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?

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%

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

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%, 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