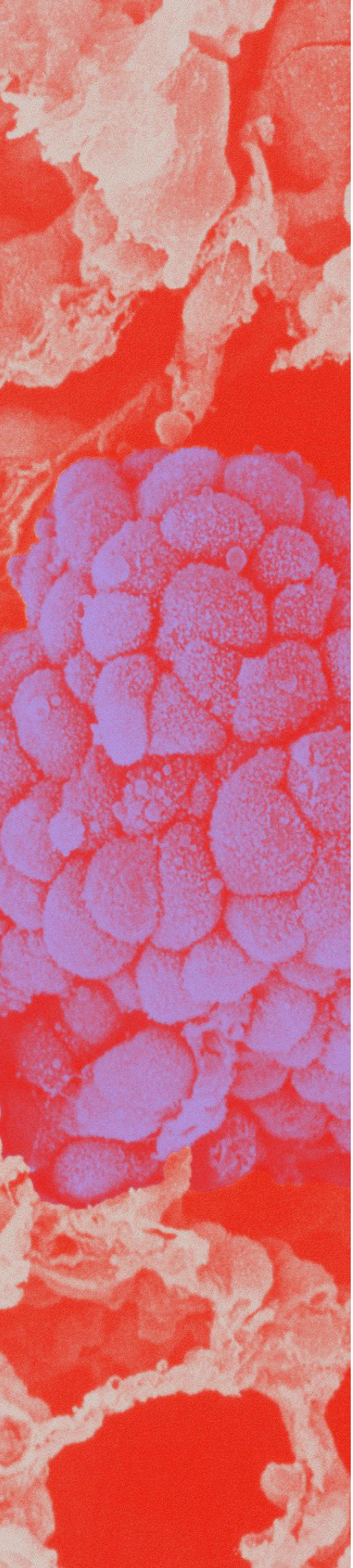

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Cell therapy

The next frontier in disease treatment

Explore the transformative impact of cell therapies on modern disease treatment strategies

Understanding cell therapy

Health care is transforming every second. And leading the charge of this transformation is cell therapy. Unlike traditional treatments which typically aim to manage disease symptoms, cell therapy is a novel approach that **more precisely and effectively addresses the root cause behind a disease** to improve health outcomes or provide a potential cure. In certain cases, **cell therapies serve as a potential one-time treatment.**[1]

- **Cell therapy involves the injection or transfusion of cellular material into a patient's body to repair or replace damaged or diseased cells.** These cells may originate from the patient (autologous cells) or a donor (allogeneic cells); in either case, they are extracted from the individual and transformed or re-programmed in some way before the cells are returned to the patient for treatment. Cell therapies treat disorders that affect the body's ability to make healthy cells, such as cancers of the blood and bone marrow.[2]
- One major advantage of cell therapies is treatment duration. Whereas standard oncology treatments like radiation, chemotherapy, or other immunotherapies like bi-specific antibodies (BsAbs) require multiple doses or chronic dosing, cell treatment often involves a single treatment administration.

Navigating the complexities of cell therapy

Research & Development (R&D) for cell therapies is more time-intensive, expensive, and complex compared to the R&D for traditional treatment methods. This process involves balancing a small and rare patient population to develop, test, and launch precise treatments, accurately.[5]

Further, the manufacturing of cell therapies presents unique challenges due to their reliance on biological starting material. These therapies have shorter shelf lives, greater temperature sensitivities, and increased complexity in maintaining product effectiveness and safety.[6] **The manufacturing cost alone of cell therapies in a clinical trial can go up to $300,000 per patient.[7]**

Additionally, cell therapies require rigorous control and oversight to meet the strict standards for FDA approval.[8]

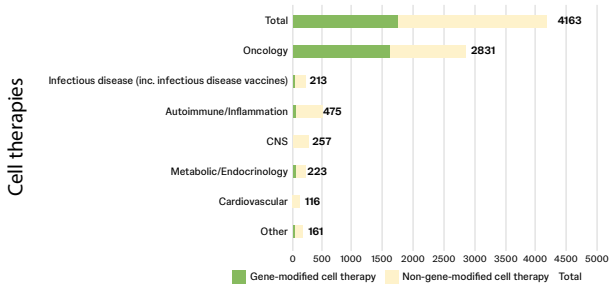
Looking ahead: The future of cell therapy

Looking ahead, cell therapies hold the promise of delivering a significant real-world impact. These therapies offer the potential for life-changing treatments that could alter the trajectory of chronic diseases, **providing patients and their families years of improved quality of life and productivity.[9,10,11]**

For the workforce and the broader healthcare system alike, advanced therapies present substantial advantages. **They have the potential to reduce costs associated with long-term care needs, including frequent hospitalizations, advanced nursing care, ongoing medications, and imaging.[1,12,13]** Additionally, they can **help address the issue of missed workdays and absenteeism caused by burdensome treatments.[1]**

The advanced therapies market is on an upward trajectory. **As of December 2022, the next wave of cell therapies is expected to target more common conditions, broadening their impact and applicability. Although oncology is in the lead overall, there are large numbers of active cell therapy trials within autoimmunity and inflammation (475), CNS (257), and infectious diseases (213).[14] There are also active cell therapy programs in diseases as diverse as diabetes, heart failure, and multiple sclerosis.**

Breakdown of active cell therapy clinical trials by status and therapy area (TA).



The takeaway

As we navigate the opportunities and challenges of cell therapies, we move closer towards a new chapter in health care. This chapter may shift from simply managing symptoms to delivering potentially curative treatments. **For employers, understanding and managing cell therapy coverage signifies a commitment to supporting the health and well-being of your employees using the most advanced methods available.** This commitment is multi-faceted, requiring a solid grasp of the therapies' longevity, their value to patients, and the associated financial costs. Employers are entrusted with balancing these factors when integrating cell therapies into their health plans.

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