

HIV, Hepatitis B & Hepatitis C

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Background: This mixed methods study consists of a literature review and a service evaluation of a leading fertility centre. The literature review identifies best practice in the avoidance of the transmission of viruses during assisted conception in patients carrying HIV and hepatitis B/C, and how this affects their pregnancy outcomes.

Aims: To identify best practice in avoiding transmission of viruses during assisted conception in people with HIV and Hepatitis B (HBV) and Hepatitis C (HCV). To evaluate current conception methods for viral positive families at the Centre for Reproductive Medicine (CRM), and compare them with published data to determine success and opportunities for improvement.

Methods: An online literature search amassed 116 studies for analysis and 10 papers were shortlisted. From these papers, data was collected such as author, viral illness, and which parent affected. For the service evaluation, a list of viral positive patients receiving treatment at CRM in the past 5 years was assessed for treatment method and outcome.

Results: The pregnancy rate for viral positive families at CRM was 43% and the live birth rate was 30.8%. The live birth rates for HIV, HBV and HCV were 13.3%, 35.9% and 33.3%, respectively. At $p < 0.05$, the p -value was 0.32663, meaning there was not a statistically significant difference between pregnancy and live birth rates where the male was seropositive vs the female.

Conclusion: Assisted conception outcomes are worse when the female is seropositive, rather than the male, for HIV, HBV and HCV. Options for viral positive men, such as sperm washing, are safe and effective. Viral positive patients treated at the Centre for Reproductive Medicine have higher pregnancy and live birth rates than their viral negative counterparts.

Key words: Hepatitis B virus, Hepatitis C virus, HIV, intracytoplasmic sperm injection, in vitro fertilisation.

Biography

Lia Millanaise Jones is a third-year medical student at Warwick Medical School with an interest in Obstetrics and Gynaecology, and surgical research. She graduated with a First Class Honours in Medical Science from De Montfort University in 2016.

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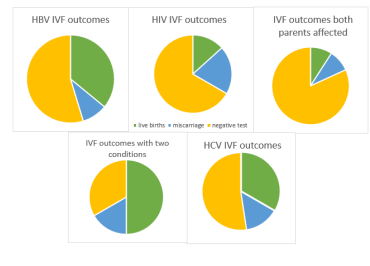


Diagram II: Pie chart of the pregnancy outcomes for viral positive families at CRM.

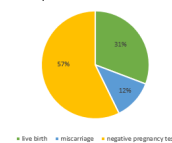


Diagram III: Pregnancy and live birth rates in viral positive men vs women.

