

Discussion - Lisa

Lisa has had fertility testing regularly since the age of 25 to ensure that she knows her fertility status and can use this to inform when she chooses to have a baby. At 35 she has decided that she is now financially stable and ready for the time commitment involved in starting a family. She is not in a relationship and wishes to have the healthiest baby possible through selecting genetically compatible sperm from a donor.

Having had carrier testing in her 20s, Lisa is aware that she is a genetic carrier for cystic fibrosis. Legally, all sperm donors must undergo extensive genetic screening for hundreds of different diseases and so Lisa plans to avoid CF carriers to ensure there is no chance that her baby will inherit the condition. It is also particularly important to her that she selects male DNA that provides a different variation of the *HLA* gene to her own in order to maximise her future offspring's immune responses.

Having selected her sperm she aims to optimise her health before becoming pregnant through intrauterine insemination (IUI). She has subscribed to a six month mHealth preconception care programme which promotes health through genetic profiling so as to identify and intervene on modifiable nutritional and lifestyle risk factors. Although she doesn't smoke and eats a relatively healthy diet, her baseline screening (informed by nutrigenomics) detects that she consumes too much alcohol and is lacking in iron and vitamin B12. Each week she receives texts with tips, vouchers or recipes in order to help her modify these behaviours. Home monitors and portable bioassays feed data on behavioural and chemical changes back into the platform which interacts with her electronic health record.

How much time of the user and health staff will be used up by these devices?

Will these devices ease or exacerbate worry and pressure for the user?

