

FDA approves Itvisma, the first gene-replacement therapy for SMA patients aged 2 or older

Market Event Summary

FDA approves Itvisma (intrathecal onasemnogene abeparvovec)

Background

- Novartis / Novartis Gene Therapies' Zolgensma (intravenous onasemnogene abeparvovec) was approved for SMA patients under the age of 2 in 2019 in the United States and in 2020 in Europe and Japan.
- However, **a significant unmet need persisted for SMA patients aged 2 or older**. Treatment options for this population were limited to chronic therapies, including Biogen's intrathecal nusinersen (which carries a considerable administration burden) or Genentech's oral risdiplam (which poses compliance challenges). In older, heavier SMA patients, the weight-based intravenous dose cannot be safely administered because of the toxicity risks.
- To address this gap, Novartis developed Itvisma, the same molecule as Zolgensma but **a different dose delivered intrathecally directly into the spinal cord**, targeting the motor neurons more efficiently at a lower dose.

Event

- On November 24, 2025, **the FDA approved intrathecal onasemnogene abeparvovec (brand name Itvisma)** for all SMA patients aged 2 or older with a confirmed mutation in the *SMN1* gene, marking a significant expansion as the first and only gene-replacement therapy for this broader population.
- The FDA approved Itvisma based on the results from the **Phase 3 STEER trial and the Phase 3b STRENGTH** trial.
 - Treatment-naive patients in the STEER trial demonstrated a 2.39-point improvement on the Hammersmith Functional Motor Scale - Expanded (HF MSE), compared with 0.51 points in the sham group.
 - Patients switching to Itvisma from nusinersen or risdiplam in the STRENGTH trial showed stabilization in motor function over 52 weeks, with 90% of patients with a median increase of 4 points on the HF MSE scale.

Clarivate's takeaways



Commercial outlook

Itvisma's approval will expand the SMA gene therapy market, with all SMA patients now being eligible for Novartis's treatment. We forecast **peak-year sales of onasemnogene abeparvovec (Zolgensma and Itvisma) to exceed \$1 billion**.



Market access and reimbursement

With newborn screening implemented across all 50 states in the U.S. and **increasing payer acceptance** of high-value rare-disease therapies, Itvisma has the potential to reach a large percentage of the SMA patient population.



Uptake constraints

Given its intrathecal administration, Novartis might need to set up **specialized centers to administer Itvisma**, a step that could take time and delay rapid uptake. Itvisma will also **compete with nusinersen and risdiplam** for the same subset of SMA patients aged 2 or older.

About the author



Raina Priyadarshini

Associate Principal Healthcare Research & Data Analyst

DRG Commercial Solutions

Dr. Priyadarshini has 9 years of experience in market assessment, competitive intelligence, primary market research, market forecasting, analogue and indication assessment, disease portfolio optimization. Dr. Priyadarshini trained as a molecular biologist; her research focused on the interplay between tumor suppressor proteins and oncoproteins. She received her doctorate from the National Institute of Immunology in New Delhi, India.

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healthcare.support@clarivate.com
clarivate.com

+1 215 386 0100 (U.S.)

+44 (0) 20 7433 4000 (Europe)

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