



WORLD HEALTH ORGANIZATION

NOTE FOR THE PRESS

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**Note for the media WHO/8
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ANIMAL TO HUMAN TRANSPLANTATION — FUTURE POTENTIAL, PRESENT RISKS

Geneva - Transplantation of animal organs, living cells and tissues into humans is termed xenotransplantation. Recent experiments have shown that the transplantation of organs from genetically modified pigs into baboons can yield moderate to good results and this raises hopes for the future of organ transplantation from pigs to humans.

However these, along with existing claims of treatments for diabetes or neurodegenerative disorders such as Parkinson's disease, are still at a very embryonic phase. Apart from a few simple, established procedures such as the treatment of severe burns with human skin cells cultured with mouse cells, xenotransplantation today is only acceptable in very tightly controlled human trials.

An advisory group of international experts has recently met at the World Health Organization (WHO) to discuss progress made in xenotransplantation. The main objective of the meeting was to propose ways in which the health agency can assist countries to implement stronger policies to control the practice and enforce quality and safety measures while still promoting further research into its potential uses.

The main risk in xenotransplantation is the transmission of diseases. Many serious infections in human history have originated in animals. Once a new pathogen is introduced in one individual, it may spread to the larger population.

To manage that risk, several countries have developed rigorous guidelines and oversight procedures for the performance of xenotransplantation. However, xenotransplantation is also carried out in countries that lack such oversight and where materials and procedures used have not undergone any quality and safety controls. This means there is no proof of the quality of source animals and no monitoring of the recipient, leaving no guarantee of the safety of the procedures for the patient. The problem is globalized when individuals travel to a country where xenotransplantation has no adequate oversight. The WHO advisory group notes that any xenotransplantation performed in countries without adequate oversight poses unacceptable infectious public health risks and should be stopped.

International cooperation is clearly of paramount importance in the promotion of high standards for xenotransplantation across all regions. Without such oversight the efforts to minimize risks in some countries will be undermined due to increasing numbers of people travelling to countries with less stringent laws.

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The potential for such risks led the Member States of WHO to adopt a resolution addressing xenotransplantation in 2004. The resolution urges member States "to allow xenotransplantation only when effective national regulatory control and surveillance mechanisms overseen by National Health Authorities are in place."

The WHO advisory group and WHO experts have concluded that stronger measures need to be put in place by countries to stop the illegal performance of xenotransplantation and to promote harmonized quality and safety controls. To harness the real potential of this promising field, while minimizing the risks of unproven or misused practices, they have revised an action plan to assist Member States to implement the WHO resolution by:

- updating a compendium of guidelines and recommendations for national health authorities and regulatory bodies to deal with xenotransplantation;
- improving methods for the collection and dissemination of information on xenotransplantation practices — successes and potential risks;
- raising greater awareness among national health authorities and promoting high ethical standards and well regulated practices.

Guidance on xenotransplantation and its effective regulation is available from WHO at www.who.int/transplantation/xeno

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