Brown & Brown

RISK SOLUTIONS

Gene and Cell Therapy

Revolutionizing Treatment and Transforming Risk

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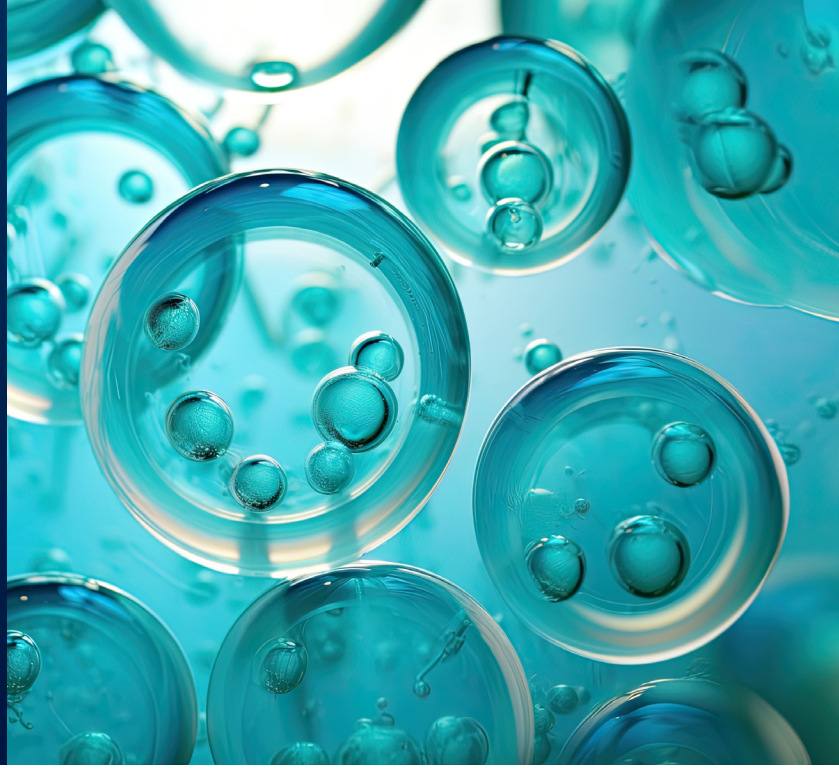

Plan sponsors, health insurance companies and trusts are focused on understanding advancements in gene and cell therapy and rely on their broker to assess financial risk. While these therapeutic developments could mean a cure for life-threatening conditions previously untreatable, they also carry a high cost, limited supply and questions regarding if and how treatment should be covered.

Background

The attention surrounding gene and cell therapies is quickly growing. On December 8, 2023, the U.S. Food and Drug Administration (FDA) approved the first gene therapy using CRISPR (clustered, regularly interspaced short palindromic repeats) to treat sickle cell disease in patients 12 years and older[1]. Industry experts agree that this is the start of an exciting and rapidly accelerating field of medicine.

Gene and cell therapies are extraordinary; they can result in a cure or effective treatment by inactivating, introducing or replacing a modified or new gene[2]. Broadly, these therapies fall into three categories:

1. **Cellular gene therapy:** acts on or modifies genes for therapeutic benefit
2. **Regulator of gene expression:** modifies the activity of an improperly functioning gene
3. **Gene replacement therapy:** introduces a new or modified gene to treat a disease

Financial Impacts

As with most medical advancements, there are questions about cost, efficacy and how to develop a plan to manage access to these novel treatments. Gene and cell therapies can provide life-saving benefits but are extremely expensive and often available in short supply.

According to Emerging Therapy Solutions (ETS) in 2024, the single-dose cell and gene therapy market will represent around $5B in total spending within the United States and is projected to grow to $12B by 2025. Most single-dose gene therapies in the pipeline are estimated to cost between $2M and $3.5M per patient for the biologic cost alone. These values do not include administration costs, which could add 10-20% more per-patient cost.

Plan sponsors and health insurance plans can expect a financial impact by 2025 of ~$8.47 Per Member Per Month [PMPM] for treatment costs alone and up to $13.98 PMPM when considering the total cost of care. At a minimum, in a typical 100,000 life commercial plan, it is projected there will be three to seven cases in 2024.

1. https://www.fda.gov/news-events/press-announcements/fda-approves-first-gene-therapies-treat-patients-sickle-cell-disease
2. Canfield SL. Decoding gene therapy: current impact and future considerations for health -system and specialty pharmacy practice. Amer J Health-Syst Pharm. 2021; 78:953-61.

Planning a Course of Action in an Accelerating Environment

From members, health plans, PBMs, plan sponsors, and reinsurers, the entire industry is trying to determine how to cover, fund, and ensure positive outcomes for these new treatments. Most payers have relied on stop-loss policies to cover high-cost gene therapies. Recently, however, these therapies have been lasered out of coverage, leaving the payer or member to determine how (or if) to cover the cost.

The urgency to design a strategy is rapidly increasing. There are over 3,000 gene and cellular therapies on the market today[3,4,5]. Notable therapies could impact the population more than those currently released, treating patients with more prevalent conditions. The FDA estimates that by 2025, it will approve 10 to 20 gene and cellular therapies each year.

Another factor impacting preparation is an anticipated increase in supply, but not necessarily a cost reduction. Most approved and utilized gene therapies are chimeric antigen receptor (CAR) T-cell therapies. Predominantly administered in the inpatient setting, there is movement to provide outpatient opportunities for enhanced reimbursement, patient convenience and to keep hospital beds open.

Another advancement in CAR-T therapy is the development of "off-the-shelf, allogeneic therapies," as opposed to the autologous approach (use of the patient's T-cells), eliminating many of the logistical hurdles in therapy[6,7]. Allogeneic therapies (using healthy volunteer T-cells) are expected to be the focus of the next wave of CAR-T therapy. These therapies can treat more patients from a single batch of engineered cells instead of the current autologous process, which is individualized for each patient. It is hoped that the "off-the-shelf" therapies, which are more straightforward to coordinate, could result in equal or greater efficacy and lower overall costs of therapy.

The vast majority of gene therapies targeting hemophilia A and B rely on recombinant adeno-associated virus (AAV) vector therapy. There are two FDA-approved gene therapies for hemophilia on the market. Roctavian™ (valoctocogene roxaparvovec) was approved in June 2023 for hemophilia A, and Hemgenix® (etranacogene dezaparvovec) was approved for hemophilia B in November 2022. In addition, Pfizer has an investigational gene therapy in development for hemophilia B, fidanacogene elaparvovec, for which the FDA is set to decide in the second quarter of 2024. Pfizer and Sangamo Therapeutics have an investigational gene therapy in a phase III clinical trial for hemophilia A, giroctocogene fitelparvovec[8,9].

Over the next five years, the financial impact of cellular gene therapies (CGTs) will be significant. Due to its recent introduction, commercialization (uptake) may be slow. It's not a matter of if but when plans will see impacts. Smaller enrollment plans will be impacted sooner than larger plans, which are typically better capitalized with a larger amortization base (enrollment).

The impacts to plans include unexpected "catastrophic" CGT expenses due to the following:

- Uncertainty as to incidents, type and timing due to changing annual enrollments and patient demography
- Uncertainty regarding the timing and cost of new CGT approvals and the expansion/commercialization of existing CGTs;
- Continual increases on already high treatment and administration cost
- Timing of the CGT expense by annual policy years
- Limited information about the long-term cost, durability (performance and effectiveness) of the CGTS, and remedial cost

These aren't necessarily risks, which can be calculated from historical claims with some degree of predictive accuracy, but unknown and unpredictable circumstances.

3.https://asgct.org/global/documents/asgct-citeline-q3-2023-report.aspx

4. https://asgct.org/global/documents/asgct-citeline-q3-2023-report.aspx

5. https://www.biospace.com/article/fda-braces-for-looming-boom-in-cell-and-gene-therapy-submissions/#:~:text=%E2%80%9CThere%20are%20currently%20more%20than,development%2C%E2%80%9D%20Alfano%20told%20BioSpace.

6. Sheridan C. Off-the-shelf, gene-edited CAR-T cells forge ahead, despite safety scare. Nature Biotechnology. 2022; 40:5-8.

7. Locatelii F, Thompson AA, Kwiatkowski JL, et al. Betibleglogene autotemcel gene therapy for non-β^0/β^0 genotype β-thalassemia. N Eng J Med. 2022; 386:415-27.

8.George LA. Hemophilia gene therapy: ushering in a new treatment paradigm. Hematology. 2021; 226-233.

9.Leebeek FWG and Miesbach W. Gene therapy for hemophilia: a review on clinical benefit, limitations and remaining issues. Blood. 2021; 138(11):923-31.

As a result, payers and other entities bearing the costs can anticipate the demand for life-saving therapies combined with flexible administration and accelerated production will increase exposure to financial risk. Several approaches include the following:

- Risk/financial protection programs, such as stop-loss and reinsurance solutions specifically designed for gene and cell therapies
- Directing patients to preferred Centers of Excellence
- Provider reimbursement management could help determine that therapy is billed accurately and at a competitive price
- Value-based contracting can provide a refund/rebate for failed therapy five to ten years ahead of time
- Payer financing enables the spreading of payments over a longer duration of time

It is tempting to use a “wait-and-see” approach before determining how to address rapidly expanding fields of medical treatments. Plan sponsors and payers should evaluate the potential risk and work to develop a policy supporting members who may be clinically appropriate for treatment. Having a strategy designed and ready to implement will be crucial to managing financial exposure.

Brown & Brown Risk Solutions has joined with A-rated reinsurers to design solutions addressing payer-specific levels of risk, adapted to serve specific populations. Our approach is designed to respond to the cost of the drugs and any hospital or administrative costs associated with the drug treatments. From claims and data analysis, benefits design, pharmacy risk management, prior authorization and reinsurance, Brown & Brown Risk Solutions can help provide a comprehensive solution supporting each aspect of these advances in medical care.

These are the areas where Brown & Brown can help:

1. Build a comprehensive CGT management plan.
   - Includes COE’s and provide networks and clinical and utilization management systems.
2. Develop and track manufacturer rebates, warranties, etc. to reimburse failed CGT performance.
3. Develop and track innovative manufacturer and third-party insurers/ reinsurer risk financing plans that cap the annual financial expense and spread the timing of catastrophic expense from CGTs. (Catastrophic and the fear of growing annual CGT expense limit the plans future commercial marketability.
4. Develop and design a reinsurance structure to manage financial stability over time to manage the CGT expenses of a plan or insurer.

How Brown & Brown Can Help

Connect with our Brown & Brown team to learn about our knowledge in your industry, how we build our risk mitigation strategies and how we can aid your business in building a cost-saving program.

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