

PATIENT COMPREHENSION OF AN INTERACTIVE, COMPUTER-BASED CONSENT PROGRAM FOR CARDIAC  
CATHETERIZATION:  
A COMPARISON WITH STANDARD CONSENT

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## ABSTRACT

**Background:** Several studies suggest that standard verbal and written consent information for treatment is often poorly understood by patients and their families. This study was designed to examine

the effect of an interactive computer-based informed consent on patients' understanding of cardiac catheterization.

**Methods:** 135 adult patients scheduled to undergo diagnostic cardiac catheterization were randomized to receive details about the procedure using either standard institutional verbal and written information (SC), or an interactive computerized consent (ICC) preloaded on a laptop computer. Subjects' understanding of the information was measured using semi-structured interviews at baseline, following cardiac catheterization, and two weeks post-procedure. In addition, the subjects' perceptions of, and satisfaction with the mode of message delivery were evaluated.

**Results:** Subjects randomized to the ICC intervention had significantly greater improvement in understanding from baseline compared to those who received the SC. In particular, significantly more subjects in the ICC group had complete understanding of the risks of cardiac catheterization (53.6% vs 23.1%,  $P < 0.05$ ) and the options for treatment (63.2% vs 46.2%,  $P < 0.05$ ) compared to the SC group, respectively. Several predictors of improved understanding were identified including baseline knowledge ( $P < 0.001$ ), younger age ( $P = 0.002$ ), and use of the ICC ( $p = 0.003$ ).

**Conclusions:** Results of this study suggest that an interactive computer program for cardiac catheterization may be more effective in improving patient understanding than conventional written consent information. This technology, therefore, holds promise as a means of presenting understandable detailed information regarding a variety of medical treatments and procedures.