

4PS-19-03

EXPERIENCE WITH SCREENING VOLUNTEER BLOOD DONORS FOR CARDIOVASCULAR DISEASE RISK.
AN INNOVATIVE APPROACH TO MOTIVATION AND HEALTH AWARENESS.

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Background: Carter BloodCare is a community based, independent, not for profit blood center serving north central Texas, U.S.A. The center draws approximately 275,000 volunteer blood donors a year and distributes blood and components to about 150 hospitals and medical care facilities.

All donors are screened at each visit by a health questionnaire and blood pressure, hematocrit and temperature are measured. Laboratory tests are performed for evidence of transfusion transmissible infections including hepatitis B, human immunodeficiency virus, hepatitis C, syphilis, human T lymphotropic virus, cytomegalovirus and West Nile virus.

Objective: The aims of this study of volunteer blood donors, living in Dallas/Fort Worth, Texas, USA, were twofold: firstly, to examine the feasibility of including serum total cholesterol with donors' routine tests for infectious disease markers, and, secondly, to measure the interest of volunteer donors in knowing their total serum cholesterol results.

Methods: Non Fasting serum total cholesterol levels were measured on all volunteer blood donors who registered to donate and successfully passed the donor health history questionnaire and examination. Donors were told that they would be able to review their results. Access to these results, which were posted on the blood center's web site or available by telephone, was restricted to ensure privacy.

Results: Serum cholesterol levels were measured on 224,182 volunteer blood donors. 115,902 (51.7%) were men, 108,280 (48.3%) were women. Values below 200 mg/dl were regarded as desirable levels. 38,741 (33.4%) of the men and 32,672 (30.2%) of the women had total cholesterol measurements equal to or greater than 200 mg/dl. Males in the 45 to 49 year age range had the highest percentage, 41.8%, of individuals with values greater than 200 mg/dl. In women, the 55 to 59 year old group had the highest percentage, 50.5%, of the individuals with an elevated value. In these two groups 31.2% of the men and 22.2% of the women sought their results on the web site.

Conclusion: The volunteer blood donor setting can also serve as an excellent opportunity to give donors information about their potential risk for cardiovascular disease, as suggested by serum total cholesterol measurement. When a non-fasting level of 200 mg/dl or higher is used, some donors, at all ages, will be identified who might benefit from counseling about their cardiovascular disease risk. While some donors will seek out their results, this study shows that the majority do not. Strategies must be developed to ensure that all donors recognize the importance of knowing their serum total cholesterol values. Regular donation would provide individuals the opportunity to monitor changes in their serum cholesterol values over time. This opportunity might encourage repeat donations and reinforce motivation.