Risk and risk management in the cryopreservation of reproductive cells and tissues

Alexia Chatziparasidou, MSc
Clinical Embryologist
Lab director, Embryolab IVF Laboratories
Co-founder of Embryolab Academy

Risk assessment and risk management is the process of identifying, analyzing and responding to risk factors that may negatively affect performance. Risk management will offer a constant control and will improve the system’s safety.

Cryopreservation of reproductive cells and tissues has become a very important part of assisted reproductive technologies. The aim of cryopreservation is to shift the pendulum from reproductive cells and tissues from death to immortality by preserving at low temperatures for a short or long term. A cryopreservation program for gametes, embryos and reproductive tissues is highly complex and is characterized by gamete, embryo- and tissue-specific cryopreservation protocols, use of specialized carrier and storage systems, important health and safety features and unique and traceability aspects, this in all steps of the cryopreservation and thawing processes. It involves multiple ‘risks’ at any step of the program: loss of straws, breach of quarantine, poor temperature control, loss of traceability of biological parents, ....

Risk assessment and risk management in a cryopreservation program will actively reduce all the potential risks that may affect performance and safety and minimize the magnitude of their impact.

This presentation will focus on current risk management tools and processes, their implementation in the clinical and laboratory daily routine, and how they are integrated into routine decision making, strategy setting and performance management. Examples from daily practice will also be provided to increase understanding and highlight importance.