

which to omit. We agree with Maslove and Mihm that needle guides can be helpful; however, needle guides are not universally available. Augoustides et al., the authors of the article they cite, conclude that needle guides are most helpful in improving the performance of the the novice operator and that the difference made when a guide is used disappears with experience. In addition, the use of a needle guide offers no protection against arterial puncture.¹ Movahed suggests that micropuncture should be the standard of care. He bases this recommendation on a report by Blaivas and Adhikari in which mannequins were used and in which the hypothesis concerning the benefit of micropuncture for ultrasound-guided central venous catheterization was not tested.²

Clinicians performing any medical procedure modify the technique used on the basis of their

experience, preferences, and information obtained from scientific publications. Our video was designed to be a starting point for this process.

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Since publication of their article, the authors report no further potential conflict of interest.

1. Augoustides JG, Horak J, Ochroch AE, et al. A randomized controlled clinical trial of real-time needle-guided ultrasound for internal jugular venous cannulation in a large university anesthesia department. *J Cardiothorac Vasc Anesth* 2005;19:310-5.

2. Blaivas M, Adhikari S. An unseen danger: frequency of posterior vessel wall penetration by needles during attempts to place internal jugular vein central catheters using ultrasound guidance. *Crit Care Med* 2009;37:2345-9.

Mortality among Living Kidney Donors and Comparison Populations

TO THE EDITOR: In an article published in the *Journal* this past year, Ibrahim et al. (Jan. 29, 2009, issue)¹ provide important, much needed data about long-term outcomes of living kidney donors. For a comparison group, the investigators used rates of death in the general population, which included adults with coexisting medical conditions (e.g., heart and kidney disease) that would make them ineligible for kidney donation. However, it would be preferable to use as a comparison group persons with a greater similarity to living kidney donors. Therefore, we generated death rates for participants in the National Health and Nutrition Evaluation Survey (NHANES) III who would be eligible for kidney donation (called the “healthy cohort”). These participants did not have hypertension, diabetes, obesity (defined as a body-mass index [BMI; the weight in kilograms divided by the square of the height in meters] of >30), a history of stroke or cardiovascular disease (myocardial infarction or congestive heart failure), reduced kidney function (defined as an estimated glomerular filtration rate [GFR] of <80 ml per minute per 1.73 m² of body-surface area), or microalbuminuria.

NHANES III, which was designed as a probability sample of the total U.S. civilian noninstitutionalized population over the age of 2 months,

collected health and nutritional data on 33,994 men, women, and children from 1988 through 1994. Full details of the survey design may be found in the NHANES III operations manual.² NHANES III was linked with the National Death Index with up to 13 years of follow-up from 1988 through 2000. Data on 16,562 adults who were 20 years of age or older with known vital status were available for analysis. After the exclusion of 1241 participants for whom data on estimated GFR or microalbuminuria were missing, 15,321 adults remained.

We first determined that the healthy cohort of 6053 NHANES participants was demographically similar to 16,657 living kidney donors in the United Network for Organ Sharing (UNOS) database for the same period (1988–1994) on the basis of mean age (36.7 years in NHANES vs. 37.3 years in UNOS), male sex (46% vs. 45%), white race (78% vs. 73%), black race (8.3% vs. 12.5%), Mexican ancestry (5.3% vs. 10.3%), other racial or ethnic group (8.4% vs. 3.8%), and mean BMI (23.7 vs. 23.5). We then generated death rates according to age and race or ethnic group in the NHANES III healthy cohort and in the cohort that was excluded (Table 1).

On the basis of our findings, we suggest that outcome studies for living kidney donors be based

Table 1. Rates of Death from Any Cause among NHANES III Participants Who Would Be Eligible for Kidney Donation and among Those Who Would Be Excluded, According to Age and Race or Ethnic Group.*

Variable	Healthy Cohort		Excluded Cohort	
	no.	rate of death per 1000 person-yr	no.	rate of death per 1000 person-yr
All participants	6053	3.18±0.34	9268	14.58±0.66
Age group (yr)				
20–29	2348	0.95±0.26	1158	1.96±0.60
30–39	1705	1.25±0.31	1619	1.94±0.36
40–49	977	2.72±0.77	1602	6.56±1.14
50–59	481	6.98±1.72	1371	11.91±1.24
60–69	350	17.02±3.72	1959	25.19±1.47
70–79	192	27.83±5.01	1559	53.01±3.24
Race or ethnic group†				
White	2414	3.17±0.44	3396	15.60±0.89
Black	1470	3.71±0.55	3036	15.74±0.81
Mexican	1888	4.18±0.60	2485	9.12±0.58
Other	281	1.99±0.81	351	5.93±1.46

* Plus–minus values are means ±SE. NHANES denotes National Health and Nutrition Evaluation Survey.

† Race or ethnic group was self-reported.

on death rates in healthy control subjects who do not have any chronic medical conditions that would exclude living kidney donation. However, an important caveat is that criteria for living kidney donors are likely to change over time. A 2007 survey of U.S. transplantation centers reported that as compared with data from 1995,³ centers were accepting an increased number of potential donors who were older or had hypertension.

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1. Ibrahim HN, Foley R, Tan L, et al. Long-term consequences of kidney donation. *N Engl J Med* 2009;360:459–69.
2. National Center for Health Statistics. Survey design of the Third National Health and Nutrition Examination Survey, 1988–1994. Atlanta: Centers for Disease Control and Prevention, 1996.
3. Mandelbrot DA, Pavlakis M, Danovitch GM, et al. The medical evaluation of living kidney donors: a survey of US transplant centers. *Am J Transplant* 2007;7:2333–43.

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CORRECTIONS

Maternal Vitamin A Supplementation and Lung Function in Offspring (May 13, 2010;362:1784–94). In Figure 4C (page 1791), the y axis should have been labeled “Postpartum Retinol Component of Estimated FVC (liters),” rather than “. . . of Estimated FEV₁ (liters).” We regret the error. The article has been corrected at NEJM.org.

Don't Forget Tobacco (July 15, 2010;363:201–4). In the map (page 203), the prevalence of adult smokers for Rhode Island should have been 15.1–20.0%, rather than 20.1–25.0%. We regret the error. The article has been corrected at NEJM.org.

Rituximab in ANCA-Associated Disease (July 15, 2010;363:285–6). In the penultimate paragraph (page 286), the fifth sentence should have read, “At this juncture, the 6-month follow-up of the RAVE trial does not provide an answer to the question of whether anti-B-cell therapy and glucocorticoids will result in a sustained remission,” rather than “. . . whether anti-B-cell therapy, glucocorticoids, and azathioprine used to maintain remission will result in a sustained remission.” The article has been corrected at NEJM.org.

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