APPENDIX

A: Survey questions distributed to patients

**Question 1:** How many years have you been trying to conceive?
*Answers:*
<1, 1, 2, 3, 4, 5+

**Question 2:** How many children would you ideally like to have?
*Answers:*
1, 2, 3, 4+

**Question 3:** What treatments have you pursued for infertility so far?
*Answers [select multiple]:*
a. sperm retrieval (and any in-vitro fertilization (IVF) and/or intracytoplasmic sperm injection (ICSI) where sperm was injected into an egg); b. donor sperm; c. adoption; d. no further infertility treatment

**Question 4:** What is your highest level of education completed?
*Answers:*
Did not complete high school, high school, apprenticeship/trades diploma, college, CEGEP, or other non-university certificate/diploma, university undergrad, post grad degree, professional degree

**Question 5:** What is your approximate household income last year?
*Answers:*
<50,000/yr; 51-75,000/yr; 76-100,000/yr; 101-150,000/yr; 151-200,000/yr; 201-300,000/yr; >300,000/yr

**Question 6:** When treating fertility, no treatment option provides a 100% guarantee of success and patient and their physicians are often left choosing options with uncertain or minimal changes to a patient’s chance at successful sperm retrieval (finding or identifying sperm).

Currently when performing surgical sperm retrieval (often termed an mTESE) the average chance of identifying sperm is 50%.

What is the minimal improvement in sperm retrieval rate that you would find acceptable to tolerate an additional medication?
Wong J, et al. Patient and practitioner expectations for treatment of non-obstructive azoospermia

Answers:
5% improvement – increasing your chance of success from the baseline of 50% to a new chance of success of 55%, 10% – increasing your chance of success from the baseline of 50% to a new chance of success of 60%, 25% – increasing your chance of success from the baseline of 50% to a new chance of success of 75%, 50% – increasing your chance of success from the baseline of 50% to a new chance of success of 99%

Question 7: What is the minimal improvement in sperm retrieval rate that you would find acceptable to tolerate an additional procedure/surgery?

Answers:
5% improvement – increasing your chance of success from the baseline of 50% to a new chance of success of 55%, 10% – increasing your chance of success from the baseline of 50% to a new chance of success of 60%, 25% – increasing your chance of success from the baseline of 50% to a new chance of success of 75%, 50% – increasing your chance of success from the baseline of 50% to a new chance of success of 99%

Question 8: Currently, with combined surgical sperm retrieval (mTESE) and injection into an egg (in vitro fertilization (IVF) and/or intracytoplasmic sperm injection (ICSI), the chance of achieving pregnancy without guarantee of a live birth is approximately 25%.

What is the minimal improvement in pregnancy rate that you would find acceptable to tolerate an additional medication?

Answers:
5% improvement – increasing your chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing your chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing your chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing your chance of success from the baseline of 25% to a new chance of success of 75%

Question 9: What is the minimal improvement in pregnancy rate that you would find acceptable to tolerate an additional procedure/surgery?

Answers:
5% improvement – increasing your chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing your chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing your chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing your chance of success from the baseline of 25% to a new chance of success of 75%
Wong J, et al. Patient and practitioner expectations for treatment of non-obstructive azoospermia

**Question 10:** Currently, with combined surgical sperm retrieval (mTESE) and injection into an egg (in vitro fertilization (IVF) and/or intracytoplasmic sperm injection (ICSI), the chance of achieving pregnancy culminating in childbirth (live birth rate) is approximately 25%.

What is the minimal improvement in live birth rate that you would find acceptable to tolerate an additional medication?

*Answers:*
5% improvement – increasing your chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing your chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing your chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing your chance of success from the baseline of 25% to a new chance of success of 75%

**Question 11:** What is the minimal improvement in live birth rate that you would find acceptable to tolerate an additional procedure/surgery?

*Answers:*
5% improvement – increasing your chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing your chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing your chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing your chance of success from the baseline of 25% to a new chance of success of 75%

**Question 12:** Currently, average cost for fertility treatment in the form of sperm retrieval (mTESE) and insemination (IVF or ICSI) ranges from approximately $15,000 - $50,000. In addition to these current costs, how much maximum additional cost would you be willing to spend to achieve a:

5% improvement in live birth rate – increasing your chance of success from baseline of 25% to a new chance of success of 30%.

*Answers:* $0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

10% improvement in live birth rate – increasing your chance of success from baseline of 25% to a new chance of success of 35%.

*Answers:* $0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

25% improvement in live birth rate – increasing your chance of success from baseline of 25% to a new chance of success of 50%.

*Answers:* $0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

50% improvement in live birth rate – increasing your chance of success from baseline of 25% to a new chance of success of 75%.

*Answers:* $0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000
Wong J, et al. Patient and practitioner expectations for treatment of non-obstructive azoospermia

B: Survey questions distributed to urologists

Question 1: How many years have you been in practice?
Answers:
<5 years, 5-10 years, 10-15 years, >15 years

Question 2: Did you complete a fellowship that included treatment of male infertility?
Answers:
Yes, No

Question 3: How would you characterize your practice?
Answers:
Academic, community, both

Question 4: How many patients with non-obstructive azoospermia do you treat a year (approximately)?
Answers:
<10, 10-50, >50

Question 5: What is the minimal percent improvement in sperm retrieval rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional medication? (The current average sperm retrieval rate is approximately 50%)
Answers:
5% improvement – increasing the chance of success from the baseline of 50% to a new chance of success of 55%, 10% – increasing the chance of success from the baseline of 50% to a new chance of success of 60%, 25% – increasing the chance of success from the baseline of 50% to a new chance of success of 75%, 50% – increasing the chance of success from the baseline of 50% to a new chance of success of 99%

Question 6: What is the minimal percent improvement in sperm retrieval rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional procedure/surgery? (The current average sperm retrieval rate is approximately 50%)
Answers:
5% improvement – increasing the chance of success from the baseline of 50% to a new chance of success of 55%, 10% – increasing the chance of success from the baseline of 50% to a new chance of success of 60%, 25% – increasing the chance of success from the baseline of 50% to a new chance of success of 75%, 50% – increasing the chance of success from the baseline of 50% to a new chance of success of 99%
Question 7: What is the minimal percent improvement in clinical pregnancy rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional medication? (The current pregnancy rates are approximately 25%)

Answers:
5% improvement – increasing the chance of success from the baseline of 30% to a new chance of success of 35%, 10% – increasing the chance of success from the baseline of 30% to a new chance of success of 40%, 25% – increasing the chance of success from the baseline of 30% to a new chance of success of 55%, 50% – increasing the chance of success from the baseline of 30% to a new chance of success of 80%

Question 8: What is the minimal percent improvement in clinical pregnancy rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional procedure/surgery? (The current pregnancy rates are approximately 25%)

Answers:
5% improvement – increasing the chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing the chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing the chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing the chance of success from the baseline of 25% to a new chance of success of 75%

Question 9: What is the minimal percent improvement in live birth rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional medication? (The current live birth rate for couples who have to undergo microTESE sperm retrieval + IVF ICSI (in vitro fertilization and intracytoplasmic sperm injection) is 25%)

Answers:
5% improvement – increasing the chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing the chance of success from the baseline of 25% to a new chance of success of 35%, 25% – increasing the chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing the chance of success from the baseline of 25% to a new chance of success of 75%

Question 10: What is the minimal percent improvement in live birth rate for non-obstructive azoospermia, do you think patients would find acceptable to tolerate an additional procedure/surgery? (The current live birth rate for couples who have to undergo microTESE sperm retrieval + IVF ICSI (in vitro fertilization and intracytoplasmic sperm injection) is 25%)

Answers:
5% improvement – increasing the chance of success from the baseline of 25% to a new chance of success of 30%, 10% – increasing the chance of success from the baseline of 25% to a new chance of success of 35%
Wong J, et al. Patient and practitioner expectations for treatment of non-obstructive azoospermia

chance of success of 35%, 25% – increasing the chance of success from the baseline of 25% to a new chance of success of 50%, 50% – increasing the chance of success from the baseline of 25% to a new chance of success of 75%

**Question 11:** Currently, average cost for fertility treatment in the form of sperm retrieval (mTESE) and insemination (IVF or ICSI) ranges from approximately $15,000 - $50,000. In addition to these current costs, what maximum additional financial cost do you think patients would be willing to accrue to achieve an improvement in live birth rate:

5% improvement in live birth rate – increasing the chance of success from baseline of 25% to a new chance of success of 30%

*Answers:*
$0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

10% improvement in live birth rate – increasing the chance of success from baseline of 25% to a new chance of success of 35%.

*Answers:*
$0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

25% improvement in live birth rate – increasing the chance of success from baseline of 25% to a new chance of success of 50%.

*Answers:*
$0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000

50% improvement in live birth rate – increasing the chance of success from baseline of 25% to a new chance of success of 75%.

*Answers:*
$0, $5 000, $10 000, $15 000, $20 000, $25 000, $30 000, $35 000, $40 000