

A New Spin on Nasal Drug Delivery

Frequently Asked Questions

What is the market size for nasal drug delivery?

Leading industry analysts believe the global drug delivery market will show sharp growth in the next three to five years. **Frost & Sullivan's healthcare group** forecasts emerging drug delivery technology markets in the USA will grow from \$19 billion in 2001 to \$41 billion by 2007. The nasal drug delivery market alone is expected to be valued at \$9 billion by 2008.

How does Kurve Technology differ from other nasal drug delivery companies?

While most nasal drug delivery companies concentrate on chemically reformulating existing oral or injected drugs, Kurve focuses on improving a weak link in the nasal delivery chain - the drug delivery device.

What is lacking in the current nasal drug delivery chain?

Many patients that use nasal spray bottles to administer prescription drugs do not get the intended result or relief. Currently, spray bottles do not deposit in the nasal cavity effectively, thus limiting treatment efficacies. Instead most of the drug delivered using these devices is quickly cleared and swallowed, leading to poor efficacy, side effects and a bad aftertaste.

What is Controlled Particle Dispersion Technology™?

Controlled Particle Dispersion is a technology that produces the correct droplet size and trajectory for optimal nasal drug delivery. In addition, it creates an aerodynamic environment designed to overcome the inherent airflow patterns allowing far greater drug deposition that saturates the entire nasal cavity. This leads to more effective and efficient treatments than those provided by traditional nasal spray bottles that deliver only to the front portion of the nasal cavity. More effective treatment equals a better quality of life.

What is ViaNase™?

ViaNase is an electronic atomizer that will offer effective nasal drug delivery in a pocket-sized, lightweight, and battery-powered package. Kurve's first drug delivery system, ViaNase™, is the first device to employ Controlled Particle Dispersion Technology.

What particle/droplet size range can ViaNase deliver?

Droplet sizes can be optimized by drug type. Typically droplets delivered by Kurve's devices are smaller than nasal spray bottle droplets, but larger than pulmonary nebulizer droplets.

What medical conditions will ViaNase treat?

ViaNase can treat both topical conditions such as allergic rhinitis and chronic rhinosinusitis, in addition to systemic conditions, such as migraine headaches, pain and obesity.

What are the results of clinical trials to date? Where have they been conducted? Initial clinical trials comparing ViaNase to nasal spray bottles have been conducted at the Sinus Center, Oregon Health Sciences University by Dr. Peter Hwang. This study showed that the average area of intranasal distribution was as much as 300 percent greater for Kurve's ViaNase device. In all cases, ViaNase demonstrated a greater propensity for delivery of droplets to the paranasal sinuses than current methods. A summary of the clinical results can be downloaded at http://www.kurvetech.com/NasalTechnology.asp.

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What clinical trials are underway or planned for 2005? What drugs will be tested?

Clinical trials at the Sinus Center of Oregon Health Sciences are ongoing. Feasibility studies are also underway under the direction of Kurve's pharmaceutical partners.

Who are Kurve's partners?

Kurve partners with Medel, S.p.A – the world's largest aerosol therapy device manufacturer. Medel provides design and prototype production services under the terms of the current partnership.

In addition, Kurve has relationships with several global pharmaceutical companies.

When will ViaNase be available?

Product launch depends on pharmaceutical partners' schedules, but ViaNase could be on the market by late 2007.

Who are Kurve's closest competitors?

Kurve's competitors are spray pump manufacturers. However, spray pumps do not deliver compounds throughout the entire nasal cavity, thus limiting their efficacy.

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