THE STATE | TIMES SPECIAL REPORT

How old is too old for a transplant?

Kidneys are scarce. Elderly patients may get fewer if rules change.

November 05, 2006 | Alan Zarembo | Times Staff Writer

DENVER — It was Monday, Shawn Stringfellow's usual night to shoot pool.

He gunned the engine of his Harley-Davidson and pulled out of the restaurant parking lot as his fiancee waved goodbye.

He was 30 years old, healthy and happily employed as a heavy-equipment mechanic. Soon, he and Kellie Highland would be married.

"I love you," she mouthed, as his black leather jacket disappeared into traffic.

With his crisp goatee and helmet-less head, Stringfellow looked like a tough biker. "If I wanted to wear a helmet, I'd ride in a car," he liked to say.

He had a soft side, though. He roared down the street wearing jeans covered with tiny hearts that Highland had scribbled in ballpoint pen during dinner.

He'd promised to be home by midnight.

Life is unpredictable. Just before 11 p.m., he finished his last beer at the pool hall and fired up the Harley. A few miles down the interstate, he drove off the side, struck a construction barrel and rolled his motorcycle.

The next day, May 7, 2002, he was on life support. His heart was still beating, but he was brain-dead.

With his family's consent, calls went out to transplant centers throughout the region. He was an ideal organ donor.

Dr. Ben Vernon, the transplant surgeon on call across town at Porter Adventist Hospital, received the news around midnight: two young kidneys -- blood type A-positive -- available in Denver.

A patient of his stood a strong chance of getting one. This man had waited a long time -- three years. To Vernon, it looked like a go.

He instructed his staff to summon the patient to the hospital. The staff also called Dr. David Gillum, another member of the transplant team.

Gillum sat up in bed and shuddered: The patient was 85 years old.

Were they serious?

What was the sense in giving such a perfect kidney to such an old man when hundreds of younger people were waiting nearby?

Exciting news

The telephone rang around midnight at 85-year-old Clois Guthrie's house on the plains northeast of Denver.

This was it, his chance. He and his wife, Nina, hurried to pack.

Guthrie, a retired osteopathic surgeon known to friends as Gus, had spent much of his life piloting small airplanes into the Colorado hinterlands to remove infected gallbladders and ruptured appendixes. He'd been a bull of a man, with a full life. He had married twice, raised three children and water-skied on Lake Powell well into his 70s.

Now, he was a full-time patient.

At a dialysis clinic 45 miles from his farm near Fort Morgan, Guthrie would slump in a padded recliner for hours, sleeping or watching other patients as the machine filtered toxins from his blood. The air always smelled of bleach, used to clean the machines.

His world had changed so quickly.

Five years earlier, he had gone to the hospital for a heart bypass and valve replacement operation. During the procedure, his kidneys began to fail.

Within a year, they were useless.

He told Nina that he would rather die than go through the misery of dialysis.

He eventually relented. He sat in his chair quietly now, like everyone else, hoping for a kidney transplant.

Unlike livers, hearts and lungs, which are aimed at the patients most likely to die without new organs, kidneys go primarily to those who have waited the longest, though genetics play a role.

It was possible to circumvent the process by getting a kidney from a relative, and Guthrie's son, wife and sister-in-law had each offered to donate one of theirs.

But Guthrie refused. "I'm not selfish enough to consider that," he told his wife.

His kidney would have to come from somebody who had died.

Two transplant centers, in Scottsdale, Ariz., and Seattle, had refused to accept him on their lists because of cancerous cells found in his prostate, even though they did not appear to be multiplying.

Porter Adventist -- the same hospital where he'd had his heart operation -- finally offered him a spot in line.

On this morning, Guthrie was third on the local waiting list, a backup behind two younger patients at other transplant centers in Denver. If either of those candidates was unavailable or unsuitable -- a common occurrence -- he would get his kidney.

Nina took the wheel of their Cadillac and raced to the hospital 100 miles away.

As the Denver lights grew closer, the couple talked about what life might be like again without dialysis -- a time they both could barely remember.

Vehemently opposed

Gillum was determined to prevent the transplant.

The kidneys could last decades if given to younger patients, the nephrologist told Vernon, the surgeon, on the phone that morning. Guthrie probably had just a few years more to live, with or without a transplant. He could die on the operating table.

It was not just unreasonable, Gillum contended, it was unethical to give a young kidney to an 85-year-old.

Vernon, who had performed hundreds of transplants, was confident that Guthrie was healthy enough to survive an operation.

He remembered a basic ethical lesson from medical school: Do what is best for the patient in front of you. Guthrie had waited his turn like everyone else. Who could know how long another recipient would live?

"You don't get to change the rules of Monopoly just because you want to play another way," Vernon said later, recalling his stance.

The doctors were at an impasse -- but only for a moment.

Vernon backed down. He didn't want strife in the program, and he figured that Guthrie, with a top spot on the hospital's list, would get another chance soon.

Guthrie was having blood drawn for pre-surgical tests when a hospital attendant opened the lab door. Without explanation, the woman said it would not be necessary to continue.

On the long drive back home, Guthrie fumed. His wife told him that the organ was probably in poor shape.

A few weeks later, the transplant team decided to remove Guthrie entirely from the waiting list. He was too old.

When Guthrie went to the hospital, it fell to Vernon to deliver the news. He kept apologizing, saying he had been outvoted.

Guthrie never stopped resenting it.

"If they had just let me have that kidney, just let me have the chance at one," his wife remembers him repeating.

Favor the young?

The Guthrie case was a fleeting moment in the long careers of two doctors.

Four years later, however, the debate over how to allocate the scarce resource of donated kidneys is unfolding on a national scale.

With little public scrutiny, transplant doctors and administrators are discussing who should receive life-extending kidneys -- and support is growing for a national system that would favor the young.

The United Network for Organ Sharing, which oversees transplantation for the federal government, has already given patients younger than 18 an advantage. Last year, it moved them to the front of the line for high-quality organs from donors younger than 35.

Now the network is drafting a kidney allocation scheme for adults, who account for more than 95% of transplants using kidneys from cadavers. A formal proposal and public hearings are expected next year. The final decision will rest with the U.S. Health Resources and Services Administration.

The reexamination is largely based on a computer analysis of data on more than 300,000 patients placed on kidney waiting lists since 1987 -- including age, race, health, body mass index, diagnosis, years on dialysis and years of survival after transplant.

The analysis shows which types of recipients should be favored in order to squeeze the maximum life out of the pool of all available kidneys.

Without a change, proponents say, the current system is headed for collapse.

Over the last decade, the number of people waiting for kidneys nationwide has more than doubled to about 68,500, as of last week. It could reach 100,000 by 2010, some researchers estimate.

The average wait now exceeds three years -- and up to seven years in the biggest cities.

The growth has been driven by older patients -- over 50, and increasingly over 65 -- who are joining the waiting list in record numbers and claiming an unprecedented share of kidneys.

The U.S. population is aging, and as transplantation becomes more routine, older people are pushing for the better quality of life it can offer. At the most extreme, a hospital in Pennsylvania recently put a kidney from a cadaver into a 90-year-old.

Even so, long before their new kidneys wear out, many older recipients die of the myriad afflictions that come with aging.

From a statistical standpoint, kidneys are being squandered.

Nearly everybody, at least up to age 70, lives longer with a transplant than with dialysis. But the young gain the most extra years of life. In the mathematics of transplantation, they have the potential for the most "net lifetime survival benefit."

Maximizing the benefit, in many respects, is a harsh calculation.

Race, weight, disease type and length of time on dialysis all count. Blacks, for example, tend to survive longer on dialysis than whites and Asians, but do less well with transplants. Obese patients tend to live longer on dialysis than normal-weight patients, but not as long with transplants.

A purely utilitarian equation would favor young, trim whites and Asians who have been on dialysis less than a year.

Nobody is arguing for that -- or any formula that would set absolute limits. Nothing has been decided, and waiting time could still be figured in.

But age, the most important factor in predicting survival, is an unavoidable consideration.

The analysts have returned to the database for a solution. In a former icehouse in Ann Arbor, Mich. -- headquarters of the Scientific Registry of Transplant Recipients -- computers are re-sifting the data, simulating how more than a dozen different formulas might play out. All factor in age.

It is a journey into controversial territory: how to balance what is best for society with what is best for the individual.

In the vast sea of numbers, one patient is imperceptible.

Each point, however, is a life.

Hospital changes rules

Guthrie never returned to Porter Hospital -- but he left a powerful legacy.

His case spurred the transplant team to examine its policy on age. In the ensuing months, it decided to make a significant change.

Patients 70 to 79 would be considered candidates for subpar organs or organs from living donors, usually relatives. Patients older than 79 would no longer be accepted.

The center was well within its rights. Although federal rules control the allocation of organs, hospitals set their own policies on whom to let on the waiting lists and whether to proceed with transplants when organs become available.

"We all felt uneasy about" the change, said Dr. Mark Dillingham, a kidney specialist at the hospital. "But it made sense to have an age limit somewhere."

Over the months, the doctors lost track of Guthrie.

His wife, Nina, watched him grow increasingly frail. His eyesight and hearing faded. She had always supported his quest for a kidney, always listened as he revisited his lost opportunity.

Privately, she wondered how much a transplant would have helped.

"I had to question in my own mind about the wisdom of giving it to an older person when a younger person could get a lot more years from it," she recalled.

For 2 1/2 more years, her husband continued the dialysis he dreaded.

In January 2005, at age 88, he died of a heart attack.

Nina, now 81, left the farm and moved into a gray brick house in the countryside southeast of Denver, just down a gravel road from her son, a commercial airline pilot.

She still thinks about the kidney sometimes.

"It's a decision I'm glad I didn't have to make," she said. "It's like playing God."

Two doctors' stances unchanged

Gillum has treated hundreds of patients since the Guthrie case, which he had nearly forgotten. But he was curious to learn what had become of the elderly man.

He nodded when he heard: The hospital's decision had been right.

Society is uncomfortable with the idea of rationing life, the doctor said recently after a long morning at a dialysis clinic.

"We haven't been very good about restricting access to the list," he said. "We have a limited supply" of organs. "And we keep letting more people enter the room to compete."

He added, "There is a point where you are going to have to make some utilitarian decisions."

It seems clear, he said, that the young should be favored.

"By age 70, you've had a full life," said Gillum, who is 54. "You've done what you need to do. You've amassed your fortune -- or not. You've raised your family."

He recalled two of his patients on dialysis.

A man in his early 20s was waiting for a kidney when he got an infection through a dialysis catheter. It spread to his heart, and he died during surgery to replace a heart valve.

A woman in her late 20s developed a sore on her arm, just over the spot where doctors joined an artery and vein to serve as a port for a dialysis needle. The sore erupted one night.

"She was found in her bed," he said. "All her blood was in her sheets."

These young deaths are the hardest for him to take.

Vernon still thinks of Guthrie.

The surgeon remembers the last time he saw the patient and his wife. It was one of the hardest things the doctor had ever had to do -- to play God for a moment.

Hearing how Guthrie died, Vernon, 52, paused. Prolonged dialysis can strain the heart. Could he have lived longer?

Just to unleash him from dialysis for those few years -- that would have been a good use of a kidney, Vernon said.

He feels strongly that individual lives can't be trusted to computer formulas.

There is no way to know which elderly transplant recipient will defy the odds and live past 90, which middle-aged patient will mysteriously reject his kidney, which young patient will stop taking his anti-rejection medicines.

Death is unpredictable. Vernon knew that lesson better than most.

In February 1978, his father, a 55-year-old pathologist and amateur pilot, flew into a blizzard. A brother and sister were passengers, as were his sister's boyfriend and another friend.

The Cessna crashed over Yoder, Colo., killing everybody on board.

Last March, Vernon, who serves on the board of the national organ transplant network, was moved to speak out.

At a meeting in Long Beach, he sliced into the dry scientific debate over kidney allocation, warning against the cold calculations of utilitarianism.

He invoked the U.S. sterilization of mental patients in the 1920s; he even mentioned the Nazis.

Supposedly scientific arguments, he said, were "used by Nazi Germany to institute some laws that now, clearly, in retrospect, were atrocities and took them down the path toward genocide."

The room was silent.

The meeting chairman, perhaps sensing the discomfort of the other doctors, said, "I don't want a response to that."

A mixed outcome

Shawn Stringfellow's kidneys went to men far younger than Guthrie.

The right one went to a 53-year-old grade school secretary from Italy. He had been at the top of the regional list.

The patient has since returned to Italy, and relatives in Colorado reported to his doctor last December that the kidney was working fine.

The left kidney went to the next patient in line, Santiago Griego, a former hospital painter. He was 51 at the time.

Suffering from diabetes, he had spent more than three years on dialysis, waiting. His body often cramped during the treatments, draining him so much that he could do nothing but sleep afterward.

He was so depressed that he told his wife, Patricia, that if he didn't get a kidney soon, he would stop dialysis and die.

His transplant, however, has not produced the results he expected.

Though most transplant patients report a better quality of life with a new organ, some, like Griego, don't anticipate ongoing health ordeals.

"I thought that once I got my kidney, I would be restored back to normal," he said.

His problems stem mostly from diabetes and have been exacerbated by his daily regimen of immunosuppressive drugs that protect his kidney from rejection.

The bones in his left leg had become brittle during his years on dialysis -- a common side effect -- and shattered shortly after his operation.

The next year, his right leg became infected through a gash in his foot. His immune system could not quell the infection. Doctors amputated the leg below the knee.

In the last couple of years, he has had at least eight cysts -- a complication from the drugs -- removed from his back, legs and groin. "If they would have explained everything that would happen to me," Griego said, "I would have turned [the kidney] down."

His solace, he said, is in his two young grandchildren who live with their mother in the spare room of his apartment.

Too weak to work, hobbling around on a cane, he lives off federal disability benefits and his wife's earnings as a saleswoman.

"Someone else gave me life," he said. "That's the only thing that stops me from giving it up."

Life without Shawn

Kellie is Kellie Stringfellow now, having taken Shawn's last name after his death.

In her apartment, his motorcycle manuals are neatly lined up next to his old albums. Kellie saved everything she could. She repaired his leather jacket. Her father restored the motorcycle, a 1995 Harley Road King.

Nobody rides it.

When she heard that both of Shawn's kidneys were still working, Kellie cried.

It was the first she had heard of them since a few weeks after Shawn's death, when a letter arrived from the Colorado organ agency saying the kidneys, along with his heart and liver, had been transplanted.

Shawn would have been pleased, she said.

On one of their first dates, the couple had pulled out their driver's licenses to compare pictures.

She noticed that they both had organ donor stickers.

He told her he didn't care who got his organs, as long as the recipients were deserving.

alan.zarembo@latimes.com

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Waiting for a kidney

The number of people nationwide on kidney waiting lists, by age group,

as of Oct. 27:

Under 18: 748

18 to 34: 8,033

35 to 49: 20,553

50 to 64: 28,530

65 and over: 10,628

Source: United Network for Organ Sharing