



Establishment of the National Ovarian and Testicular tissue Transport and Cryopreservation Service (NOTTCS) for medical fertility preservation

We are thrilled to have an opportunity to expand our services, following receipt of a generous grant from the Sony Foundation. We write to you today to provide further information about this exciting initiative.

Our team has a long history of dedicated provision of fertility preservation expertise including tissue and gamete cryopreservation, counselling and support to patients affected by cancer and other fertility threatening, medical conditions.

Fertility preservation is an essential part of cancer management mandated by international guidelines[1]. Ovarian tissue cryopreservation and grafting is now acknowledged as an important and successful fertility preservation modality. It is no longer considered experimental [2-5]. Tissue cryopreservation is the only option for pre-pubertal patients and for post-pubertal at-risk patients in whom gamete cryopreservation (mature eggs and sperm), is not possible [6]. Testicular tissue from pre-pubertal boys is also likely to be a useful option[7]. Currently many young people with cancer are not offered these fertility-saving options due to lack of local resources and expertise. We understand that many oncology, haematology and nephrology specialists nationwide welcome the opportunity to be able to offer this treatment to patients whose fertility is at risk.

Highly specialised handling, processing and cryopreservation techniques are required to maximise opportunities for the tissue to restore fertility in the future. We have now implemented a national tissue retrieval and transport program for children, adolescents and adults. Local gynaecologists, urologists and fertility specialists will undertake surgeries for ovarian tissue harvest and testicular tissue extraction (figure 1). Subsequently, retrieval and transport to our national cryo-bank at the Royal Women's Hospital (RWH), Melbourne will take place. Once the decision to graft the ovarian tissue is made, transport back to local unit for grafting will be arranged. Alternatively, the patient can have the grafting procedure undertaken at the RWH.







<u>Figure 1:</u> Schematic of how the national tissue retrieval, transport and cryopr**es**ervation service will work. (OT is ovarian or testicular tissue, OTC is ovarian or testicular tissue cryopreservation)

We also provide educational resources to assist with all aspects of fertility preservation, including

- a. Patient information and health provider educational materials, accessible both in hard copy and electronically
- b. Access to telephone and/or Skype consultation service with health providers regarding patient queries
- c. Referral pathways for your patients to be managed by our service in Melbourne, if necessary

We are so excited to have the opportunity to continue to develop this program, which will ensure more equitable provision of these vital fertility preservation services around Australia.

Thank you in advance for your support!

From the clinical and scientific team, Associate Professor Kate Stern, Head of Fertility Preservation Service Dr Genia Rozen, Deputy Head of Fertility Preservation Service Franca Agresta, Scientific co-ordinator Debra Gook, Lead Scientist

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References:

- 1. Anazodo, A., et al., *The Development of an International Oncofertility Competency Framework:* A Model to Increase Oncofertility Implementation. Oncologist, 2019.
- 2. Meirow, D., et al., *Transplantations of frozen-thawed ovarian tissue demonstrate high reproductive performance and the need to revise restrictive criteria*. Fertil Steril, 2016. **106**(2): p. 467-74.
- 3. Jensen, A.K., et al., *86 successful births and 9 ongoing pregnancies worldwide in women transplanted with frozen-thawed ovarian tissue: focus on birth and perinatal outcome in 40 of these children.* J Assist Reprod Genet, 2017. **34**(3): p. 325-336.
- 4. Donnez, J. and M.M. Dolmans, *Ovarian cortex transplantation: 60 reported live births brings the success and worldwide expansion of the technique towards routine clinical practice.* J Assist Reprod Genet, 2015.
- 5. Gornet, M.E., S.R. Lindheim, and M.S. Christianson, *Ovarian tissue cryopreservation and transplantation: what advances are necessary for this fertility preservation modality to no longer be considered experimental?* Fertility and Sterility, 2019. **111**(3): p. 473-474.
- 6. Oktay, K., et al., *Robot-assisted orthotopic and heterotopic ovarian tissue transplantation techniques: surgical advances since our first success in 2000.* Fertil Steril, 2019. **111**(3): p. 604-606.
- 7. Valli-Pulaski, H., et al., *Testicular tissue cryopreservation: 8 years of experience from a coordinated network of academic centers.* Hum Reprod, 2019. **34**(6): p. 966-977.