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Consent for Pragmatic Trials in Acute Myocardial Infarction

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There is debate over the role of informed consent in pragmatic trials, which often compare qualitatively similar, standard treatments. In acute settings such as ST-segment elevation myocardial infarction (STEMI), questions about consent are magnified by challenges related to severe illness and the need for immediate treatment. Uncertainty about the right approach to consent in pragmatic trials for acute illness was illustrated by the controversy surrounding the HEAT-PPCI (Unfractionated Heparin Versus Bivalirudin in Primary Percutaneous Coronary Intervention) trial, in which prospective consent was not obtained (1–3). Other studies have used brief oral consent processes, and many trials use traditional written research consent. Ultimately, consent approaches should be informed by participants' expectations and preferences.

We conducted an online survey using a case scenario based on the HEAT-PPCI trial comparing heparin with bivalirudin in patients with STEMI (3). We used the GfK KnowledgePanel, an online probability-based panel representative of the U.S. population. The study was deemed exempt by the institutional review board.

Panelists received information about randomized trials, heart attack, and the study drugs. They were informed about features of traditional written research consent and potential advantages and disadvantages of alternatives to written consent during STEMI. Panelists were randomly assigned to give their personal preference regarding traditional written consent versus either: Group A) notification after enrollment (no prospective consent); or Group B) brief verbal consent. Participants were also randomly assigned to receive or not receive information that the trial was being done, in part, because 1 drug is more expensive than the other. Finally, panelists were asked their views on the study and whether they would personally enroll.

A sample of 2,000 was calculated based on an assumed 70% preference for written consent versus no prospective consent. Descriptive analyses using unweighted data are reported; application of post-stratification weights did not significantly affect results.

The survey was sent to 6,106 panelists; 2,027 (33.2%) completed the survey. Respondents had higher educational attainment and household income than the general population, and there was slight underrepresentation of women, non-Hispanic blacks, and Hispanics.

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Demographic characteristics in randomized subgroups were similar. Most respondents (86.7%) had no experience with emergency care for STEMI.

Responses to primary questions are shown in Table 1. Relative to traditional written consent, 46.6% of group A respondents preferred notification after enrollment and 62.1% of group B respondents preferred brief verbal consent. Approximately one-half (49.6%) of all respondents stated that they would likely enroll in the trial if they were to experience a heart attack and become eligible, but only 14.8% stated they would be unlikely to enroll. Assignment to group A versus group B did not significantly affect the number of participants who said they would be likely to enroll (50.7% vs. 48.4%; $p = 0.5629$). Among those unlikely to enroll, most group A subjects preferred written consent versus notification after enrollment (73.8% vs. 24.1%), but one-half of group B subjects preferred brief verbal consent to written consent (50.9% vs. 47.2%).

Prior evidence suggests patients prefer being asked for permission before enrollment in pragmatic trials (4,5). This study addressed these questions in the acute context specifically using a nationally representative sample and experimental design.

There was significant support for alternatives to traditional written research consent for this STEMI trial comparing qualitatively similar treatments. Nearly one-half preferred notification after enrollment, and nearly two-thirds preferred verbal consent. This is higher than has been found for pragmatic trials of therapies in nonacute settings (4,5). These data suggest that people appreciate that context-sensitive alterations to traditional consent may be needed in emergency research. Exactly what alterations to form and content are most appropriate requires further study.

Brief verbal consent was preferred by one-half of the individuals who stated that they would be unlikely to enroll. This finding highlights a potential benefit of involving patients prospectively as opposed to notification after enrollment, or “deferred consent,” as was used in HEAT-PPCI (3). Specifically, brief verbal consent allows investigators to respect the preferences of those who oppose enrollment in the research.

This study involved the U.S. general public and not acutely ill patients. Future work evaluating consent strategies within actual trials and in other countries is important. The response rate was 35%, but respondents were similar to the general population and an experimental design was used. Finally, endorsements of brief verbal consent may indicate an emphasis on brevity and simplicity rather than objection to written materials. The study principally suggests the potential merits of pursuing simpler, more targeted consent processes.

Pragmatic trials in acute conditions such as STEMI pose practical and ethical challenges. These data suggest that respect for participants may be advanced by alternatives to traditional written consent processes that are the norm. Specifically, our findings provide support for development and evaluation of simpler, more context-appropriate approaches that do still allow patients to be involved in the initial enrollment decision.

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TABLE 1

Consent Preferences and Likelihood of Enrollment

	Group A: Personal Preference for Written Consent Versus Notification After Enrollment (n = 1,013)			Group B: Personal Preference for Written Consent Versus Brief Verbal Consent (n = 1,014)		
	Written Consent	Notification After Enrollment	Did Not Answer	Written Consent	Verbal Consent	Did Not Answer
Overall	50.4 (510)	46.6 (472)	3.1 (31)	34.6 (351)	62.1 (630)	3.3 (33)
Likelihood of enrollment *						
Unlikely: 14.8 (300)	73.8 (104)	24.1 (34)	2.1 (3)	47.2 (75)	50.9 (81)	1.9 (3)
Neutral: 32.8 (665)	55.1 (183)	42.8 (142)	2.1 (7)	40.2 (134)	58.6 (195)	1.2 (4)
Likely: 49.6 (1,005)	42.6 (219)	57.0 (293)	0.4 (2)	27.9 (137)	71.3 (350)	0.8 (4)

Values are % (n).

* 2.8% (57) DNA.