

Applying a Decision-Making Framework for Expanded Access to Duchenne Muscular Dystrophy

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1. INTRODUCTION

Expanded Access (EA) to investigational medicines offers a potential lifeline for patients suffering from a serious or life-threatening disease, who have exhausted other comparable or satisfactory alternative therapeutic options and are not eligible to enter a clinical trial.¹

Bionical Emas' patient centric decision-making framework for Expanded Access (EA) starts from a position of "yes, EA will be provided if specific conditions are met". This framework takes the burden away from patients and families by allowing pharmaceutical companies to work through internal and external barriers backwards, to provide reasoning, transparent rationale, and reflection on whether to provide EA to eligible patients.

Available licensed therapies for Duchenne muscular dystrophy (DMD) are predominantly mutation specific and thus only benefit subgroups of DMD boys², leading to an unmet need for the majority of the DMD population. Most available treatment options help manage symptoms and improve patients' quality of life but none of them cure DMD.³ Therefore, EA programs may be considered by DMD patients, families and physicians as a possible route to access potentially effective treatments. This case study shows the application of Bionical Emas' patient centric decision-making framework for DMD.

2. CASE STUDY

Based on different applications of this decision-making framework and our work with the DMD community, we have constructed a case study to demonstrate how the framework can be applied when assessing EA for DMD.

Pharm is a US based pharmaceutical company that has received requests from DMD families for EA to their investigational product, X. However, their current EA policy is to not provide access outside of their clinical trials as they do not currently have enough clinical trial data to determine the benefit/risk ratio. Pharm is expecting topline phase 2 data in 5 months and anticipate to receive an increase in requests if the data shows positive results in the patient population. Pharm wants to be ready to review and update their policy to this effect.

The clinical trial includes boys 4 to 7 years of age who have not lost ambulation yet. Pharm is anticipating EA requests from ambulatory boys older than 7 and would assess each request on a case-by-case basis. These boys are not eligible to enter ongoing clinical trials within reasonable travelling distance and request access to X to attempt to slow down further degeneration.

3. DMD SPECIFIC CONSIDERATIONS

- Patient advocacy groups are well informed, active and engage with a variety of activities
- Patients have access to centres of excellence
- Family and patients acknowledge new information from Key Opinion Leaders
- DMD community expects EA to new medicines due to an extended history of EA Programs for DMD treatments

4. APPLYING THE DECISION-MAKING FRAMEWORK

Bionical Emas' decision-making framework provides a structured approach that enables a thorough review of investigational medicines to determine under which conditions and when EA might be provided.

Barrier	Considerations
Clinical data and Benefit-Risk Assessment	EA eligibility criteria in line with X clinical trial eligibility criteria to ensure safety data is available for all patients accessing X. However, the EA criteria is simplified where possible for those with a high unmet need and to promote equity of access. A balance will be struck through early, frequent, and transparent discussions with the DMD community.
Clinical Trial Impact	EA should not be at the expense of clinical development. In rare and debilitating diseases such as DMD, the earlier patients can access treatment, the more deterioration can be slowed. The experience of DMD patients taking X under EA can be used to complement clinical trial data. Thus, Pharm wants to collect RWD to complement X's clinical development and regulatory submissions. This RWD will be extracted from patient's medical records while they follow their routine medical procedures.
Country Scope and Commercialization	Limited geographic scope to expand as capacity builds. Pharm will launch first in areas where clinical trials have been running to harness the infrastructure in place and the expertise of HCPs and institutions. Pharm expects requests from non-clinical trial countries therefore, a clear rationale and communication is ready until Pharm is ready to expand the program. Consultation with an ethicist is recommended.
Patient Scope Rationale and Drug Supply	It reflects the population who would qualify for access upon commercialisation of X. Safety data is available for that population, and it would ensure continued access. Pharm anticipate potential supply limitations and will consult with a bioethicist to identify the most appropriate supply allocation method.
Costs and Resources	DMD impacts mobility, most patients will have a carer or rely on family members. Pharm budgeted for "direct to patient shipments", the development of additional family and caregiver resources, and minimise hospital appointments to relieve burden on patients and families.
Community Impact	Engagement with DMD Patient Advocacy Groups allowed for a more accurate assessment of the appetite for early access and predict challenges and burdens on HCPs, patients and families upon provision of early access to X.
Ethics	The decision on whether to provide free of charge or charged for access will need to take into account equity of access and local country regulations. Early, transparent, clear communications with the DMD community are recommended on this topic.
Timelines and Exit Strategy	Clear exit strategy for all countries in scope is determined during EA set up to ensure all stakeholders are aligned and community expectations are managed. Continuity of access is crucial in progressive and debilitating conditions such as DMD.

5. CONCLUSION

- By applying the decision-making framework, Pharm were able to determine the timepoint for opening an EA program along with the scope of the key components of the program (i.e. post top line results, clinical trial countries first, etc)
- By going through this framework early in the planning process, Pharm have given themselves time for early and meaningful community engagement with the DMD community and developed a patient-centric EA program

References

¹The 21st Century Cures Act, public law 114-255—dec. 13, 2016

²Grounds, MD and Lloyd, EM; "Considering the Promise of Vamorolone for Treating Duchenne Muscular Dystrophy". 2023. J Neuromuscul Dis.

³Heydemann, A and Siemionow, M. A Brief Review of Duchenne Muscular Dystrophy Treatment Options, with an Emphasis on Two Novel Strategies. Biomedicines