HIV vaccine trials: critical issues in informed consent

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Informed consent (IC), a fundamental principle of ethics in medical research, is recognized as a vital component of HIV vaccine trials. There are different notions of IC, some legally based and others based on ethics. It is argued that, though legal indemnity is necessary, vaccine trials should be founded on fully ethical considerations. Various contentious aspects of IC are examined, especially the problem of social desirability and of adequate comprehension. The need for sensitivity to cultural norms in implementing IC procedures is critically reviewed, and some of the potential conflict between ethos and ethics is considered. The transmission of information is examined as a particular aspect of IC in HIV vaccine trials.

Informed consent (IC) is a cornerstone of clinical trials and is a fundamental requirement for participation in studies to test HIV/AIDS vaccines. IC is the first of the 10 principles of the Nuremberg Code formulated in 1947, which states that *the voluntary consent of the human subject is absolutely essential.* The Code grew out of the Nuremberg Trials held in 1945 and was intended to prevent the kinds of medical abuses that were perpetrated by Nazi physicians during the Second World War. IC as required in research on humans is usually seen as incorporating four essential components: i) disclosure of all relevant information about the research; ii) comprehension by the prospective participant of this information to make an informed decision; iii) freedom from all coercion of the prospective participant; iv) explicit and formal consent by the participant, usually in written form.

However, codes and requirements alone do not guarantee that abuses will not occur. For example, despite the Helsinki Declaration and Nuremberg Code, researchers in the US Public Health Service tracked black men infected with syphilis from the town of Tuskegee, Alabama, without informing them that they were part of a study on the course of syphilis and without offering them treatment even when effective treatments for the disease became routinely available.[1]

Since the publication of the Nuremberg Code, IC has remained a foundation of ethical research practice in clinical trials, as articulated in the Declaration of Helsinki,[2] the Belmont Report,[3] and the Guidelines of the Council for International Organizations of Medical Sciences.[4] In the most recent, prepublication, version of the UNAIDS guidelines for HIV vaccine research,[5] Point 12 reads:

> Independent and informed consent based on complete, accurate and appropriately conveyed and understood information should be obtained from each individual while being screened for eligibility for participation in an HIV preventive vaccine trial and before s/he is actually enrolled in the trial. Efforts should be taken to ensure throughout the trial that participants continue to understand and to participate freely as the trial progresses. Informed consent, with pre- and post-test counselling, should also be obtained for any testing for HIV status conducted before, during and after the research.

In elaborating on this item, the document states:

> A process of consultation between community representatives, researchers, sponsor(s) and regulatory bodies should be used to design an effective informed consent strategy and process. Issues such as illiteracy, language and cultural barriers, and diminished personal autonomy should be addressed in this consultative process. In some communities, special efforts may be required to achieve adequate understanding of 'cause and effect', 'contagion', 'placebo', 'double blind', and other concepts involved in the scientific design of the research.

Further, the guidelines state that informed consent must be obtained at all stages of the trial — screening, testing, vaccination, repeat HIV testing and any other examinations involved. Prospective participants should also be informed that:

1) they have been selected for participation because they are at relatively high risk of HIV infection;
2) they will receive advice and access to means to reduce their risk (for example, condoms), but that some of the participants in the trial may nonetheless become infected as a result of their high-risk status;
3) only some of the participants will receive a vaccine, while others will receive a placebo;
4) the effectiveness of the vaccine to be tested in preventing HIV infection or AIDS disease is not known.

Prospective participants must also be informed of the specific risks of physical, psychological and social harm associated with the vaccine, only some of which are currently known or anticipated — such as a positive HIV test as a result of vaccination. Lastly, participants must be informed of the nature and duration of care and treatment that is available to them, if they become infected with HIV during the course of the trial. This latter point is part of an ongoing controversy regarding the level of treatment to which participants in trials are entitled. For example, triple therapy with antiretroviral drugs is not routinely available in South Africa, but it is provided internationally. A further question arises as to the potentially undue influence to participate in trials when drugs that are not routinely available are provided to participants.

Informed consent is a complex and, as has been noted, somewhat idealized process. Certain technical features of vaccines are known and understood only by specialists. In addition, the reasons why certain levels of care are available in one country and not another requires a view of comparative economics that also has a small audience. In many ways, the formalistic requirements of IC are almost impossible to meet, a reality that necessitates a careful analysis of the aims of IC as an ethical rather than formalistic condition.

Different notions of informed consent

While the idea of informed consent has been widely accepted in medicine, especially in medical research, the literature reflects different notions of IC, with different implications for practice. Broadly, IC can be seen as falling into the area of preventive ethics,[6] which is concerned with advance identification of potential areas of ethical concern or conflict and preventing these from arising. Such considerations are obviously an essential concern in optimizing HIV vaccine trials in South Africa, and ensuring their efficacy for both this country and the world.

The practice of IC has been driven by two different agendas: a legal one and a moral one. Faden and Beauchamp[7] identified different notions of IC, drawing the useful distinction between informed consent in an institutional sense and as autonomous authorization. The former refers to the application of legal rules,

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and is therefore primarily concerned with legal indemnity, whereas the latter refers to an understanding between researcher and participant. From this view, it is the process of communication and the mutual understanding between researcher and participant that are the core of IC.

The legal justification is based on a defensive-medical approach, seen as 'a preemptive legal strike in an essentially hostile relationship between doctor and patient'[8] (p. 2813). The moral justification for IC 'sees shared decision-making as the embodiment of a higher level of moral commitment'[8] (p. 2813) based on the assumption of research participants as autonomous individuals with an intrinsic right to make decisions about their bodies and their lives. While these two approaches may not be incompatible in principle, they do lead to different decisions and guidelines regarding IC; for example, to the question of how much information should be shared with patients. The legal approach, concerned as it is with liability, requires that all technical information be disclosed to patients as part of the process of providing legal indemnity to medical researchers. On the other hand, the moral approach is more concerned with facilitating shared decision-making, which a burden of excessive information might undermine, and is based on the belief that the expert does not know everything and cannot know what is best for each person in a medical trial. Meisel & Kuczewski[9] also draw a distinction between two conceptions of IC. The one, essentially an indemnity or liability approach, is based on recognition and protection of the legal rights of the patient and, by implication, legal protection for the doctor/researcher. The other approach, more broadly ethical, sees IC as 'a process of shared and collaborative decision making' (p. 2523).

Researchers involved in preparations for HIV vaccine trials in South Africa recognize that they raise both legal and moral issues for IC. Regard for the legal protection of both medical researchers and participants is recognized as being of central concern. Preparation for the trials, therefore, involves identification of all possible legal considerations for both researchers and participants, and translation of these concerns into practice, for example in the design of IC forms. However, the success of these trials is dependent on far more than protection of the legal rights of all parties. Rather it goes to the very heart of ethical concerns, particularly the autonomy of prospective participants and how their informed decision-making can be facilitated. HIV vaccine trials must therefore be based on sound ethical considerations. It is one thing to have participants sign a form to indicate that they have been informed about a trial. It is another to achieve and respect a participant's understanding and decision-making.

Informed consent as collaborative decision-making

Conceptualizing HIV vaccine trials as a collaborative process between parties including individual participants, communities, researchers, funders and the health care sector, provides a useful framework for implementing and maintaining an ethically sound basis for the trials. Against this backdrop, the notion of IC as 'a process of shared and collaborative decision making'[9] (p. 2523) will be central to this paper.

One of the most important issues in IC is how prospective participants make the decision to participate in the research, and how and why they agree and continue to participate. Essentially, the IC process is concerned with assisting the participant to make decisions that are truly in their own best interest. This decision-making has cognitive, emotional, motivational and value-based components.[10–12] Nonetheless, much of the IC literature is predicated upon the assumption that potential volunteers make the rational decision to participate or not in research through a careful evaluation of the advantages and disadvantages of the information given to them. It is assumed that the researcher is ethically obliged to communicate all relevant information to potential participants to facilitate this rational and objective decision-making process.

In contrast to this approach, some research suggests that the information given to potential trial participants has little, if any, influence on the choice to participate, and that the decision is often made before or independently of the technical information provided.[12] Personal and cultural values can play a major role in the decision to participate.[6,11] Parker[6] suggests that prospective participants are presented with information about research projects, 'and reason about them in light of their own stable value systems' (p. 520). Various factors are likely to influence the decision to participate in vaccine trials. In developing countries, it is both possible and likely that potential participants are motivated by the prospect of substantial benefits; for example, financial gain through payment or reimbursement for participation; improved medical care; increased chances of employment associated with the project; and other practical advantages, such as transport to and from urban centres for shopping, visiting and so on.

While information can influence the decision-making process, whether to participate or not is likely to be based on the cognitive and emotional reaction to this information. Faden & Beauchamp[12] suggest that there are three stages involved: a) the transmission and reception of information; b) the comprehension of information; c) the use of information in coming to decisions.

Contentious issues in informed consent

Several issues potentially confuse IC as an expression of individual autonomy.

Social desirability

Social desirability refers to the tendency for volunteers in trials to behave and respond in accordance with what they surmise to be social norms for the situation, including trying to create a favourable impression and winning the favour of the researcher/s. Trying to be 'a good subject' is a well-researched phenomenon.[13] Attempts to behave in socially desirable ways are not unique to research subjects; most people are susceptible to wanting to please others, especially those perceived as having power or control. This may be a conscious and deliberate act , or unconscious and largely automatic on the part of the participant. The importance of social desirability becomes even more apparent when one considers the different standing of medical researchers and trial participants in developing countries like South Africa. In these contexts there may not only be a concern on the part of volunteers to create a favourable impression for researchers, but also a fear of reprisals for giving unfavourable impressions. Social desirability is likely to influence the IC process significantly, and may undermine its authenticity. For example, participants may say that they understand, that they are satisfied with various procedures involved in the research, and that they feel free to withdraw from the trial at any time, and yet not genuinely feel or believe any of these. Although the researcher may be legally indemnified by the explicit agreement of the participant, the force of social desirability raises questions about the truly ethical nature of IC. The only really effective way of significantly reducing the desire for social acceptance and its effects is by reducing the relative standings of researcher and subject. One way of achieving this is by empowerment of

participants through Community Advisory Boards and other advocacy bodies that can support individual decision-making. In preparing for vaccine trials, careful attention must be given to how best to address the undue influence of the desire for social acceptance.

Understanding/comprehension

Another central issue in informed consent is that of understanding or comprehension. According to the Helsinki Declaration, participants in any medical research project must have a full understanding of the various aspects of the study, including its aims and methods, as well as advantages and risks of participation. However, understanding is an elusive concept, and it is not a simple matter to gauge the nature and level of understanding that someone has of a concept, an event or a process. While it may be relatively easy to evaluate the adequacy of information disclosed (e.g. showing information on videotape), it is far more difficult to assess whether and how the information and its implications are truly understood. While the legal requirement of disclosure of comprehensive information may have been satisfied, the ethical condition of understanding in order to make decisions in one's own best interest may not. Inglefinger[14] has described this as 'the process of obtaining informed consent with all its regulations and conditions is no more than an elaborate ritual, a device that, when the participant is uneducated and uncomprehending, confers no more than the semblance of propriety on human experimentation' (p. 465). The declared understanding on the part of research participants is no guarantee of true understanding.[15] There is the danger that formal requirements for IC can be manipulated in a simple way to conform to a minimum set of criteria, without meeting the ethical requirement to respect the autonomy of individuals who are approached to participate in trials.

Participants in an HIV vaccine trial should understand at least the following: the rationale for the study (such as the reason for developing a local HIV vaccine); technical issues (of the nature of the products); technical consequences (possible side effects); unknown outcomes (that there is no guarantee that HIV vaccines will offer any protection against HIV infection); methodological issues (placebo or randomization); practical aspects involved in personal participation (e.g., the kinds of procedures and tests that participants will undergo); the costs and benefits of participation in the study (e.g., reduced benefits from future vaccines or access to treatment); and the personal implications of participation in the study (e.g., discovery of one's HIV status and the psychosocial effect of this knowledge).

The conductors of HIV vaccine trials must guarantee that participants have sufficient understanding to make fully informed decisions about their involvement. In South Africa these issues must be researched.

Most implementation of IC in medical research focuses on the understanding of technical, product and methodological information. The most common check on the adequacy of the understanding is an information test or review of the participant after the initial briefing, and/or at different stages of the research. Such tests commonly focus on recall of technical information. Such tests of understanding, however, while they may reassure researchers about legal or indemnity requirements, have limitations and complications with respect to how they satisfy the ethical requirements of IC. These checks are actually tests of short-term verbal memory rather than assessments of comprehension which probe personal implications of information received. The trial candidate is challenged to remember and repeat information to the researcher in the form in which it was delivered, often with little comprehension. There is no guarantee that adequate recall involves understanding.[9,12,15] While they may satisfy legal requirements for indemnity, such practices do not satisfy ethical conditions. In addition, if these are really tests of short-term memory of technical information, how can researchers assume that such information aids prospective participants' decision-making in a personally and socially relevant way There is evidence[15] that participants rapidly forget technical information provided by researchers. Does this mean that participation is less informed, and less ethically based, as short-term memory wanes?

It is clear that a liability-driven IC process is not likely to provide the psychosocial information that potential volunteers need in order to make informed decisions.[6] Closely linked to this is the likelihood that the personal value systems that enable prospective participants to evaluate this information for its personal implications are largely unrecognized by researchers.[6] There is 'the tendency to separate patients' understanding and judgement of the facts from their attitudes or feelings about those facts. The former is thought to be objective (and important) and the latter to be subjective (and not important)'[11] (p. 3). Understanding must incorporate a recognition of these value systems, and must be assessed by inquiring into participants' comprehension of implications as well as facts. There is evidence that many research participants/patients, even those with a good scientific education, fail to comprehend fully much of the information that is given to them.[12,15]

In addition, emotional factors are likely to impact substantially on the research participants' ability to evaluate the information given to them.[10] Anxiety arising from an excess of information or apprehension of risk is an example of emotional factors likely to affect understanding. Finally, we suggest that as IC is a process of shared decision-making, then understanding should always be a two-way process. The researcher should always comprehend the needs, values and motivation of the participant, and how best to inform him and optimize his involvement in the research study.[9]

There is a distinction between information provided for reasons of legal liability and that given to facilitate an ethically sound personal decision regarding participation in a research study. It may be necessary give advice on placebos and randomization methods for reasons of legal indemnity, but these may not be the most important considerations for participants making a personal decision about their role.[6] Matters related to legal liability have been given the bulk of attention to date in the medical literature on IC; little has been written on what prospective participants like to know or what, in retrospect, they consider would have been helpful to have been told.

A number of decisions have therefore to be made in setting up procedures for IC in a medical research study: What kinds of information should be given to the participants in order to optimize understanding? How can the information optimize decision-making? How can personal understanding of this information and its implications best be facilitated and assessed? How can the IC process, including voluntary participation and retention in the study, be evaluated?

We suggest that as well as, or instead of, any questioning of technical information, a more appropriate way of ensuring that participants have a personal understanding of the research involves the following: ensuring that research assistants have a degree of 'value-match' with participants:[16] inviting the participant to speak to family, friends and other volunteers about the personal meaning and impact of a decision to participate in the research, before making any decisions;[15] and requesting partici-

pants to explain to another prospective participant the nature of the research, the procedures involved and the personal implications as seen by themselves.[15]

For understanding to be an ethical and psychologically sound part of the IC process, it must be more than short-term memory of technical facts. 'If reasonable participants do not have an adequate understanding of that to which they are consenting, given their own concerns and situations in life, then they cannot be said to have given informed consent ... even if they possess all the information relevant to decisions of a hypothetical "reasonable person" ' (ref. 3, p. 330).

We propose that two aspects of understanding must be carefully considered for HIV/AIDS vaccine trials: first, comprehension of essential technical or 'objective' information[15] about the trials, although exactly what is 'essential' may be debatable; second, understanding the essential personal issues and implications of the research, or 'subjective elements', to optimize personal decisions. In considering these matters, researchers should be advised by community counsellors with a 'value pairing' with trial participants.[16]

Ethos in dialogue with ethics

One of the principal controversies likely to emerge in the setting up of HIV vaccine trials, and affecting issues such as informed consent, has been described by Bayer[17] as ethics in confrontation with ethos.

Ethos broadly refers to local and/or cultural norms and practices which have emerged in a particular community over time, and are applied to a range of situations and behaviours. Ethos is informed and maintained by cultural values, and is concerned with what is acceptable, right and appropriate in particular communities and how things are to be done. Ethics, on the other hand, refers to a set of guiding (philosophical) principles that inform moral decisions and direct the morality of behaviour. While recognizing local values, and ethical pluralism, ethics is also concerned with universal principles of conduct. Ethical guidelines for research are meant to apply to the behaviour and conduct of researchers who inhabit the universal world of science. There will obviously be many situations where ethos and ethics may be in conflict with one another and produce contrasting principles for guiding behaviour, including and especially in research. Such conflict may occur anywhere, but is most likely in contexts where the principles and norms of Western medicine and research are seen as different from, or opposed to, those of traditional beliefs and culture. The confrontation and dialogue of ethos and ethics must be a central concern in the design of HIV vaccine trials.[17]

In planning the first stages (especially in developing countries), there has been a strong concern for the recognition and respect of cultural norms and values (ethos). There is a danger that researchers may impose Western medical practices and values on participants, in violation of local values and practices. UNAIDS showed an awareness of this potential risk in requesting that the research community consider the drafting of culturally sensitive guidelines for implementing informed consent procedures in HIV vaccine trials in developing countries.[18]

While giving due recognition to the importance of cultural values and practices, or ethos, however, there is the danger of assuming that these norms and practices are in themselves ethical, absolute and ahistorical. These norms may be regarded as cultural imperatives which must be respected and implemented without questioning their implications for issues of human rights — for example, the practice of local leaders who make decisions for their subjects, or husbands who take decisions for their wives. In these cases ethos has precedence over ethics.

In the context of South African HIV vaccine trials, the interface between ethos and ethics is likely to be played out with respect to individual versus collective values, and individual autonomy versus group allegiance. In many respects, the notion of IC is founded on the 'rugged individualism' of Western society. By contrast, African notions of the person are essentially predicated upon the idea of persons-in-relationship, rather than persons as separate and unique individuals.[19] The question arises whether all aspects of IC must primarily be informed by local, collective norms or by universal ethical principles founded on conceptions of individuality. This dilemma is best demonstrated in the matter of whose consent is necessary for IC in vaccine trials.

Whose consent?

The notion of IC in Western medicine has been founded on the recognition of the protection of the rights of individuals as autonomous agents.[20] IC ensures that the research participant is free to decide whether or not to collaborate in research, on the basis of full understanding and without coercion.

When applied in diverse cultural contexts, questions have been raised about the appropriateness of seeing the individual as the locus of responsibility and decision, especially where people are defined in terms of membership of communities. It has been suggested[20] that, in these settings, researchers obtaining the consent of only the individual participant are in violation of some fundamental norms of the community, and that the consent of other members of the group (marital partners, family, local leaders and so on) should be obtained for the research to be both ethical and culturally informed. In our own research into IC in South Africa,[19] respondents have indicated the grave risks that potentially face research participants who consent to collaborate in research trials without the support and approval of the wider community. Specifically, informants have cautioned that such individuals could experience social isolation and other negative consequences.

On the other hand, it has been argued[21,22] that the principle of first person consent, based on respect for individuals, should be universally applied in medical research, even if this should be supplemented with the approval of others in the community. These researchers suggest that approval from family members or authority figures can never validly be used as substitutes for individual consent. At times decisions based on first person consent, for example, the individual decision of a married women to participate in a trial, may be in direct conflict with local cultural norms, such as the need to obtain the consent and approval of her husband.

We propose that two principles be applied to IC procedures in HIV/AIDS vaccine trials: first, the principle of respect for individuals and the protection of their rights and autonomy should be applied in all settings; second, in particular contexts where cultural norms define the person as someone in relation to others, it will also be necessary to establish which other members of the community should be consulted and how they might be incorporated into the IC process. This involves securing general endorsement by the community as a whole as well as that by individual participants, possibly with the approval of family members and valued associates.

We recommend that, following the broad consent of community leaders, research participants are always first individually approached regarding IC. In the process, information should be sought regarding who else should be consulted and involved. It is only with the explicit consent of the individual participants that these people should also be consulted.

The most difficult scenario that is likely to arise is one where a person from a culture with strong community-based norms refuses consent for other people to be consulted. In this case, it is our opinion that the integrity of the individual should be respected, but that the necessary protection should be sought for this person from the potentially difficult consequences of participation in the research.

Implementing informed consent: transmission of information

In designing IC procedures founded on considerations of both ethos and ethics, careful attention must be given to each of the four components of IC described at the beginning of this paper. In what follows, a brief description is offered, followed by a consideration of some of the potential complications of providing information in HIV vaccine trials, and some suggestions for sound ethical practice for IC in HIV vaccine trials. Each of these aspects is founded on the principle of collaborative decision-making as the essential criterion of IC in practice.

Traditionally, the information-sharing step involves a unilateral decision by researchers, based on the assumption that the latter, as experts, are in the best position to decide what information should be given to volunteers. Decisions about the transfer of information are likely to be based on ignorance about what trial subjects really need to know in order to assess the personal benefits and risks of participation.[6,12] Among the weaknesses of this action are: the danger of a paternalistic attitude of researchers; information sharing being seen as a one-way process, with the researcher providing information and participants passively consenting, without consideration for the kind of information that the latter require; failure to consider reciprocal information that researchers should acquire from volunteers and their communities; failure of researchers to know, understand or take account of the value system or world-view of the trial subjects and how this affects participation in the research project;[16] insufficient deliberation over what participants need (or are expecting or hoping for) from the project and how best they can be informed about these expectations; provision of too much information to participants, which may undermine rather than facilitate decision-making,[15] leading to anxiety and confusion;[9,10,23] information giving may be perceived as a once-off activity, primarily to guarantee legal indemnity, whereas participators may be most in need of advice at different stages in the project.

In the light of such potential complications, we recommend that careful consideration be given to the following: all aspects of the study should be discussed with key community representatives, to understand what cultural values must be considered in implementing the research, which information should be transmitted to participants, by whom and how; research assistants should include people with 'deep value pairings'[16] with potential participants, that is, they should be from the same cultural, religious, language and perhaps even community groups; from the outset, researchers should view the information giving as a two-way process, and set in place the procedures for their obtaining necessary information from community and participators about the implications of their role in the project; arrange report-back meetings with participants at regular intervals to ascertain what knowledge they would have found helpful at the start of the project, which can be used for new recruits, or what kinds of issues which participants should have considered in deciding whether or not to participate in the project, and so on.

Further, in designing and implementing the informational components of IC, careful attention should be given to issues such as the right to withdraw from the trial. Participants must be fully, and frequently, informed about this option at any time without compromise of the treatment received. The desire for social approval may inhibit participants actions regarding participation or withdrawal. These may be countered by such means as: providing adversarial support from non-researchers and/or a community advisory group; anticipating the perceived disadvantages of withdrawal, re-assuring participants about these issues at all stages of the research; and, where possible, introducing participants to other trial members who have withdrawn from the study without prejudice or disadvantage.

Conclusion

The need for informed consent as an integral part of medical research is well established. Its importance, as one of many ethical principles, is essential to the short- and long-term effectiveness of HIV vaccine trials in all countries, including South Africa. While there are many different understandings of the notion of IC, it has been argued in this paper that both its legal and moral or ethical dimensions, and the practical implications of each, must be carefully considered in the design of IC procedures for HIV vaccine trials. One especially important aspect of this process is the consideration of culturally sensitive ways of implementing informed consent in South Africa, while simultaneously protecting and safeguarding some of its core ethical foundations.

1. Jones J.H. (1993). *Bad Blood: The Tuskagee Syphilis Experiment.* Free Press, New York.
2. World Medical Association (1964). *Recommendations Guiding Physicians in Biomedical Research Involving Human Subjects.* World Medical Assembly, Helsinki.
3. Belmont Report (1979). *Ethical principles and guidelines for the protection of human subjects of biomedical and behavioral research. www.hunger.brown.edu/Administration/* Research_Administration/belmont/belmont.html
4. World Health Organization (1993). *International Guidelines for Biomedical Research Involving Human Subjects.* CIOMS, Geneva.
5. *Guidance Document: Ethical Considerations in HIV Preventive Vaccine Research* (2000).UNAIDS, Geneva.
6. Parker L. (1995). Ethical concerns in the research and treatment of complex disease. *TIG* **11**, 520–523.
7. Faden R. and Beauchamp T. (1986). *A History and Theory of Informed Consent.* Oxford University Press, Oxford.
8. Lantos J. (1993). Informed consent: the whole truth for patients? *Cancer* **72**, 2811–2815.
9. Meisel A. and Kuczewski M. (1996). Legal and ethical myths about informed consent. *Arch. Intern. Med.* **156**, 2521–2526.
10. Kent G. (1996). Shared understandings for informed consent: the relevance of psychological research on the provision of information. *Soc. Sci. Med.* **43**, 1517–1523.
11. Weil W. (1996). Abandoning informed consent? *Hastings Center Report* January/February, 2–3.
12. Faden R. and Beauchamp T. (1980). Decision-making and informed consent: a study of the impact of disclosed information. *Social Indicators Research* **7**, 313–336.
13. Rosnow R. and Rosenthal R. (1997). *People Studying People: Artifacts and Ethics in Behavioral Research.* W.H. Freeman, New York.
14. Ingelfinger F. (1972). Informed (but uneducated) consent. *N. Engl. J. Med.* **287**, 465–466.
15. Meisel A. and Roth L. (1983). Toward an informed discussion of informed consent: a review and critique of the empirical studies. *University of Arizona College of Law* **25**, 265–346.
16. Veatch R. (1995). Abandoning informed consent. *Hastings Center Report,* March/April, 5–12.
17. Bayer R. (1998). Ethical considerations in vaccine trials. Paper presented at HIVNET Vaccine Preparation Workshop, Durban.
18. Richter L., Lindegger G., Abdool-Karim Q. and Gasa N. (1999). *Guidelines for the Development of Culturally Sensitive Approaches to Obtaining Informed Consent for Participation in HIV Vaccine-related Trials.* UNAIDS, Geneva.
19. Gasa N. (1999). *Cultural Conceptions of Culture and Informed Consent.* Master's thesis, University of Natal, Pietermaritzburg.
20. Christakis N. (1988). The ethical design of an AIDS vaccine trial in Africa. *Hastings Center Report* **18**, 31–37.
21. Ijsselmuiden C. and Faden R. (1992). Research and informed consent in Africa — another look. *N. Eng. J. Med.* **326**, 830–834.
22. Olivier S. (1995). Informed consent and transcultural research. *S. Afr. Med. J.* **85**, 984–985.
23. Verheggen F. and Van Wijmen F. (1996). Informed consent in clinical trials. *Health Policy* **36**, 131–153.