genuine uncertainty about the efficacy of using the study drug streptokinase to treat acute myocardial infarction. Streptokinase was described as "dangerous and ineffective" by some medical experts.

The argument in both Roberts and colleagues' and Glasziou and Chalmers' papers relies on hindsight and only has the appearance of validity because in both cases the drug was efficacious; had the drug lacked efficacy (or worse) the conclusion would have been very different. Roberts and colleagues use this erroneous reasoning to make a bolder suggestion—namely, that in urgent trial treatment, consent is unethical if it reduces or obscures the treatment effect, even when patients are conscious and relatives are available to provide consent.

Roberts and colleagues have raised an important concern. However, the issue is complex and is compounded by a lack of randomised controlled trials for some practices in emergency care treatment. What is needed is careful debate that seriously addresses the very real tension between the need for health-care workers to fulfil their duty of care by providing evidence-based treatments and the right of patients to be accorded respect for their autonomy.

I am Chair of the Children, Youth and Women's Health Service Human Research Ethics Committee.

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Ian Roberts and colleagues maintain that "consent rituals, [which] delay the start of a trial treatment such that the treatment effect could be reduced or obscured, [are] actually unethical."[1] We agree that consent is in practice a "ritual", that is to say a legally fictitious procedure which is not really capable of doing what it is primarily supposed to do: respect the patient's autonomy.[2] Needless to say, we also concur with Roberts and colleagues' view that the principle of saving lives ought to prevail over a travestied ritual. We share their call to assess informed consent procedures as part of evidence-based medicine. But we reject their implicit proposal—to dispose of the consent requirement in emergency research—fearing that is might be co-opted by commercial forces.

Our concern is not idle. On the one hand, such forces capitalise on the fictionalisation of the consent procedure by distorting the informational environment and research oversight.[3,4] On the other hand, inspired by a sectorial crisis, the economic downturn and the neoliberal zeitgeist, they propel the campaign for deregulation and de-ethicalisation of clinical trials.[5]

Given this disturbing reality, the simple question that Roberts and colleagues ask should be replaced with a difficult dilemma: to dispose of a potentially lethal ritual that can be taken advantage of by the industry or insist on that ritual to obstruct the trajectory of that industry.

We are not certain about the answer. But we suggest one should base it on a comparison between the lethality of the consent ritual and that of the industry. The research enterprise has the onus of proving its trustworthiness before we embrace any further deregulatory measures, however reasonable they seem.

We declare that we have no conflicts of interest.

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Ian Roberts and colleagues[1] refer to "consent rituals" in emergency care research that result in treatment delay and a higher mortality rate, as shown in the CRASH-2 trial.

In Europe, clinical research in temporarily incapacitated patients is in a dire state. European Union (EU) clinical trial directive 2001/20/EC requires the informed consent of a legal representative before a temporarily incapacitated person can be entered into a clinical trial. The definition of a legal representative refers back to national legislation within the respective EU member state, resulting in a heterogeneous situation within Europe that has jeopardised clinical research in a patient group in desperate need of new effective treatments.[2] Research is only possible in countries where either an easily manageable legal representation of the patient exists or a waiver of consent—under strict requirements—has been introduced, as it has in Austria.

Another problem is the wide definition of a clinical trial: if the drug in question is already being given in the researched indication, but data are simply being collected in a systematic way, the definition of a clinical trial is fulfilled and all requirements

apply, including insurance. However, insurance companies often do not like to grant insurance to trials with temporarily incapacitated patients owing to the lack of personally given consent; as a result the trial cannot take place, as happened with the CRASH-2 trial in Germany.

After publication of a trial's findings, the drug might become the standard of care, and patients in countries that have refused participation for "ethical reasons" thus benefit from externally achieved results. Is this really the European way to go in emergency care?

We declare that we have no conflicts of interest.

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Authors' reply

Our conclusion[1] that the need for consent worsened outcomes for CRASH-2 trial patients is based on one assumption and one observation. Our assumption is that obtaining consent takes time: in the CRASH-1 trial,[2] obtaining consent delayed the onset of treatment by an average of 1·2 h. Our observation is that the effect of tranexamic acid diminishes with time from injury.[3] Even if the effect of the treatment did not vary with time, however, delay in administering any effective treatment would disadvantage patients because some would suffer or die while consent was being sought.

J F Boylan and colleagues are mischievous in claiming that we argue for lower ethical standards in research than in practice. As has been noted over decades,[4] imposition of different standards for consent to treatment prescribed within or outside controlled trials is indefensible in logic. Contrary to the claim by Boylan and colleagues, we believe this illogical double standard should be abolished because its imposition has led to the suffering and deaths of patients.

Boylan and colleagues and T L Zutlevics think our arguments depend on hindsight and would not apply for a harmful treatment. We disagree. If early administration of a trial treatment was harmful and consent rituals delayed the administration of that treatment, then the harmful effects might similarly be obscured. Indeed, the CRASH-1 trial showed that early treatment with steroids (which had been used outside controlled trials for more than 30 years) increased mortality after head injury.[2]

Miran Epstein and Mark Wilson agree that the ritual of consent to emergency treatment fails to achieve its objective of respecting patients' autonomy. Their concern is that disposing of this ritual will leave patients vulnerable to clinical trials that are not in their best interests. We agree that it is important to protect patients from the many such trials, but research ethics committees should do this,[5] not seriously ill patients or their distressed relatives.

We understand the frustration of Christiane Druml and Ernst Singer that the CRASH-2 trial could not recruit patients in Germany owing to regulatory obstacles. However, we celebrate the fact that German citizens will also benefit from the knowledge generated in the CRASH-2 trial and hope that this will help to motivate those working to remove such obstacles for future trials.

We declare that we have no conflicts of interest.

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Early administration of tranexamic acid in trauma patients

We congratulate the CRASH-2 collaborators[1] on their multicentre, multicontinent initiative. However, we think that some results require further explanation.

First, time between injury and administration of tranexamic acid is not precisely defined. The collaborators subdivided the time from injury to treatment (≤1 h, >1–3 h, >3 h); however, table 2 clearly shows that these times were not equally distributed between the different participating continents. Differences between organisation of out-of-hospital emergency services could largely explain this finding. The French system, for example, allows direct admission of 80% of major trauma patients to a specialised trauma centre within 3 h of the injury.[2]

Second, patients from the CRASH-2 study seemed to be younger than in other similar studies,[2,3] and were therefore probably less frequently treated with anticoagulants and antiplatelet agents, both of which can substantially increase bleeding after trauma and interfere with tranexamic