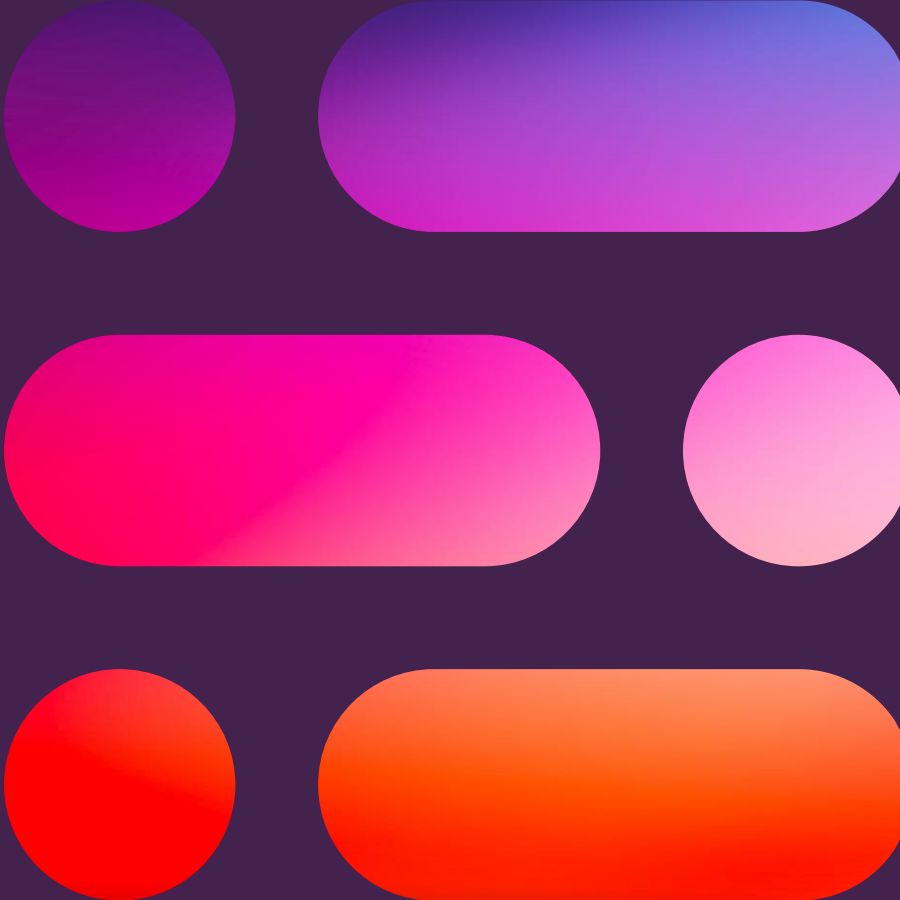


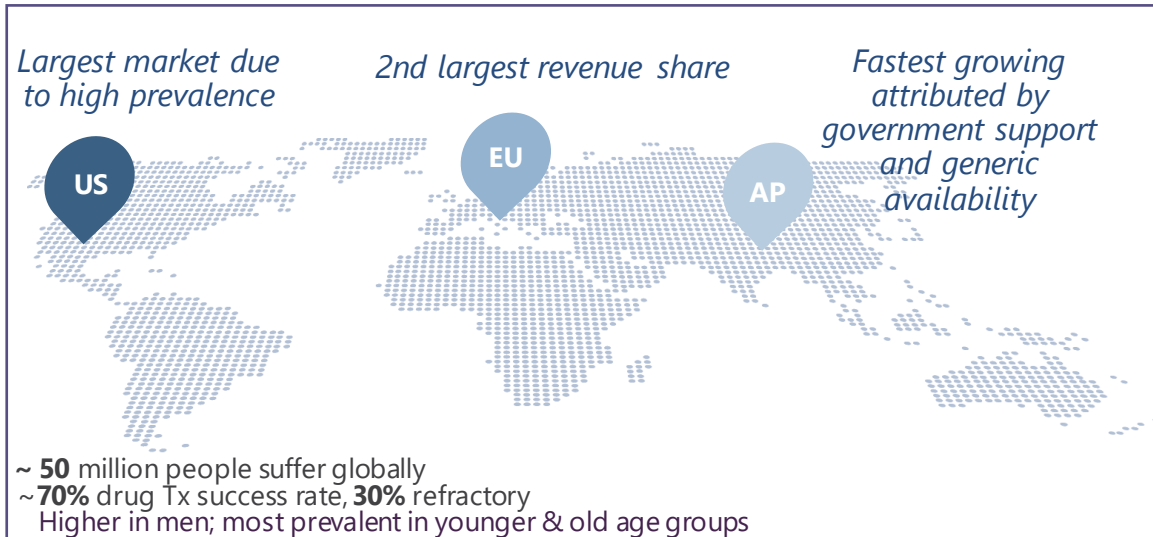
Current Market Highlights and Future of Epilepsy

Perspective on Key Future Trends and Potential Recommendations



Market Overview

Epilepsy market is expected to grow, contributed by high prevalence and increased rate of associated neurological disorders; focus is high on difficult to treat rare epileptic syndromes like DS & LGS



Key Market Players (Based on respective market share)

 VIMPAT (lacosamide) C	 Keppra	 Epidiolex (cannabidiol) GW	 Jazz Pharmaceuticals Fintepla (fenfluramine) C	 XCOPRI (cencabantate tablets) C
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Emerging Players

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Market Size & Growth

- Market size of epilepsy was approximately USD 13 Billion in 2021 and is expected to reach USD 18.1 Billion by 2028 owing to multiple growth factors
- Major contributors for market growth:
 - Higher investments in R&D
 - Increasing awareness of epilepsy disease and treatment options
 - Better availability of advanced epilepsy therapeutics drugs
 - Investment in orphan epileptic indications (Dravet Syndrome & LGS) and acute therapies

3.5% CAGR

Drivers

- Third generation AEDs uptake
- High rate of PTS & PTE occurrence
- Polypharmacy in refractory patients

Barriers

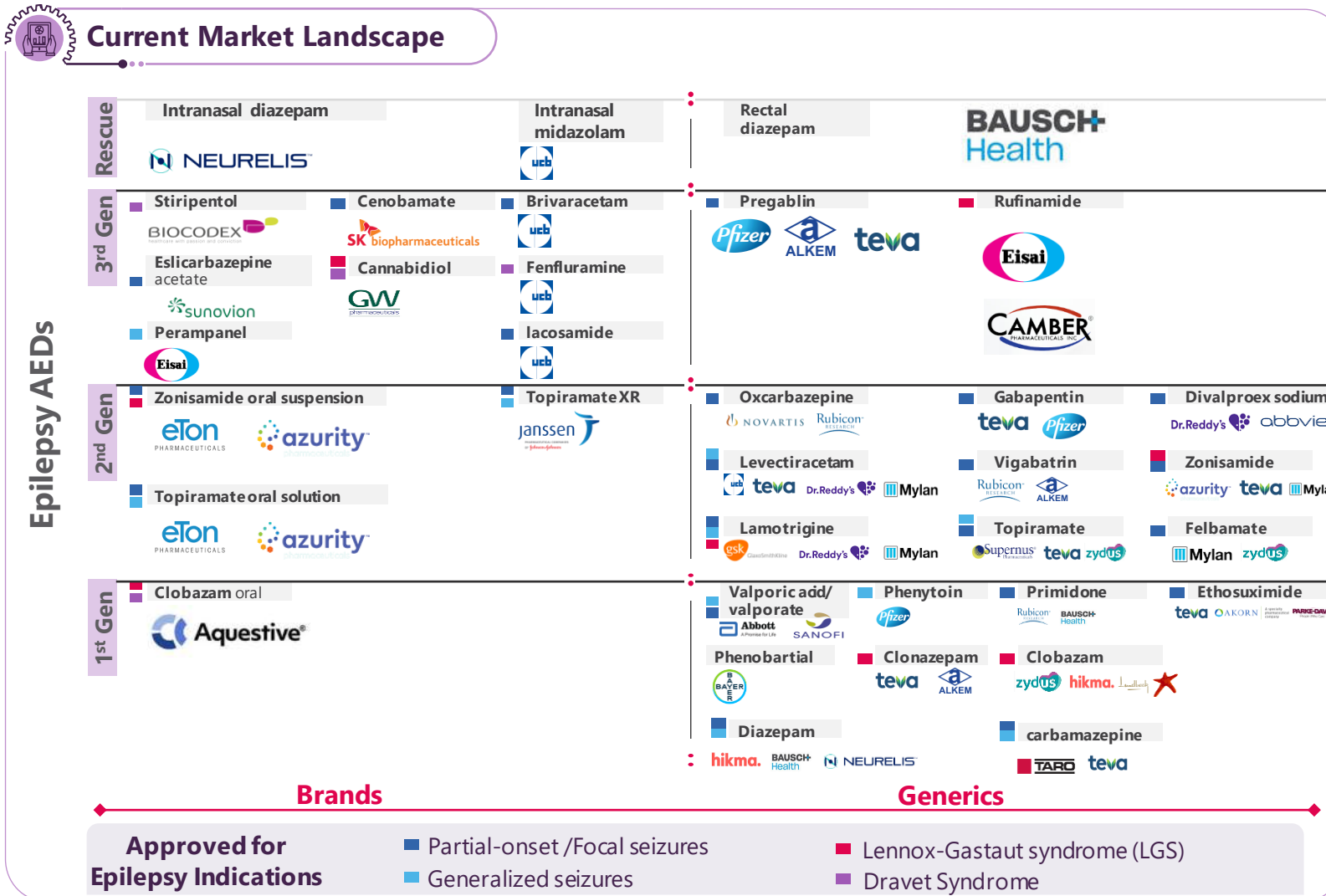
- Generic Erosion
- Uncertainty in treatment response
- Limited specialized neuro Centres

High ← | → Low

Unmet needs	Need for disease modifying therapies	Effective treatment refractory therapy	Tools for early seizure detection
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Current Landscape

Current treatment is driven by the use of 2nd & 3rd generation AEDs; UCB holds a strong presence in landscape with lacosamide, levetiracetam & also strengthened portfolio with recent acquisition of fenfluramine

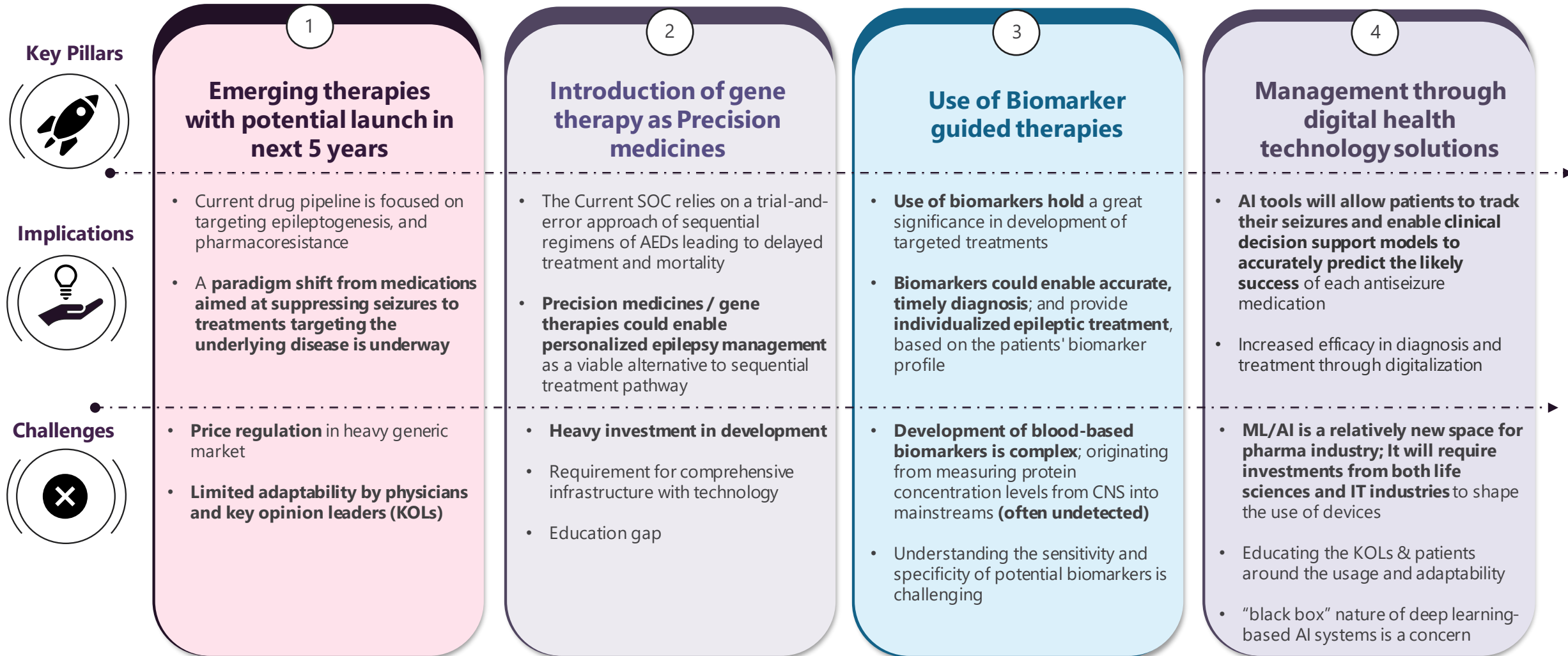


Key Market Insights

- Preferred 1st line use of 2nd generations AEDs such as **Levetiracetam** & **Lamotrigine** in place of **Carbamazepine** is the most recent treatment shift⁴
- Epilepsy market is saturated with generic AEDs (2nd generation); brands might face **price restrictions** in this generic dominant landscape
- Launch of **oral formulations** and **extended-release formulations** continue to act as a savior for manufacturers
- Near term loss of exclusivity of some blockbuster drugs (like **cenobamate (2027)**, **lacosamide (2022)**) pose threat to the market share

Outlook on Near Future

Development of gene therapies, new biomarkers and advancement in digital technology for epilepsy management hold substantial potential to transform the landscape in next 10 years



Potential Recommendations and Opportunities

Understanding the trajectory of evolving market in epilepsy is the key opportunity for both current and emerging brands

Potential Recommendations



Strategic Opportunities



Penetration in Emerging Markets

Market players partnership with local players having deeper expertise in region and support from local government can create a positive shift

Close watch on the branded blockbuster drugs for LOE and early investment in their generics



Investment in Novel MOAs / gene Therapy (next thing to watch)

Market is saturated with generics, **investment in gene therapies / novel mechanism holds potential to transform the landscape**



Digital Technology Collaboration

Pharma companies' (Disease & Market expertise) should collaborate with digital companies (technology expertise) to innovate

AI based devices required for epilepsy diagnosis and treatment



Generic Erosion Delay

Brand manufacturers could seek market exclusivity by obtaining new patents on secondary aspects such as drug administration

Repurposing of drugs in epilepsy treatment

R&D in formulations and use of drugs previously approved for other indications in epilepsy



Switching Patients to Next Generation AEDs to Retain Market Share

Pharma companies are dividing the market share among own portfolio only

Increasing the focus on rare epileptic syndrome like DS & LGS



Collaborations

Big players are strengthening their epilepsy portfolio **through mergers & acquisitions utilizing deep market knowledge, commercial strategies and regulatory expertise**