# Three of a Kind: Fertility, Family Planning and Breast Cancer

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## **Background**

Breast cancer is the most common cancer in Australian women of reproductive age.<sup>1</sup> Cancer Australia recommends that fertility and family planning be discussed before commencing treatment,<sup>2</sup> yet almost half of patients don't receive a contraceptive recommendation.<sup>3</sup> This is despite aromatase inhibitors, prescribed to treat hormone receptor-positive cancers, also being used for ovulation induction in the management of infertility.

#### Case

A 34-year-old G6P5-1 with an oestrogen receptor positive, progesterone receptive positive, HER2 negative ductal carcinoma of the right breast. She was treated with a mastectomy and implant insertion and adjuvant chemotherapy with adriamycin, cyclophosphamide and paclitaxel. She subsequently commenced adjuvant hormone therapy with goserelin and letroloze and received radiotherapy. She was non-adherent to goserelin, but continued letrozole prescribed through her general practitioner (GP) without using contraception. During this period, twenty months after the initial cancer diagnosis, she conceived triplets. The pregnancy was uncomplicated for a multiple pregnancy and she was delivered by elective caesarean section at 34 weeks gestation.

#### References

- 1. Australian Institute of Health and Welfare. Breast cancer in young women: key facts about breast cancer in women in their 20s and 30s. Canberra: AlHW; 2015.
- 2. Cancer Australia. Practice 3. [Internet] 2020 [cited 2020 Sep 20]; Available from: https://thestatement.canceraustralia.gov.au/the-practices/practice-3
- 3. Mody SK, Gorman JR, Oakley LP, Layton T, Parker BA, Panelli D. Contraceptive utilization and counselling among breast cancer survivors. J Cancer Surviv 2019;13(3):438-446

Contraception was reviewed on the postnatal ward and the oncology team recommended a copper IUD as hormonal methods were contraindicated in the context of hormone sensitive breast cancer. The IUD was inserted in the gynaecology clinic. A follow-up plan was communicated to her GP given the practical difficulty in attending multiple hospital appointments. Hormone therapy was changed to tamoxifen postpartum and the patient remains clinically well. A new lung nodule was noted on routine imaging ten months postpartum and remains under surveillance.

### Discussion

This case demonstrates the risks of non-compliance with hormone therapy for breast cancer in women of reproductive age. In particular, unplanned multiple pregnancy and potential postpartum disease progression due to missed treatment are significant issues. Although patient concerns at the time of a cancer diagnosis may centre on future fertility, this case illustrates that discussing the risk of pregnancy and prescribing contraception to prevent resultant missed treatment is also critical. Collaborative management of women of reproductive age by oncologists, gynaecologists and general practitioners could optimise outcomes. A multidisciplinary team can increase opportunities for education and shared decision making regarding contraception during cancer therapy and each doctor can contribute to monitoring of treatment and contraception compliance.