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### Standardization of Fertility Preservation Discussion Amongst Pediatric Oncology and Bone Marrow Transplant Patients: A Single Institution Experience

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# Standardization of Fertility Preservation Discussion Amongst Pediatric Oncology and Bone Marrow Transplant Patients

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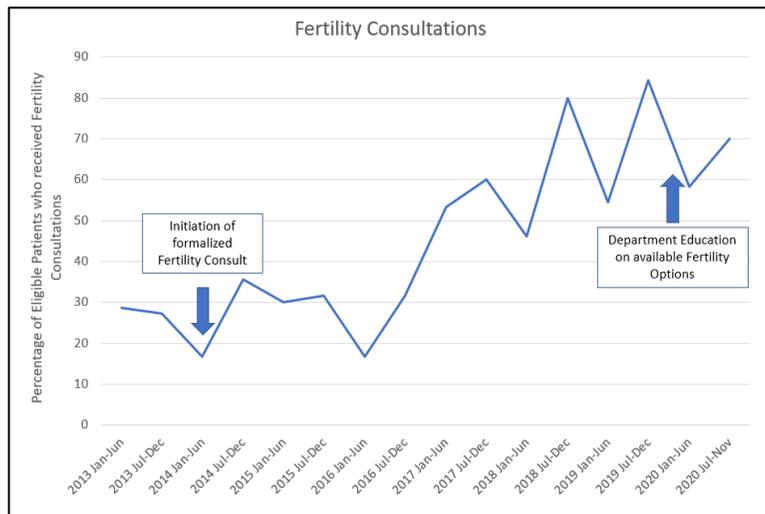
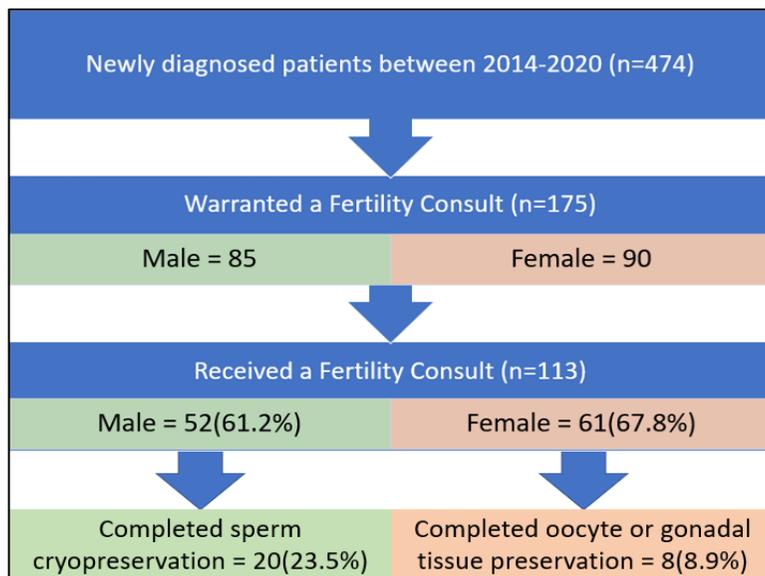
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## Background

- As treatment for pediatric malignancies improves long term survival, physicians are shifting focus to late effects of therapy such as infertility.
- Currently, options for fertility preservation include cryopreservation of mature oocytes, sperm, and gonadal tissue, although barriers remain present.
- Within our division, we lacked a standard approach to discussing fertility preservation options.

## Design/Method

- Records from 474 pediatric patients with new oncologic diagnoses at Children's Mercy from 2014-2020 were retrospectively reviewed.
- We evaluated the frequency that reproductive health discussions were documented in pubertal males and females requiring chemotherapy or radiation treatment.
- We implemented a standard fertility preservation note and patient handouts, then surveyed our department to identify diagnoses that place patients at risk for infertility and barriers to formalized fertility consultations. We then provided educational sessions to address these barriers with pre- and post-evaluation to measure efficacy.
- Our longitudinal assessment, encompassing multiple points of intervention, was compared to results from previous chart review (2010-2013).



## Results

- Following implementation of an electronic fertility consult process and standardized fertility preservation documentation, there was an increase in documented fertility discussions from 30% in 2014 to 63.6% in 2020.
- Internal department survey responses identified a lack of comfort with knowing fertility preservation options and diagnoses that should prompt this conversation.
- Education sessions with pre- and post-provider assessment demonstrated more comfort discussing fertility preservation (average score increase from 3.44 to 4.33) and knowledge regarding diagnoses at higher risk of infertility (average score increase from 3.67 to 4.33).

## Conclusion

- Integration of a standardized fertility preservation process and addressing barriers identified within our division have led to a 33.6% increase in fertility discussions over the last 6 years.
- While the data shows a promising increase in oocyte and ovarian tissue preservation, sperm banking completion rates remained unchanged.
- Further steps include incorporation of an automated fertility consult order into electronic chemotherapy orders, hospital-wide identification of other high-risk patient populations, and continued education of patient, families, and the health care team.