BORN Better Outcomes Registry & Network
Registre et Réseau des Bons Résultats dès la naissance

Data Elements in CARTR Plus through BORN Ontario
January 2019

The definitions used in this document are in agreement with the ones published by Zegers-Hochschild *et al*. The International Glossary on Infertility and Fertility Care, Human Reproduction, Vol. 32, No. 9, pp.1786-1801, 2017

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Patient Profile				
Clinic ID	Unique number assigned to clinic	Numeric	Identify source of data	
Patient name **Family name** **Given name**	Name of female or male patient who intends to raise the child For donor oocyte/embryo cycles, **the oocyte/embryo recipient is the patient** For same sex male couples, one of the male partners is the patient. A single male can be a patient. For same-sex females sharing eggs, the recipient is the patient and the egg provider is the egg donor/provider.	Text Field not available for Non-Ontario clinics due to privacy restrictions	1st patient identifier	Name of female or male patient who intends to raise the child Family name as it appears on official Health Card Given name as it appears on official Health Card For donor oocyte/embryo cycles, the oocyte/embryo recipient is the patient For same sex male couples, one of the male partners is the patient. A single male can be a patient. For same-sex females sharing eggs, the recipient is the patient and the egg provider is the egg donor/provider.
Patient gender	Gender of the patient	Sex – Female, Male, Non-Binary		Gender of the patient If transgendered, gender as self-identified at the time of cycle start. Some patients do not identify with either gender

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				(non-binary)
Patient DOB	Date of birth of patient	Date	2nd patient identifier	Date of birth of patient
Patient health card type	Type of health card provided by patient	Select one only 1. OHIP 2. RAMQ 3. Other 4. None Field not available for Non-Ontario clinics due to privacy restrictions		Type of health card provided by patient
Patient Health Card Number	Health card number of patient	Numeric Excluding version code Field not available for Non-Ontario clinics due to privacy restrictions	3rd patient identifier	Health card number of patient If OHIP number, use 10 digit number and exclude version number
Patient address: address	Residential street address of patient	Street address Field not available for Non-Ontario clinics due to privacy restrictions		
Patient address: city	Residential city address of patient	City/town name Field not available for Non-Ontario clinics due to privacy restrictions		
Patient address: postal code	Postal code of patient	Letters and numbers Field not available for Non-Ontario clinics due to privacy	4th patient identifier Important for socioeconomic studies	

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		restrictions		
Patient address: province	Province of residence of patient	Name of province Field not available for Non-Ontario clinics due to privacy restrictions		You may press "Ctrl+F" to search for a value or keyword
Patient address: country	Country of residence of patient	Name of country Field not available for Non-Ontario clinics due to privacy restrictions		You may press "Ctrl+F" to search for a value or keyword
Patient chart #	Patient unique identifier at the clinic level	Alpha-Numeric For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used (i.e., no patient name, initials, or complete health card number)	5th patient identifier - to be used when data must be de-identified prior to use Note that the same patient might have a different chart # in another clinic	The patient's unique file number assigned by care provider (e.g. chart number, client number) For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used (i.e., no patient name, initials, or complete health card number)
Patient notes	Generic text field to document notes related to patient profile	Text Field not available for Non-Ontario clinics due to privacy restrictions	The intent is to use this field for notes related to patient profile	Generic text field to document notes related to patient profile
Cycle Details Header				

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Cycle type	Primary cycle: A cycle that includes an oocyte collection that results in IVF, IVM, or Oocyte banking Secondary cycle: A cycle that does not include an oocyte collection but instead uses thawed oocytes or thawed embryos	Select one only Primary cycle: IVF IVM Oocyte banking Secondary cycle: Frozen oocyte IVF FET	Link outcomes to type of cycle	Primary cycle: A cycle that includes an oocyte collection that results in IVF, IVM, or Oocyte banking Secondary cycle: A cycle that does not include an oocyte collection but instead uses thawed oocytes or thawed embryos
Provincial funding for this cycle	Indicates whether or not there is provincial funding for this cycle.	Yes or no		Indicates whether or not there is provincial funding for this cycle.
If Provincially funded is yes, indicate type of funding	Indicates type of funding or support for this cycle.	1. Quebec open funded IVF 2. Ontario MoH transfer payment 3. Other - specify type of funding		Indicates type of funding or support for this cycle.

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Cycle ID	Primary cycle: Unique code used by clinic to identify a single oocyte collection (IVF, IVM or Oocyte banking cycle) Secondary cycle: Unique code used by clinic to identify an FET cycle or Frozen oocyte IVF cycle	Alpha-Numeric		Primary cycle: Unique code used by clinic to identify a single oocyte collection (IVF, IVM or Oocyte banking cycle) Secondary cycle: Unique code used by clinic to identify an FET cycle or Frozen oocyte IVF cycle If no cycle ID is created for a secondary cycle (Frozen oocyte IVF or FET), clinic can choose to use primary cycle ID with – 1,2,3, etc.
Cycle start date	Date of first dose of FSH in stimulated cycle or day 1 of cycle (LMP) for cycle with no stimulation For FET cycle or cycle using frozen oocytes, it can be LMP or start of monitoring	Date	Link outcomes to calendar year	Date of first dose of FSH in stimulated cycle or day 1 of cycle (LMP) for cycle with no stimulation For FET cycle or cycle using frozen oocytes, it can be LMP or start of monitoring
Patient age	Age of patient (female or male) at start of cycle	Numeric Automatically calculated using cycle start date and patient date of birth	Links outcomes to patient age	Age of patient (female or male) at start of cycle automatically calculated using cycle start date and patient date of birth

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Simulated primary cycle	A primary cycle that originally occurred either in another clinic and/or prior to January 1, 2013. A simulated cycle is also used to provide origin for donated oocytes in Frozen Oocyte IVF (FOIVF).	4 data elements: Cycle type ((IVF, IVM or Oocyte banking) Cycle ID Date of oocyte collection Age of oocyte provider at time of collection	Allow linkage of secondary cycle(s) such as Frozen oocyte IVF or FET, to a primary cycle (oocyte collection)	A primary cycle that originally occurred either in another clinic and/or prior to January 1, 2013 If the date of oocyte collection and/or age of oocyte provider at time of collection are not available, they can be set to unknown but this will limit the cycle's inclusion in analysis based on age of oocyte provider.
Origin of simulated cycle	Text field to document the clinic of origin of the oocytes or embryos	Text	Allow linkage of secondary cycle(s) such as Frozen oocyte IVF or FET, to a primary cycle (oocyte collection)	Text field to document the clinic of origin of the oocytes or embryos
Patient History Tab				
Prior pregnancies	Number of prior pregnancies for female patient with same or different partner, with or without ART including ectopic pregnancy	Numeric	Link outcomes to number of prior pregnancies	Number of prior pregnancies for female patient with same or different partner, with or without ART including ectopic pregnancy
Prior births	Number of prior births for female patient with same or different partner, with or without ART including stillbirth Birth of more than one baby (multiple birth) is defined as one birth	Numeric	Link outcomes to number of prior births	Number of prior births for female patient with same or different partner, with or without ART including stillbirth Birth of more than one baby (multiple birth) is defined as one birth

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Prior fresh cycles started, own oocytes	Number of prior initiated cycles (starts) for this patient, same clinic or other clinics Start defined as FSH received in a stimulated cycle or after monitoring started in a natural cycle	Numeric	Link outcomes to number of prior ovarian stimulations	Number of prior initiated cycles (starts) for this patient, same clinic or other clinics Start defined as FSH received in a stimulated cycle or after monitoring started in a natural cycle
Prior ETs (fresh or frozen) with own oocytes	Number of prior ET procedures (fresh or frozen) that patient had with her own oocytes ET using a surrogate is excluded	Numeric	Link outcomes to number of times embryos from own oocytes were transferred in this patient's uterus	Number of prior ET procedures (fresh or frozen) that patient had with her own oocytes ET using a surrogate is excluded
Prior ETs (fresh or frozen) with donor oocytes	Number of prior ET procedures (fresh or frozen) that patient had with donor oocytes ET using a surrogate is excluded	Numeric	Link outcomes to number of times embryos from donor oocytes were transferred in this patient's uterus	Number of prior ET procedures (fresh or frozen) that patient had with donor oocytes ET using a surrogate is excluded
Reasons for treatment cycle	Infertility diagnosis or other reasons for treatment cycle	Select all applicable 1. Endometriosis 2. Tubal factor 3. Diminished ovarian reserve 4. Male factor 5. No male partner 6. Poly Cystic Ovarian Syndrome (PCOS) 7. Other ovulatory disorders 8. Uterine factor	Link outcomes to original reasons for treatment	Reasons for treatment cycle Select all applicable 1. Endometriosis: A condition that involves endometrial tissue that normally lines the uterus growing outside the uterus. Endometriosis often the reproductive organs and may affect

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		9. Endocrine disorder 10. Other female factor 11. Gonadotoxic therapy 12. Oocyte banking-for non-cancer/non-medical treatment reasons including donation to commercial egg bank 13. Oocyte banking-cancer and other medical treatment 14. Embryo banking-for non-cancer/non-medical treatment reasons 15. Embryo banking-cancer and other medical treatment 16. PGT-M/SR for known genetic factor 17. PGT-A 18. Unexplained infertility 19. No female partner 20. Advanced maternal (age 35 or older) 21. Peritoneal factor or severe adhesions		fertility 2. Tubal factor: A condition where the fallopian tubes are blocked or damaged. Common causes include infection, surgery, endometriosis, ectopic pregnancy and tubal ligation. 3. Diminished ovarian reserve: Determined by assessment of ovarian reserve tests e.g., antral follicle count (AFC), day 3 FSH and/or anti-mullerian hormone (AMH) +/- patient age 4. Male factor: A condition that is characterized by problems with male ability to produce or deliver sperm, inadequate or abnormal sperm 5. No male partner: No partner to provide sperm. Would apply to single female patient or same-sex female couple 6. PCOS: A condition characterized by at least 2 of these 3

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				characteristics: (1) Oligo- and/or anovulation; (2) Clinical and/or biochemical signs of hyperandrogenism; or (3) Polycystic ovaries and exclusion of other aetiologies (congenital adrenal hyperplasia, androgen-secreting tumours, Cushing's syndrome. Rotterdam Criteria - Hum. Reprod. (2004) 19 (1): 41-47. 7. Other ovulatory disorders: Conditions whereby a female patient fails to ovulate regularly or the absence of ovulation other than PCOS 8. Other uterine factor: Conditions of the uterus that affect fertility such as but not limited to fibroids, cavitary scarring, structural abnormalities, polyps adenomyosis, or absence of the uterus 9. Endocrine Disorder – Disorders related to hormone production

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				(increase or decrease). 10. Other female factor: Any fertility factor not described above 11. Gonadotoxic therapy: Previous exposure to drugs that cause destruction of ovarian tissue or the ability of the ovaries to produce oocytes other than cancer therapy 12. Oocyte banking- for non-cancer/medical treatment reasons: Oocytes are cryopreserved for future use for non-cancer/medical reasons also termed 'deferred reproduction'. Oocyte donation to commercial egg bank is recorded here. 13. Oocyte banking-cancer and other medical treatment: Patient is about to undergo cancer or other medical treatment that can/will negatively affect fertility/cause sterility

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				14. Embryo banking- for non-cancer/medical treatment reasons: Deferred reproduction for other than cancer therapy e.g., military deployment, individual choice 15. Embryo banking-cancer and other medical treatment: Embryos are created and cryopreserved prior to the commencement of treatment for cancer/medical illness that can/will affect future fertility 16. PGT-M/SR for known genetic factor: Pre-implantation Genetic Testing for known genetic factor (M-monogenic/single gene defect; SR – chromosoma; structural rearrangement) whereby each embryo is tested for genetic abnormality(ies) in order to exclude these embryos from transfer to the uterus

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				17. PGT-A Pre-implantation Genetic Testing – A (aneuploidy) to determine that the embryo has a normal number of chromosomes to detect aneuploidy prior to transfer. May also be called Comprehensive Chromosome Screening (CCS) or Pre-Implantation Genetic Screening (PGS). 18. Unexplained infertility: A general term to refer to patients where no cause for infertility can be determined 19. No female partner: No female partner to carry the fetus. Would apply to single male patient or same-sex male couple. 20. Advanced maternal age: Women 35 years of age and older 21. Peritoneal factor or severe adhesions: A condition in which there is scarring or adhesions in the peritoneal cavity often due to previous

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				infection or surgery resulting
Reasons for male factor	Detailed male factor(s) related to reasons for treatment cycle Required if male factor is one of the reasons for treatment cycle	Select all applicable 1. Aspermia (no semen) 2. Azoospermia 3. Oligozoospermia 4. Oligoasthenoteratozoospermia (OAT) 5. Asthenozoospermia 6. Asthenoteratozoospermia 7. Hypospermia 8. Teratozoospermia 9. Globozoospermia 10. Necrozoospermia 11. High Sperm DNA Fragmentation 12. Retrograde Ejaculation 13. Erectile Dysfunction 14. Sperm Antibodies 15. Klinefelter Syndrome 16. Sperm banking-cancer treatment 17. Known genetic factor 18. Not specified 19. Other	Give details on the reasons for male factor	Detailed male factor(s) related to reasons for treatment cycle Select all applicable
Patient history notes	Generic text field to document notes related to this cycle	Text Field not available for Non-Ontario clinics due to privacy restrictions	The intent is to use this field for notes related to this cycle	Generic text field to document notes related to this cycle

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Stimulation Tab (primary cycle only)				
Age	Patient age at oocyte collection when using own oocytes or donor age at oocyte collection when using donor oocytes	Numeric	Link outcomes to age of oocyte provider	Patient age at oocyte collection when using own oocytes or donor age at oocyte collection when using donor oocytes Range 10-55 There is the ability to set the age to unknown if not available for donor oocytes but this will limit the cycle's inclusion in analysis based on age of oocyte provider.
Height	Height of oocyte provider	Numeric (cm)		Height of oocyte provider Must be reported in cm Must be between 90cm and 240cm
Weight	Weight of oocyte provider	Numeric with decimal (kg)		Weight of oocyte provider Must be reported in kg Must be between 25kg and 227kg
BMI	BMI of oocyte provider	Numeric with decimal (kg/m^2) If height (cm) and weight (kg) are entered, system will calculate automatically	Link outcomes to BMI of oocyte provider	Body Mass Index (in kg/m^2) of oocyte provider If height (cm) and weight (kg) are entered, system will calculate automatically
FSH Day 2-4	FSH level on day 2-4 of menstrual cycle of oocyte provider	Numeric with decimal (IU/L) Enter the value closest to this cycle	Marker of ovarian function Predictor of ovarian response	FSH level on day 2-4 of menstrual cycle of oocyte provider If multiple values available use

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				highest value
AFC	Antral Follicle Count (AFC) of oocyte provider	Numeric	Marker of ovarian function Predictor of ovarian response	Antral Follicle Count (AFC) of oocyte provider
AMH level	Anti-Mullerian Hormone level of oocyte provider	Numeric with decimal: Choose applicable values: 1. Ng/ml 2. Pmol/L	Marker of ovarian function Predictor of ovarian response	Anti-Mullerian Hormone level of oocyte provider Indicate applicable value for this lab test either ng/ml or pmol/L
Type of stimulation protocol	Ovarian stimulation protocol received by oocyte provider. In a donor oocyte cycle, the protocol is the one received by the donor and not recipient. Select one only: 1. **Natural cycle:** Oocyte collection from the ovaries during a natural menstrual cycle. No medications 2. **Modified natural cycle:** Oocyte collection during a natural menstrual cycle but drugs (GnRH-antagonist) administered to block spontaneous LH surge and (FSH) to maintain follicular growth. Examples of medications used: Cetrorelix acetate (Cetrotide), Ganirelix acetate (Orgulatran) 3. **Mild stimulation:**	Select one only 1. Natural cycle 2. Modified natural cycle 3. Mild stimulation 4. Antagonist 5. Long agonist 6. Flare agonist 7. Micro dose flare agonist 8. IVM protocol 9. Other	Link outcomes to controlled ovarian stimulation regimen Note: Any previous instances of 'Antagonist poor responder' will be updated to 'Antagonist'	Ovarian stimulation protocol received by oocyte provider. In a donor oocyte cycle, the protocol is the one received by the donor and not recipient. Select one only

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	Stimulation with lower dose gonadotropins (Long GnRH-agonist protocol) and/or other compounds to limit the number of oocytes to fewer than seven. Examples of medications used: Lower doses of: Leuprolide acetate (Lupron), Goserelin acetate (Zoladex), Buserelin acetate (Suprefact) 4. **Antagonist**: GnRH-antagonist protocol used in normal or poor responders. Examples of medications used: Cetrorelix acetate (Cetrotide), Ganirelix acetate (Orgulatran) 5. **Long agonist:** Long GnRH-agonist protocol started in the mid-luteal phase of the preceding cycle. Examples of medications used: Leuprolide acetate (Lupron), Goserelin acetate (Zoladex), Buserelin acetate (Suprefact) 6. **Flare agonist**: Short GnRH-			

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	agonist protocol in which injection of gonadotropins is commenced a few days after the start of GnRH agonist. Examples of medications used: Leuprolide acetate (Lupron), Goserelin acetate (Zoladex), Buserelin acetate (Suprefact) 7. **Micro dose flare agonist:** Short GnRH –agonist protocol using a micro-dose of GnRH -agonist. Examples of medications used: Leuprolide acetate (Lupron), Goserelin acetate (Zoladex), Buserelin acetate (Suprefact 8. **IVM protocol:** Protocol designed to collect immature oocytes for in vitro maturation **9. Other**			
Other type of stimulation protocol description	Description of other type of stimulation protocol used in this cycle	Text Applicable if "other" is selected for "type of stimulation protocol"	Link outcomes to controlled ovarian stimulation regimen	Description of other type of stimulation protocol used in this cycle

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Medication for COS	Medication received by oocyte provider for controlled ovarian stimulation (COS) 1. None – no drugs administered 2. Clomiphene citrate – e.g., Clomid, Serophene 3. Aromatase inhibitor – e.g., Femara, Letrozole 4. OCP – e.g., Marvelon 5. Estrogen (e.g., patch, oral) – e.g., Estradot, Climara, Estrace 6. hMG – e.g., Repronex 7. HP-hMG – e.g., Menopur 8. rec-FSH – e.g., Gonal-f, Puregon 9. u-FSH – e.g., Bravelle 10. hr-FSH – e.g., Rekovelle 11. rec-LH – e.g., Luveris 12. u-hCG – e.g., Pregnyl, hCG 10,000 (PPC) 13. rec-hCG – e.g., Ovidrel 14. Other – other medications not mentioned in this list 15. Research Study – Information Blinded Note: Agonist or antagonist drugs are included under "Type of Stimulation Protocol"	Select all applicable 1. None 2. Clomiphene citrate 3. Aromatase inhibitor 4. OCP 5. Estrogen (e.g., patch, oral) 6. hMG 7. HP-hMG 8. rec-FSH 9. u-FSH 10. hr-FSH 11. rec-LH 12. u-hCG 13. rec-hCG 14. Other 15. Research Study – Information Blinded	Link outcomes to medication received	Medication received by oocyte provider for controlled ovarian stimulation (COS) 1. None – no drugs administered 2. Clomiphene citrate – e.g., Clomid, Serophene 3. Aromatase inhibitor – e.g., Femara, Letrozole 4. OCP – e.g., Marvelon 5. Estrogen (e.g., patch, oral) – e.g., Estradot, Climara, Estrace 6. hMG – e.g., Repronex 7. HP-hMG – e.g., Menopur 8. rec-FSH – e.g., Gonal-f, Puregon 9. u-FSH – e.g., Bravelle 10. hr-FSH – e.g., Rekovelle 11. rec-LH – e.g., Luveris 12. u-hCG – e.g., Pregnyl, hCG 10,000 (PPC) 13. rec-hCG – e.g., Ovidrel 14. Other – other medications not mentioned in this list 15. Research Study – Information Blinded Note: Agonist or antagonist drugs are included under "Type of Stimulation Protocol"

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Other medication for COS description	Description of other medications used for COS in this cycle	Text Applicable if "other" is selected for "medication for COS"	Link outcomes to medication received	Description of other medications used for COS in this cycle
Adjuvant medication	Medication received by oocyte provider to modify the effect of the gonadotropins	Select all applicable 1. Growth Hormone 2. DHEA 3. CoQ10 4. Steroid (dexamethasone, prednisone, decadron) 5. Sildenafil 6. Thyroid medication (topical, patch) 7. Testosterone patch 8. Aspirin 9. Metformin 10. Dopamine Receptor Agonist (cabergoline, dostinex, cabaser) 11. Other 12. None	Link outcomes to medication received	Medication received by oocyte provider to modify the effect of the gonadotropins Select all applicable
Other adjuvant medication description	Description of other adjuvant medications used in this cycle	Text Applicable if "other" is selected for "adjuvant medication"	Link outcomes to medication received	Description of other adjuvant medications used in this cycle
Trigger medication	Medication received by oocyte provider to complete oocyte maturation before collection	Select one only 1. u-hCG 2. rec-hCG 3. GnRH agonist 4. rec-hCG + GnRH agonist 5. u-hCG + GnRH agonist	Link outcomes to medication received	Medication received by oocyte provider to complete oocyte maturation before collection If more than one medication is used, enter "other" and

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		6. None 7. Other If more than one medication is used, enter "other" and describe under "other trigger medication description"		describe under "other trigger medication description"
Other trigger medication description	Description of other trigger medications used in this cycle	Text Applicable if "other" is selected for "trigger medication"	Link outcomes to medication received	Description of other trigger medications used in this cycle
No. of days of gonadotropins	Number of days of stimulation from 1st day of FSH to trigger day or day of cancellation	Numeric	Link outcomes to medication received	Number of days of stimulation from 1st day of FSH to trigger day or day of cancellation
Total dose of FSH	Total IU of FSH received in cycle – does not include dose of LH	Numeric (IU) include values for IU	Link outcomes to medication received	Total IU of FSH received in cycle – does not include dose of LH
Total dose of FSH Rekovelle in mcg	Total mcg dose of Rekovelle FSH received in cycle – does not include dose of LH. *Conversion to IU is not available and must be stored distinctly.	Numeric (mcg)	Link outcomes to medication received	Total mcg of Rekovelle FSH received in cycle – does not include dose of LH.
Total dose of LH	Total dose of LH in IU	Numeric in IU	Link outcomes to medication received	Total dose of LH in IU
# of follicles <15mm	Number of small, growing follicles (<15mm) at trigger or cancellation	Numeric	Marker of ovarian response to stimulation regimen	Number of small, growing follicles (<15mm) at trigger or cancellation
# of follicles ≥15mm	Number of large, growing follicles (≥15 mm) at trigger or	Numeric	Marker of ovarian response to stimulation regimen	Number of large, growing follicles (≥15 mm) at trigger or

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	cancellation			cancellation
Estradiol level	Serum Estradiol value within one day of trigger or cancellation	Numeric with decimal (pmol/L)	Marker of ovarian response to stimulation regimen	Serum Estradiol value within one day of trigger or cancellation
Progesterone level	Serum Progesterone value within one day of trigger or cancellation	Numeric with decimal (nmol/L)	Marker of ovarian response to stimulation regimen	Serum Progesterone value within one day of trigger or cancellation
Endometrial thickness Fresh cycle	Thickness of endometrium within a few days of trigger or cancellation	Numeric with decimal (mm) Does not apply when donor oocytes are used or when "freeze-all cycle" is intended, the recipient endometrial thickness is entered in the "transfer" tab	Marker of uterine receptivity	Thickness of endometrium within a few days of trigger or cancellation Does not apply when donor oocytes are used or if a freeze-all cycle is intended, the recipient endometrial thickness is entered in the "transfer" tab
Cycle cancelled before retrieval	Cycle in which ovarian stimulation or monitoring has been carried out with the intention to treat, but did not proceed to oocyte collection	Yes or no	Capture all initiated cycles for patient	Cycle in which ovarian stimulation or monitoring has been carried out with the intention to treat, but did not proceed to oocyte collection
Reason cancelled	Reason for cancellation of oocyte collection	Select all applicable 1. Patient illness 2. Patient personal reason 3. Patient error 4. Low ovarian response 5. High ovarian response 6. Premature ovulation 7. Premature luteinisation 8. Donor illness	Explain cancellation of oocyte collection	Reason for cancellation of oocyte collection Select all applicable

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		9. Donor personal reason 10. Donor error 11. No access to ovaries 12. Other		
Other reason cancelled description	Description of other reasons for cancellation of oocyte collection	Text Applicable if "other" is selected for "reason cancelled"	Explain cancellation of oocyte collection	Description of other reasons for cancellation of oocyte collection
Stimulation notes	Generic text field to document notes related to stimulation of oocyte provider	Text For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	The intent is to use this field for notes related to stimulation of oocyte provider	Generic text field to document notes related to stimulation of oocyte provider For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used
Oocyte & Sperm Collection Tab (primary cycle only)				
Oocyte collection date	Date of oocyte collection	Date	Link outcomes to calendar year Used to calculate ET day (i.e. day 2, 3, 4, 5, or 6)	Date of oocyte collection
Oocyte thaw date	Date of oocyte thawing/warming	Date	Link outcomes to calendar year Used to calculate ET day (i.e. day 2, 3, 4, 5, or 6)	Date of oocyte thawing/warming
Freeze ID #1 of thawed oocytes	Unique code originally assigned to the oocyte cohort at freezing For frozen oocytes received	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the oocyte cohort at freezing For frozen oocytes received

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	from another clinic, code given by the receiving clinic to that cohort of oocytes			from another clinic, code given by the receiving clinic to that cohort of oocytes
Freeze ID #2 of thawed oocytes	Unique code originally assigned to the oocyte cohort at freezing if two oocyte cohorts are used at same time For frozen oocytes received from another clinic, code given by the receiving clinic to that cohort of oocytes	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the oocyte cohort at freezing if two oocyte cohorts are used at same time For frozen oocytes received from another clinic, code given by the receiving clinic to that cohort of oocytes
Oocyte origin	Origin of the oocytes to be used	Select all applicable 1. Fresh own oocytes 2. Frozen own oocytes 3. Fresh partner oocytes 4. Frozen partner oocytes 5. Fresh donor oocytes 6. Frozen donor oocytes	Link outcomes to origin of oocytes used to create embryos	Origin of the oocytes to be used. Choose partner oocytes when same-sex female partner provides oocytes for same-sex partner to be the embryo recipient
Oocyte donor/provider ID Code #	Unique code to identify the oocyte donor/provider if not 'own' oocytes	Alpha-Numeric For non-Ontario clinics, no patient identifying information, or parts thereof, can be used (i.e., no patient name, initials, or complete health card number)	Link outcomes to origin of oocytes used to create embryos	Unique code to identify the oocyte donor/provider

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Oocyte donor/provider source	Unique name of commercial oocyte bank for oocytes sourced from commercial egg bank or chart number of donor patient (if donated at same clinic).	Alpha-Numeric	Link outcomes to origin of oocytes used to create embryos	Unique name of commercial oocyte bank for oocytes sourced from commercial egg bank or chart number of donor patient (if donated at same clinic).
Oocyte donor/provider status	Type of donation when not 'own' oocytes	Select all applicable 1. Anonymous 2. Non-anonymous 3. Anonymous oocyte sharing 4. Non-anonymous oocyte sharing 5. Anonymous from commercial oocyte bank	For traceability purposes	Type of donation For same-sex female partner oocyte provider, choose non-anonymous. If oocyte provider intends to keep some oocytes for own use, choose non-anonymous or anonymous oocyte sharing, whichever applies. Select all applicable
# of oocytes retrieved or thawed	Number of cumulus-oocyte complexes (COCs) collected and/or number of oocytes thawed	Numeric	Marker of ovarian response in fresh cycle	Number of cumulus-oocyte complexes (COCs) collected and/or number of oocytes thawed
# of oocytes cryopreserved	Number of oocytes frozen or vitrified in an oocyte banking cycle or an IVF cycle e.g. no sperm were available	Numeric	For traceability purposes	Number of oocytes frozen or vitrified in an oocyte banking cycle or an IVF cycle e.g. no sperm were available
Oocyte freeze ID	Unique code to identify that cohort of frozen oocytes	Alpha-Numeric	For traceability purposes	Unique code to identify that cohort of frozen oocytes
Oocyte freeze date	Date of oocyte cryopreservation	Date	For traceability purposes	Date of oocyte cryopreservation
Oocyte cryo method	Type of method used to cryopreserve the oocytes	Select one only 1. Slow freezing 2. Vitrification	Link outcomes post thaw/warm to methodology used	Type of method used to cryopreserve the oocytes

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		3. Mixed		
Sperm origin	Origin of male gametes used to create embryos	Select all applicable 1. Fresh own/ sperm 2. Fresh partner sperm 3. Frozen own sperm 4. Frozen partner sperm 5. Frozen donor sperm	Link outcomes to origin of spermatozoa used to create embryos	Origin of male gametes used to create embryos Select all applicable
Age of sperm provider	Age of sperm provider at date of sperm collection	Numeric Do not enter if more than one sperm provider is used in this cycle or if sperm from more than one collection date is used in this cycle (e.g. fresh and frozen sperm used)	Link outcomes to sperm quality	Age of sperm provider at date of sperm collection Do not enter if more than one sperm provider is used in this cycle or if sperm from more than one collection date is used in this cycle (e.g. fresh and frozen sperm used)
Sperm donor ID	Unique code to identify the sperm donor	Alpha-Numeric	For traceability purposes	Unique code to identify the sperm donor
Sperm donor bank	Unique code/name of sperm bank used to obtain donor sperm	Alpha-Numeric	For traceability purposes	Unique code/name of sperm bank used to obtain donor sperm
Sperm donor status	Type of donation	1. Anonymous 2. Non-anonymous	For traceability purposes	Type of donation
Sperm source	Source of collected sperm (for partner if both partner and donor sperm used)	Select one only 1. Semen 2. Epididymal 3. Urine (retrograde) 4. Testicular- NOA 5. Testicular- OA	Link outcomes to sperm maturity	Source of collected sperm (for partner if both partner and donor sperm used) Select one only
Semen volume	Volume of fresh (neat, pre-wash) semen sample - only	Numeric with decimal (mL)	Allow to calculate total motile count	Volume of fresh (neat, pre-wash) semen sample - only

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	applicable for fresh partner semen			applicable for fresh partner semen
Sperm too low to count	Too few sperm to make an accurate count	Yes or no	Explain reason for no sperm count entered	Too few sperm to make an accurate count
Sperm count	Sperm concentration in fresh (neat, pre-wash) semen sample – only applicable for fresh partner semen	Numeric with decimal (million/mL) Not relevant for other sources of sperm – i.e. counts for epididymal/testicular sperm are inaccurate	Link outcomes to semen quality	Sperm concentration in fresh (neat, pre-wash) semen sample – only applicable for fresh partner semen
Sperm motility	Percentage of motile sperm in fresh (neat, pre-wash) semen sample – only applicable for fresh partner semen	Numeric (%) Not relevant for other sources of sperm – i.e. motility is expected to be very low for all epididymal/testicular samples	Link outcomes to semen quality	Percentage of motile sperm in fresh (neat, pre-wash) semen sample – only applicable for fresh partner semen
Oocyte & sperm collection notes	Generic text field to document notes related to oocyte and sperm collection	Text For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	The intent is to use this field for notes related to oocyte and sperm collection	Generic text field to document notes related to oocyte and sperm collection For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used
Embryology Tab				
Insemination method	Method(s) used to inseminate the oocytes and on which day(s) post oocyte collection	Select all applicable 1. Conventional IVF on day 0 2. IVF on day 0 with rescue ICSI 3. ICSI on day 0	Link outcomes to insemination method and time post oocyte collection	Method(s) used to inseminate the oocytes Select all applicable

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		4. ICSI on day 1 5. ICSI on day 2 6. ICSI on day 3 7. Not done 8. IVF using vaginal incubator device		
# oocytes inseminated/ injected	Number of COCs inseminated by conventional IVF and/or number of oocytes injected by ICSI	Numeric	Link outcomes to total number of "used" oocytes	Number of COCs inseminated by conventional IVF and/or number of oocytes injected by ICSI
# oocytes not used	Number of COCs collected in a fresh cycle or number of thawed/warmed oocytes that were not used in this cycle	Numeric	For traceability purposes	Number of COCs collected in a fresh cycle or number of thawed/warmed oocytes that were not used in this cycle
Reasons for no use	Reasons for not using some of the COCs or thawed/warmed oocytes	Select all applicable 1. Immaturity 2. Degeneration 3. Abnormal 4. Religious belief 5. No sperm 6. Inadequate number of sperm 7. Donated to another patient 8. Donated to research 9. Information not available	For traceability purposes	Reasons for not using some of the COCs or thawed/warmed oocytes Select all applicable
# of MII oocytes	Number of MII oocytes injected and/or number of MII oocytes on day 1 after conventional IVF (not possible to have an accurate value on day 0 in conventional IVF)	Numeric	Clarify number of mature oocytes collected and used in this cycle	Number of MII oocytes injected and/or number of MII oocytes on day 1 after conventional IVF (not possible to have an accurate value on day 0 in conventional IVF)

Data Element	Definition	Data Type and Value	Justification	Field Level Help
# with normal fertilization (2PN)	Number of zygotes with normal fertilization, i.e. 2PN	Numeric	Marker of oocyte and sperm quality	Number of zygotes with normal fertilization, i.e. 2PN
# utilizable embryos	Number of embryos utilizable by the end of the culture period regardless if surplus embryos were frozen or not	Numeric	Clarify number of embryos created and number utilizable by the end of the culture period	Number of embryos utilizable by the end of the culture period regardless if surplus embryos were frozen or not
# embryos cryopreserved	Number of embryos frozen or vitrified in this cycle	Numeric	For traceability purpose	Number of embryos frozen or vitrified in this cycle
Reason for embryo cryopreservation	Reason for embryo preservation	Select one: 1. Later own use 2. Later donation 3. PGT-A testing (batching) 4. PGT-M/PGT-SR testing (batching) 5. Other	Provides information on reasons for embryo freezing in addition to later use by patient	
Embryo stage at freezing	Embryo stage at time of cryopreservation	Select all applicable 1. 2PN 2. Cleavage stage 3. Morula 4. Blastocyst 5. Unknown	Link outcome post thaw/warm to embryo stage at time of cryopreservation	Embryo stage at time of cryopreservation Select all applicable
Embryo cryo method	Method used to cryopreserve the embryos	Select one only 1. Slow freezing 2. Vitrification 3. Mixed	Link outcomes post thaw/warm to methodology used	Method used to cryopreserve the embryos
Embryo freeze ID #1	Unique code to identify freeze of first batch of embryos from this cycle	Alpha-Numeric	For traceability purposes	Unique code to identify freeze of first batch of embryos from this cycle
Embryo freeze date #1	Date associated with freeze of first batch of embryos from this cycle	Date	For traceability purposes	Date associated with freeze of first batch of embryos from this cycle

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Embryo freeze ID #2	Unique code to identify freeze of second batch of embryos from this cycle	Alpha-Numeric	For traceability purposes	Unique code to identify freeze of second batch of embryos from this cycle
Embryo freeze date #2	Date associated with freeze of second batch of embryos from this cycle	Date	For traceability purposes	Date associated with freeze of second batch of embryos from this cycle
Embryo freeze ID #3	Unique code to identify freeze of third batch of embryos from this cycle	Alpha-Numeric	For traceability purposes	Unique code to identify freeze of third batch of embryos from this cycle
Embryo freeze date #3	Date associated with freeze of third batch of embryos from this cycle	Date	For traceability purposes	Date associated with freeze of third batch of embryos from this cycle
Embryo freeze ID #4	Unique code to identify freeze of fourth batch of embryos from this cycle	Alpha-Numeric	For traceability purposes	Unique code to identify freeze of fourth batch of embryos from this cycle
Embryo freeze date #4	Date associated with freeze of fourth batch of embryos from this cycle	Date	For traceability purposes	Date associated with freeze of fourth batch of embryos from this cycle
Embryo thaw date	Date of embryo thawing/warming with the intent of transferring them in an FET cycle	Date	For traceability purposes	Date of embryo thawing/warming with the intent of transferring them in an FET cycle
Freeze ID #1 of thawed embryos	Unique code originally assigned to the embryo cohort at freezing For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the embryo cohort at freezing For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos
Freeze ID #2 of thawed embryos	Unique code originally assigned to the second	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the second

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	embryo cohort at freezing if more than one cohort used For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos			embryo cohort at freezing if more than one cohort used For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos
Freeze ID #3 of thawed embryos	Unique code originally assigned to the third embryo cohort at freezing if more than two cohorts used For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the third embryo cohort at freezing if more than two cohorts used For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos
Freeze ID #4 of thawed embryos	Unique code originally assigned to the fourth embryo cohort at freezing if more than three cohorts used For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos	Alpha-Numeric	For traceability purposes	Unique code originally assigned to the fourth embryo cohort at freezing if more than three cohorts used. Unique code originally assigned to the embryo cohort at freezing. For frozen embryos received from another clinic, code given by receiving clinic for that cohort of embryos.
Donated embryo	Indicate whether or not embryos are donated	Yes or no	For traceability purposes	Indicate whether or not embryos are donated

Data Element	Definition	Data Type and Value	Justification	Field Level Help
# embryos thawed	Number of embryos thawed/warmed in this FET cycle	Numeric	For traceability purposes	Number of embryos thawed/warmed in this FET cycle
Embryo stage at thawing	Type of embryos thawed/warmed in this FET cycle	Select all applicable 1. 2PN 2. Cleavage stage 3. Morula 4. Blastocyst 5. Unknown	Link outcomes post thaw/warm to stage at freezing	Type of embryos thawed/warmed in this FET cycle Select all applicable
Embryo cryo method	Method used to cryopreserve the thawed/warmed embryos	Select one only 1. Slow freezing 2. Vitrification 3. Mixed	Link outcomes post thaw/warm to cryo methodology	Method used to cryopreserve the thawed/warmed embryos
# utilizable embryos after thaw	Number of thawed/warmed embryos utilizable for transfer or refreezing by end of culture post thaw/warm	Numeric	Marker of embryo quality pre-freeze and cryopreservation methodology	Number of thawed/warmed embryos utilizable for transfer or refreezing by end of culture post thaw/warm
Embryology notes	Generic text field to document notes related to embryology	Text For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	The intent is to use this field for notes related to embryology	Generic text field to document notes related to embryology For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used
Transfer Tab				
Embryo transfer	Transfer of embryos into uterine cavity of patient or surrogate in a fresh or frozen cycle	Yes or no Select NO if transfer was attempted but was not successful	For traceability purposes	Transfer of embryos into uterine cavity of patient or surrogate in a fresh or frozen cycle Select NO if transfer was

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				attempted but was not successful
Reason for no ET	Reason for no embryo transfer	Select one only 1. No oocytes 2. No utilizable oocytes 3. No normal fertilization 4. No utilizable embryos 5. No sperm 6. Freeze all, OHSS risk 7. Freeze all, PGT-A 8. Freeze all, PGT-M/PGT-SR 9. Freeze all, other reason than OHSS risk or PGT 10. Freeze all, other reason than OHSS risk (unknown if PGT 11. Inadequate uterine lining 12. Patient choice *: Value used for historical data as well as to temporarily support upload sites during EMR updates of new changes	Clarify reason for no ET	If embryo transfer is not done, indicate the reason Select one only
Preparation of uterine lining	Protocol used to prepare the uterine lining before transfer	1. Hormone replacement cycle 2. Natural cycle 3. COS	Link outcomes to uterine lining preparation	Protocol used to prepare the uterine lining before transfer
Endometrial thickness	Thickness of endometrium within a few days of transfer	Numeric with decimal (mm)	Marker of uterine receptivity	Thickness of endometrium within a few days
Transfer date	Date of embryo transfer	Date If embryos are transferred on more than one day, enter the	Used to calculate length of time embryos have been cultured on the transfer day,	Date of embryo transfer If embryos are transferred on more than one day, enter the

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		first transfer date	i.e. day 2, 3, 4, 5, 6	first transfer date
ET date adjusted due to endometrial receptivity test biopsy result	Indicates whether transfer date has been adjusted due to ERA biopsy	Yes or no	Helps to explain why transfer date might be earlier or later than expected	Indicates whether transfer date has been adjusted due to endometrial receptivity testing e.g., ERA biopsy
ET ultrasound-guided	Placement of the embryos in the uterine cavity done with ultrasound guidance	Yes or no	Clarify approach used for embryo transfer	Placement of the embryos in the uterine cavity done with ultrasound guidance
Assisted zona hatching	Method used to thin or perforate the zona before transfer, for all or some embryos	1. None 2. Mechanical 3. Laser 4. Acid 5. Enzyme Zona manipulation for PGS or PGD is excluded	Link outcomes to the manipulation of the zona pellucida pre transfer	Method used to thin or perforate the zona before transfer, for all or some embryos Zona manipulation for PGS/PGD is excluded
# embryos transferred	Number of embryos transferred fresh and/or thawed/warmed, including thawed embryos added to a fresh transfer	Numeric Include all embryos transferred even if on different days	Link outcomes to number of embryos transferred	Number of embryos transferred fresh and/or thawed/warmed, including thawed embryos added to a fresh transfer Include all embryos transferred even if on different days

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Elective Single Embryo Transfer (eSET)	Transfer of one (eSET) embryo selected from a larger cohort of utilizable embryos	Yes or no	Link outcomes to number of embryos transferred electively vs. non-electively due to poor embryo cohort	Transfer of one (eSET) embryo selected from a larger cohort of utilizable embryos If the clinic only thaws one embryo with the intention of an eSET, it can still be called an eSET if there are more embryos left in freezer.
Source of transferred embryos	Origin of embryos for this transfer	Select all applicable 1. Fresh embryos from own oocytes-partner sperm 2. Fresh embryos from own oocytes-donor sperm 3. Fresh embryos from donor oocytes-partner sperm 4. Fresh embryos from partner oocytes-donor sperm 5. Fresh embryos from donor oocytes-own sperm 6. Fresh embryos from donor oocytes-donor sperm 7. Frozen embryos from own oocytes-partner sperm 8. Frozen embryos from own oocytes-donor sperm 9. Frozen embryos from partner oocytes-donor sperm 10. Frozen embryos from	Link outcomes to origin of embryos This becomes important for linkage with congenital anomalies in offspring as cycles are becoming more complex with the use of own and donor gametes in a single cycle	Origin of embryos for this transfer Select all applicable

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		donor oocytes-own sperm 11. Frozen embryos from donor oocytes-partner sperm 12. Frozen embryos from donor oocytes-donor sperm 13. Frozen embryo was previously thawed and refrozen 14. Unable to provide		
Insemination method	Insemination of this transferred embryo(s)	1. Conventional IVF 2. ICSI 3. Mixed 4. Unknown	Allows better tracking of offspring created by each insemination method	Indicates whether this embryo has been created by which insemination method
Pre-Implantation Genetic Testing done	Indicates whether the embryos being transferred have has pre-implantation genetic testing done	5. Yes or no		Indicates whether the transferred embryo(s) has had pre-implantation genetic testing of any kind performed
Characteristics of transferred embryos	Provides information of embryo testing if done)	Choose one: 1. Utilizable (untested) 2. Euploid after PGT-A testing 3. Aneuploid after PGT-A testing 4. Mosaic after PGT-A testing 5. Free of genetic disease after PGT-M/PGT-SR testing 6. Unknown result after any PGT testing 7. Embryo after		

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		mitochondrial manipulation (e.g., Augment)		
Number of thaws for the transferred embryo(s) this embryo	Number of times transferred embryo has been thawed and refrozen	1. One 2. Two 3. Three 4. More than three 1. Unknown	To identify embryos that have been frozen and thawed more than once prior to transfer. If more than one embryo is transferred, indicate the embryo that has been thawed and refrozen the highest number of times.	Number of times transferred embryo has been thawed and refrozen. If more than one embryo is transferred, indicate the embryo that has been thawed and refrozen the highest number of times.
Site of PGT testing of embryo	Indicates the site where cells were removed during PGT testing	2. Blastomere 3. Polar body 4. Trophectoderm 5. Inner cell mass 6. Unknown	To track whether there is any impact on the embryo/fetus depending of the testing site	Indicates origin of cell removal for testing.
Gestational Carrier (surrogate)	A woman who carries a pregnancy with an agreement that she will give the offspring to the intended parent(s) Gametes can originate from the intended parent(s) and/or a third party (parties)	Yes or no	Clarify link between outcomes and gamete providers only if gestational carrier ID is traceable to original treatment cycle	A woman who carries a pregnancy with an agreement that she will give the offspring to the intended parent(s) Gametes can originate from the intended parent(s) and/or a third party (parties)
Gestational carrier (surrogate) chart #	Gestational Carrier unique identifier at the clinic level	Alpha-Numeric For non-Ontario clinics, no patient identifying information, or parts thereof, can be used (i.e., no patient name, initials, or complete	For traceability purposes Note that the same woman might have a different chart # in another clinic	Gestational Carrier unique identifier at the clinic level

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		health card number)		
Height of embryo recipient	Height of female patient at ET or FET, or height of surrogate receiving the embryos	Numeric (cm) This field is automatically filled in with the height of the oocyte provider If donor oocytes or a gestational carrier is used, this field should be filled in manually		Height of female patient at ET or FET, or height of surrogate receiving the embryo This field is automatically filled in with the height of the oocyte provider If donor oocytes or a gestational carrier is used, this field should be filled in manually
Weight of embryo recipient	Weight of female patient at ET or FET, or weight of surrogate receiving the embryos	Numeric with decimal (kg) This field is automatically filled in with the weight of the oocyte provider If donor oocytes or a gestational carrier is used, this field should be filled in manually		Weight of female patient at ET or FET, or weight of surrogate receiving the embryo This field is automatically filled in with the weight of the oocyte provider If donor oocytes or a gestational carrier is used, this field should be filled in manually
BMI of embryo recipient	BMI of female patient at ET or FET, or BMI of surrogate receiving the embryos	Numeric with decimal (kg/m^2)	Link outcomes to BMI of embryo recipient	Body Mass Index (in kg/m^2) of female patient at ET or FET, or BMI of surrogate receiving the embryo If height and weight are entered, BMI will be calculated

Data Element	Definition	Data Type and Value	Justification	Field Level Help
				automatically when the SAVE or PROCEED button is clicked BMI can be entered directly
Transfer notes	Generic text field to document notes related to embryo transfer	Text For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	The intent is to use this field for notes related to embryo transfer	Generic text field to document notes related to embryo transfer For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used
Treatment & Pregnancy Outcome Tab				
Complications	Complications experienced by patient/oocyte donor during this cycle	Select all applicable 1. None 2. IVF medication side effect requiring change in intended treatment 3. Adverse reaction to anaesthetic 4. Moderate/Severe OHSS requiring paracentesis 5. Moderate/Severe OHSS requiring culdocentesis 6. Moderate/Severe OHSS requiring pleural drainage or thoracentesis 7. OHSS requiring IV hydration 8. Infection 9. Haemorrhage requiring	ART safety monitoring element	Complications experienced by patient/ oocyte donor during this cycle Select all applicable Enter “none” for complications not on this list

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		blood transfusion 10. Thromboembolism 11. Ovarian torsion 12. Bladder/Bowel injury 13. Patient death 14. Electrolyte disturbance 15. Kidney problems 16. Ovarian rupture Enter "none" for complications not on this list		
Hospitalization	The patient was hospitalized as a result of complications	Yes or no	ART safety monitoring element	The patient was hospitalized as a result of complications
Treatment outcome	Outcome of treatment cycle	Select one only 1. Cycle not completed to transfer 2. Negative β-hCG 3. Positive β-hCG 4. Unknown 5. Cycle cancelled Patient lost in follow-up is included as unknown	Effectiveness of treatment	Outcome of treatment cycle To be completed for ALL treatment cycles (except Oocyte Banking and Simulated Primary Cycles), including cycles that were cancelled after start of stimulation and prior to egg collection, had no insemination, no fertilization, or no embryo transfer Patients lost in follow-up are included as unknown

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Type of pregnancy	Type of pregnancy achieved	Select one only 1. Not pregnant 2. Biochemical 3. Ectopic 4. Clinical Intrauterine 5. Heterotopic 6. Unknown 7. Molar Pregnancy	Effectiveness of treatment	Type of pregnancy achieved Select one only
# US fetal sacs	Number of gestational sacs (includes ectopic and heterotopic) by ultrasonographic visualization at ≈6-8 weeks	Numeric	Marker of implantation when divided by the number of embryos transferred	Number of gestational sacs (includes ectopic and heterotopic) by ultrasonographic visualization at ≈6-8 weeks
# US fetal hearts	Number of fetal hearts (includes ectopic or heterotopic) by ultrasonographic visualization at ≈6-8 weeks	Numeric If a later ultrasound showed more fetal hearts, enter the later results	Marker of pregnancy viability and used to calculate multiple pregnancy rate by dividing number of treatment cycles where more than 1 FH was observed by number of treatment cycles where one or more FH were observed	Number of fetal hearts (includes ectopic or heterotopic) by ultrasonographic visualization at ≈6-8 weeks If a later ultrasound showed more fetal hearts, enter the later results
Chorionicity	The nature of the chorions from which individuals are derived e.g., within the same chorion (monochorionic or 1), dichorionic twins develop within their own chorion (2), trichorionic (3), and quadrachorionic (4)	Select one only 1. 1 chorion 2. 2 chorion 3. 3 chorion 4. 4 chorion 5. Unknown	Marker of high risk pregnancy	The nature of the chorion from which individuals are derived e.g., within the same chorion (monochorionic or 1), dichorionic twins develop within their own chorion (2), trichorionic (3), and quadrachorionic (4)

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Elective fetal reduction	Elective fetal reduction performed	1. No 2. 2 to 1 3. 3 to 1 4. 3 to 2 5. 4 to 1 6. 4 to 2 7. 4 to 3 8. 5 to 4 9. 5 to 3 10. 5 to 2 11. 5 to 1 12. Reduction done but outcome unknown 13. No surviving fetus after reduction	ART safety monitoring element	Elective fetal reduction performed
Treatment and pregnancy outcome notes	Generic text field to document notes related to treatment and pregnancy outcome	Text For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	The intent is to use this field for notes related to treatment and pregnancy outcome	Generic text field to document notes related to treatment and pregnancy outcome For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used
Birth Outcome Tab (some of these data elements are also found under Treatment & Pregnancy Outcome Tab)				
Pregnancy/birth outcome	Outcome from the clinical pregnancy	Select one only 1. Unknown 2. Live birth 3. Pregnancy loss <20wks 4. Pregnancy loss <20wks /termination 5. Pregnancy loss <20wks	Effectiveness of treatment	Outcome from the clinical pregnancy Select one only A delivery with both live born and still born babies is entered

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		/spontaneous miscarriage 6. Stillbirth at >=20wks or >=500gms 7. Stillbirth at >=20wks or >=500 gms/termination 8. Stillbirth at >=20wks or >=500gms/spontaneous - occurred during antepartum period 9. Stillbirth at >=20wks or >=500gms/spontaneous – occurred during intrapartum period A delivery with both live born and still born babies is entered as a "live birth"		as a "live birth"
Estimated date of birth	Estimated date of birth	Date This field is automatically calculated as "transfer date" +38 weeks		Estimated date of birth This field is automatically calculated as "transfer date" +38 weeks
Newborn date of birth	Newborn date of birth	Date	Link to birth registry	Newborn day/month/year of birth
# babies born	Number of babies born at 20 weeks + one day or more, including live born and still born	Numeric	Link to birth registry	Number of babies born at 20 weeks + one day or more, including live born and still born
Gestational age	Number of weeks and days of gestation	Numeric	Link to birth registry	# of weeks and days of gestation

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Maternal health conditions	Pre-existing maternal health conditions and/or complications that could impact maternal, pregnancy or birth outcomes	See Appendix A for drop list Select all applicable	ART safety monitoring element	Select ALL maternal health conditions and/or complications that could impact maternal, pregnancy or birth outcomes
Complications of pregnancy	Pregnancy related complications during this pregnancy	Select all applicable 1. Fetal | Anomalies 2. Fetal | Isoimmunization/Alloimmunization 3. Fetal | IUGR 4. Fetal | LGA 5. Fetal | Oligohydramnios 6. Fetal | Polyhydramnios 7. Fetal | Other 8. Maternal | Anaemia unresponsive to therapy 9. Maternal | Antepartum Bleeding (Persistent and unexplained) 10. Maternal | Gestational diabetes 11. Maternal | Hyperemesis Gravidarum (Requiring Hospital Admission) 12. Maternal | Hypertensive Disorder of pregnancy 13. Placental | Placenta Abruption 14. Placental | Placenta accrete 15. Placental | Placenta	ART safety monitoring element	Pregnancy related complications experienced during this pregnancy Select all that apply

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		increta 16. Placental | Placenta percreta 17. Placental | Placenta praevia 18. Placental | Other 19. Maternal | Preterm labour prior to this admission 20. Maternal |Prelabour rupture of membranes (PROM) 21. Maternal | Preterm prelabour rupture of membranes (P-PROM) 22. Maternal | Other 23. None 24. Unknown		
Diabetes and pregnancy	Indicate maternal diabetic status during this pregnancy	1. None 2. Diabetes Complications/ Comorbidities 3. Diabetes Complications/ comorbidities | Nephropathy 4. Diabetes Complications/ comorbidities | Retinopathy 5. Gestational 6. Gestational |Insulin 7. Gestational |Insulin | ACE inhibitors 8. Gestational |Insulin | Statins	Clarify maternal status during pregnancy	Indicate maternal diabetic status during this pregnancy

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		9. Gestational |Insulin | No Ace Inhibitors or Statins 10. Gestational |No Insulin 11. Gestational |No Insulin | No Oral agents 12. Gestational |No Insulin | Oral Antihyperglycemic Agents 13. Gestational |Insulin Status Unknown 14. Type I 15. Type II 16. Type II | Insulin 17. Type II | Insulin | ACE inhibitors 18. Type II | Insulin | Statins 19. Type II | Insulin | No Ace Inhibitors or Statins 20. Type II | No Insulin 21. Type II | No Insulin | No Oral Agents 22. Type II | No Insulin | Oral Antihyperglycemic Agents 23. Type Unknown 24. Unknown		

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Hypertension disorder in pregnancy	Identification of all hypertensive conditions and the progression of hypertensive conditions the woman experienced during this pregnancy	1. None 2. Eclampsia 3. Gestational Hypertension 4. HELLP 5. Pre-existing Hypertension with superimposed preeclampsia 6. Preeclampsia 7. Preeclampsia requiring magnesium sulfate 8. Unknown	Clarify maternal status during pregnancy	Identification of all hypertensive conditions and the progression of hypertensive conditions the woman experienced during this pregnancy
Type of labour	Indicates whether the labour started spontaneously, was induced mechanically or pharmalogically or did not labour prior to C/Section	1. Induction 2. Spontaneous 3. None		Indicates whether the labour started spontaneously, was induced mechanically or pharmalogically or did not labour prior to C/Section
Augmentation	Interventions used to improve the quality and effectiveness when labour start is spontaneous	1. Amniotomy 2. None 3. Oxytocin 4. Prostaglandin 5. Unknown		Interventions used to improve the quality and effectiveness when labour start is spontaneous
Methods of induction	Indicates all methods of induction used to initiate and establish effective labour	1. None 2. Amniotomy 3. Oxytocin 4. Prostaglandin 5. Sweeping membrane 6. Unknown		Indicates all methods of induction used to initiate and establish effective labour
Type of delivery	Indicate how the baby was born	1. Assisted Vaginal 2. Induced or Spontaneous Labour Caesarean Section 3. No Labour – Caesarean Section		Indicate how the baby was born

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		4. Spontaneous Vaginal Birth 5. Vaginal		
All Indications for induction of labour	All indications for induction of labour Induction refers to the initiation of labour	1. Fetal | Atypical or Abnormal Fetal Surveillance 2. Fetal | Fetal anomaly/ies 3. Fetal | Isoimmunization/Alloimmunization 4. Fetal | IUGR 5. Fetal | Macrosomia 6. Fetal | Multiple gestation 7. Fetal | Other Fetal Complication 8. Fetal | Post dates 9. Fetal | Termination of Pregnancy 10. Fetal | Fetal demise 11. Maternal | Diabetes 12. Maternal | History of precipitous delivery 13. Maternal | Oligohydramnios 14. Maternal | Other Obstetrical Complications/Concerns 15. Maternal | Polyhydramnios 16. Maternal | Pre-existing maternal medical conditions 17. Maternal | Preeclampsia/		All indications for induction of labour Induction refers to the initiation of labour

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		Hypertension 18. Maternal | Prelabour rupture of membranes (PROM) 19. Maternal | Preterm prelabour rupture of membranes (PPROM) 20. Other 21. Other | Accommodates Care Provider/Organization 22. Other | Distance from birth hospital/Safety precaution 23. Other | Maternal Request 24. Unknown		
Cervical ripening	Indicate interventions used to ripen cervix for labour	1. None 2. Balloon/Mechanical Method (i.e. Foley Catheter) 3. Laminaria/artificial tent 4. Prostaglandin 5. Unknown *: Any existing values of 'Intracervical prostaglandin' and 'Vaginal prostaglandin' will be updated to 'Prostaglandin' for historical purposes		Indicate interventions used to ripen cervix for labour
All Indications for caesarean	Indicate all medical and non-medical indications for	1. Fetal | anomaly 2. Fetal | Cord prolapse		Indicate all medical and non-medical indications for

Data Element	Definition	Data Type and Value	Justification	Field Level Help
section	caesarean section	3. Fetal | IUGR 4. Fetal | Macrosomia 5. Fetal | Malposition/ Malpresentation 6. Fetal | Atypical or Abnormal Fetal Surveillance 7. Fetal | Other Fetal Indication 8. Maternal | Failed forceps/ vacuum 9. Maternal | Failed Induction 10. Maternal | HIV – Human Immunodeficiency Virus 11. Maternal | Hypertensive disorders of pregnancy – Eclampsia 12. Maternal | Hypertensive disorders of pregnancy – HELLP 13. Maternal | Hypertensive disorders of pregnancy – Preeclampsia 14. Maternal | Multiple gestation 15. Maternal | Nonprogressive first stage of labour 16. Maternal | Nonprogressive second stage of labour		caesarean section

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		17. Maternal | Obesity 18. Maternal | Placenta praevia 19. Maternal | Placental abruption 20. Maternal | Maternal Health Condition(s) 21. Maternal | Previous C/Section 22. Maternal | Suspected chorioamnionitis 23. Maternal | VBAC – Failed attempt 24. Maternal | VBAC – Failed attempt 25. Maternal | VBAC – Not eligible 26. Maternal | Uterine rupture 27. Maternal | VBAC-Declined VBAC 28. Maternal | Other Obstetrical Complication 29. Maternal | Previous uterine rupture 30. Maternal | Prelabour Rupture of Membranes (PROM) in women with planned C/Section 31. Maternal | Preterm prelabour rupture of membranes (PPROM) in		

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		women with planned C/Section 32. Maternal | Herpes Simplex Virus 33. Other 34. Other | Accommodates Care Provider/Organization 35. Other | Maternal Request 36. Unknown		
Labour and birth complications	Indicate all intrapartum complications during this labour and birth	1. Atypical or abnormal fetal surveillance 2. Cord prolapse 3. Fever >38.5 C 4. Hysterectomy 5. Meconium 6. None 7. Nonprogressive first stage of labour 8. Nonprogressive labour / lack of descent / dystocia 9. Nonprogressive second stage of labour 10. Perineal Hematoma 11. Placental Abruption 12. Postpartum haemorrhage 13. Pulmonary Embolism 14. Retained Placenta Manual Removal 15. Retained Placenta Surgical Removal 16. Shoulder dystocia		Indicate all intrapartum complications during this labour and birth

Data Element	Definition	Data Type and Value	Justification	Field Level Help
		17. Unknown 18. Uterine Atony 19. Uterine dehiscence 20. Uterine rupture 21. Other		
Maternal outcome	Maternal disposition	1. Maternal Death – Not related to Pregnancy or Birth 2. Maternal Death – Related to Pregnancy or Birth 3. No Transfer 4. Transfer to ICU/CCU 5. Transfer to other non-obstetrical unit same hospital 6. Transfer to other hospital		Maternal disposition
Birth outcome	Outcome from the clinical pregnancy	1. Unknown 2. Live birth 3. Stillbirth at >=20wks or >=500gms 4. Stillbirth at >=20wks or >=500 gms/intentional 5. Stillbirth at >=20wks or >=500gms/spontaneous during antepartum period 6. Stillbirth at >=20wks or >=500gms/spontaneous during intrapartum period	Effectiveness of treatment	Outcome from the clinical pregnancy
Sex	Sex of baby	1. Female 2. Male	Link to other birth outcomes	Sex of baby
Birth weight	Birth weight	Numeric with decimal (grams)	Link to other birth outcomes	Birth weight in grams

Data Element	Definition	Data Type and Value	Justification	Field Level Help
Congenital anomalies	All structural, functional, and genetic anomalies diagnosed in aborted fetuses, at birth or in the neonatal period	Provincial code system See Appendix B for drop list	ART safety monitoring element	All structural, functional, and genetic anomalies diagnosed in aborted fetuses, at birth or in the neonatal period
Neonatal death	Death of a live born baby within 28 days of birth	Yes or no	ART safety monitoring element	Death of a live born baby within 28 days of birth
Apgar 1	APGAR Score at 1 minute	Numeric 1-10 or unknown		APGAR Score at 1 minute
Apgar 5	APGAR Score at 2 minutes	Numeric 1-10 or unknown		APGAR Score at 2 minutes
Apgar 10	APGAR Score at 10 minutes	Numeric 1-10 or unknown		APGAR Score at 10 minutes
Neonatal birth complications	Indicate all newborn birth conditions	1. Birth injury – intracranial hemorrhage 2. Birth injury – subarachnoid hemorrhage 3. Birth injury – subdural hemorrhage 4. Birth injury – unspecified 5. Birth injury - other 6. Brachial plexus injury 7. Caput succedaneum 8. Cephalohematoma 9. Clavicular fracture 10. Facial nerve injury 11. None 12. Unknown		Indicate all newborn complications and/or conditions
Admission to NICU	Indicate newborn's transfer to the NICU	Yes or no		Indicate newborn's transfer to the NICU
Same fields are available for baby #2, #3, and #4				
Notes on birth outcome	Generic text field to document notes related to the birth	Text	The intent is to use this field for notes related to the birth	Generic text field to document notes related to birth outcome

Data Element	Definition	Data Type and Value	Justification	Field Level Help
	outcome	For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used	outcome	For Non-Ontario clinics, no patient identifying information, or parts thereof, can be used

Document prepared and maintained by Dr. Marie-Claude Léveillé and Moya Johnson

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The data elements in CARTR Plus are based on the ones previously contained in the Canadian ART Registry-Treatment Outcome Reporting System (CARTR-TORS), as well as on the data elements contained in other national registries including USA (CDC/SART), UK (HFEA), Australia/New Zealand (ANZARD), France, Switzerland (FIVNAT-CH), Belgium (BELRAP), Germany, and the European IVF Monitoring Consortium (EIM). The final data elements were selected for their importance in predicting, monitoring, researching and improving outcomes of assisted reproductive technology procedures in Canada. Data elements monitored by individual laboratories as part of their quality management system were not retained in CARTR Plus.