2.6 Human Research Ethics Principles- A Brief Introduction

Human research ethics is regulated and informed by the NHMRC National Statement on Ethical conduct on Human Research, a well written but long document obtainable at the NHMRC.gov.au website. Before any work involving human participants authorisation is legally required from a local Human Research Ethics Committee (HREC). For the Royal North Shore Hospital campus this is the Northern Sydney Local Health District Research Office in the Kolling Institute (NSLHD-Research@health.nsw.gov.au), although for multi-centre studies other HRE committees may be appropriate.

The formal human ethics application process (which may require an interview but not always) for most HRECs involves submitting an application via an online system*, provision of relevant documentation and signed declarations, and a fee. The application is considered at a meeting of the full committee. Approval is rarely granted without application modifications, though these may be minor. The process is separate to gaining hospital governance approval (a.k.a. Site Specific Assessment), which is also required for research projects. Note SSA applications are reviewed by institution managers rather than by an HREC, but also need time, form filling and payment of a fee.

Why?

Human research aims to obtain data that will improve human health or wellbeing. However, the war crimes trials at the end of the Second World War detailed how the pursuit of research could involve serious violations of ethical norms, and demonstrated that strong state regulation was essential to avoid similar horrors. Those norms were initially defined in the ten principles of the Nuremberg Code, but were later detailed in the 1964 Helsinki Declaration of the World Medical Assembly. This defined principles for judging the ethical status of a project, which have since been gradually refined and form the basis of the relevant Australian Commonwealth and State laws.

Human participation in research

The range of activities covered by HREC regulations is wide. Observational studies, surveys, interviews, access to patient clinical or personal information (anonymised or not) and collection of human tissues all come under the HREC remit, as well as studies involving medical interventions and tests. This may include clinical quality assurance projects, but HREC approval may not be required if the data is generated from normal patient care monitoring.

Basic principles

The relationship between researchers and research participants (the general term for the subjects of the research) must reflect respect for them as human beings. In addition, the research must possess merit and integrity, and display beneficence (i.e., care for participant welfare), protection from harm and consideration of societal and cultural implications of the research. The central value is that of *respect*, based in recognition that all human beings have intrinsic worth so cannot be viewed merely as an instrument of the research. It also

demands that all individuals be regarded as having equal worth. The principle of respect implies that studies be designed to minimise risk of harm or discomfort. It also demands that where there is no benefit to a participant both the harm and risk of harm should be particularly low.

These principles lead to the very heart of human research ethics – the *requirement for consent* by any research participant. This consent must be voluntary and properly informed by adequate understanding of the project. This requires engagement from the researcher to ensure consent is properly obtained, signed off and notified. Consent can be withdrawn by a participant at any point and for any reason, *or none*. Where a participant cannot give consent (e.g., due to cognitive impairment) then an advocate needs to be involved to protect the participant interests. If data is aggregated and anonymised, cannot harm participants (even if the data is misplaced) and individual consent burdensome to obtain from all participants then an application to the HRE committee can be made to waive the need for consent (see below).

Harm and risk of harm

The notion of harm is a simple one to understand although, for HREC assessment, its nature and severity are important parameters. It is important to note that firmly within the definition of harm (albeit at the low end of the scale) are discomfort, inconvenience and breach of privacy. Discomfort includes minor effects of blood sampling but also medication side effects, taking blood pressure and any anxiety induced by interaction with a medical researcher. Inconvenience refers to the time taken to participate in the research, even if it is a survey. Breach of privacy includes release (accidental or not) of personal information about a participant.

An important concept is that of *risk of harm* and it may be just as important to minimise this as to minimise actual harm. A procedure involving only inconvenience is viewed very differently if it involves even a small risk of injury. Thus, risk needs to be assessed as well as harm. A risk is a potential for harm (including discomfort or inconvenience) and involves an assessment of both harm severity and harm exposure. The researcher(s) and the HREC thus need to identify any risks, gauge their probability and severity, assess how much they can be minimised, determining whether potential benefits of the research to justify the risk, and determine how the risk exposure can be managed.

The role of the HREC

Aside from fulfilling a formal legal oversight role, an HREC makes judgements on whether risks of a proposed research project are justified by potential benefits, including the participants' perceptions of those risks and benefits, determine that an indemnity system exists to compensate for any harm suffered and manage conflict of interest among the researchers. An HREC that is appointed under NHMRC guidelines includes an overseeing chairperson, two laypeople (male and female) with no research affiliation, two experienced medical researchers, a lawyer where possible, a person with a community pastoral care role, and a person with experience in medical care or counselling.

Negligible and low risk projects

Low risk implies a risk only of discomfort, and negligible risk implies no harm more than inconvenience. Many data analysis projects that study aggregated data from past patients would fall under such a category if the data in anonymised. This can be achieved in databases such as REDCap, although there is as yet no legal definition of "*anonymised"* in Australia. It is possible to apply to an HREC to have a waiver issued for the need to have formal consent from the participants where this is impractical and unnecessary given the low/negligible risk of harm.

*Note – For many NSW Ethics committee submission (including Kolling Institute/RNSH) is now done via the Research Ethics Governance Information System (REGIS) which is entirely online. For some authorities (e.g., North Shore Private Hospital) this is HRE Application System (HREAS) which includes template forms.

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Thanks to Professor Thomas Hugh and Dr Richard Piper for reviewing and critiquing to this article.