Questions from end of stair-climbing wheelchair

May 25 2009, By LAURAN NEERGAARD , AP Medical Writer

This undtaed handout photo provided by Johnson & Johnson shows an IBOT wheelchair. The nation's first stair-climbing wheelchair hit the market with a bang but disappeared with a whimper, a casualty of price that raises a big question: How much will society agree to pay for high-tech help for the disabled? (AP Photo/Johnson & Johnson)

(AP) -- The nation's first stair-climbing wheelchair hit the market with a bang but disappeared with a whimper, a casualty of price that raises a big question: How much will society agree to pay for high-tech help for the disabled?

Johnson & Johnson quietly sold the last iBOTs this spring, shuttering

manufacturing of a wheelchair that doctors had greeted five years ago as potentially revolutionary for the freedom of movement it promised - but which failed to sell more than a few hundred a year. Earlier this month, a veteran who lost his legs in Iraq received the last known available iBOT, donated after its initial owner died.

Now iBOT users who fear their chairs wearing out are joining high-profile inventor Dean Kamen - best known for his Segways - in lobbying Congress for reimbursement changes that they hope could revive a technology that left the market with a $22,000 price tag but that Medicare deemed worth about $6,000.

"If I ever had to get out of this chair, I really don't know if I'd want to live anymore, to be honest with you," says Alan T. Brown, 42, of Hollywood, Fla., who is mostly paralyzed from the chest down and on his second iBOT. "Guys in these chairs ... we might be disabled now, but then we'd really become disabled."

Price wasn't the only factor in the iBOT's demise. Only a small fraction of the paralyzed even were candidates because the high-tech chair required, among other things, use of at least one arm and certain upper-body control.

Still, disability specialists say the iBOT saga has ramifications beyond one gee-whiz but far-from-perfect wheelchair. It raises the issue of how the nation handles different kinds of medical equipment.

Take this example from Dr. Michael Boninger, who directs the University of Pittsburgh Medical Center's rehabilitation institute: Medicare routinely pays tens of thousands of dollars for hip replacements to keep the elderly walking pain-free. But a 70-year-old who can't undergo that operation must become too impaired to easily care for herself at home before being approved for a basic electric

wheelchair - when short stands in the kitchen are less of an issue than going to the grocery store, Boninger says.

Medicare says that's how Congress wrote its rules.

"The wheelchair is maybe the most enabling technology in medicine, period," Boninger says. "What it is, is discriminatory policy."

The iBOT episode also sends a cautionary signal about pricey innovation. New technology requires scientific evidence that it changes users' lives in ways existing alternatives cannot, says Henry Claypool, the new director of the federal Office on Disability, which advises the secretary of health and human services.

"Innovative technology should be treated as something we need to embrace when we really find it has a chance to advance a group's function and integration into the community," says Claypool, himself a wheelchair user.

Did the iBOT do that? It depends on who you ask.

The iBOT's wheels rotate up and over one another to go up and down steps, using gyroscopes that sense and adjust to a person's center of gravity. The Department of Veterans Affairs bought the chairs for a limited number of disabled soldiers.

Yet by the end of 2006, Medicare had concluded that the stair-climbing function and other features - lifting users to standing height and powering over uneven turf - weren't medically necessary for at-home care; it would pay only the basic electric wheelchair price. Medicare does provide far pricier wheelchairs, equipped for certain pressure-easing motions or to handle breathing equipment, when doctors deem them required.

J&J blamed reimbursement in part for lack of a "sustainable market," but pledged to provide iBOT users repair service through 2013.

"Giving people independence and access and freedom and technology ought to be something we do," says Kamen, who argues that an iBOT might save money on home modifications.

But today's emphasis is to expand access to health care rather than provide pricier improvements, cautions University of Michigan business professor Erik Gordon, who tracks J&J. He just heard the venture capitalists who fund device research warn industry that new designs must prove a better value than alternatives.

"To a certain extent, there are breakthroughs we just can't afford," Gordon says.

Gary Linfoot of Clarksville, Tenn., illustrates the pros and cons. The Army pilot was paralyzed in a helicopter crash in Iraq last year and found an iBOT through the nonprofit Huey 091 Foundation - but switches between it and his VA-provided manual wheelchair. The smaller, lightweight manual lets him drive a car, not a van, to Fort Campbell, where he now oversees an aquatic training facility. He installed an elevator in his house.

But he uses the iBOT at home, to reach high shelves or work under his car's hood. He also uses it to visit friends whose houses have a step or two that "may as well be Mount Everest," says Linfoot. "You don't understand all the accessibility issues until you find yourself in one and you're trying to navigate the world yourself."