Case study solutions

- **Case Study 1:** Informed Consent in Clinical Research

The researcher must ensure that information is presented in a clear and accessible way, using language and media adapted to different levels of understanding. Face-to-face information sessions and discussions can help ensure that participants fully understand the implications of their participation. Written documentation should be accompanied by oral explanations and the opportunity to ask questions.

- **Case Study 2**: Genetic Data Confidentiality

Strict confidentiality and data security measures are essential to protect participants' genetic information. This includes data encryption, restricted access, and clear protocols for use and sharing. Informed consent must include a specific section on the use of genetic data, and participants must be informed of their right not to know certain information.

- **Case Study 3:** Use of Animals in Research

Researchers should strive to follow the principles of the 3Rs (Reduction, Refinement, Replacement) by actively seeking alternatives to animal models, reducing the number of animals used through efficient experimental design, and refining procedures to minimize pain and suffering. An ethical assessment must weigh the scientific importance of the research against the impact on animals.

- **Case Study 4:** Access to experimental treatments

The physician must assess the patient's condition, the available evidence on the efficacy and safety of the experimental treatment, and consider the patient's wishes and values. An open discussion of the risks, potential benefits and uncertainties associated with the treatment is crucial. The physician should also consult the institution's ethics committee and follow regulatory protocols for compassionate access.

- **Case solution 5:** Sophie could consider assisted reproductive techniques such as in vitro fertilization with pre-implantation diagnosis to select embryos not carrying the disease. However, this raises ethical questions concerning embryo selection and the risk of discrimination against people with genetic diseases. On the other hand, Sophie could also consider adoption or gamete donation to avoid transmission of the disease.

- **Case Study 6 :** Researchers must provide full and transparent information on the risks observed, even if they are rare, to enable participants to make an informed decision. Regular updating of the informed consent form with this information is crucial.

- **Case Study 7 :** Employers should be subject to strict regulations prohibiting the use of genetic information for employment decisions, in order to prevent discrimination. A robust privacy policy must be put in place to protect this sensitive data.

- **Case Study 8**

Healthcare professionals should seek to understand the patient's wishes before brain death, if possible, and facilitate a balanced discussion with the family to reach a consensus, referring to current ethical and legal guidelines.

- **Case Study 9**

Governments and public health organizations should negotiate with manufacturers to make treatments more accessible, and consider subsidies or grants for patients who need them. Equity of access to care must be a priority.

- **Case Study 10**

Research on human embryos should be strictly regulated, limited to research objectives that cannot be achieved by other means, and subject to a rigorous ethical review process, ensuring respect for human dignity.

- **Case Study 11**

It is imperative to integrate human supervision into AI-assisted diagnostic processes, maintain transparency on the limitations of these tools and guarantee adequate training for healthcare professionals to use these technologies ethically.

- **Case Study 12**

Compulsory vaccination can be justified by the principle of collective beneficence, but it is important to conduct public education campaigns to explain the importance of vaccination and to try to resolve concerns through dialogue before imposing coercive measures.

- **Case Study 13**

The sharing of health data for research purposes must respect the principles of confidentiality and data minimization. General informed consent at the time of admission may be one approach, accompanied by strict measures to anonymize data.

- **Case Study 14**

To minimize conflicts of interest, researchers must declare their funding, and studies must be designed with a transparent methodology and submitted to independent peer review for validation.

- **Study Solution 15**

Patient wishes must be respected as an expression of autonomy, provided the patient is deemed competent to make this decision. It is important to provide psychological support to the family and to ensure that the decision is well understood.

These suggested solutions aim to apply the principles of bioethics - respect for autonomy, non-maleficence, beneficence, and justice - while taking into account the specific contexts and

implications for all concerned. They require thorough ethical deliberation and effective communication between all stakeholders.

- **Case study 16:**

Ahmed's participation in the clinical trial raises issues of patient autonomy and informed consent. Although participation in clinical trials can offer hope of treatment, it is essential that patients understand the potential risks and benefits, as well as the experimental nature of the treatment. The principles of fairness in recruiting participants and the need to protect the vulnerable are also important considerations.

- **Case study 17:**

Decisions concerning Maxime's end-of-life raise issues of patient autonomy, well-being and respect for human dignity. It is essential to assess Maxime's prior wishes, such as advance directives or previous discussions about his end-of-life wishes. Decision-making must also involve a thorough ethical assessment of Maxime's quality of life, as well as reflection on the benefits and burdens of medical interventions. Ultimately, the decision should aim to respect Maxime's wishes and interests, while taking into account the emotional well-being of his family.

- **Case study 18:**

Informed consent for a clinical trial The principle of informed consent requires that patients fully understand the risks, benefits and alternatives available before consenting to participate in a clinical trial. In Paul's case, it is essential that researchers and healthcare professionals provide clear and complete information about the experimental treatment, including potential side effects and chances of success. Healthcare professionals have a responsibility to ensure that Paul is able to make an informed decision and that he understands the implications of participating in the clinical trial. Open and honest discussions are necessary to respect Paul's autonomy while ensuring his safety and well-being.

- **Case study 19:**

Selective termination of pregnancy Claire and David face difficult decisions about terminating a pregnancy after receiving prenatal screening results indicating a high probability of trisomy 21 in their fetus. Key ethical dilemmas include valuing human diversity, respecting reproductive autonomy and the rights of people with disabilities. Claire and David need emotional support and full information about the implications of their options. Healthcare professionals must respect their autonomy while providing ethical and emotional support to help them make a thoughtful and informed decision.

- **Case study 20 :**

End-of-life and advance directives Marie has made arrangements for her advance directives to ensure that her end-of-life wishes are respected. Her son, as her designated medical proxy, is responsible for making decisions in line with Marie's expressed wishes. Ethical principles include respect for the patient's autonomy and concern for Marie's well-being. Marie's son must be attentive to her wishes, while taking into account the medical circumstances and consulting with healthcare

professionals as needed. It is crucial to respect Marie's wishes and dignity throughout her end-of-life process.