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CUA azoospermia guideline: An important resource for physicians

I would like to congratulate the authors of the CUA guideline on the evaluation and management of azoospermia for their comprehensive and methodical approach to the topic. One of the main ongoing challenges in the field of male fertility in general is the overall lack of robust and high-quality clinical trials to address important clinical questions. By using the GRADE evidence-to-decision (EtD) framework, the authors have generated an evidence-based document that builds on the previous version and provides an important resource for physicians caring for patients with azoospermia.

The care of couples presenting with infertility is a multidisciplinary endeavor involving primary care physicians, OB/GYNs, general urologists, reproductive endocrinologists, and subspecialty-trained reproductive urologists. While most Canadian urologists do not provide comprehensive care to patients presenting with complex infertility diagnoses, such as azoospermia, I think it is important that the CUA takes the lead in producing this document that is relevant to all practitioners in the field. In addition, I think this document serves as a useful resource for trainees and provides a practical and step-by-step approach to understanding the important steps in evaluating and treating azoospermia. The algorithms and flow diagrams are easy to follow and practical.

The three controversial topics selected for a deep-dive analysis using the GRADE EtD framework are certainly relevant and important. Facing a potentially devastating outcome of a failed attempt at sperm retrieval, physicians and patients alike are often motivated to try anything they can to optimize outcomes, regardless of whether there is any evidence to support specific practices. In particular, the use of neoadjuvant hormonal therapy is often requested by patients, despite the overall lack of evidence to support its efficacy. Providing a guideline statement on this topic will serve to provide a more standardized approach to counselling patients and avoid unnecessary use of hormonal therapies with their associated cost and side effects.

The conditional recommendation for the use of a two-step approach to sperm retrieval and subsequent in vitro fertilization (IVF) (i.e., micro testicular sperm aspiration [TESE] with cryopreservation of sperm, with delayed IVF) rather than a one-step fresh approach is, in my view, more controversial. The data clearly indicates that using a two-step approach leads to lower rates of usable sperm and lower live birth rates as compared to a one-step fresh approach. Why then, should we recommend a therapy that has an inferior result for the outcome that most patients hold most dear — having a live birth? There are certainly pros and cons to a fresh vs. frozen approach, and the authors clearly outline these. In my experience, where I offer both approaches with a full discussion of the relative risks and benefits, most patients select a one-step fresh approach. This is a scenario where shared decision-making is clearly important, and practitioners in the field really need to be highly familiar with all the objective outcome data, as well as take logistical considerations and ancillary risks and benefits into account.

Finally, I was happy to see a section addressing best-practices for vasectomy reversal. It has long been known that a microsurgical approach, with a surgeon trained in performing vaso-epididymostomy (VE), leads to the best patient outcomes in terms of patency and pregnancy rates. While there is no available objective data concerning the proportion of surgeons offering vasectomy reversals without the use of microsurgical techniques/VE, there are some practitioners in Canada who continue to offer sub-standard surgery without the use of an operating microscope. My hope is that, with an ongoing focus on surgical quality, this guideline will help to encourage best practices across our field, and potentially help inform patients of the important information they need to know when selecting a surgeon to perform vasectomy reversal.

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