

Affordable anti-rejection drug as effective as higher cost option

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A newer, less expensive drug used to suppress the immune system and prevent organ rejection in kidney and pancreas transplant patients works just as well as its much more expensive counterpart, according to a new study by researchers at Wake Forest University Baptist Medical Center.

Such discoveries are vital in an era of skyrocketing health care costs and debate over health reform, said lead investigator Alan C. Farney, M.D., Ph.D., an associate professor of surgery in the Department of General Surgery, Transplantation Services.

"I think it's very important that the public consider cost, and that they ask their doctors if there are alternatives for them that are less expensive," he said. "Why should we use one drug or intervention over another that is equally effective and a fraction of the cost?"

For the study, published recently in the journal *Transplantation*, researchers looked at the two most common drugs used for induction immunosuppression therapy with kidney and pancreas transplants:

- alemtuzumab, a newer drug that costs about \$1,000 per single-dose treatment and is marketed under the name Campath™; and
- rabbit antithymocyte globulin, which costs about four times more for its multidose treatment than alemtuzumab, and is marketed

under the name Thymoglobulin(TM).

Both drugs destroy the cells that cause organ rejection during induction immunosuppression therapy - a short-term, early treatment meant to rapidly lower the immune system to prevent rejection until the patient begins taking daily drugs to suppress the immune system.

Though more expensive, rabbit antithymocyte globulin has generally been more commonly prescribed than alemtuzumab at Wake Forest Baptist and other transplant centers because there has been a concern that the newer drug would suppress the [immune system](#) too much and lead to infections or cancer, Farney said.

"We want to avoid acute rejection, but we also don't want to pay a price when we're trying to do that by leaving the patient over-immunosuppressed," he said. "We were being cautious, but this study reveals that, through at least two years of follow up, both drugs are equally effective and safe."

In the study of 222 patients receiving either kidney transplants alone, simultaneous kidney-pancreas transplants, or pancreas-after-kidney transplants, researchers found that both drugs showed similar survival rates for the patients (96 percent), the transplanted kidneys (89 percent) and the transplanted pancreases (90 percent). The drugs also had similar infection rates.

From Feb. 1, 2005, to Sept. 1, 2007, transplant patients participating in the study received either alemtuzumab or rabbit antithymocyte globulin, followed by the same course of maintenance drugs. Both groups included patients who varied in age, race, gender and risk - a unique approach with clinical studies, which usually look at a group with similar characteristics.

The researchers wanted to design this study - one of the largest single-institution trials for transplantation drugs - to reflect the actual demographics of the Medical Center's transplant patients, Farney said. Transplantation Services at Wake Forest University Baptist Medical Center performs more than 150 kidney and pancreas transplants each year.

"It represents who we really transplant at Wake Forest Baptist," Farney said. "Other trials are so exclusive that you don't know what the true results are for most people."

As a result of the study, the Wake Forest Baptist Transplant Program has adopted the newer drug as part of its standard anti-rejection protocol for kidney and pancreas transplantation, Farney said.

Source: Wake Forest University Baptist Medical Center ([news](#) : [web](#))

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