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Unlocking Access to Orphan Drugs: Exploring Innovative Financing Mechanisms

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Advancing orphan drug access remains crucial amidst challenges related to cost, diagnosis, and treatment in rare disease care

Rare diseases affect over 300 million individuals worldwide.[1] With over 7000 known rare diseases, the disease burden may not seem significant. As a result, affected patients are often neglected and continue to be marginalized. To overcome this challenge, in 2021, the United Nations endorsed the first resolution on rare diseases urging the member states to provide access to safe and affordable health services to address the unique challenges faced by the patients. While efforts are being made to develop policies to support patients affected by rare diseases, much is yet to be accomplished for health service delivery. Rare disease management varies significantly across the world.

Gene therapy has led to significant advancement of novel treatments that can enhance patient's quality of life. Over 95% of rare diseases still lack approved treatment and average time for diagnosis varies between 4 to 8 years.[1] As such, orphan drug development is a priority for several biotech and pharmaceutical companies to mitigate the treatment gaps. Furthermore, access issues for orphan drugs are complicated due to a) uncertainty in demonstrating clinical effectiveness, attributable to small and geographically dispersed patient groups and b) higher price per patient than other high-volume diseases that lead to inability to demonstrate cost-effectiveness. High cost of orphan drugs and small patient groups pose unique funding challenges. For instance, Zolgensma®, which treats Spinal Muscular Atrophy, can cost approximately US$2.1 million per dose.[2] Unarguably, orphan drugs can provide drastic improvement in quality of life of patients. So how can we optimize orphan drug development and access to maximize the number of patients availing it?

Effective strategies adopted globally

Pricing and reimbursement are among the key determinants to bolster access to orphan drugs. Given the high cost of these drugs, it is crucial to either subsidize or fully reimburse orphan drugs to accelerate patient access. The downside of this, however, is that orphan drugs are not cost- effective and may exert additional pressure on strained healthcare budgets. Emerging evidence indicates a rapid growth in share of orphan drugs as that of health budgets.[3]

We conducted a literature review to unpack alternative strategies adopted by countries across the world to fund orphan drugs and improve patient access.

1 DEDICATED RARE DISEASE FUND

Earmarking a predetermined budget can ensure adequate resources are available to facilitate access to orphan drugs. Countries such as Belgium, England, Italy, and Singapore have instituted a dedicated fund for rare diseases. For instance, England's Innovative Medicines Fund has ringfenced amount of 340 million GBP annually for treatments including drugs for rare diseases with uncertain clinical evidence and cost-effectiveness.[4] Singapore's Rare Disease Fund works on 1:3 match principle, whereby the Singapore government tops up S$3 for every S$1 contributed by the community to the fund.[5] On the other hand, Belgium reimburses 60% to 75% of the treatment cost through Belgian Special Solidarity Fund, if the drug is effective, addresses a key unmet need, and no alternative is available.[6] It is important to note than dedicated funds cover a limited number of rare disease patients. The sustainability of such funds is uncertain, and they necessitate a robust healthcare infrastructure in addition to the technical capacity required to judiciously select which pharmaceutical products to support. Furthermore, an accompanying monitoring system is required to ensure appropriate oversight and accountability.

2 BLENDED FINANCING MODEL

Many countries have explored a shared public-private financing model to promote sustainable financing for high-cost drugs, including treatments for rare diseases. Blended finance is a strategic approach that combines funds from various sources, such as government entities, private corporations, philanthropists, and not-for-profit organizations. This model encourages collaboration and can identify diverse funding sources for high-cost therapies like orphan drugs. For instance, Italy's National Medicines Agency, Agenzia Italiana del Farmaco (AIFA), works with pharmaceutical industry to enhance access to highly expensive orphan drugs. In accordance with Law 326/2003 a National Fund was established at AIFA to support orphan drugs. Fifty percent of the fund is supported by contributions made by pharmaceutical companies, paid on an annual basis. In Scotland, the New Medicines Fund is similarly funded by a proportion of pharmaceutical company's earnings.[7]

3 RISK-SHARING MODELS

Risk sharing models also known as Managed Entry Agreements (MEAs) are among the most common practices for funding orphan drugs, often deployed when reimbursement decisions cannot be made due to lack of adequate clinical evidence or cost-effectiveness of orphan drugs. Primarily, MEAs can be of two types – a) performance-based MEAs, whereby drug reimbursement is linked with patient outcomes; and b) financial-based MEAs, where prices are lowered through price-volume agreements, discounts or rebates. A few MEAs can be a combination of both by design. MEAs are commonly utilized in markets with reimbursement structures that involve either a single national payer or regional payers covering the population. For instance, Italy uses performance-based MEAs. Undisclosed negotiated price is an attractive feature of this approach which is helpful for pharma companies as it avoids price referencing by other countries to the low-price negotiation with the payor.

4 SPECIAL REIMBURSEMENT POLICIES

Orphan drugs are often more expensive than non-orphan drugs and fail to meet the cost- effectiveness criteria for reimbursement. As such, decision makers frequently face the dilemma of relaxing the cost-effectiveness thresholds without inducing financial risks. Many countries have adopted novel approaches to assess orphan drugs based on value derived from these drugs to the patients who need them. While in the normal case, orphan drugs may undergo the same Health Technological Assessment as other drugs which is based on clinical efficacy and economic considerations (budget impact and cost-effectiveness), countries have been open to consider special pathways and acceptable thresholds. Higher incremental cost-effectiveness ratios (ICER) are being increasingly accepted for orphan drugs based on severity of the disease to facilitate a reimbursement decision. For instance, Netherlands modified ICER threshold based on disease severity, from up to 20,000 EUR/QALY for the least severe to up to 80,000 EUR/QALY for the most severe.[8] The UK's NICE has increased ICER threshold from 20-30,000 GBP per QALY, rising to 100,000 GBP/QALY for orphan drugs.[8] Other countries such as Australia, South Korea, Slovakia and Sweden have reported adjusting ICER for orphan drugs.

5 PRIVATE/ALTERNATIVE INSURANCE PROGRAMS

To reduce out of pocket costs for orphan drugs, countries have implemented regulated private health insurance. Micro insurance is growing in popularity in emerging economies as it addresses vulnerabilities of patients. Micro insurance plans are being offered to cancer patients and can be applied for rare disease patients as well. For instance, in Thailand Thaivivat Insurance offers micro insurance products for cancer coverage, with lower premiums and deferrals.

6 FINANCIAL ASSISTANCE FOR PATIENTS

In some countries, strategies have been adopted to assist patients in paying for orphan drugs to reduce out of pocket expenditure if they are not included in reimbursement lists or have limited coverage. Treatments are offered to eligible patients with reduced co-payments or exemptions. Patient Assistance Programs are also offered by a few pharma companies for patients who are not able to afford drugs. Additionally, patient foundations or charitable organizations can also assist patients by providing cash subsidies. Countries such as the United States, China, Mexico, India have established separate health insurance schemes to provide access to high-cost drugs for the poor or uninsured populations.

Although, there is no one solution that fits all, it is clear that a multifaceted strategy is essential to maximize access to and enhance the affordability of high-cost drugs for rare diseases. Sustainable investment through diverse channels is required to address the key unmet needs of rare disease patients and to improve their quality of life.

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