Reimbursement for Living Kidney Donor Follow-Up Care: How Often Does Donor Insurance Pay?

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Background. Currently, many transplantation centers do not follow former living kidney donors on a long-term basis. Several potential barriers have been identified to provide this follow-up of former living kidney donors, including concerns that donor insurance will not reimburse transplantation centers or primary care physicians for this care. Here, we report the rates at which different insurance companies reimbursed our transplantation center for follow-up visits of living donors.

Methods. We collected data on all yearly follow-up visits of living donors billed from January 1, 2007, to December 31, 2010, representing 82 different donors. Concurrent visits of their recipients were available for 47 recipients and were used as a control group.

Results. We find that most bills for follow-up visits of living kidney donors were paid by insurance companies, at a rate similar to the reimbursement for recipient follow-up care.

Conclusions. Our findings suggest that, for former donors with insurance, inadequate reimbursement should not be a barrier in providing follow-up care.

Keywords: Living, Kidney, Donor, Insurance, Follow-up, Reimbursement.

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Recent reports suggest that long-term outcomes for living kidney donors are generally good (*1*, *2*). However, these studies were limited to young, white donors, and current donors are increasingly older, obese, and hypertensive (*3*). Medically complex donors (defined as those with hypertension, obesity, or an estimated glomerular filtration rate <60) now form a significant proportion (24%) of current donors (*4*). There are few data on the long-term effects of donation in this population, and therefore, many have called for a widespread and long-term follow-up of donors (*5*–*7*). However, most U.S. transplantation centers currently do not perform long-term donor follow-up beyond the immediate postoperative period (*6*). Notably, many barriers have been reported for this limited follow-up, including cost issues such as reimbursement to care providers and lack of insurance in donors (*6*). Because of an assumption that insurance companies will not reimburse living donor follow-up care such as physician visits, many centers currently use research or hospital fund to pay for this care or have donors pay out of pocket. Here, we document how commonly physician visit bills submitted by our center for yearly postdonation care were paid by donor insurance.

RESULTS

Donor and recipient demographics are presented in Table 1. Kidney donation occurred from 1981 to 2009, with a mean time of 2.9 years from donation to follow-up visit. Eleven donors (13.4%) did not have any insurance, whereas all recipients had insurance. None of these 11 donors reported being denied of health insurance. The reimbursement rates for donor and recipient visits are shown in Table 2. Of those with insurance, 78.9% of donor visits and 91.5% of recipient visits were reimbursed (P=0.08). Of the paid bills, reimbursement was 46.7% of the amount billed for donors and 44.3% of the amount billed for recipients. For donors, the average amount billed was U.S. $241, and the average amount paid was U.S. $112. For recipients, the average amount billed was U.S. $354, and the average amount paid was U.S. $157. This is consistent with the lower level of service billed for donor visits (median current procedural terminology

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TABLE 1. Demographics of donors and recipients

	Age, Mean (SD), yr	Sex (Male), %	Race			
			White, %	African American, %	Hispanic, %	Others, %
Donors (n=82)	46±10.7	42.20	81.71	8.54	3.66	6.10
Recipient (n=47)	49±11.6	55.30	82.98	4.26	8.51	4.26

code 99213) compared with those for recipient visits (median current procedural terminology code 99214). There were minimal differences between reimbursement rates and the amount reimbursed among different private insurance companies. However, Medicare reimbursed a lower percentage of the bills that it paid (Table 2).

The percentage of donor visits paid by insurance companies increased substantially after August 2008, after the interventions performed by our new financial coordinator (Table 3). Changes in the donor billing process included affixing a unique identifier to donor registrations; educating the front desk, nurse coordinators, and billing staff about billing for postdonation services; ensuring that accurate insurance information was obtained from donors at their visit; and a rapid review and direction of living donor claims to the appropriate payer. After the implementation of these changes, donor bill reimbursement rates increased from 47% to 85% (Table 3), similar to reimbursement rates for recipients (91.5%) (P=0.35). The Massachusetts Health Care Reform Plan was passed in 2006 and phased in during 2007. After August 2008, the rate of uninsured donors from Massachusetts dropped from 27% to 4%, whereas the rate of uninsured out-of-state donors remained unchanged at 33% (Table 3).

DISCUSSION

To our knowledge, this study is the first that assesses the rates and amount of reimbursement for healthy living kidney donor follow-up. In our population, most bills for follow-up visits of living kidney donors were paid by donor insurance and at a rate comparable to reimbursement for recipient follow-up care. No substantial differences were found among different private insurance companies, or Medicare, as to reimbursement rates. However, as might be expected, the amount reimbursed by Medicare was lower than that by a private insurance company. We also note that achieving high rates of insurance reimbursement for donor follow-up may require extra effort from transplantation centers. Once our center implemented several initiatives specifically targeted at donor billing, our reimbursement rates substantially improved.

The demographics of our donors—42% male and 82% white—are similar to that of the national data on kidney donors (from the United Network for Organ Sharing registry 2007–2010: 40% male and 70% white). Of our donors, 13.4% did not have insurance, similar to previous national reports based on the United Network for Organ Sharing registry data of 18% uninsured (*8*). We note a marked reduction in the rate of Massachusetts donors without insurance after August 2008. This could be partly caused by a better identification of donor insurance by the changes implemented by our financial coordinator and partly caused by the implementation of universal health care laws in Massachusetts.

Our study has several potential weaknesses. The number of patients is limited, and these single-center results may not be generalizable to other states. Except for Medicare, different insurance companies operate in different states and may have different policies and procedures for reimbursement. In addition, the amount reimbursed is determined by the contract between the hospital and the insurance company, so the percentages paid on amounts billed will differ by hospital, even within the same state. In addition, our findings are the result of using two specific billing codes, and reimbursement rates might differ with different codes.

Our findings about reimbursement rates are also limited to subjects with insurance, so they do not address funding for the follow-up of donors without insurance.

TABLE 2. Reimbursement for donor and recipient visits by insurance

Insurance	Donor			Recipient		
	N (%)	Bills Paid, %	Bill Amount Paid, %	N (%)	Bills Paid, %	Bill Amount Paid, %
Medicare	5 (6.1)	60.0	27.8	13 (27.7)	92.3	32.4
Blue Cross Blue Shield	34 (41.5)	79.4	46.7	17 (36.2)	94.1	47.3
Harvard Pilgrim	8 (9.8)	100	49.6	5 (10.6)	100	51.7
Tufts Health Plan	6 (7.3)	66.7	46.4	4 (8.5)	75.0	47.6
United Health Care	4 (4.9)	75.0	60.6	3 (6.4)	100	56.8
Others	14 (17.1)	78.6	44.8	5 (10.6)	80.0	45.2
No insurance	11 (13.4)	NA	NA	0 (0)	NA	NA
Mean, %		78.9[a]	46.7		91.5	44.3

[a]Percentage of bills paid if they have insurance.
NA, not applicable.

TABLE 3. Change in rates of donor insurance and reimbursement after intervention

	January 2007–August 2008	August 2008–December 2010
Number of donors	21	61
Bills paid of those with insurance, %	46.7	84.8
In-state donors without insurance (%)	4 (27)	2 (4)
Out-of-state donors without insurance (%)	2 (33)	3 (33)

However, a recent consensus conference on living donor follow-up suggests that "charges for postdonation care and data reporting are allowable expenses on the Medicare Cost Report on a cost-recovery basis for the reporting intervals mandated by CMS and the OPTN and thus should be partially recoverable depending on the center's Medicare percentage" (*5*).

Despite the potential weaknesses of the study, we believe that our study provides important data in answering a critical question in living donation, namely, how often does insurance reimburse for the follow-up care of former living donors. While many have suggested that insurance companies will not reimburse this care and have therefore not even tried to bill for it (*6*), our experience is that reimbursement rates are high with all insurance companies in Massachusetts. Hence, we believe that the concern about the lack of reimbursement is exaggerated and that inadequate reimbursement should not be a barrier in providing follow-up care.

Further studies are required to confirm our findings and to identify the differences between our experience and that of centers serving different states and demographics.

MATERIALS AND METHODS

We collected data on all yearly follow-up visits of living donors billed from January 1, 2007, to December 31, 2010. We excluded visits within the first 6 months after donation because those bills could be paid by recipient insurance. We excluded 13 donor visits with active medical issues such as hypertension or edema because reimbursement rates for these short-term issues might be higher than those for routine donor follow-up. Concurrent visits (within a month of the donor visit) of specific recipients for these donors were used as a control group. All donor bills were submitted with billing codes V59.4 (healthy kidney donor) and 753.0 (solitary kidney). There were 82 donors with 113 visits and 47 recipients with 53 visits who met our criteria. We collected their demographics and information about each visit, including insurance, amount billed, and amount received. The analysis was performed both by including all visits and by excluding repeat visits by donors, and similar results were obtained. The data presented are for one visit per patient, and for those with multiple visits, the latest visit was used. Statistical significance was calculated using Fisher exact test. This study was conducted as a continuous patient safety and quality improvement project in accordance with the institutional guidelines of the Beth Israel Deaconess Medical Center's Committee on Clinical Investigations.

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