ICER

My name is Muriel Finkel. I am founder and president of Amyloidosis Support Groups. We are a 501 C 3 nonprofit and have been dedicated to the education, empowerment, and support of amyloidosis patients and their loved ones since 2005.

We meet in 30 cities and, with the help of amyloidosis physicians, have helped more than 8000 amyloidosis patients and caregivers at our In Person Meetings, Webinars and Private Moderated Facebook Groups.

ATTRv or hATTR is one disease even though pharma and others have over the years has chosen to call it ATTR-CM (Cardiomyopathy) and ATTR-PN (Polyneuropathy). In ATTRv the transthyretin protein goes rogue and builds up in the heart and/or the nerves and/or other parts of the body. We currently have several drugs approved for ATTR.

With wild type ATTR (ATTRwt), the amyloid from the rogue TTR appears to only attack the heart although patients often tell us their nerves and other organs are affected as well.

Onpattro was approved for ATTR-PN, and is an infusion covered by Medicare Part B. More recently approved is a newer version Amvuttra which is a quarterly Sub-Q injection also covered by Medicare Part B. There is an ongoing trial with Amvuttra for ATTR-CM. In my opinion, logic should tell us that if a drug knocks down the transthyretin protein before it can go rogue then it would prevent both types of ATTR, CM and PN but we must have trials to prove this since the original indication and approval was for ATTR-PN and not enough data was collected from those with ATTR-CM.

We do have one treatment that is approved for ATTR-CM, Tafamidis (also known as Vyndaqel and Vyndamax.). This is approved for both the hereditary and wild type forms of ATTR. It is a pill which is covered under Medicare Part D. Since most patients with the Wild Type form of ATTR are over 65, Medicare coverage plays a huge part in their ability to access necessary medications.

Now that the Affordable Care Act has instituted an out of pocket maximum in Medicare Part D, most patients with Medicare should be able to afford this drug by 2025 which is vital since some patients have told us they would rather opt for no treatment rather than put their families in financial ruin and pay the $2000/month out of pocket that was required prior to 2024.

When the FDA approves the BridgeBio drug, which is a pill in direct competition with Pfizer’s, Tafamidis, there will be two treatments for ATTR-CM covered by Medicare Part D.

Now that the Inflation Reduction Act has put a limit on out-of-pocket expenses in Medicare Part D, our patients will see much relief by 2025. What is the pharmaceutical response to that? They increased the cost of the drug. Who pays for that? The burden of the patient has been lifted, but we all pay for this pharma pricing policy in the form of increased premiums. Because of the Orphan Disease Act we won’t be able to see a generic for several years. In 2020, the cost of Tafamidis was $225,000 per year. The cost in 2024 is $282,300 per year, an increase of 25%. One can only guess what it will be when the full benefits of the Inflation Reduction Act are activated.
Amyloidosis patients need options. They need the Alnylam drug Amvuttra, a Medicare Part B drug, the Ionis (AstraZeneca) drug Eplontersen, (Wainua), also a Medicare Part D drug, the Pfizer drug, Tafamidis, and the Bridge Bio drug Acoramidis (AG10). This disease effects up to 4% of the African American community in the United States and an unknown % of elderly men. I am not the only person that feels that ATTR wild type will be moved out of the rare disease category in a few years as more doctors start looking for this disease and include it in their differential diagnosis. We need common sense pricing for what one day might be a more commonly diagnosed disease.

Thank you,

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Amyloidosis Research Consortium (ARC) Comments on ICER’s Review of Disease Modifying Therapies for the Treatment of Transthyretin Amyloidosis Cardiomyopathy (ATTR-CM), dated March 7, 2024

About the Amyloidosis Research Consortium

The Amyloidosis Research Consortium (ARC) is a research-focused, patient-led 501c3 non-profit organization founded in 2015. ARC is focused on advancing research and improving quality of care for patients with any type of systemic amyloidosis. The team at ARC is dedicated, highly motivated and unique, bringing a significant range of expertise from within the rare disease community.

ARC’s mission is to improve and extend the lives of those with amyloidosis. ARC is committed to collaborative efforts that accelerate the pace of discovery, expand patient access to the most effective care, and improve short- and long-term outcomes. Working with partners in industry, government, and academia, ARC seeks to spark innovation and to bring promising treatments from labs to clinics. ARC’s outreach and education inform and empower patients, families, caregivers, physicians, and researchers.

Comments on Draft Scoping Document

A. Populations

ATTR amyloidosis is a multi-systemic disease therefore ICER will need to consider that patients with ATTR-CM (wild-type or variant) may experience differences in treatment effects and other outcomes related to other organ involvement (e.g., patients with isolated cardiac involvement versus cardiac and nervous system and/or gastrointestinal involvement). ICER should also consider subpopulations defined by genotypes including Val122Ile (also referred to as V122I or pV142I), a genetic variant that is associated with cardiac involvement and primarily impacts individuals of African or Latinx descent, as well as additional variants (e.g., V30M and T60A).

B. Interventions and Comparators

ARC recommends that ICER describe the rationale for selection of the three specific treatments for inclusion in this review, as well as clarify the objectives for the proposed comparative analyses, taking into consideration the complexity of this multi-systemic disease and available evidence. It is likely that head-to-head comparisons across these three treatments will be challenging, even with the use of placebo arms to represent “no disease-specific treatment”. Tafamidis, a TTR stabilizer, is currently the only FDA approved treatment for ATTR-CM. Vutrisiran, an RNA interference (RNAi) agent, has received FDA approval for treatment of ATTR-PN and currently being evaluated in the Phase 3 HELIOS-B clinical trial for ATTR-CM. However, limited top line results may not be released until summer of 2024, at the earliest. As noted by ICER, patients in recent trials, including the ATTRIBUTE-CM Phase III trial for acoramidis have been allowed to use open-label tafamidis.
Comparisons of outcomes between intervention arms and/or to ex-trial placebo groups will also be challenging due to differences in the study populations related to the study periods, as the awareness, education, and management of the disease has rapidly evolved during the past 5 years. For example, as ICER noted, the availability of tafamidis in 2019 has resulted in increasingly earlier detection of ATTR-CM and has caused a shift in the disease spectrum of patients enrolled in trials of these newer agents. ICER will need to address significant differences in baseline clinical characteristics and disease progression among patients enrolled in the tafamidis ATTR-ACT, acoramidis ATTRibute-CM trial, and vutrisiran HELIOS-B trials, if compared.

C. Outcomes

ATTR amyloidosis varies substantially by patient, often including signs and symptoms in multiple areas including polyneuropathy, cardiomyopathy, autonomic neuropathy, and gastrointestinal dysfunction. Genetic diversity and multi-organ involvement contributes to a wide range of symptoms that patients may experience, which presents challenges in the measurement of disease burden and treatment effects. Historically, multiple patient-reported outcome (PRO) instruments have been required to capture the breadth of symptoms and impacts associated with the disease however without the use of a disease-specific measure, aspects of the condition may still be missing and the information that is captured may not be directly attributable to the disease. The Transthyretin Amyloidosis Quality of Life (ATTR-QOL) Questionnaire, developed in 2021 by ARC and QualityMetric Inc., is the first comprehensive PRO that is specific to ATTR amyloidosis. The ATTR-QOL was developed by using a rigorous research design with methods that incorporated the voice of the patient at every step, in alignment with the International Society for Quality of Life Research standard, key guidance from the FDA Patient-reported Outcomes Tool: Engaging Users and Stakeholders Consortium, and multiple clinical and research experts. To date, the ATTR-QOL has been included in several clinical studies however it is important to note that the studies are not designed for comparative effectiveness research. However, ARC is willing to compile and share any available ATTR-QOL data collected to date to assist with ICER’s analyses.

ARC recommends that ICER further refine the list of proposed outcome measures based on clinical relevance and available evidence. As an example, ARC expects that changes in medications for heart failure have not been widely examined among this population to date. Additionally, while serum transthyretin levels are important disease biomarkers, they are not cardiac specific, and the measurements should be interpreted differently based on each treatments mechanism of action.

D. Benefits Beyond Health and Special Ethical Priorities

ARC is very supportive of ICER’s goal to provide information on benefits beyond health and special ethical priorities offered by the intervention, as well as ICER’s outreach to patient organizations to engage the broader patient and caregiver communities in their data collection and review process. Patient and caregiver perspectives are not captured within most registrational
clinical trials therefore ICER’s proposed clinical evidence review would otherwise lack important insights that are necessary to inform ICER’s evaluation of these three treatments.

ARC conducts annual community surveys to examine amyloidosis patient’s and caregiver’s experiences with their diagnostic journeys, treatment satisfaction, disease burden, work productivity, QOL, and other important real-world perspectives. The findings from these surveys have provided insights into their unmet needs, including the challenges that patients and caregivers face with receiving timely diagnoses and access to treatments. There is also a heavy emotional burden in being diagnosed with a rare disease. From a societal perspective, the physical effects of ATTR-CM can severely impact a patient’s ability to function including participation in family, work, and social activities. As symptoms worsen over time, many patients lose the ability to function independently and may rely upon caregiver support. A patient’s increased needs can also restrict the caregiver’s ability to engage in work and other activities, which can have financial and social implications. ARC’s survey results have been widely published as well as presented by amyloidosis experts and have been instrumental in raising awareness within the wider medical community. ARC is willing to compile and share their survey findings including data collected on ATTR-CM patient’s and caregiver’s work productivity to assist with ICER’s analyses.

Beyond the symptoms of the disease, there is an unmet need for additional supportive therapies and disease-modifying treatment options for effective management of this complex condition. ATTRv-PN patients and caregivers have benefited greatly from the approval of four disease-modifying treatments during recent years as there were no treatments available prior to 2018, however only one treatment (tafamidis) is currently approved for ATTR-CM (inclusive of ATTRv and ATTRwt) in the US. Optimal patient-centered care, which takes into consideration individual patient’s treatment preferences and goals for treatment decisions, requires the availability of treatment options. While not widely examined in ATTR-CM to date, studies of other chronic health conditions (e.g., rheumatoid arthritis, type 2 diabetes, COPD) have demonstrated an association between patient’s treatment satisfaction and improved adherence, as well as associations between satisfaction and improved outcomes and better QOL. It is expected that ATTR-CM patients would benefit greatly from increased availability of disease-modifying treatment options that are aligned to their treatment goals and subsequently, caregivers would also see a great benefit.

As described for the subpopulations of interest, patients of African or Latinx descent who have not been equitably served by the health care system will also benefit from access to additional ATTR-CM treatments. Jacobson et al., found that the V122I mutation is carried by approximately 4% of Black Americans. Patients of African or Latinx descent who carry the V122I mutation may have twice the risk of incident heart failure compared to non-carriers. Black patients are more likely to have advanced disease progression at the time of diagnosis and mortality rates are higher among patients with the V122I mutation. Spencer-Bonilla et al., noted that in addition to racial differences, other socioeconomic differences may also contribute to disparities in care, which are further compounded by limited availability of disease-modifying treatments for ATTR amyloidosis.
References


March 27, 2024

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RE: Comments on Draft Scoping Document for ICER’s Review of Acoramidis for the Treatment of Transthyretin Amyloidosis Cardiomyopathy

Bridge Bio has reviewed the draft scoping document (March 7, 2024) for ICER’s review of acoramidis, a next-generation transthyretin (TTR) stabilizer in development for the treatment of transthyretin amyloidosis cardiomyopathy (ATTR-CM) and offers the following comments.

While diagnosis rates have improved in recent years,1 a substantial unmet need persists in ATTR-CM due to the incomplete TTR stabilization associated with currently approved therapeutic options.2 Based on phase 3 trial results,3 and if approved by the FDA, acoramidis has the potential to extend survival and to reduce healthcare costs. With our shared goal of supporting patients, caregivers, and clinicians through greater awareness of—and expanded treatment options for—ATTR-CM, Bridge Bio offers the following recommendations.

1. Comparative effectiveness analyses

Building upon the emergence of disease-modifying treatments, greater ease of diagnosis through noninvasive techniques, and the recognition that ATTR-CM often presents as otherwise unspecified heart failure with preserved ejection fraction, the number of patients diagnosed with ATTR-CM has increased substantially in the past 20 years. Today’s newly diagnosed patients generally have less severe cardiac symptoms and better functional capacity than those diagnosed in the past.4,5 This “left shift,” i.e., the overall improvement in baseline patient characteristics in current ATTR-CM clinical studies, has important implications for the planned comparative effectiveness analyses of acoramidis, tafamidis, and vutrisiran.

Acoramidis vs tafamidis: Patients in the tafamidis pivotal trial, ATTR-ACT,6 had more advanced cardiac disease at study entry than those recruited into ATTRibute-CM.3 Aside from minor differences in eligibility criteria, the main difference between the two study populations was that the tafamidis pivotal trial was conducted 7 years earlier than the acoramidis pivotal trial. Given the differences in important effect modifiers, an unadjusted indirect treatment comparison using only the aggregate data from these two trials would not provide a valid estimate of comparative effectiveness, and any interpretations of the results would be inappropriate due to
the substantial differences in baseline characteristics and in observed disease progression on the placebo control arms of the respective studies.

**Acoramidis vs vutrisiran:** Based on the timing of enrollment, baseline characteristics of patients enrolled in HELIOS-B and ATTRIBUTE-CM are likely to be comparable. The inclusion of tafamidis in the HELIOS-B study may also offer the opportunity for comparative analysis of vutrisiran and tafamidis within the same study. Bridge Bio recommends conducting a feasibility assessment after the full data set for HELIOS-B is available to allow for the most thorough and robust comparisons of all treatment options that might eventually be approved based on the totality of data available in 2024.

### 2. PICOTS criteria

Bridge Bio suggests capturing outcomes of therapy more fully by adding cardiovascular mortality.

Acoramidis represents an important new orally administered option to address the persistent unmet need in ATTR-CM. Bridge Bio supports providing patients and their providers with the opportunity to choose and switch treatments based on their need and preferences. We recommend that any analysis of acoramidis consider its clear clinical benefits and the value of patient choice.

Thank you very much for your consideration.

Sincerely,

John Whang, MD, Chief Medical Affairs Officer
Heather Falvey, Head Global Value & Health Economics


March 27th, 2024

Sarah K. Emond, MPP
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Public comments to ICER Draft Scoping Document for the Assessment of Disease Modifying Therapies for the Treatment of Transthyretin Amyloidosis Cardiomyopathy (ATTR-CM)

Dear Ms. Emond,

Thank you for the opportunity to provide comments on the draft scoping document for the assessment of disease modifying therapies for ATTR-CM, released on March 7, 2024.¹ We agree with the inclusion of both acoramidis and vutrisiran in this analysis. Given delays in the vutrisiran trial readout, we strongly encourage ICER to adjust timelines as needed to capture the full scope of current and near-future treatments in ATTR-CM in their review.

We also offer a few areas of consideration for the draft scope. Our comments on the draft scoping relate to the selected treatment comparators and outcomes included for the comparative value analysis. Please find our recommendations and associated rationale below.

TREATMENT COMPARATORS

The draft scoping document aims to evaluate the health and economic outcomes of three disease modifying therapies for ATTR-CM, comparing interventions (1) to each other and (2) to no disease-specific treatment (represented by the placebo arms of clinical trials in some circumstances). Pfizer recommends positioning tafamidis as the treatment comparator of this analysis, aligning (1) with clinical guidelines (2) with the inclusion of tafamidis in other interventional clinical trials and (3) ICER’s definition of a comparator.

Recommendation: Global guidelines recommend tafamidis as preferred first-line therapy for treating patients with ATTR-CM, as it is proven to reduce cardiovascular mortality and cardiovascular-related hospitalization in Phase III clinical trials. To align with the guideline recommendations, we propose positioning tafamidis as the treatment comparator in this assessment for consistency.
Tafamidis is recommended globally as the preferred first-line therapy for ATTR-CM patients:

- The American College of Cardiology (ACC) and American Heart Association (AHA) guidelines recommend tafamidis as the only treatment with a Class I recommendation for ATTR cardiac amyloidosis, emphasizing potential benefits from earlier initiation. These recommendations are consistent with global guidelines, including those in Europe, Canada, and Japan.

- Similarly, a 2023 consensus statement by the ACC acknowledges alternative therapies exist but emphasizes that tafamidis remains as the "first-line agent" due to its current approval status.

**Recommendation:** Patients in ATTR-CM clinical trials of acoramidis or vutrisiran have either been previously exposed to tafamidis or had the option to receive tafamidis concomitantly. Therefore, ICER’s assessment should be conducted relative to tafamidis instead of “no disease modifying therapy” to avoid potential bias against all treatments under evaluation.

The use of a "no disease modifying therapy" reference group in the ICER analysis raises concerns about generalizability in this assessment:

- Clinical trials for vutrisiran (HELIOS-B) and acoramidis (ATTRibute-CM) allowed for prior or concomitant tafamidis use. HELIOS-B included 40% of patients with tafamidis experience at baseline, and ATTRibute-CM assessed outcomes in patients receiving open-label tafamidis concomitantly after the initial 12 months of the trial (22.8% [46 of 202] and 14.9% [61 of 409] of placebo and acoramidis users, respectively).

- The variability in tafamidis use seen among the placebo groups in the HELIOS-B and ATTRibute-CM trials introduces uncertainty in the analysis when using “no disease modifying therapy” as the comparator.

- The use of tafamidis across clinical trials for ATTR-CM therapies in development further supports the place of tafamidis as the standard of care therapy. Tafamidis, approved by FDA in 2019, is the first and only treatment for wild-type and hereditary ATTR-CM in the United States and has set the foundation for the treatment landscape for this disease.

The use of tafamidis across clinical trials for ATTR-CM therapies further supports the place of tafamidis as the standard of care therapy. Describing the placebo arms in these trials as receiving no disease-specific treatment is misleading. Additionally, this would undervalue the existing clinical evidence and guidelines supporting tafamidis as a 1st line therapy.

**Summary:** Pfizer recommends positioning tafamidis as the comparator in the assessment due to its placement in global guidelines and its use in various third-party interventional clinical trials. Both factors are consistent with the ICER definition of a "comparator"; namely, that "active comparators (i.e., non-placebo interventions) are prioritized when feasible."
Relevant comparators are selected through a survey of clinical guidelines from professional societies, consultation with clinical experts and patients, and review of clinical trial designs”.11

OUTCOMES

The draft scoping document includes a group of outcomes listed as “Other Outcomes”, including changes in cardiac related biomarkers, echocardiographic parameters, and amyloid burden, in contrast to “Patient-Important Outcomes” (e.g., mortality and CV hospitalization).

Recommmendation: In the presence of evidence-based hard clinical end-point data such as mortality and cardiovascular-related hospitalizations, other outcomes such as biomarker data lend lesser value to the ICER report's aim of evaluating clinically meaningful health and economic outcomes of ATTR-CM treatments. Since mortality and CV hospitalization are hard clinical endpoints in established clinical trials, they should be prioritized in the formal ICER assessment.

Evidence-based clinical outcomes are the primary focus for ATTR-CM trials due to the well-defined follow-up period and their established relevance to patient health:

- Clinical trials and their long-term extensions in ATTR-CM capture the key patient-centered outcomes that are relevant to a cost-effectiveness analysis; specifically, mortality, cardiovascular-related hospitalization, and quality of life. While biomarker data (e.g., changes in cardiac biomarkers, echocardiographic parameters, amyloid burden) help inform the initial diagnosis and risk stratification, further research is needed to better inform the use of biomarkers in clinical practice and in the “optimization of medical therapy” for the management of heart failure.2 Patient-centered outcomes align with guidelines and preferred for directly assessing impacts on patient well-being.

- Mortality and cardiovascular-related hospitalization (defined by ICER as “Patient-Important Outcomes”) are captured during the 30-month follow-up period in the ATTR-ACT clinical trial.12 Tafamidis is further supported by a post-hoc, interim analysis of long-term efficacy and safety demonstrating long-term safety and efficacy of ATTR-ACT with a median follow-up at 58.5 months.13

Thank you for the opportunity to comment on the ICER draft scope. We look forward to continuing our engagement throughout the assessment period. Please contact me if you have any questions.

Sincerely,

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