Time-lapse: The validation process each IVF laboratory should undergo?

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Automatic time-lapse systems offer the possibility to monitor embryo development continuously throughout the culture period. This is obtained through the digital image capture defined by programmed time intervals and increases the quality and quantity of the information. In addition, time-lapse technology allows maintaining more stable culture conditions and is considered a safe tool in IVF laboratories, mainly because no adverse effects on the embryo can be detected. We as embryologist and clinicians are professionals and/or scientist that manage our daily work between some procedures that are really technical and routinely performed and make decisions that may condition a successful cycle. The latter have made our work exciting and challenging, especially since embryo cinematography became a real “friendly user” clinical tool in 2009. In a relatively short period of time, two very stimulating manuscripts appeared. One by the most important research groups in the world and presented by Wong in 2010 and our first attempt to develop an algorithm for embryo selection in a clinical setting. For us, it was a real challenge. First, by dealing with tons of numbers and secondly by trying to find an appropriate analysis that would end with a feasible procedure for embryo selection. Ten years ago, we started working with morphokinetics. Since then, many issues have changed in embryology, and in time-lapse field as well. During this presentation will go through the different steps we followed trying to illustrate how you could do it in your own clinic.