War crimes and medical science

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War crimes and medical science

Not unique to one place or time; they could happen here

See pp 1415, 1421, 1445, 1448, 1453, 1463, 1467, 1470

Fifty years ago in Nuremberg, Germany, 23 physicians and scientists stood trial for war crimes committed before and during the second world war. The medical trial, and its more famous predecessor, the international military tribunal,[1] have left us with defining statements of ethical principle. But, as several articles in this anniversary issue of the *BMJ* make clear, the records of these trials have also left us with a legacy we still shrink from confronting.

The decision to hold the trials in Nuremberg was made for practical and symbolic reasons. Germany was in ruins, and, although the city had received substantial shelling, Hitler's Palace of Justice had survived largely unscathed. Imposing and capacious, it included large courtrooms and an adjoining prison. The city's symbolic value derived from its prominence as Hitler's administrative and judicial offices and as the site for his more stupendous mass rallies.

The international military tribunal convened on 20 November 1945. With allied judges presiding, it brought accusations of war crimes against 24 defendants, including Göring, von Ribbentrop, Hess, and Speer. Twelve were found guilty and sentenced to death, seven were found guilty and sentenced to variable terms of imprisonment, and three were acquitted. Two others, Krupp and Ley, did not go through the trial: Krupp sustained injuries in a car accident just before the proceedings, and Ley committed suicide before the trial began.

The medical trial followed on immediately, running from 25 October 1946 to 20 August 1947. Twenty three German physicians and scientists were accused of inflicting a range of vile and lethal procedures on vulnerable populations and inmates of concentration camps between 1933 and 1945. Witnesses from hospitals and camps throughout Germany and eastern Europe were brought to Nuremberg or deposed at other sites. The accused were given both German and American lawyers. American judges presided. Fifteen defendants were found guilty, and seven were acquitted. Of the 15, seven were given the death penalty and eight imprisoned.

The transcript of the proceedings[2] does not make easy reading. The medical experiments, listed under the heading of "crimes committed in the guise of scientific research," include "high-altitude experiments; freezing experiments; malaria experiments; mustard gas experiments; Ravensbrueck experiments concerning sulfanilamide and other drugs, bone, muscle, and nerve regeneration and bone transplantation; seawater experiments; epidemic jaundice; sterilization experiments; typhus and related experiments; poison experiments; incendiary bomb experiments; and Jewish skeleton collection."[3] Several of the defendants were also charged with "crimes of mass extermination," including "murder of Polish nationals" and "euthanasia."[4]

> The London charter of August 1945 defined four categories of war crimes: conspiracy to commit crimes against the peace; planning, initiating and waging wars of aggression; war crimes (violations of the laws or customs of war); and crimes against humanity

The language is distant, conveying the clinical details in lay terms through the complexity of a legal transcript. The record describes how numerous individuals died in agony and terror, under the cold eye of the physicians and scientists who designed the protocols and observed and recorded the manner of death. The responses of the accused, their justifications, and their evasions are joined with statements of survivors and witnesses. Cumulatively, the trial accounts are unbearable.

Today, as we watch the fitful progress of two war crimes trials relating to events in the former Yugoslavia and in Rwanda, it is instructive to review the prodigious work, the focused resources, and great resolution required to complete successfully these first series of trials in postwar Germany. The Nuremberg principles,[5] drafted in London in August 1945, and the Geneva conventions, now constitute the basis for all war crimes prosecutions. To these the medical trial judges added a crucial statement defining the essential obligation of the physician to the human subject of research. This statement is now known as the Nuremberg code (see p 1448).

Although it had antecedents in American and German medical ethics,[6-8] this 10 point statement marked a threshold definition for the duties and responsibilities involved in conducting research on human subjects. It was written to apply to subjects of experimental or non-therapeutic research—where the information sought will not directly benefit the subjects of the research. These subjects must be healthy, competent volunteers who have freely and with full information consented to participate. Thus prisoners, members of vulnerable populations, and all those who feel that they might bear a cost by refusing are not suitable subjects for research. Although the term "informed consent" was not employed in the statement, its core elements were defined at Nuremberg.[9]

The judges did not consider what we now call therapeutic research, which is conducted in the course of providing care. Rare in 1946-7, this now constitutes the majority of all medical research involving human subjects. The judges also dealt only with consent from adult and competent subjects. They did not address the complex questions surrounding subjects who are incompetent to make informed judgments.

These issues were taken up in the Helsinki declaration of 1964 (see p 1448),[10] drafted by the World Medical Association. This document spells out in more detail, in medical language specific to the scientific understanding that had evolved since Nuremberg, the nature of the arguments that must be weighed before asking a patient (not a healthy, competent volunteer) to consent to participate in diagnostic or therapeutic research. It does not contain an absolute requirement that informed consent be obtained in the setting of therapeutic research and introduces the notion of guardianship as a means of obtaining consent from incompetent subjects.

Built into both the code and the declaration are balanced conflicts of interest and conflicts of role: the physician seeks the best for his or her patient and yet seeks to pursue medical science for the good of society. Both documents establish an absolute requirement for informed consent in the conduct of experimental research, but the declaration permits the physician, under certain circumstances which he or she must defend, to waive the requirement for informed consent.

In the years since the Helsinki declaration, protection for human subjects of research has advanced further: institutional review boards, proposed in the declaration, have now become a mainstay of research protocol; and notions of patient autonomy, countering the long tradition of physician beneficence, are now exerting greater impact on ethical decision making.[11] These developments have mirrored the expansion of the medical research enterprise and growing public concern over the potential conflict of interest between physician as doctor and physician as researcher.

As a statement of ethical principles, the Nuremberg code has had enormous influence on our sense of responsibility to individual patients in medical research and medical practice. It has also forced the research community, including those who edit and publish medical and scientific journals, to scrutinise research protocols in order not to publish or use information that has been unethically obtained.[12]

Accomplices to dishonour and crime

The code is also a potentially powerful indictment of the power structures of medicine and science.[13] Certainly, those who witnessed the medical trial at Nuremberg perceived these connections. Andrew C Ivy, one of the two American physicians who testified for the prosecution, wrote in 1949: "What happened to the medical profession of Germany is stern testimony to the fact that acceptance of or even silence before anti-Semitism and the rest of the trappings of racism, acquiescence in or even silence before the violation of sacred professional ethics, the service by medical men of any goal but truth for the good of humanity, can lead to dishonour and crime in which the entire medical profession of a country must in the last analysis be considered an accomplice."[14]

Leo Alexander, the other American physician at the trial, noted in a 1948 essay in the *New England Journal of Medicine* how the Third Reich made "medical science into an instrument of political power—a formidable, essential tool in the complete and effective manipulation of totalitarian control."[15] Alexander expressed concern that, although "American physicians are still far from the point of thinking of killing centers," in their interest in decreasing the costs of care for those deemed incurable "they have arrived at a danger point in thinking."

These statements from physicians present at Nuremberg weave many explanatory threads: physicians losing their moral bearings as they become swept up in a grotesque political culture; physicians seduced by the power of rational thought and arguments based on utility; physicians whose scientific energies become allied with the annihilating visions of despotic government.

However, the apprehension that what happened in Germany might not be unique for all time and place was not adopted within the American medical and scientific community.[16] There persisted the sense that such things could "never happen here." Perhaps, it was acknowledged, those terrible years might be viewed as a grim, cautionary tale, but no more than that. This conventional reading of our professional history has withstood several well publicised and thoughtful exposés of medical research in the years after Nuremberg, where the tenets of the code have clearly been violated.[17-18] More recently has come the revelation that, for almost 30 years, from 1946 to 1974, the American government conducted research on the effects of radiation on thousands of people in ways that demonstrate pervasive departures from the standards defined at Nuremberg.[19] And this year, the United States Food and Drug Administration has decided to enroll patients in medical research protocols involving experimental emergency treatment on patients whose life threatening conditions prevent them from granting consent.[20] The arguments are now unfolding as to the extent to which this step undermines principles established at Nuremberg and Helsinki.

Nuremberg Principles[5]

Leaders, organizers, instigators and accomplices participating in the formulation or execution of a common plan or conspiracy to commit any of the foregoing crimes are responsible for all acts performed by any persons in execution of such plan. The official position of defendants, whether as Heads of State or responsible officials in Government Departments, shall not be considered as freeing them from responsibility or mitigating punishment. The fact that the Defendant acted pursuant to order of his Government or of a superior shall not free him from responsibility, but may be considered in mitigation of punishment if the Tribunal determines that justice so requires.

This history suggests that there will always be imperatives that threaten the professional values we profess to hold so dear. Scientific questions can be fascinating and their answers profoundly important. Substantial support accrues to scientific endeavour when the state, for political, economic, or ideological reasons, grants high priority to finding answers and using them in formulating public policy. Physicians stand at the pinnacle of the healthcare hierarchy, where issues of population health, resource allocation, medical teaching, scientific research, and patient care must be debated and resolved. These issues are often in conflict, even in societies not in thrall to racist ideologies or communal hatreds, not hounded by fear of war or economic collapse.

The anniversary mood can be grateful or sombre, depending on how deeply we delve into the events covered by the trial. We can readily feel grateful that the judges had the courage and intellectual focus to deliver the Nuremberg code. It is more difficult to see how international law as established then can be enforced in settings of rampant disorder and low intensity conflict, such as are described in this issue by Brentlinger (p 1470).[21] And it is painful to ask how physicians could have committed such sustained torture on other human beings and whether such excesses could happen again.

This line of inquiry invites the detailed factual excavation reported in this week's *BMJ* by Hanauske-Abel (p 1453) and the assessment of historical consciousness presented by Seidelman (p 1463).[22,23] Building on the work of scholars within Germany and outside, these two essays taken together suggest that the profession of medicine carries within it the seeds of its own destruction.

Several factors may need to converge; a certain ecology is required. But if biomedical insights grant physicians sudden new explanatory and technological powers, if economic trends intensify pressures to rationalise healthcare costs and develop utilitarian strategies, if state political forces directly enlist the medical profession in an agenda of social and economic transformation, and if an ideology of hate and stigmatisation permits the dehumanisation of one sector of the populace,

then we may see a turning towards something we had relegated to bitter mid-20th century memory.

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Preventing genocide

Episodes must be exposed, documented, and punished

See p 1414

Shortly before Germany invaded Poland in 1939, Adolf Hitler made a secret speech which set the scene for the cycle of genocide in the second world war. Addressing his top military advisers at the "wolf's lair" at Obersalzberg, Hitler set out his plans for the settlement of Poland after the successful completion of the military campaign (see p 1416).[1] "Poland will be depopulated and settled with Germans," he said. Just as Genghis Khan had "sent millions of women and children into death knowingly and with a light heart," he had ordered the SS death's head formations to kill without mercy "many women and children of Polish origin and language." Only thus "can we gain the living space we need." And, referring to the lack of international condemnation of massacres of the Armenians in Turkey in the first world war, he went on to say, "Who after all is today speaking about the destruction of the Armenians?" The speech so shocked a member of the audience that a copy was smuggled out to the British Embassy and hence to the files of the Foreign Office in London. There it has lain more or less undisturbed.[2]

Genocide—the deliberate wiping out of one race or ethnic group by another—is the extreme form of abuse of human rights. Until recently, the term has tended to be associated with a single historical event, the so called "holocaust"—the attempted extermination by Nazi Germany of the Jews throughout Europe. But more immediate events in Bosnia and in Rwanda and Burundi suggest that the urge within a group to "cleanse itself" of others (whether differing in colour, creed, or ethnicity) is much more general. Indeed, it may be that a latent impulse towards genocide is as old as the human race itself.

I believe that the seeds of genocide lie latent within each of us, ready to germinate when an appropriate climate has been fostered, and that these tendencies should be more openly acknowledged. Analyses should also be made of the factors which turn these tendencies from unexpressed feelings, through unplanned group violence, to premeditated policies involving intimidation, forced migration, and, at the extreme, mass extermination. It is also vital to bear in mind the dire effect that lack of international condemnation and action concerning the Armenian massacres had on Adolf Hitler. I consider that, if recurring cycles of genocide are not to continue, each episode must be publicly acknowledged and punished.

But first a word on why I should feel it appropriate to write on a topic with implications far beyond medicine. I spent July 1992 to April 1993 leading the World Health Organisation's contribution to the United Nations humanitarian relief effort in Bosnia. It has since been reliably documented that, even during that first year of the war, all the worst aspects of genocidal activity—forced emigration under the euphemism of ethnic cleansing, mass rape, and massacre—were taking place around us as we carried out our work.[2] Through all this we were enjoined to practise the strictest possible neutrality. This was essential in allowing us to pass freely across the front lines to support the health of refugees and other civilians whether they were Croat, Muslim, or Serb. Unfortunately, this neutrality was interpreted by some as imputing moral equivalence to aggressors and victims. In common with other organisations that provide humanitarian relief, WHO had not solved the problem of how to "combine the moral imperative to alleviate suffering with the moral imperative not to let aggression pay."[3]

Two particular incidents during my time in the Bosnian war are relevant. The first was a conversation I had on a train from Geneva to Zagreb in July 1992. It was with a Croat expatriate engineer of about my own age, who claimed to have fought with Tito's partisans in the second world war. He made three points. First, he said that American military intervention would bring about an immediate end to the war. Second, and with great courtesy, he said that, in the absence of an effective political initiative to find peace, providing humanitarian aid in such places as Sarajevo was immoral—simply fattening the lambs for the slaughter. Third, he confidently predicted that there would be a series of terrible massacres in Bosnia if the war continued. The first point was undoubtedly correct. The second is open to debate if for no other reason than that the