The Italian National Transplant Centre (CNT), as a WHO Collaborating Centre on Vigilance and Surveillance for Human Cells, Tissues and Organs, provides the secretarial and information technology support for the development and maintenance of the library. The information in the Notify Library is collated and updated by international experts across the globe. CNT coordinates the work of a series of 5 Editorial Working Groups that focus on Infectious Transmissions, Malignancy Transmissions, Clinical Complications, Process-related adverse occurrences and Living Donor Reactions. The experts include government regulators, representatives of Competent Authorities, clinicians working in donation programmes or in transplantation, transfusion and assisted reproduction, scientists specializing in microbiology or virology and professional society representatives.

The project relies on collaboration with the Spanish National Transplant Organisation (ONT) and the Catalan Transplant Organisation (OCATT). At a European level, many national competent authorities are contributing to the library, through collaboration with the VISTART Joint Action (Vigilance and Inspection for the Safety of Transfusion, Assisted Reproduction and Transplantation) co-funded by the EU Public Health Programme.

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Background

Vigilance philosophy
Medical products of human origin encompass all biological materials that are derived wholly or in part from the human body and intended for clinical application. WHO promotes the governance of Medical Products of Human Origin (MPHO) in a manner that acknowledges their exceptional nature. From donation to human application, MPHO have a shared exposure to the risk of potential breaches of ethical standards. They also share risks to safety and quality, for example, transmissible infectious diseases and malignancies. Vigilance is a powerful tool for improving safety and quality. Sharing the lessons learned from adverse outcomes can allow significant process improvements for the greater protection of donors and recipients. These benefits apply where the incident occurred but also anywhere else where an identical or similar incident might occur. Detection, investigation and communication of adverse outcomes bring the transparency and openness that these particular medical treatments demand. To ensure the protection of the donor, the recipient and society will require the establishment of globally consensual principles to govern the use of MPHO, including the non-commercial nature of the human body and its parts as such, and strict traceability associated with vigilance and surveillance. The Notify Library is the first WHO initiative that covers the full MPHO scope.

The NOTIFY PROJECT and its LIBRARY
Following the adoption of resolution WHA 63.22.2010 and the 2011 WHO global consultation “Bologna initiative for Global Vigilance and Surveillance”, the NOTIFY project was launched in collaboration with the Italian National Transplant Centre (CNT) and the European Union (EU) funded project SOHO V&S (Vigilance and Surveillance of Substances of Human Origin). Experts from across the six WHO regions gathered information on documented types of adverse outcomes in transplantation, transfusion and assisted reproduction and reviewed the cases in order to identify general definitions and principles supporting detection and investigation. Five editorial groups were established (INFECTIONS, MALIGNANCY, PROCESS, LIVING DONOR and CLINICAL COMPLICATIONS) that refined and standardised the enormous collection of didactic cases available in the scientific literature. This was essential to allow the uploading of the information in a relational publicly accessible database, the Notify Library, on the project’s website (www.notifylibrary.org). Since then, annual consultations have been organised and, thanks to the collaboration of all the editorial group members, the database is regularly updated and the website continues to improve. Further tools to support vigilance have been developed over the years, including a comprehensive vigilance document and access to a panel of experts providing support and advice on request via the project website.

Objective of the Notify Library
The Notify Library supports the sharing of documented vigilance information for clinical, educational and organisational purposes with the objective of improving both quality and safety resulting in greater public transparency regarding the donation and use of MPHO. The library aims to be comprehensive, describing all types of adverse occurrences to increase knowledge and assist in the estimation and reduction of risk. The goal of NOTIFY is to promote at a global level the benefits of effective vigilance programs for all types of MPHO.

The tool aims to support three key audiences:
• the general public, particularly prospective donors or recipients
• health professionals working in transfusion, transplantation and assisted reproduction
• health authorities responsible for vigilance systems.

Database content
The Notify Library is a relational database but is not a vigilance reporting program. It is a collection and review of information identified primarily by literature review (published articles in scientific journals and/or books). Case reports from regulatory or professional vigilance programmes (grey literature) are also considered for inclusion. For each adverse occurrence type, at least one reference source is cited and the project’s collaborating editorial groups provide a structured analysis. The library can be searched by adverse occurrence type, MPHO type or both, or by using free text or keywords. The experts have reviewed cases dating back to 1939 to identify alerting signals, latency, frequency and methods of confirmation of imputability.
Search Library

Adverse occurrence searches can be performed by:

- **Adverse occurrence type**
  - Search by occurrence details (e.g. ONLY DONOR REACTIONS, ONLY INFECTIONS, ONLY INFECTIONS INVOLVING A PARTICULAR ORGANISM)
  - **MPHO** (e.g. ONLY LIVER, ALL ORGANS, ALL PLASMA, ALL BLOOD, etc.)
  - Keywords, free text
  - **Notify library reference ID** (UNIQUE IDENTIFIER FOR EACH DATABASE RECORD)

The result of an Incident search can be printed or saved in Excel or pdf.
Database Taxonomy

In order to facilitate a structured database search, all cases have been classified according to a predetermined set of rules. To this end, a taxonomy of two main groups was developed, the adverse occurrence types (Harm to a recipient, Harm to a donor, Harm to a fetus or offspring, Risk of harm), and the MPH0 types (Organs, Blood, Cells, Tissues, Assisted Reproduction Technologies (ART)). This predefined classification is further subdivided and allows searching by a single item or a combination of both groups. Figure 1 provides an extract of the taxonomy for adverse occurrence type and Figure 2 provides an extract of the taxonomy applied for MPH0 type.