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Editorial

Are ethics rules too strict in retrospective clinical studies?

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The history of medical science lists several examples of abuse and breach of generally accepted rules of conduct. Infamous examples include abuse of concentration camp prisoners during World War II as well as experimental studies on prisoners and other individuals without informed consent. The Helsinki declaration was a necessary response that laid down the ground rules for human medical research. The basic rule is that prospective human medical studies must be performed on the basis of an informed and truly voluntary consent of the individuals who participate in the study. The need for these rules is obvious and commonly accepted and will not be further discussed here.

Principles of ethics review

The four principles that have commonly constituted the framework of ethical reviews of scientific research projects within the health sector have developed over the years, i.e. (i) respect for autonomy, (ii) beneficence, (iii) non-maleficence and (iv) justice. The principle of autonomy has in recent years supplanted the principle of non-maleficence as the primary principle guiding the practice of scientific research on humans. With changing relationships between physicians and their patients, increasing emphasis has been placed upon the informed, autonomous decision-making of patients themselves, instead of the previous stance of the medical profession, considered by many to be unnecessarily paternalistic. Consequently, the demand arose for informed consent in every instance where medical records and sensitive personal information are utilised for research purposes, even in the instances where the research project only entails the retrospective analysis of medical information. A consensus has been reached regarding this issue in most countries, such that retrospective and epidemiological research is exempted from informed consent. However, it is subject to pre-approval by ethics or institutional review boards.

Retrospective clinical studies

Retrospective clinical studies play a significant role in medical research. Such studies of medical records are an important quality control and have, in many cases, discovered or confirmed important facts in medical science. In some instances, informed consent must still be sought from participants and this has been widely criticised by researchers, i.e. for creating a skewness in data that may lead to important results being lost (Al-shahi et al. 2005; Junghans et al. 2005). Such skewness is presupposed within epidemiological research, hence the exemption from the demands of informed consent. Thus, the principle of informed consent is overlooked – and this, in the view of ethical reviewers, necessitates the approval of an institutional review board or ethics committee.

Many researchers find this an unnecessary and overburdening demand. They argue that there is no reasonable danger of physicians and medical scientists who have access to medical records abusing this privilege and harming the individuals whose records are involved, and naturally there is no possibility of physical harm. In many cases, the physicians and scientists would be reviewing patient records they had written themselves and have free access to anyway. Furthermore, pre-approval of a research protocol by an ethics board would not prevent such abuse, if a researcher was determined to do so. The only possible harm involves personal privacy issues: the question whether reports of the study may reveal sensitive information that can be attributed to specific individuals or groups of people, i.e. the danger of stigmatization on individuals and groups. In a vast majority of retrospective clinical studies, this is highly unlikely. Reviews of glaucoma management (Hoevenaars et al. 2006; Lindblom et al. 2006) and caruncular carcinoma (Østergaard et al. 2006) over a 5-year period involved practically no danger of revealing any information that could be related specifically to one individual. The clinical studies that are more likely to reveal information about a specific individual are indeed case reports (Wrigstad & Algvere 2006) and they are the only retrospective clinical studies that do not need a pre-approval by ethics boards; however, most journals today demand consent by the patient himself in case reports. It is practically impossible for an ethics board to judge on the basis of a short application and clinical protocol whether individually identifiable information will be revealed in the report that the

study would lead to. Authors of scientific reports as well as journal editors and editorial boards are much better situated than are ethics boards to prevent ethical mishaps in retrospective clinical studies. The editors review all publications that come out of retrospective clinical studies and can relatively easily see whether information is revealed that may be linked to a single and identifiable individual. Journal editors can block the publication of such reports and prevent the damage from being done. Ethics boards do not have this possibility.

Scientific quality control and fraud

One possible justification of ethics board review of retrospective clinical study protocols is scientific quality control. However, ethics boards tend to have less detailed knowledge of the field of study than the scientist-applicant and indeed some members have no scientific experience. Scientific quality control is primarily the responsibility of senior scientists, who are better positioned and better suited to provide such quality control than are most ethics committees.

Scientific fraud may easily pass by ethics committees. A determined con artist will easily write a protocol that would pass most ethics committees and can indeed also write articles that would fool editors and reviewers. Scientific fraud is always caught by other scientists, who try unsuccessfully to reproduce the fraudulent studies. Empirical science is self correcting for fraud and no other mechanism is likely to be useful, certainly not ethics review of proposed protocols.

On the other hand, the role of ethics committees is not primarily to detect criminal behavior such as described above. On the contrary, one of the main roles of ethical reviews is reviewing, analyzing and approving the good conduct of researchers. Their role is in the end not to assess the validity of the research questions posed, but to validate the methodology of the project from the perspective of the four basic principles of ethical research conduct. This is indeed one of the justifications for the multidisciplinary composition of ethical review boards and is especially important in the cases where participants do not get an opportunity to conduct such quality control, i.e. there the principle of autonomy has been overruled.

The problem

Those who have been involved in medical research for many decades have experienced an ever increasing bureaucracy overseeing and to a significant degree hampering medical research. Some decades ago, it was considered appropriate to perform a review of medical records, for example, for a specific disease in one department simply with the permission of the chief of that department. This gave a certain degree of spontaneity and excitement. A new idea that popped up during rounds or in a conference could be checked within hours or days and the flow of scientific thinking and progress was uninterrupted. A new scientific hypothesis that pops up today must now be written down as a formal protocol, submitted to an ethics board that may meet every few weeks and research be performed 2 months after the idea was born. This kills the spontaneity and the spirit of excitement, which is essential in research groups. This threshold is, in many cases, too high for the otherwise busy clinician, researcher or student who would easily have spent a few evenings and a weekend going through files to test a new and exciting hypothesis, but would be bored by the bureaucratic delays now necessary.

A solution

A practical approach to the matter of applications to ethics boards for relatively simple retrospective studies has been proposed: individual medical researchers may be licensed by ethics boards and institutional review boards to perform retrospective clinical studies at their institution in a specific field of medicine. The license would be dependent on their knowledge and expertise and acceptance of a code of ethics. The researchers may provide copies of scientific reports that have been submitted to medical journals to allow the ethics boards to check manuscripts for possible violations of ethics rules and potentially to prevent publication. A violation of ethic rules may result in the medical researcher losing his or her license to conduct clinical studies. Another practical proposal is that ethical committees simplify approval procedures for retrospective clinical research projects, e.g. by a type of web-based 'fast track' response.

Responsibility and trust

While we have rules of conduct in most fields of human endeavour, we generally place a good deal of responsibility on the individuals involved. We establish a set of rules or laws, demand that the individuals follow these rules and introduce repercussions if they do not. One example of this is traffic laws where drivers are licensed, they are obligated to follow traffic laws and if they do not, they may lose their license, pay fines or even be interned. It is only in medical research where practically no reliance is placed on the responsibility of the individuals involved, i.e. the scientists. Are medical researchers such an unreliable bunch that it is unreasonable to expect them to follow rules and ethics codes? Do we really need to have a system that prevents them from abusing medical information before the fact? In the opinion of critics, the answer to both questions is 'no'. Medical researchers are dedicated and ethical people, most of whom are entrusted with enormous responsibility for the welfare of their patients and compatriots. They are entrusted with medical records in their clinical work anyway and examples of abuse of information in retrospective clinical studies are extremely rare, both because of the responsibility of the individual scientists and because of the review of medical journals.

According to the 'licensing' of medical researchers proposed above, the ethical evaluation is refocused from the individual projects and to the identity of researchers themselves, and this gives rise to the general question whether ethical rules should address aspects of research projects, their organization and implementation, or focus primarily on the ethical identity of the researchers in question. Notwithstanding this criticism, one cannot overlook the validity of the criticism that the

process of obtaining approval for simple retrospective studies can often be time-consuming and fretful. This may be tackled as a technical problem of the system in question. It is a matter of further discussion, how it may be possible to streamline each individual committee's work procedure.

Summary

The evaluation procedure is, in the end, not intended for the benefit of either the ethics committee or indeed the researcher. It is intended for the benefit of the individual who is unknowingly contributing to promote new knowledge. It is intended to safeguard the principles of non-maleficence and justice. It is a dialogue between researchers and ethics committees meant to ensure continuing trust between medical practitioners and their clients.

However, prior approval of retrospective medical studies may be unnecessary because abuse is extremely rare; it is unproductive, as it is unlikely to catch such an abuse; it is demeaning to medical researchers, whoes trust and responsibility are given no value; and it is damaging in that it hampers medical research. In particular, it is likely to curb the enthusiasm of young residents and students who might otherwise be taking their first step into medical science.

Ethics committees and institutional review boards should re-evaluate their working processes, eventually either by issuing permanent permits for retrospective clinical research to senior physician–scientists, who would be responsible for such studies in their research group or department or by designing a web-based fast track applications routine for projects as those discussed in this editorial.

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