

LETTERS TO THE EDITOR

Nontransfusion hazards of autologous blood donation

Autologous blood donation may incur hazards that are not directly associated with blood transfusion. Graham et al.¹ reported on 78 patients who donated autologous blood before elective cardiac or orthopedic surgery in Ottawa. Seventy-three (94%) of these patients traveled by automobile to autologous blood donation appointments. These patients drove a mean distance of 130 km (80.8 mi) for this purpose. Data from the National Highway Traffic Safety Administration indicate that, in the United States, 1.6 deaths and 122 injuries occur per 100 million vehicle miles driven.² The estimated risk of death or injury to a person driving to or from autologous donation appointments would then be given by

$$\text{Risk} = \frac{1}{P(\text{event})} = \frac{1}{P(\text{event per mile})(\text{miles driven})}$$

Thus, the risk of traffic-related death is 1 in 773,515 and the risk of traffic-related injury is 1 in 10,144. These rates approximate the current estimates of the risks of infectious disease transmission and serious transfusion reactions. Autologous blood donors may unwittingly incur hazards that are as likely and as serious as those associated with allogeneic blood transfusion.

Robertson Davenport, MD

*Department of Pathology
University of Michigan Medical School
University Hospital 2G332/0054
1500 East Medical Center Drive
Ann Arbor, MI 48109-0054*

REFERENCES

1. Graham ID, Fergusson D, Dokainish H, et al. Autologous versus allogeneic transfusion: patients' perceptions and experiences. *CMAJ* 1999;160:989-95.
2. Traffic safety facts 1998: a compilation of motor vehicle crash data from the Fatality Analysis Reporting System and the General Estimates System. Washington: National Highway Traffic Safety Administration, National Center for Statistics and Analysis. Available at <http://www.nhtsa.dot.gov/people/ncsa/tsf-1998.pdf>.

The above letter was sent to Graham and colleagues with an invitation to comment. He responded that they had nothing further to add. Their article in the April 1999 issue of the CMAJ is recommended to readers who are interested in pre-operative autologous blood donation programs.