

WARTBANC OPENS FOR BUSINESS: ESTABLISHMENT OF AN HPV BIOBANK AT ROYAL PERTH HOSPITAL

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Background:

Anal cancer is a rare disease, but the incidence is rising particularly in HIV positive MSM. Since 2008 Royal Perth Hospital Sexual Health Service (RPH SHS) in collaboration with PathWest, has been collecting and storing data and associated samples of blood and HPV-infected anogenital disease tissues from patients undergoing High Resolution Anoscopy (HRA) or surgical wart removal. In 2021 this collection of blood and tissue samples was formalised into the Western Australian Research Team Biobank for Anogenital Neoplasia and Condylomata (WARTBANC).

Methods:

Data including sexual demographics, sexual behaviours and STI infections including HIV status has been collected from each patient undergoing HRA at the RPH SHS. Subsequent tissue sampling and analysis adds microbiological, histopathological and biochemical data to the collection. HrHPV and extended HPV genotyping is collected. In surgical wart patients, some tissue collected during surgery is subsequently fresh frozen and stored in the Biobank for future research purposes. Serum for future studies is collected from each patient including HLA typing.

Results:

Over 2600 patient visits have been documented since 2008 with multiple collections from each patient. This represents a substantial compilation of longitudinal human data and samples from a wide patient demographic including men and women.

Conclusion:

This Biobank provides a foundation for significant research into HPV associated anogenital intraepithelial neoplasia (AIN). In particular, this single-centre collection allows for longitudinal studies in a relatively closed population, as well as insights into the efficacy of current clinical treatments. Furthermore, it provides a streamlined, accessible source of high-quality de-identified dysplastic HPV-associated human tissues and clinical data for immunological, pathological and virological research. It is our hope that this Biobank will contribute to and inform on the evolving patterns of HPV, STI's and the development of AIN. Research groups will soon be able obtain samples and data after application and review.

Disclosure of Interest Statement:

No conflicts of interest to declare. No grants have been received for this work.