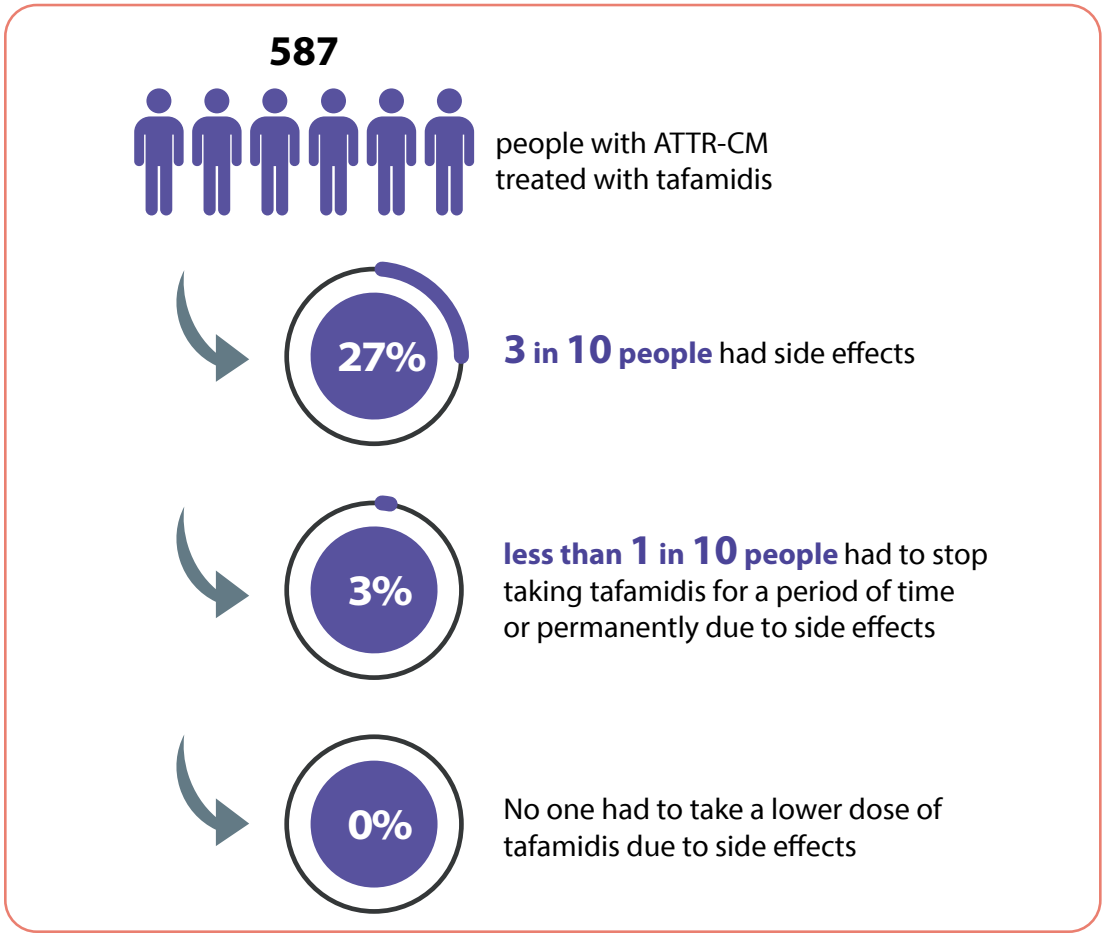
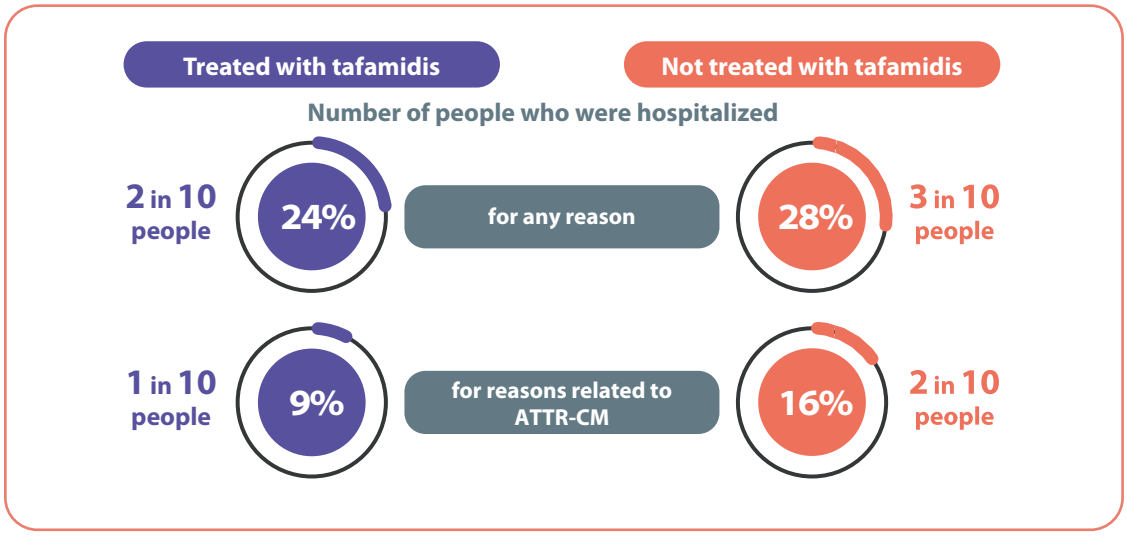
How safe was tafamidis treatment?

Side effects



Hospitalizations



What were the main conclusions reported by the researchers?

Results from this real-world study support the use of tafamidis for improving survival in people with ATTR-CM. The side effects people had while tafamidis in this study were similar to those reported in clinical studies.

Estimated survival rates in this study were higher than those from older clinical studies of people with ATTR-CM. This suggests that people with ATTR-CM are living longer than they used to. This may be because people with ATTR-CM are being diagnosed and treated in an earlier stage of the disease than in the past. Prior studies have shown that when people with ATTR-CM take tafamidis earlier, they have better survival. People may be receiving an earlier diagnosis and earlier treatment because doctors are more aware of ATTR-CM and have better tests to diagnose ATTR-CM.

There were some limitations to this study. Study limitations are things that might impact how reliable or how useful the results are. These include:

- Most people in the study were from the US, but results could differ in people from other countries.
- Some people in the study had missing data.
- The people in this study might not represent the whole population of people with ATTR-CM. This is called selection bias.
- Some types of data may have been recorded more often or more accurately than others. This is called ascertainment bias.
- The way some people were diagnosed with ATTR-CM may not have been accurate.

Additional information

Are there plans for additional studies?
Another study from THAOS is looking at how long people with ATTR-CM with both heart and nerve symptoms live when taking tafamidis.

Where can I find more information?
The original article discussed in the summary is titled 'Survival in a Real-World Cohort of Patients With Transthyretin Amyloid Cardiomyopathy Treated With Tafamidis: An Analysis From the Transthyretin Amyloidosis Outcomes Survey (THAOS)' and was published in the *Journal of Cardiac Failure* in 2025. You can read the original article for free at:
https://onlinejcf.com/article/S1071-9164(24)00222-7/fulltext

The full citation of the article is Garcia-Pavia P, Kristen AV, Drachman B, Carlsson M, Amass L, Angeli FS, Maurer MS, on behalf of the THAOS investigators. Survival in a Real-World Cohort of Patients With Transthyretin Amyloid Cardiomyopathy Treated With Tafamidis: An Analysis From the Transthyretin Amyloidosis Outcomes Survey (THAOS). *J Card Fail.* 2025;31(3):525-533. doi: 10.1016/j.cardfail.2024.06.003.

THAOS start date: December 2007
THAOS end date: June 2023
Clinicaltrials.gov identifier: NCT00628745

You can read more about THAOS at the following website:
https://clinicaltrials.gov/study/NCT00628745

For more information on amyloidosis, including patient support groups, please visit:
https://amyloidosis.org (the Amyloidosis Foundation)
https://arci.org (the Amyloidosis Research Consortium)
https://www.amyloidosissupport.org (Amyloidosis Support Groups)
https://mm713.org (Mackenzie's Mission)
https://rarediseases.org (National Organization for Rare Disorders)
https://www.myamyloidosispathfinder.org (My Amyloidosis Pathfinder)

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Disclosure statement

Pablo Garcia-Pavia served as a speaker in scientific meetings for Alnylam, BridgeBio, Ionis, Intellia, AstraZeneca, Novo Nordisk, and Pfizer, received funding from Alnylam and Pfizer for scientific meeting expenses, received consultancy fees from Alnylam, Attralus, BridgeBio, Neuroimmune, AstraZeneca, Novo Nordisk, Alexion, Intellia, and Pfizer, and his institution received research grants/educational support from Alnylam, BridgeBio, AstraZeneca, Novo Nordisk, Intellia, and Pfizer. Arnt V Kristen received research support from and attended advisory boards for Pfizer, Neurimmune, Alnylam, Intellia, Ionis, Akcea, Novo Nordisk, Astra Zeneca, and Alexion. Brian Drachman received consultancy fees from Alnylam and Eidos. Martin Carlsson and Leslie Amass are full-time employees of Pfizer and hold stock and/or stock options in Pfizer. Mathew S Maurer received grant support from NIH R01HL139671 and grants from Pfizer during the conduct of the study and grants and personal fees from Alnylam, Pfizer, BridgeBio, Prothena, and Ionis and personal fees from Astra Zeneca, Ionis, Intellia, and Novo Nordisk. The authors have no other relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript apart from those disclosed.

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