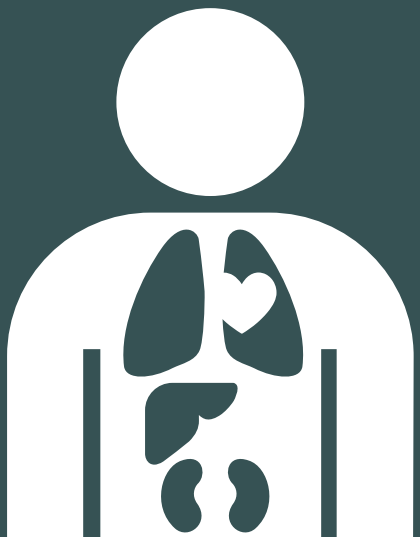

CORR

Canadian Organ Replacement Register
Instruction Manual, 2021

Chronic Renal Failure Patients on Renal Replacement Therapy

Canadian Institute for Health Information
Institut canadien d'information sur la santé

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1 Introduction

Purpose of this manual

This manual has 2 distinct purposes:

- To provide step-by-step instructions that will assist staff at hospitals providing renal replacement therapy (RRT) to submit data to CORR on their chronic renal failure patients; and
- To provide the definitions and specifications of the data elements used in CORR in order to facilitate an understanding of the database.

Similar information on organ donation and kidney and extra-renal transplantation is provided in a separate manual.

The definitions and descriptions of the data elements in this manual are intended to assist in maintaining and enhancing data consistency and quality when data is submitted electronically.

What is CORR?

The Canadian Organ Replacement Register (CORR) is a national information system that records and analyzes the level of activity and outcomes of vital organ transplantation and renal dialysis activities.

The objectives of CORR are to

- Provide a national view on end-stage organ failure statistics, for comparative analyses and research studies;
- Increase the availability of comparative material to facilitate better treatment decisions;
- Provide statistics on long-term trends that can be used for planning and optimizing programs;
- Provide a feedback mechanism to facilities, a quality assurance function for treatment and a national standard for comparison; and
- Provide statistics to the health care industry, to enhance business decisions.

CORR achieves its goals by

- Publishing reports annually on dialysis, organ donation and transplantation;
- Providing centre-specific reports to participating hospitals;
- Responding to ad hoc requests for data and information; and
- Continually updating technology and responding to changing user needs.

As the national database for dialysis and transplantation, CORR reports to its membership, the Canadian Society of Nephrology and the Canadian Society of Transplantation the results of dialysis and transplantation in Canada. CORR also provides valuable information to a large constituency of health care workers, including dialysis and transplant nurses, transplant coordinators, other members of the Canadian Association of Transplantation, organ procurement organizations, hospital administrators, government officials, The Kidney Foundation of Canada and the Canadian Cystic Fibrosis Foundation.

A brief history of CORR

The Canadian Organ Replacement Register incorporates and maintains the Canadian Renal Failure Register, which was operated by Statistics Canada from 1981 to 1987. In 1987, the Hospital Medical Records Institute won a contract to operate an expanded register that would include information on all solid organ transplants. The register became known as the Canadian Organ Replacement Register and was incorporated in 1990 and overseen by a board of directors. In 1994, responsibility for the functions, assets and liabilities of the Hospital Medical Records Institute and the MIS Group were assumed by a new organization, the Canadian Institute for Health Information (CIHI). CIHI assumed responsibility for CORR in 1995. CIHI also assumed some functions and resources of Health Canada's Health Information Division, and selected activities of Statistics Canada were taken over according to an agreed-upon schedule.

Data sources for CORR

Dialysis	Transplant
Hospital dialysis centres (n = 104)	Hospitals (n = 28)
Satellite centres (n = 216)	Provincial organ procurement organizations (n = 9)
Independent health facilities (n = 8)	Regional organ procurement organizations (n = 2: Calgary, Edmonton)

Data on chronic renal failure patients on RRT

4 forms are used to collect data about chronic renal failure patients on RRT:

- Initial Registration
- Change of Status
- Follow-Up (2 versions: Hemodialysis and Peritoneal Dialysis)
- Facility Profile (2 versions: Hemodialysis and Peritoneal Dialysis)

The Initial Registration form is completed for all newly registered chronic renal failure patients initiating RRT. The Change of Status form is completed for both new and existing patients as treatment changes occur during the year. The Follow-Up form is completed for all living dialysis patients on October 31 of each year. The Facility Profile is completed by each facility that provides RRT to chronic renal failure patients on December 31 of each year. (See the summary table below.)

Form	Unit of analysis	When completed	Time frame
Initial Registration	Patient	As new chronic renal failure patients are registered	Throughout the year
Change of Status	Patient	As treatment changes occur for new and existing patients	Throughout the year
Follow-Up	Patient	Annually, for all living renal dialysis patients	Once per year — October 31
Facility Profile	Facility	Annually, for all facilities providing RRT to chronic renal failure patients	Once per year — December 31

CORR data is patient oriented. That is, a patient's treatment is followed from the time the patient begins treatment for chronic renal failure through all treatment changes, including transplantation, until the patient dies or is lost to follow-up. All patients who began treatment since January 1, 1981, are included. These patients are referred to as *registered patients*, and they provide the sample on which the majority of analyses provided in published reports are based.

The Initial Registration form is for *new patients* who are beginning long-term treatment for chronic renal failure for the first time. At the point of data entry into the computer, each new patient is assigned a patient identification number, which will remain with the patient throughout his or her course of treatment.

The patient information is collected from individual facilities or from provincial (BC Renal Agency) and regional (Ontario Renal Network) registries. Data may be submitted annually or at more frequent intervals throughout the year. Change of status records are added and linked to existing records using an assigned patient identification number. The patient name and date of birth are used to locate existing patient identification numbers. All change of status treatments that are added must adhere to strict edit checks. For example, a patient cannot change to the same treatment that is currently listed in the database. This information may indicate that a previous treatment change or a transplant was not forwarded to CORR. CORR staff works closely with facility personnel to ensure completeness and accuracy of the data.

Key definitions

Before completing the forms, it is important to understand the following key definitions.

Dialysis: *The process of perfusing blood or solute over a semi-permeable membrane, which allows removal of toxic materials and maintains fluid, electrolyte and acid–base balance in cases of impaired kidney function. Hemodialysis (HD) and peritoneal dialysis (PD) are 2 forms of dialysis used clinically in the treatment of patients with acute or chronic renal failure.*

End-stage renal disease (ESRD): *A condition in which the kidneys are permanently impaired and can no longer function normally to maintain life. Individuals with ESRD must rely on RRT to survive.*

Hospital: *Includes any facility that provides acute, rehabilitative or chronic care. This definition covers those health care facilities known as clinics, where a provincial plan pays the physician fee for a medically necessary service delivered at a clinic as it would for the same procedure delivered in a hospital. For the purposes of treatment delivery, hospitals are classified as either acute care or chronic care.*

Independent health facility: *A facility that is not directly affiliated with a hospital but that provides public health services funded through a provincial insurance plan. For the purposes of this document, these independent health facilities would provide HD to ESRD patients upon referral from a hospital offering full-care dialysis services.*

Renal replacement therapy (RRT): *Procedures that temporarily or permanently partially replace a failed native kidney with HD, PD or a kidney transplant.*

For more information

If you would like to receive more information or if you have comments regarding the format, content and usefulness of this instruction manual, please contact the staff of CORR at the CIHI office in Toronto. Your feedback is appreciated.

You may contact CORR at the following address:

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Canadian Organ Replacement Register
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Toronto, Ontario M2P 2B7

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Email: corr@cihi.ca

2 Initial registration

Who to register

All new patients with chronic renal failure who are initiating RRT are to be registered.

New patient: *Any patient who began long-term RRT for the first time in the calendar year*

Chronic renal failure patient: *A patient who has any chronic systemic, renal or urological disease or abnormality (e.g., chronic glomerulonephritis of any type, diabetic nephropathy, hypertensive nephrosclerosis or atheroembolic disease) resulting in the need for RRT*

For patients who start dialysis in the intensive care unit (ICU) and are transferred to a dialysis unit, the start date is the ICU dialysis start date, provided there is no break in treatment.

Who not to register

- Patients who recover kidney function less than 90 days from their dialysis start date (considered acute dialysis patients)
- Patients who transferred from another facility

Acute dialysis patient: *A patient who has an acute systemic, renal or urological disease (e.g., acute tubular necrosis, acute hemolytic uremic syndrome, acute glomerulonephritis or acute allergic interstitial nephritis) resulting in sudden onset of renal failure requiring RRT.*

Transferred patient: *A patient who transfers to your facility from a dialysis program at another facility or who is returning to dialysis following a failed transplant and is NOT beginning RRT for the first time. A Change of Status form should be completed for transferred patients.*

Completing the Initial Registration form

All parts of this form should be completed.

Section A — Personal Identification

Hospital Name

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital Number

- Each hospital reporting to CORR is assigned a unique identifier.

Patient Last Name

- Enter the surname or family/last name used by the patient. Do not record titles. A single hyphen (e.g., Smith-Watson), apostrophe (e.g., O'Hara) or blank (e.g., Van Dusen) is acceptable.

Patient Former Name

- Enter the maiden (unmarried) name or former surname for any patient who has undergone a name change. (For example, Elizabeth Smith was formerly Elizabeth Jones, so "Jones" would be recorded.)

Patient First and Middle Names

- Enter the patient's first name or given name and middle name. Enter as upper-case alphabetic. If the patient is referred to by a nickname, please indicate this in brackets (e.g., Elizabeth (Betty) Smith).

Patient Address — City

- Enter the town or city that is the usual place of residence for the patient at the time RRT is initiated.
- Do not indicate the town or city where the treatment is taking place if it is different from the patient's residence.
- The city is used for incidence mapping (location of patients at the time they initiated RRT).

Patient Address — Province/Territory

- Enter the province/territory that is the usual province/territory of residence at the time RRT is initiated.
- Acceptable values:

  AB = Alberta

  BC = British Columbia

  MB = Manitoba

  NB = New Brunswick

  NL = Newfoundland and Labrador

  NS = Nova Scotia

  NT = Northwest Territories

  NU = Nunavut

  ON = Ontario

  PE = Prince Edward Island

  QC = Quebec

  SK = Saskatchewan

  YT = Yukon

  XX = Transient/homeless

  ZZ = Unknown
- If this patient resides elsewhere, please specify.

Patient Postal Code

- Enter the postal code for the patient's address at the time RRT is initiated.
- Format: M3C2T9.
- This information is used for incidence mapping.

Health Card Number

- Enter the health insurance plan number as indicated on the health card for this patient. Please omit hyphens, blanks and version codes (e.g., 123123123).
- The health card number aids in identifying the patient and in avoiding duplicate patient records.
- For Manitoba residents, please use the personal health information number (PHIN).

Province/Territory of Health Card

- Enter the province/territory that is associated with the health care insurance plan number provided on the patient's health card.
- Acceptable values:

  AB = Alberta

  BC = British Columbia

  MB = Manitoba

  NB = New Brunswick

  NL = Newfoundland and Labrador

  NS = Nova Scotia

  NT = Northwest Territories

  NU = Nunavut

  ON = Ontario

  PE = Prince Edward Island

  QC = Quebec

  SK = Saskatchewan

  YT = Yukon

Date of Birth

- Enter the date of birth for this patient.
- Format: DD-MON-YYYY (e.g., 08-Apr-1958).
- As most analyses are carried out according to patient age, this is a mandatory data element.

Sex

- Indicate the sex of the patient. Only 1 response can be checked.
- Acceptable values:

  M = Male

  F = Female

  O = Other

Race

- Indicate the patient's race.
- Only 1 response can be checked.
- If race is "Other/multiracial," specify.
- Acceptable values:

  01 = Caucasian/white (French Canadians and other peoples of European, Australian or Russian ancestry)

  02 = Asian (Chinese, Japanese, Vietnamese, Korean, Taiwanese)

  03 = Black (African, Jamaican, Haitian, Somali)

  05 = Indian subcontinent (Indian, Pakistani, Bangladeshi)

  08 = Pacific Islander (Filipino)

  09 = Aboriginal (North American Indian, Métis, Inuit)

  10 = Middle Eastern/Arabian (Saudi Arabian, Iranian, Iraqi, Jordanian, Syrian, Armenian, Algerian)

  11 = Latin American (Caribbean, South American, Cuban)

  98 = Unknown

  99 = Other/multiracial: _____

Section B — Pre-Dialysis and Initial Blood Work

Date Patient First Seen by Nephrologist

- Enter the date the patient was first seen by a nephrologist.
- Format: DD-MON-YYYY (e.g., 11-Nov-2000).

Patient Followed by Nephrologist Prior to Initiating Dialysis

- Indicate whether the patient was followed by a nephrologist prior to initiating dialysis.
- Only 1 response should be checked.
- Acceptable values:

  0 = No pre-dialysis follow-up

  1 = Yes, seen in nephrologist's office

  2 = Yes, seen in specialty clinic

  3 = Yes, seen in both office and clinic

  9 = Unknown/missing response

Specialty clinic: *A day clinic, usually within a hospital, where multidisciplinary care is delivered (e.g., dialysis clinic, transplant clinic).*

Patient Receiving Erythropoietin Prior to Initial Dialysis Treatment

- Indicate whether this patient received erythropoietin (e.g., Eprex, Aranesp) prior to the initial dialysis treatment.
- Acceptable values:

  1 = No

  2 = Eprex

  3 = Aranesp

  4 = Other

  9 = Unknown

Last Blood Work Before Initial Dialysis

Laboratory values for last blood work before initial dialysis. A set of 8 results is required.

Hemoglobin Results

- Enter the latest results for hemoglobin (g/L) for this patient.
- The reference range of values is 60 g/L to 140 g/L.
- If not available, record NA. This will be treated as a blank in the database.

Creatinine Results

- Enter the latest results for creatinine (µmol/L) for this patient.
- The reference range of values is 300 µmol/L to 1,500 µmol/L.
- If not available, record NA. This will be treated as a blank in the database.

Urea Results

- Enter the latest results for urea (mmol/L) for this patient.
- The reference range of values is 15 mmol/L to 40 mmol/L.
- If not available, record NA. This will be treated as a blank in the database.

Serum Bicarbonate/Serum CO_2

- Enter the latest results for serum bicarbonate or serum CO_2 (mmol/L) for this patient.
- The reference range of values is 20 mmol/L to 30 mmol/L.
- If not available, record NA. This will be treated as a blank in the database.

Serum Calcium

- Enter the latest results for serum calcium (mmol/L) for this patient.
- The reference range of values is 2.20 mmol/L to 2.62 mmol/L corrected, 1.19 mmol/L to 1.29 mmol/L ionized, or 2.10 mmol/L to 2.60 mmol/L uncorrected.
- If not available, record *NA*. This will be treated as a blank in the database.

Serum Phosphate

- Enter the latest results for serum phosphate (mmol/L) for this patient.
- The reference range of values is 1.5 mmol/L to 1.8 mmol/L.
- If not available, record *NA*. This will be treated as a blank in the database.

Serum Albumin

- Enter the latest results for serum albumin (g/L) for this patient.
- The reference range of values is 25 g/L to 50 g/L.
- If not available, record *NA*. This will be treated as a blank in the database.

Serum Parathormone

- Enter the latest results for serum parathormone (pmol/L, ng/L or pg/mL) for this patient.
- The reference range of values is 1.3 pmol/L to 7.6 pmol/L, 18 ng/L to 73 ng/L, or 10 pg/mL to 65 pg/mL.
- If not available, record *NA*. This will be treated as a blank in the database.

Question from the field: A patient starts HD for the treatment of acute renal failure on March 20, 2002. After 1 month, the physician considers the patient a chronic renal failure patient. What are the date of the first treatment and the date we use to record the blood work?

Answer: In hindsight, the patient was chronic from the time of the first treatment. The physician was just not sure if there would be recovery. Use the date of the first treatment, which was March 20, 2002, for the initial treatment date and use the blood work obtained just before this initial treatment.

Section C — Initial and Intended Dialysis Treatment

Access Used at Time of Initial Dialysis

- Indicate the access used for this patient at initial dialysis.
- Acceptable values:

  For HD patients:

  1 = Temporary catheter non-cuffed

  2 = Temporary catheter cuffed

  3 = Permanent catheter non-cuffed

  4 = Permanent catheter cuffed

  5 = AV fistula

  6 = AV graft

  For PD patients:

  7 = PD catheter

Temporary non-cuffed catheters are venous dialysis catheters that do not have a Dacron or other cuff; they are intended for temporary use only (typically made of PVC or polyurethane). Typical temporary non-cuffed sites usually include jugular, femoral or subclavian veins.

Cuffed catheters are catheters with cuffs made of Dacron or other material that may be used on a temporary or permanent basis. Cuffed catheters are typically located in the jugular vein but may be placed in the subclavian or femoral vein.

Date of First RRT

- Enter the date that the patient began first RRT treatment for chronic renal failure.
- Format: DD-MON-YYYY (e.g., 12-Jan-2019).

Patient’s Initial Dialysis Treatment

- Consists of 3 numbers reflecting treatment location, treatment type and level of assistance/care required.
- Location refers to where the treatment takes place. Chronic care patients being treated in an acute care hospital while they wait for a placement in a nursing home would be considered acute care hospital patients for the purposes of this treatment framework.

- Acceptable values:

LOCATION

1 = Acute Care Hospital: Treatments carried out in a dialysis facility located in or on the grounds of a hospital that provides full renal care services (i.e., services provided under the care of a nephrologist, which include social work and dietary consultation and inpatient backup care).

2 = Chronic Care Hospital: Treatments carried out in a facility where ongoing medical intervention is provided and residents require assistance. Includes chronic care facilities and nursing homes.

3 = Community Centre: Dialysis done outside a hospital. Treatment may occur in an office building, shopping plaza or other place where nephrology inpatient services are not onsite. Includes mobile dialysis services and dialysis provided by independent health facilities.

4 = Home: Treatments carried out in the patient's home by the patient and/or family member(s).

TYPE

1 = Conventional HD: Given for 3 to 6 hours, 2 to 4 times a week.

2 = Short Daily HD: Given during the day or evening for 2 to 3 hours, 5 to 7 days per week.

3 = Slow Nocturnal HD: Given 5 to 6 nights per week.

4 = CAPD (Continuous Ambulatory Peritoneal Dialysis): Patient receives PD treatments through an implanted peritoneal catheter continuously throughout the day and night. The fluid held in the abdominal cavity is exchanged an average of 4 times per 24 hours, with a usual volume of 2 litres (includes enhanced CAPD).

5 = APD (Automated Peritoneal Dialysis): An automated cycler is used to effect the dialysate exchanges while the patient sleeps at night, with or without additional exchanges during the day. Excludes night manual exchanges and non-automated night exchanges.

6 = PD Combined With HD: Patient receives a combination of any type of PD and HD.

For Type of Treatment code 6 only, location and level of assistance codes are to be coded as 0 (i.e., 0-6-0).

ASSISTANCE/CARE REQUIRED

1 = Total Care: Patient is under the full care of trained staff affiliated with a nephrology unit.

2 = Limited Self-Care: Patient receives a minimal amount of assistance from trained staff affiliated with a nephrology unit.

3 = Total Self-Care: Patient is completely responsible for his or her own treatment, with no assistance from trained nephrology staff. A patient may be classified as total self-care if he or she receives assistance from family member(s) or a home-care worker who is not a trained staff affiliated with a nephrology unit.

Examples:

- An elderly, infirm patient waiting for a chronic care bed but being treated at an acute care hospital with conventional HD would be coded 1-1-1.
- A patient on short daily HD who is being treated at an acute care hospital with only some care provided by trained staff would be coded 1-2-2.
- A patient on home CAPD receiving no assistance from trained staff would be coded 4-4-3.

Treatment Codes

- 0-6-0: Treatment-dependent locations — PD + HD — Treatment-dependent levels of care
- 1-7-1: Acute care hospital — Transplantation — Total care

If Initial Treatment Is Intended Long-Term Dialysis Treatment

- Indicate whether the initial dialysis treatment that the patient is receiving is the intended long-term dialysis treatment.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Patient's Intended Long-Term Dialysis Treatment

- Indicate the intended long-term treatment for this patient.
- Note this item is to be completed only if the initial treatment is not intended to be the long-term treatment for this patient.
- Acceptable values: refer to page 18.

Reason Initial Treatment Is Not Intended Long-Term Treatment

- Indicate the reason why the initial treatment is not the intended long-term treatment for this patient.
- Acceptable values:

  1 = No facilities/space available

  2 = No mature access

  3 = Unforeseen change in patient status leading to sudden dialysis start

  4 = Other — specify: _____

  9 = Unknown/missing response

No mature access: *When the fistula does not develop properly and cannot be used for vascular access. AV fistula maturation depends on artery and vein size.*

Unforeseen change in patient status leading to sudden dialysis start: *When the kidney disease progressed so quickly that there was no time for the patient to get permanent vascular access before he or she had to start dialysis.*

Initial and Intended Dialysis Treatment

This question is designed to determine if there are patient or facility factors (e.g., inadequate access to care) that influence the initial dialysis treatment choice for this patient.

Example 1: A patient must start on in-centre HD because there are no training spots available for the person on home dialysis. You would code as follows:

Initial treatment: *Acute Care Hospital — type of HD — Total Care*

Is the initial treatment the intended long-term dialysis treatment for this patient? *No*

Why not? *No facilities/space available*

What is the long-term intended treatment for this patient? *Home — type of PD — Total-Self-Care* OR *Home— type of HD — Total Self-Care*

Example 2: A patient must start on in-centre PD/HD as part of the routine training for eventual home PD/HD. Since the in-centre training is part of the standard routine and not due to the patient's health or facility resources, you would code as follows:

Initial treatment: *Home— type of PD —Total Self-Care* OR *Home— type of HD — Total Self-Care*

Is the initial treatment the intended long-term dialysis treatment for this patient? *Yes*

Example 3: A patient, not yet trained, must start immediately on temporary PD in hospital because of serious illness. You would code as follows:

Initial treatment: *Acute Care Hospital — APD —Total Care*

Is the initial treatment the intended long-term dialysis treatment for this patient? *No*

Why not? *Unforeseen change in patient status leading to sudden dialysis start*

What is the long-term intended treatment for this patient? *Home — type of PD — Total Self-Care*

Section D — Height and Weight

Note: If height cannot be provided, please indicate if the patient is a double-leg amputee.

Patient Height

- Enter the patient's actual height in centimetres at the start of the first-ever dialysis treatment for chronic renal failure. Conversion factor: 1 inch = 2.54 cm or 0.39 inches = 1 cm
- Format: 1-8-2 8-8-0.
- The height and weight together allow for the computation of body mass index.

Patient Weight

- Enter the patient's actual weight in kilograms within the first month of treatment. Conversion factor: 1 lb = 0.45 kg or 2.21 lbs = 1 kg.
- Format: 0-6-7 5-2-0.
- The height and weight together allow for the computation of body mass index.

Actual weight: *The stable post-dialysis weight on HD and the stable ongoing weight on PD. The weight should be determined after a few weeks on dialysis when stability may have been achieved.*

Section E — Primary Diagnosis and Risk Factor History

Primary Renal Disease

- Enter the disease or condition for which this patient requires RRT.
- If there are no diagnosis codes that represent the primary cause of renal failure, enter code 99 and record the patient's condition in detail.
- Acceptable values:

  00 = Chronic renal failure, etiology uncertain

  Glomerulonephritis/Autoimmune Diseases

  05 = Mesangial proliferative glomerulonephritis

  06 = Minimal lesion glomerulonephritis

  07 = Post-strep glomerulonephritis

  08 = Rapidly progressive glomerulonephritis

  09 = Focal glomerulosclerosis — adults

  10 = Glomerulonephritis, histologically NOT examined

  11 = Severe nephrotic syndrome with focal sclerosis (pediatric patients)

12 = IgA nephropathy — proven by immunofluorescence (not code 85)

13 = Dense deposit disease — proven by immunofluorescence and/or electron microscopy (MPGN type II)

14 = Membranous nephropathy

15 = Membranoproliferative mesangiocapillary glomerulonephritis (MPGN type I)

16 = Idiopathic crescentic glomerulonephritis (diffuse proliferative)

17 = Congenital nephrosis or congenital nephrotic syndrome (pediatric only)

19 = Glomerulonephritis, histologically examined

73 = Polyarteritis nodosa

74 = Wegener's granulomatosis

84 = Lupus erythematosus

85 = Henoch–Schönlein purpura

86 = Goodpasture syndrome

87 = Scleroderma

88 = Hemolytic uremic syndrome

Nephropathy, Drug Induced

30 = Nephropathy caused by drugs or nephrotoxic agents, not specified

31 = Nephropathy due to analgesic drugs

32 = Nephropathy due to cisplatin

33 = Nephropathy due to cyclosporin A

39 = Nephropathy caused by other specific drug

Polycystic Kidney

41 = Polycystic kidneys, adult type (dominant)

42 = Polycystic kidneys, infantile and juvenile types (recessive)

Diabetes

80 = Diabetic nephropathy associated with type 1

81 = Diabetic nephropathy associated with type 2

Congenital/Hereditary Renal Diseases

21 = Pyelonephritis/interstitial nephritis associated with neurogenic bladder

22 = Pyelonephritis/interstitial nephritis due to congenital obstructive uropathy with or without vesicoureteric reflux

24 = Pyelonephritis/interstitial nephritis due to vesicoureteric reflux without obstruction

40 = Cystic kidney disease — type unspecified

41 = Polycystic kidneys, adult type (dominant)

42 = Polycystic kidneys, infantile and juvenile types (recessive)

43 = Medullary cystic disease, including nephronophthisis

49 = Cystic kidney disease, other type

50 = Hereditary familial nephropathy, type unspecified

51 = Hereditary nephritis with nerve deafness (Alport syndrome)

52 = Cystinosis

53 = Oxalosis

54 = Fabry disease

55 = DRASH syndrome

58 = Posterior urethral valves

59 = Hereditary nephropathy, other

60 = Congenital renal hypoplasia

61 = Oligomeganephronic hypoplasia

62 = Segmental renal hypoplasia (Ask–Upmark kidney)

63 = Congenital renal dysplasia with or without urinary tract malformation

66 = Syndrome of agenesis of abdominal muscles (prune-belly syndrome)

Renal Vascular Disease

70 = Renal vascular disease, type unspecified

71 = Malignant hypertension (no primary renal disease)

72 = Renal vascular disease due to hypertension (no primary renal disease)

78 = Atheroembolic renal disease

79 = Renal vascular disease, classified (nephrosclerosis, renal vascular thrombosis)

Other

20 = Pyelonephritis/interstitial nephritis, cause not specified

23 = Pyelonephritis/interstitial nephritis due to acquired obstructive uropathy

25 = Pyelonephritis/interstitial nephritis due to urolithiasis

29 = Pyelonephritis, other causes

56 = Sickle cell nephropathy

57 = Wilms tumour

82 = Multiple myeloma

83 = Amyloid

89 = Multi-system disease

90 = Cortical or acute tubular necrosis

91 = Tuberculosis

92 = Gout

93 = Nephrocalcinosis and hypercalcemic nephropathy

94 = Balkan nephropathy

95 = Kidney tumour

96 = Traumatic or surgical loss of kidney

97 = HIV nephropathy

99 = Other identified renal disorders — specify: _____

Risk Factors/Comorbid Conditions

Risk factors have been identified as important to the survival of patients on RRT. Please indicate which of the following comorbid conditions existed at the time the patient initiated RRT for chronic renal failure.

Additional guidelines provided for coding the presence of a risk factor as yes, no or unknown:

Enter Y, representing yes, **only if the physician documentation explicitly states that the risk factor is present** prior to or at the start of dialysis treatment. This requires a positive statement that confirms the presence of the risk factor.

Enter N, representing no, **only if the physician documentation explicitly states that the risk factor is not present** prior to or at the start of dialysis treatment. This requires a negative statement that rules out the risk factor.

Enter U, representing unknown, **only if the physician documentation does not verify whether the risk factor is present or not**. There are no positive or negative statements made by the physician to confirm or rule out the condition. The code U **also applies when there is conflicting chart documentation regarding the presence of the risk factor**.

Risk Factor — Angina

- Indicate whether the patient suffered from angina at the time of initiating RRT.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Angina: *Ischemic cardiac pain either at rest or upon exercise (e.g., angina pectoris, stenocardia, ischemic chest pain, chronic stable angina,unstable angina). Requires medical treatment such as anti-anginal using nitrates (nitroglycerin, Nitro-Dur) or calcium blockers (e.g., nifedipine, diltiazem, Calan, Verelan, Isoptin, verapamil). Do not code if the only reference is to chest wall pain or unspecified chest pain.*

Risk Factor — Myocardial Infarct

- Indicate whether the patient had a confirmed myocardial infarct (acute myocardial infarction, status post-myocardial infarction, acute coronary syndrome) on the basis of an EKG, cardiac enzymes, echocardiogram or thallium scans prior to beginning RRT.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Coronary Artery Bypass Grafts/Angioplasty

- Indicate whether the patient had previous coronary artery bypass graft surgery (stent [coronary] and percutaneous transluminal coronary angioplasty) prior to beginning RRT.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Recent History of Pulmonary Edema

- Indicate whether the patient had a recent history of pulmonary edema prior to beginning RRT. This includes episode(s) of congestive heart failure or severe fluid overload in the 6 months prior to start of dialysis.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Pulmonary edema: *An episode of severe shortness of breath requiring treatment with diureticssuch as furosemide (Lasix) or emergency dialysis. Do not code if only reference is to shortness of breath.*

Risk Factor — Cerebrovascular Disease

- Indicate whether the patient had a cerebrovascular event, such as a transient cerebral ischemic attack, carotid surgery, cerebral infarct, cerebral hemorrhage, stroke or cerebrovascular accident (CVA), prior to beginning RRT. Includes intracerebral hemorrhage, cerebral and pre-cerebral arterial occlusion, stroke syndrome and transient cerebral ischemia.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Peripheral Vascular Disease

- Indicate whether the patient has been described as having intermittent claudication at rest or on exercise or has had aorto-femoral bypass surgery, femoropopliteal bypass, graft, iliac or femoral endarterectomy, angioplasty, direct aortic thrombectomy, abdominal aortic aneurysm repair, peripheral arterial disease, arteriosclerosis obliterans, amputation of toes, lower legs, etc.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Diabetes — Type 1

- Indicate whether the patient was diagnosed with type 1 diabetes prior to beginning RRT. Type 1 occurs when the pancreas no longer produces, or produces very little, insulin. Type 1 diabetes usually develops in childhood or adolescence and affects about 10% of people with diabetes (Canadian Diabetes Association). (Code Y if type 1 is the secondary cause of the patient's renal failure and not the primary cause. Code as type 1 if reference is made to childhood, juvenile or insulin-dependent.) For patients whose ESRD is the result of their diabetes, this information is captured under Primary Diagnosis.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Diabetes — Type 2

- Indicate whether the patient was diagnosed with type 2 diabetes prior to beginning RRT. Type2 diabetes occurs when the pancreas does not produce enough insulin to meet the body's needs or the insulin is not metabolized effectively. Type 2 usually occurs later in life and affects about 90% of people with diabetes (Canadian Diabetes Association). Type 2 would be a secondary cause of the patient's renal failure and not the primary cause. (Code only if it is the secondary cause of the patient's renal failure and not the primary cause.) Code as type 2 if reference is made to adult onset or non–insulin dependent diabetes.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Malignancy

- Indicate whether the patient had a malignancy that existed prior to the first treatment for chronic renal failure. Do not code malignancy if it is located in the kidney and the primary cause of renal failure is kidney cancer.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Site of Malignancy

- Enter the primary site of the patient's malignancy if malignancy is present.
- If there are no malignancy codes that represent the primary site, enter code 99 and record the location of the tumour.
- Acceptable values:

  11 = 2 or more primary malignancies

  Skin (Excluding Lip and Genital)

  20 = Squamous cell carcinoma

  21 = Basal cell carcinoma

  22 = Squamous and basal cell carcinoma

  23 = Malignant melanoma

Leukemias and Reticuloses

25 = Myeloma

26 = Acute leukemia

27 = Chronic leukemia

29 = Reticulum cell sarcoma

30 = Kaposi sarcoma

31 = Lymphosarcoma

33 = Plasma cell lymphoma

34 = Hodgkin’s disease

35 = Lymphoreticular tumour

36 = Histiocytic reticulosis

Gastrointestinal Tract

40 = Lip

41 = Tongue

42 = Parotid

43 = Esophagus

44 = Stomach

45 = Colon

46 = Rectum

47 = Anus

48 = Liver — primary hepatoma

49 = Liver — primary lymphoma

50 = Gallbladder and bile duct

51 = Pancreas

Neck and Throat

53 = Larynx

54 = Thyroid

55 = Bronchus

56 = Lung, primary tumour

Urogenital Tract

60 = Kidney — Wilms tumour

61 = Kidney — hypernephroma of host kidney

62 = Kidney — hypernephroma of graft kidney

63 = Renal pelvis

64 = Ureter

65 = Urinary bladder

66 = Urethra

67 = Prostate

68 = Testis

69 = Penis

70 = Scrotum

71 = Perineum

72 = Vulva

73 = Vagina

74 = Uterus — cervix

75 = Uterus — body

76 = Ovary

Miscellaneous

80 = Breast

81 = Muscle

82 = Bone

83 = Brain — primary lymphoma

84 = Brain — other primary tumour

85 = Other tumour of central nervous system

90 = Metastatic carcinoma, primary site unknown

99 = Other primary tumour — specify: _____

Risk Factor — Chronic Obstructive Lung Disease

- Indicate whether the patient had clinically significant chronic chest disease requiring medical management prior to beginning RRT. This will usually be described as chronic obstructive lung disease, chronic obstructive pulmonary disease, chronic bronchitis or emphysema. Patient may be on oral bronchodilators (e.g., Choledyl) or inhalation drugs (e.g., Ventolin).
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Receiving Medication for Hypertension

- Indicate whether the patient was receiving medication such as calcium-blocking agents, vasodilators, beta blockers, diuretics or ACE inhibitors (e.g., captopril, enalapril) in order to control hypertension at the time RRT was initiated.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Risk Factor — Other Serious Illness That Could Shorten Life Expectancy to Less Than 5 Years

- Indicate whether the patient has had any other illness that may shorten life expectancy (e.g., aortic aneurysm, AIDS) at the time of starting RRT. Other examples include sleep apnea, chronic liver disease with cirrhosis, Alzheimer's disease, chronic rheumatoid arthritis, peptic ulcer disease and dementia.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response
- If yes, record the condition in detail.

Risk Factor — Current Smoker

- Indicate whether the patient is a current smoker.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Current smoker: *A person who has smoked cigarettes, cigars or a pipe in the last 3 months.*

3 Change of status

All portions of this form should be completed as changes occur to the patient's status throughout the year.

Completing the Change of Status form

Section A — Personal Identification

Hospital Name

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital Number

- Each hospital reporting to CORR is assigned a unique identifier.

Patient Last Name

- Enter the surname or family/last name used by the patient. Do not record titles. A single hyphen (e.g., Smith-Watson), apostrophe (e.g., O'Hara) or blank (e.g., Van Dusen) is acceptable.

Patient First and Middle Names

- Enter the patient's first name or given name and middle name. Enter as upper-case alphabetic. If the patient is referred to by a nickname, please indicate this in brackets (e.g., Elizabeth (Betty) Smith).

Current Health Card Number

- Enter the health insurance plan number as indicated on the health card for this patient. Please omit hyphens, blanks and version codes (e.g., 123123123).
- The health card number aids in identifying the patient and in avoiding duplicate patient records.
- For Manitoba residents, please use the PHIN.

Province/Territory of Health Card

- Enter the province/territory that is associated with the health care insurance plan number provided on the patient's health card.
- Acceptable values:

  AB = Alberta

  BC = British Columbia

  MB = Manitoba

  NB = New Brunswick

  NL = Newfoundland and Labrador

  NS = Nova Scotia

  NT = Northwest Territories

  NU = Nunavut

  ON = Ontario

  PE = Prince Edward Island

  QC = Quebec

  SK = Saskatchewan

  YT = Yukon

Date of Birth

- Enter the date of birth for this patient.
- Format: DD-MON-YYYY (e.g., 08-Apr-1958).
- As most analyses are carried out according to patient age, this is a mandatory data element.

Section B — Treatment and Changes

Treatment Hospital

- Enter the patient's last treatment hospital.

Transfer/Treatment Change

Treatment changes and transfers are to be collected on all patients as they occur throughout the year. A period of 30 days is required for any change of treatment or transfer. Transfers include transfers in (i.e., when a patient comes to your facility from a dialysis program at another facility) and transfers out (i.e., when a patient from your facility goes to another facility).

This form can capture up to 5 changes per patient. If a patient has more than 5 changes in a given year, please complete another Change of Status form.

- Transferred/Withdrew/Died Change Codes:

  T = Transferred to your hospital (transfer in)

  R = Transferred from your hospital (transfer out)

  W = Withdrew from treatment

  D = Died

- Treatment codes consist of 3 numbers reflecting treatment location, treatment type and level of assistance/care required.

  LOCATION

  1 = Acute Care Hospital: Treatments carried out in a dialysis facility located in or on the grounds of a hospital that provides full renal care services (i.e., services provided under the care of a nephrologist, which include social work and dietary consultation and inpatient backup care).

  2 = Chronic Care Hospital: Treatments carried out in a facility where ongoing medical intervention is provided and residents require assistance. Includes chronic care facilities and nursing homes.

  3 = Community Centre: Dialysis done outside a hospital. Treatment may occur in an office building, shopping plaza or other place where nephrology inpatient services are not on site. Includes mobile dialysis services and dialysis provided at independent health facilities.

  4 = Home: Treatments carried out in the patient's home by the patient and/or family member(s).

  TYPE

  1 = Conventional HD: Given for 3 to 6 hours, 2 to 4 times a week.

  2 = Short Daily HD: Given during the day or evening for 2 to 3 hours, 5 to 7 days per week.

  3 = Slow Nocturnal HD: Given 5 to 6 nights per week.

  4 = CAPD (Continuous Ambulatory Peritoneal Dialysis): Patient receives PD treatments through an implanted peritoneal catheter continuously throughout the day and night. The fluid held in the abdominal cavity is exchanged an average of 4 times per 24 hours, with a usual volume of 2 litres (includes enhanced CAPD).

  5 = APD (Automated Peritoneal Dialysis): An automated cycler is used to effect the dialysate exchanges while the patient sleeps at night, with or without additional exchanges during the day. Excludes night manual exchanges and non-automated night exchanges.

  6 = PD Combined With HD: Patient is receiving a combination of any type of PD and HD. *For Type of Treatment code 6 only, location and level of assistance codes are to be coded as 0 (i.e., 0-6-0).*

  7 = Transplantation

ASSISTANCE/CARE REQUIRED

1 = Total Care: Patient is under the full care of trained staff affiliated with a nephrology unit.

2 = Limited Self-Care: Patient receives a minimal amount of assistance from trained staff affiliated with a nephrology unit. This does not include assistance from family member(s).

3 = Total Self-Care: Patient is completely responsible for his or her own treatment, with no assistance from trained nephrology staff. A patient may be classified as total self-care if he or she receives assistance from a family member(s) or a home-care worker who is not a trained staff affiliated with a nephrology unit.

OTHER STATUS CODES

11 = Patient Untraced/Lost to Follow-Up: Used if the centre that last reported on this patient no longer knows the whereabouts of the patient. This does not include patient transfers.

10 = Recovered Function of Own Kidneys: Patient has recovered sufficient function of his or her own kidneys to make dialysis unnecessary.

19 = Failed Transplant

20 = Left Country

- If the patient has died, complete Section C — Cause of Death.
- If the patient has withdrawn from treatment, complete Section D — Reason for Withdrawal.

Date of Treatment/Transfer Change

- Enter the date that the treatment or transfer occurred.
- Format: DD-MON-YYYY (e.g., 04-Apr-2019).

Transfer Hospital Name

- Enter the name of the hospital to or from which the patient was transferred.

Major Reason for Change

- Indicate the major reason for the transfer or treatment change.
- If code 99 is selected, record in detail the reason for the transfer or treatment change.
- Acceptable values:

HD-Specific

15 = HD access failure

17 = Cardiovascular instability

PD-Specific

01 = Peritonitis

02 = Other abdominal complications

16 = Other complications related to PD

Other

03 = Inadequate dialysis

08 = Transferred to originally intended treatment

14 = Patient/family unable to cope with current treatment (patient/family initiated change)

18 = Resource/geographical (non-medical)

09 = Transplanted

10 = Recovered function

11 = Lost to follow-up

19 = Failed transplant

20 = Left country

99 = Other — specify: _____

Section C — Cause of Death

Cause of Death

- Enter the cause of death if the patient has died.
- If there are no cause of death codes that represent this patient's cause of death, enter code 99 and record the cause of death in detail.
- Acceptable values:

General

00 = Cause of death uncertain/not determined

Accident

81 = Accident related to treatment

82 = Accident unrelated to treatment

Cardiac

11 = Myocardial ischemia and infarction

12 = Hyperkalemia

13 = Hemorrhagic pericarditis

14 = Other causes of cardiac failure

15 = Cardiac arrest, cause unknown

16 = Hypertensive cardiac failure

17 = Hypokalemia

18 = Fluid overload

Gastrointestinal

02 = Gastrointestinal tumour with or without perforation

20 = Acute gastroenteritis with dehydration

23 = Gastrointestinal hemorrhage

29 = Mesenteric infarction

62 = Pancreatitis

68 = Perforation of peptic ulcer

70 = Sclerosing (or adhesive) peritoneal disease

72 = Perforation of colon/small bowel

Hematologic

63 = Bone marrow depression

71 = Thrombocytopenia

73 = Thrombosis

Infection

03 = Infection (bacterial)

04 = Infection (viral)

05 = Infection (fungal)

06 = Cytomegalovirus

07 = Epstein-Barr virus

08 = Pneumocystis carinii pneumonia (PCP)

09 = Protozoal/parasitic infection (includes toxoplasmosis)

10 = Wound infection

34 = Infections elsewhere (except viral hepatitis; see codes 41 and 42)

35 = Septicemia/sepsis

36 = Tuberculosis (lung)

37 = Tuberculosis (elsewhere)

38 = Generalized viral infection

39 = Peritonitis (not code 70)

Liver

41 = Liver, due to hepatitis B virus

42 = Liver, other viral hepatitis

43 = Liver, drug toxicity

44 = Cirrhosis (not viral)

45 = Cystic liver disease

46 = Liver failure, cause unknown

74 = Liver, due to hepatitis C virus

Metabolic

59 = Drug-related toxicity

Neurologic

75 = Drug neurotoxicity

76 = Status epilepticus

77 = Neurologic infection

Renal

61 = Uremia caused by kidney transplant failure

Respiratory

19 = Acute respiratory distress syndrome (ARDS)

31 = Pulmonary infection (bacterial)

32 = Pulmonary infection (viral)

33 = Pulmonary infection (fungal)

49 = Bronchiolitis obliterans

Social

50 = Drug abuse (excludes alcohol abuse)

51 = Patient refused further treatment

52 = Suicide

53 = Therapy ceased for any other reason

54 = Alcohol abuse

Vascular

21 = Pulmonary embolus

22 = Cerebrovascular accident

24 = Hemorrhage from graft site

25 = Hemorrhage from vascular access or dialysis circuit

26 = Ruptured vascular aneurysm (not codes 22 or 23)

27 = Hemorrhage from surgery (not codes 23 to 26)

28 = Other hemorrhage (not codes 23 to 27)

55 = Vascular thrombosis

56 = Pulmonary vein stenosis

57 = Stent/balloon complication

Miscellaneous

30 = Hypertension

40 = Diabetic keto acidosis (DKA)

64 = Cachexia

66 = Malignant disease possibly induced by immunosuppressive therapy

67 = Malignant disease (not code 66)

69 = Dementia

90 = Multi-system failure

99 = Other identified cause of death — specify: _____

Section D — Reason for Withdrawal

Reason for Withdrawal From Treatment

- Indicate the reason the patient has withdrawn from treatment.
- If the reason for withdrawal is *Other* (code 7), please record the reason why the patient withdrew from treatment.
- Acceptable values:

  1 = Psychosocial (psychological or social factors)

  2 = Vascular (stroke, peripheral vascular disease, etc.)

  3 = Heart disease

  4 = Infection

  5 = Cancer

  6 = Dementia

  7 = Other — specify: _____

  8 = Palliative care

  9 = Unknown/missing response

4 Follow-up

The Follow-Up form is a voluntary reporting requirement introduced in 2001. The information captured on this form is designed to determine the ways in which current treatment of chronic renal failure patients corresponds to current clinical practice guidelines.

A Follow-Up form should be completed for every living dialysis patient being treated at your facility on October 31 of the reporting year. When using laboratory tests beyond October (no later than December 31 of the reporting year), the patient's treatment type must be the same as it was on October 31 of the reporting year. If a patient dies on October 31, do not complete a Follow-Up form for the patient.

For patients whose treatment type is HD combined with PD (i.e., code 6), a **PD form** should be used.

Completing the Follow-Up form: HD version

Hospital

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital Number

- Each hospital reporting to CORR is assigned a unique identifier.

Patient Last Name

- Enter the surname or family/last name used by the patient. Do not record titles. A single hyphen (e.g., Smith-Watson), apostrophe (e.g., O'Hara) or blank (e.g., Van Dusen) is acceptable.

Patient First and Middle Names

- Enter the patient's first name or given name and middle name. Enter as upper-case alphabetic. If the patient is referred to by a nickname, please indicate this in brackets (e.g., Elizabeth (Betty) Smith).

Current Health Card Number

- Enter the health insurance plan number as indicated on the health card for this patient. Please omit hyphens, blanks and version codes (e.g., 123123123).
- The health card number aids in identifying the patient and in avoiding duplicate patient records.
- For Manitoba residents, please use the PHIN.

Province/Territory of Health Card

- Enter the province/territory that is associated with the health care insurance plan number provided on the patient's health card.
- Acceptable values:

  AB = Alberta

  BC = British Columbia

  MB = Manitoba

  NB = New Brunswick

  NL = Newfoundland and Labrador

  NS = Nova Scotia

  NT = Northwest Territories

  NU = Nunavut

  ON = Ontario

  PE = Prince Edward Island

  QC = Quebec

  SK = Saskatchewan

  YT = Yukon

Current Postal Code

- Enter the postal code for the patient's address as of October 31 of the reporting year.
- Format: M3C2T9.
- This information is used for incidence mapping.

Date of Birth

- Enter the date of birth for this patient.
- Format: DD-MON-YYYY (e.g., 08-Aug-1958).
- As most analyses are carried out according to patient age, this is a mandatory data element.

Laboratory Results

The latest laboratory results for this patient:

Hemoglobin Results

- Enter the latest hemoglobin (g/L) results for this patient.
- The reference range of values is 60 g/L to 140 g/L.

Date of Hemoglobin Results

- Enter the date when the hemoglobin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Hemoglobin Flag

- If the hemoglobin test has not been done, check the box. If the box is checked, Hemoglobin Results and Date of Hemoglobin Results should be blank.

Ferritin Results

- Enter the latest results of the ferritin (mol/L) test (within the nearest 6 months).
- The reference range of values is 50 µmol/L to 500 mol/L or 14 µg/L to 610 µg/L (males) and 8 µg/L to 125 µg/L (females).

Date of Ferritin Results

- Enter the date when the ferritin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Ferritin Flag

- If the ferritin test has not been done, check the box. If the box is checked, Ferritin Results and Date of Ferritin Results should be blank.

Transferrin Saturation or Iron and Transferrin or Iron and TIBC Results (Flag)

- Enter the results of the transferrin saturation (preferred result) or the result of any other iron profile (within the nearest 6 months).

There are 3 options for submitting iron profile:

- Transferrin saturation 25% to 50%
- Serum iron (9 µmol/L to 32 µmol/L) and TIBC (45 µmol/L to 81 µmol/L)
- Serum iron (9 µmol/L to 32 µmol/L) and transferrin (2.0 g/L to 4.0 g/L)

If the test has not been done, check the box. If the box is checked, Transferrin Saturation or Iron and Transferrin or Iron and TIBC Results and Date of Transferrin Saturation or Iron and Transferrin or Iron and TIBC Results should be blank.

There are various clinical ranges. The reference range for transferrin saturation is 25% to 50%; for serum iron is 9 µmol/L to 32 µmol/L; for transferrin is 2.0 g/L to 4.0 g/L; and for total iron binding capacity (TIBC) is 45 µmol/L to 81 µmol/L.

The transferrin or iron saturation (%Sat) can also be obtained by using the following lab results and calculations:

Serum iron (9 µmol/L to 32 µmol/L) × 100 ÷ TIBC (45 µmol/L to 81 µmol/L) = %Sat

or

Serum iron (9 µmol/L to 32 µmol/L) × 4 ÷ transferrin (2.0 g/L to 4.0 g/L) = %Sat

Date of Transferrin Saturation or Iron and Transferrin or Iron and TIBC Results (Flag)

- Date when the %Sat or serum iron and TIBC or serum iron and transferrin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Creatinine Results

- Enter the results of the creatinine (µmol/L) test.
- The reference range of values is 300 µmol/L to 1,500 µmol/L.

Date of Creatinine Results

- Enter the date when the creatinine test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Creatinine Flag

- If the creatinine test has not been done, check the box. If the box is checked, Creatinine Results and Date of Creatinine Results should be blank.

Pre-Dialysis Urea Results

- Enter the results of the pre-dialysis urea (mmol/L) test.
- The reference range of values is 15 mmol/L to 40 mmol/L.

Date of Pre-Dialysis Urea Results

- Enter the date when the pre-dialysis urea test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Pre-Dialysis Urea Flag

- If the pre-dialysis urea test has not been done, check the box. If the box is checked, Pre-Dialysis Urea Results and Date of Pre-Dialysis Urea Results should be blank.

Post-Dialysis Urea Results

- Enter the results of the post-dialysis urea (mmol/L) test.
- The reference range of values is 5 mmol/L to 20 mmol/L.
- This test should be done on the same date as the pre-dialysis urea test.

Post-Dialysis Urea Flag

- If the post-dialysis urea test has not been done, check the box. If the box is checked, Post-Dialysis Urea Results and Date of Post-Dialysis Urea Results should be blank.

Pre-Dialysis Serum Bicarbonate/Serum CO2 Results [i]

- Enter the results of the pre-dialysis serum bicarbonate or serum CO_2 (mmol/L) test.
- The reference range of values is 20 mmol/L to 30 mmol/L.

Date of Pre-Dialysis Serum Bicarbonate/Serum CO_2 Results[i]

- Enter the date when the pre-dialysis serum bicarbonate or serum CO2 test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Pre-Dialysis Serum Bicarbonate/Serum CO_2 Flag[i]

- If the pre-dialysis serum bicarbonate/serum CO_2 test has not been done, check the box. If the box is checked, Pre-Dialysis Serum Bicarbonate/Serum CO_2 Results and Date of Pre-Dialysis Serum Bicarbonate/Serum CO_2 Results should be blank.

Pre-Dialysis Serum Calcium Results

- Enter the results of the pre-dialysis serum calcium (mmol/L) test.
- The reference range of values is 2.22 mmol/L to 2.62 mmol/L corrected, 1.19 mmol/L to 1.29 mmol/L ionized, and 2.10 mmol/L to 2.60 mmol/L uncorrected.

Date of Pre-Dialysis Serum Calcium Results

- Date when the pre-dialysis serum calcium test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

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i. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manu

Pre-Dialysis Serum Calcium Flag

- If the pre-dialysis serum calcium test has not been done, check the box. If the box is checked, Pre-Dialysis Serum Calcium Results and Date of Pre-Dialysis Serum Calcium Results should be blank.

Pre-Dialysis Serum Phosphate Results

- Enter the results of pre-dialysis serum phosphate (mmol/L) test.
- The reference range of values is 1.5 mmol/L to 1.8 mmol/L.

Date of Pre-Dialysis Serum Phosphate Results

- Enter the date when the pre-dialysis serum phosphate test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Pre-Dialysis Serum Phosphate Flag

- If the pre-dialysis serum phosphate test has not been done, check the box. If the box is checked, Pre-Dialysis Serum Phosphate Results and Date of Pre-Dialysis Serum Phosphate Results should be blank.

Serum Parathormone (PTH) Results

- Enter the results of serum parathormone (pmol/L, ng/L or pg/mL) test.
- The reference range of values is 1.3 pmol/L to 7.6 pmol/L, 18 ng/L to 73 ng/L, or 10 pg/mL to 65 pg/mL.

Date of Serum Parathormone (PTH) Results

- Enter the date when the serum parathormone test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Parathormone Flag

- If pre-dialysis serum parathormone test has not been done, check the box. If the box is checked, Serum Parathormone Results and Date of Serum Parathormone Results should be blank.

HbA_{1c} Results

- Enter the results of the HbA_{1c} test. For diabetic patients only.
- The reference range of values is 4% to 12%.

Date of HbA_{1c} Results

- Date when the HbA_{1c} test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

HbA_{1c} Flag

- If the HbA_{1c} test has not been done, check the box. If the box is checked, HbA_{1c} Results and Date of HbA_{1c} Results should be blank.

Serum Albumin Results

- Enter the results of the serum albumin (g/L) test.
- The reference range of values is 25 g/L to 50 g/L.

Date of Serum Albumin Results

- Enter the date when the serum albumin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Albumin Flag

- If the serum albumin test has not been done, check the box. If the box is checked, Serum Albumin Results and Date of Serum Albumin Results should be blank.

Patient Currently Receiving Erythropoietin

- Indicate whether the patient is currently receiving erythropoietin.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown

Erythropoietin Products Being Used [ii]

- Indicate the product that patients currently receiving erythropoietin are using.
- Acceptable values:

  1 = Eprex

  2 = Aranesp (mcg)

  3 = Other: _____

---

ii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Route of Erythropoietin Administration [iii]

- Acceptable values:
  1 = IV
  2 = Subcutaneously

Frequency of Administration[iii]

- Acceptable values:
  1 = Weekly
  2 = Every 2 weeks
  3 = Every 3 weeks
  4 = Monthly
  5 = Other: _____

Total Dose Administered Based on Frequency[iii]

- Indicate the total dose in units administered for patients currently receiving erythropoietin.

Iron Supplementation

Patient Currently on Iron

- Indicate whether the patient is currently receiving iron preparations.
- Answer for all patients.
- Acceptable values:
  1 = No
  2 = Yes, oral
  3 = Yes, IV
  4 = Yes, both (oral and IV)
  5 = Intramuscular (IM)
  6 = Other
  9 = Unknown/missing response

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iii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Patient on Dialysis in the Last 3 Months and on Iron During That Period [iv]

- Indicate whether the patient was receiving iron preparations during the past 3 months.
- Answer for all patients.
- Acceptable values:
  1 = No
  2 = Yes, oral
  3 = Yes, IV
  4 = Yes, both (oral and IV)
  8 = On dialysis less than 3 months
  9 = Unknown/missing response

Patient on Dialysis in the Last 12 Months and on Iron During That Period[iv]

- Indicate whether the patient was receiving iron preparations during the past year.
- Answer for all patients.
- Acceptable values:
  1 = No
  2 = Yes, oral
  3 = Yes, IV
  4 = Yes, both (oral and IV)
  8 = On dialysis less than 1 year
  9 = Unknown/missing response

Pediatric Patient Weight

Patient Pre-Dialysis Weight

- Enter the pediatric patient's actual weight in kilograms prior to commencing dialysis treatment on a given day. Conversion factor: 1 lb = 0.45 kg or 2.21 lbs = 1 kg.
- Format: 0-6-3 8-3-0.
- The pre- and post-dialysis weights should be taken on the same day.

Patient Post-Dialysis Weight

- Enter the pediatric patient's actual weight in kilograms after receiving dialysis treatment on a given day. Conversion factor: 1 lb = 0.45 kg or 2.21 lbs = 1 kg.
- Format: 0-6-7 5-2-0.
- The pre- and post-dialysis weights should be taken on the same day.

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iv. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Date Weight Taken

- Enter the date the pediatric patient's pre- and post-dialysis weights were taken.
- The pre- and post-dialysis weights should be taken on the same day.
- Use the month when most of the laboratory results were obtained.
- Format: DD-MON-YYYY (e.g., 12-Jan-2019).

Pediatric Patient Height

- Enter the pediatric patient's most recently measured height in centimetres. Conversion factor: 1 inch = 2.54 cm or 0.39 inches = 1 cm.
- Format: 0-9-1 4-4-0.

Pediatric patient: *A patient who is younger than 18 on October 31 of the reporting year.*

Date Height Taken

- Enter the date the pediatric patient's height was taken.
- Use the month when most of the laboratory results were obtained.
- Format: DD-MON-YYYY (e.g., 24-May-2019).

HD Frequency

- Enter the number of times per week that this patient is receiving treatment.
- Range: 1 to 7.

Number of Hours per Treatment of HD

- Enter the number of hours per treatment that this patient is receiving.
- Usually 2 to 3 hours per treatment.

Access on Date of Laboratory Results

- Indicate the access that the patient was using on the date the laboratory results were obtained.
- Acceptable values:

  1 = Temporary catheter, non-cuffed

  2 = Temporary catheter, cuffed

  3 = Permanent catheter, non-cuffed

  4 = Permanent catheter, cuffed

  5 = Fistula

  6 = Graft

  9 = Unknown/missing response

Temporary non-cuffed catheters are venous dialysis catheters that do not have a Dacron or other cuff; they are intended for temporary use only (typically made of PVC or polyurethane). Typical temporary non-cuffed sites usually include jugular, femoral or subclavian veins.

Cuffed catheters are catheters with cuffs made of Dacron or other material that may be used on a temporary or permanent basis. Cuffed catheters are typically located in the jugular vein but may occasionally be placed in the subclavian or femoral vein.

Fistula Function Monitoring[v]

- Indicate how fistula function is monitored for this patient.
- Acceptable values:

  0 = Not monitored

  1 = Total access blood flow

  2 = Recirculation

Last Total Access Blood Flow (Fistula)[v]

- Enter the last total access blood flow (mL/min) for this fistula.
- This is only completed if the fistula function is monitored by total access blood flow.
- Acceptable range: greater than 500 mL/min. Access flow of less than 500 mL/min should be investigated.

Date of Last Total Access Blood Flow (Fistula)[v]

- Enter the date of last total access blood flow.
- This is only completed if the fistula function is monitored by total access blood flow.
- Format: MON-YYYY (e.g., Sep-2019).

Last Recirculation (Fistula)[v]

- Enter the last recirculation (percentage) for this fistula.
- This is only completed if the fistula function is monitored by recirculation.
- Acceptable range: less than 5%. Recirculation of greater than 5% should be investigated.

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v. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Date Last Recirculation Taken (Fistula) [vi]

- Enter the date the last recirculation was taken.
- This is only coded if the fistula function is monitored by recirculation.
- Format: MON-YYYY (e.g., Sep-2019).

Monitoring AV fistulae: *The preferred method is direct online total access flow measurement. When clinicians do not have access to online flow measures, they can monitor vascular access using regular recirculation studies by using a non-urea-based dilutional method or by using the 2-needle urea-based method.*

Graft Function Monitoring[vi]

- Indicate how graft function is monitored for this patient.
- Acceptable values:

  0 = Not monitored

  1 = Total access blood flow

  2 = Venous pressure

Last Total Access Blood Flow (Graft)[vi]

- Enter the last total access blood flow (mL/min) for this graft.
- This is only completed if the graft function is monitored by total access blood flow.
- Acceptable range: greater than 650 mL/min.

Date of Last Total Access Blood Flow (Graft)[vi]

- Enter the date of last total access blood flow.
- This is only completed if the graft function is monitored by total access blood flow.
- Format: MON-YYYY (e.g., Sep-2019).

Last Dynamic Venous Pressure (Graft)[vi]

- Enter the last venous pressure (mm/Hg) for this graft at a blood flow of 200 mL/min.
- This is only completed if the graft function is monitored by venous pressure.
- Acceptable range: less than 150 mm/Hg (not absolute).

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vi. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Date of Last Dynamic Venous Pressure (Graft)[vi]

- Enter the date of venous pressure.
- This is only completed if the graft function is monitored by venous pressure.
- Format: MON-YYYY (e.g., Sep-2019).

Monitoring AV grafts: *Blood access flows through AV grafts can be measured by indicator dilution or conductivity tracer techniques using the Krivitski reversed line technique. Venous dialysis pressure should be measured from the HD machine at Qb 200 mL/min during the first 2 to 5 minutes of HD.*

Patient Currently Active on the Renal Transplant Waiting List

- Indicate whether the patient is currently active on the waiting list for a kidney transplant.
- Acceptable values:

  1 = Not on waiting list

  2 = Currently in work-up for waiting list

  3 = Currently on waiting list

  9 = Unknown status

Completing the Follow-Up form: PD version

Hospital

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital Number

- Each hospital reporting to CORR is assigned a unique identifier.

Patient Last Name

- Enter the surname or family/last name used by the patient. Do not record titles. A single hyphen (e.g., Smith-Watson), apostrophe (e.g., O'Hara) or blank (e.g., Van Dusen) is acceptable.

Patient First and Middle Names

- Enter the patient's first name or given name and middle name. Enter as upper-case alphabetic. If the patient is often referred to by a nickname, please indicate this in brackets (e.g., Elizabeth (Betty) Smith).

Current Health Card Number

- Enter the health insurance plan number as indicated on the health card for this patient. Please omit hyphens, blanks and version codes (e.g., 123123123).
- The health card number aids in identifying the patient and in avoiding duplicate patient records.
- For Manitoba residents, please use the PHIN.

Province/Territory of Health Card

- Enter the province/territory that is associated with the health care insurance plan number provided on the patient's health card.
- Acceptable values:

  AB = Alberta

  BC = British Columbia

  MB = Manitoba

  NB = New Brunswick

  NL = Newfoundland and Labrador

  NS = Nova Scotia

  NT = Northwest Territories

  NU = Nunavut

  ON = Ontario

  PE = Prince Edward Island

  QC = Quebec

  SK = Saskatchewan

  YT = Yukon

Current Postal Code

- Enter the postal code for the patient's address as of October 31 of the reporting year.
- Format: M3C2T9.
- This information is used for incidence mapping.

Date of Birth

- Enter the date of birth for this patient.
- Format: DD-MON-YYYY (e.g., 08-Aug-1958).
- As most analyses are carried out according to patient age, this is a mandatory data element.

Laboratory Results

- The latest laboratory results for this patient.

Hemoglobin Results

- Enter the latest hemoglobin (g/L) results for this patient.
- The reference range of values is 60 g/L to 140 g/L.

Date of Hemoglobin Results

- Enter the date when the hemoglobin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Hemoglobin Flag

- If the hemoglobin test has not been done, check the box. If the box is checked, Hemoglobin Results and Date of Hemoglobin Results should be blank.

Ferritin Results

- Enter the latest results of the ferritin (mol/L) test (within the nearest 6 months).
- The reference range of values is 50 µmol/L to 500 mol/L or 14 µg/L to 610 µg/L (males) and 8 µg/L to 125 µg/L (females).

Date of Ferritin Results

- Enter the date when the ferritin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Ferritin Flag

- If the ferritin test has not been done, check the box. If the box is checked, Ferritin Results and Date of Ferritin Results should be blank.

Transferrin Saturation or Serum Iron and Transferrin or Serum Iron and TIBC Results (Flag)

- Enter the results of the transferrin saturation (preferred result) or the result of any other iron profile (within the nearest 6 months).

There are 3 options for submitting iron profile:

- Transferrin saturation 25% to 50%
- Serum iron (9 µmol/L to 32 µmol/L) and TIBC (45 µmol/L to 81 µmol/L)
- Serum iron (9 µmol/L to 32 µmol/L) and transferrin (2.0 g/L to 4.0 g/L)

If the test has not been done, check the box. If the box is checked, Transferrin Saturation or Serum Iron and Transferrin or Serum Iron and TIBC Results and Date of Transferrin Saturation or Serum Iron and Transferrin or Serum Iron and TIBC Results should be blank.

There are various clinical ranges. The reference range for transferrin saturation is 25% to 50%, for serum iron is 9 µmol/L to 32 µmol/L, for transferrin is 2.0 g/L to 4.0 g/L, and for total iron binding capacity (TIBC) is 45 µmol/L to 81 µmol/L.

The transferrin or iron saturation (%Sat) can also be obtained by using the following lab results and calculations:

Serum iron (9 µmol/L to 32 µmol/L) × 100 ÷ TIBC (45 µmol/L to 81 µmol/L) = %Sat

or

Serum iron (9 µmol/L to 32 µmol/L) × 4 ÷ transferrin (2.0 g/L to 4.0 g/L) = %Sat

Date of Transferrin Saturation or Serum Iron and Transferrin or Serum Iron and TIBC Results (Flag)

- Date when the %Sat or serum iron and TIBC or serum iron and transferrin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Creatinine Results

- Enter the results of the creatinine (µmol/L) test.
- The reference range of values is 300 µmol/L to 1,500 µmol/L.

Date of Creatinine Results

- Enter the date when the creatinine test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Creatinine Flag

- If the creatinine test has not been done, check the box. If the box is checked, Creatinine Results and Date of Creatinine Results should be blank.

Urea Results

- Enter the results of the urea (mmol/L) test.
- The reference range of values is 15 mmol/L to 40 mmol/L.

Date of Urea Results

- Enter the date when the urea test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Urea Flag

- If the urea test has not been done, check the box. If the box is checked, Urea Results and Date of Urea Results should be blank.

Serum Bicarbonate/Serum CO_2 Results [vii]

- Enter the results of the serum bicarbonate/serum CO_2 (mmol/L) test.
- The reference range of values is 20 mmol/L to 30 mmol/L.

Date of Serum Bicarbonate/Serum CO_2 Results[vii]

- Enter the date when the serum bicarbonate/serum CO_2 test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Bicarbonate/Serum CO_2 Flag[vii]

- If the serum bicarbonate/serum CO_2 test has not been done, check the box.
- If the box is checked, Serum Bicarbonate/Serum CO_2 Results and Date of Serum Bicarbonate/Serum CO_2 Results should be blank.

Serum Calcium Results

- Enter the results of the serum calcium (mmol/L) test.
- The reference range of values is 2.22 mmol/L to 2.62 mmol/L corrected, 1.19 mmol/L to 1.29 mmol/L ionized, and 2.10 mmol/L to 2.60 mmol/L uncorrected.

Date of Serum Calcium Results

- Date when the serum calcium test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

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vii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Serum Calcium Flag

- If the serum calcium test has not been done, check the box. If the box is checked, Serum Calcium Results and Date of Serum Calcium Results should be blank.

Serum Phosphate Results

- Enter the results of the serum phosphate (mmol/L) test.
- The reference range of values is 1.5 mmol/L to 1.8 mmol/L.

Date of Serum Phosphate Results

- Enter the date when the serum phosphate test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Phosphate Flag

- If the serum phosphate test has not been done, check the box. If the box is checked, Serum Phosphate Results and Date of Serum Phosphate Results should be blank.

Serum Parathormone (PTH) Results

- Enter the results of the serum parathormone (pmol/L; ng/L, or pg/mL) test.
- The reference range of values is 1.3 pmol/L to 7.6 pmol/L, 18 ng/L to 73 ng/L, or 10 pg/mL to 65 pg/mL.

Date of Serum Parathormone (PTH) Results

- Enter the date when the serum parathormone test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Parathormone Flag

- If the serum parathormone test has not been done, check the box. If the box is checked, Serum Parathormone Results and Date of Serum Parathormone Results should be blank.

HbA_{1c} Results

- Enter the results of the HbA_{1c} test. For diabetic patients only.
- The reference range of values is 4% to 12%.

Date of HbA_{1c} Results

- Date when the HbA_{1c} test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

HbA_{1c} Flag

- If the HbA_{1c} test has not been done, check the box. If the box is checked, HbA_{1c} Results and Date of HbA_{1c} Results should be blank.

Serum Albumin Results

- Enter the results of the serum albumin (g/L) test.
- The reference range of values is 25 g/L to 50 g/L.

Date of Serum Albumin Results

- Enter the date when the serum albumin test was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Serum Albumin Flag

- If the serum albumin test has not been done, check the box. If the box is checked, Serum Albumin Results and Date of Serum Albumin Results should be blank.

Patient Currently Receiving Erythropoietin

- Indicate whether the patient is currently receiving erythropoietin.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown

Erythropoietin Products Being Used[viii]

- Indicate the product that patients currently receiving erythropoietin are using.
- Acceptable values:

  1 = Eprex

  2 = Aranesp (mcg)

  3 = Other: _____

Route of Erythropoietin Administration[viii]

- Acceptable values:

  1 = IV

  2 = Subcutaneously

Frequency of Administration[viii]

- Acceptable values:

  1 = Weekly

  2 = Every 2 weeks

  3 = Every 3 weeks

  4 = Monthly

  5 = Other: _____

Total Dose Administered Based on Frequency[viii]

- Indicate the total dose in units administered for patients currently receiving erythropoietin.

viii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Iron Supplementation

Patient Currently on Iron

- Indicate whether the patient is currently receiving iron preparations.
- Answer for all patients.
- Acceptable values:

  1 = No

  2 = Yes, oral

  3 = Yes, IV

  4 = Yes, both (oral and IV)

  5 = Intramuscular (IV)

  6 = Other

  9 = Unknown/missing response

Patient on Dialysis in the Last 3 Months and on Iron During That Period [ix]

- Indicate whether the patient was receiving iron preparations during the past 3 months.
- Answer for all patients.
- Acceptable values:

  1 = No

  2 = Yes, oral

  3 = Yes, IV

  4 = Yes, both (oral and IV)

  5 = Intramuscular (IV)

  6 = Other

  8 = On dialysis less than 3 months

  9 = Unknown/missing response

---

ix. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Patient on Dialysis in the Last 12 Months and on Iron During That Period [x]

- Indicate whether the patient was receiving iron preparations during the past year.
- Answer for all patients.
- Acceptable values:

  1 = No

  2 = Yes, oral

  3 = Yes, IV

  4 = Yes, both (oral and IV)

  5 = Intramuscular (IV)

  6 = Other

  8 = On dialysis less than 1 year

  9 = Unknown/missing response

Pediatric Patient Weight

- Enter the pediatric patient's actual weight in kilograms at a recent clinic attendance. Conversion factor: 1 lb = 0.45 kg or 2.21 lbs = 1 kg.
- Format: 0-6-3 8-3-0.

PD Fluid Flag

- Indicate whether the pediatric patient is full or empty of PD fluid.
- Acceptable values:

  0 = Empty of PD fluid

  1 = Full of PD fluid

Date Weight Taken

- Enter the date the pediatric patient's weight was taken.
- Use the month when most of the laboratory results were obtained.
- Format: DD-MON-YYYY (e.g., 12-Oct-2019).

Pediatric Patient Height

- Enter the pediatric patient's most recently measured height in centimetres. Conversion factor: 1 inch = 2.54 cm or 0.39 inches = 1 cm.
- Format: 0-9-1 4-4-0.

Pediatric patient: *A patient who is younger than 18 on October 31 of the reporting year.*

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x. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Date Height Taken

- Enter the date the pediatric patient's height was taken.
- Use the month when most of the laboratory results were obtained.
- Format: DD-MON-YYYY (e.g., 20-Sep-2019).

Weekly Creatinine Clearance — Residual Renal [xi]

- Enter the residual renal result for the weekly creatinine clearance. Enter the most recent results. Where residual function is 0, please specify 0.

Weekly Creatinine Clearance — Peritoneal[xi]

- Enter the peritoneal result for the weekly creatinine clearance.

Weekly Creatinine Clearance — Total

- Enter the total result for the weekly creatinine clearance.
- Total weekly creatinine clearance = renal result + peritoneal result (i.e., R + P).
- Range: 40 L to 120 L/1.73 m^2/week.
- Creatinine clearance is normalized to 1.73 m^2/BSA.

Date Weekly Creatinine Clearance Taken

- Enter the date that the weekly creatinine clearance was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Patient Not Tested Flag (Creatinine Clearance)

- Check this box if the patient was not yet tested for the weekly creatinine clearance.

Test (Weekly Creatinine Clearance) Not Routinely Done Flag

- Check this box if the weekly creatinine clearance is not done routinely.

Weekly Kt/V (Urea) — Residual Renal[xi]

- Enter the residual renal result for weekly Kt/V (urea). Enter the most recent results. Where the residual is 0, please specify 0.

Weekly Kt/V (Urea) — Peritoneal[xi]

- Enter the peritoneal result for weekly Kt/V (urea).

---

xi. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Weekly Kt/V (Urea) — Total

- Enter the total result for weekly Kt/V (urea) (i.e., R + P).
- Range: 1 to 5.
- Total weekly Kt/V = renal result + peritoneal result

Date Weekly Kt/V (Urea) Taken

- Enter the date that the weekly Kt/V was taken.
- Format: MON-YYYY (e.g., Sep-2019).

Patient Not Tested Flag (Weekly Kt/V)

- Check this box if the patient was not yet tested for the weekly Kt/V (urea).

Test (Weekly Kt/V) Not Routinely Done Flag

- Check this box if the weekly Kt/V is not done routinely.

Computational formulas for PD clearances as cited in the *Clinical Practice Guidelines of the Canadian Society of Nephrology for Treatment of Patients With Chronic Renal Failure* (1999):

Kt/V urea:

Weekly Kt/V = 7[D/P_{urea} (mmol/L) × effluent volume (L) + U/P_{urea} (mmol/L) × urine volume (L)] ÷ total body water (L)]

Weekly creatinine clearance:

CCr = 7[D/P_{creat} (µmol/L) × effluent volume (L) + urine volume (L) × [U/P_{urea} + U/P_{creat} (mmol/L) ÷ 2] × 1.73 BSA

Watson formulas for total body water (V):

Male: V(L) = 2.447 + 0.3362 × weight (kg) + 0.1074 × height (cm) − 0.09516 × age (yr)

Female: V(L) = -2.097 + 0.2466 × weight (kg) + 0.1069 × height (cm)

DuBois formula for body surface area:

BSA = 0.007184 × weight 0.425 (kg) × height 0.725 (cm)

Peritoneal Membrane Transport Status [xii]

- Indicate the results of the first peritoneal membrane transport (PET) test. This is typically done within the first 3 months of PD treatment.
- Acceptable values:

  1 = Low

  2 = Low average

  3 = High

  4 = High average

Patient Not Tested Flag (PET)[xii]

- Check this box if the patient did not yet have a PET test.

Patient Declined PET Flag[xii]

- Check this box if the patient declined to have a PET test.

Test Not Routinely Done[xii]

- Check this box if the test is not routinely done.

Continuous Ambulatory Peritoneal Dialysis (CAPD) Flag[xii]

- Indicate if the patient is currently receiving CAPD.

CAPD: *Includes manual exchanges. It can also include the use of a night exchange device to do 1 automated exchange per 24 hours. If more than 1 automated exchange is done, it should be considered to be APD.*

Volume of Fluid per Exchange (CAPD)[xii]

- Enter the volume of fluid (mL) per exchange for this CAPD patient.
- The usual range is 1,000 mL to 3,000 mL. If the patient is on different volumes per exchange, these will be entered as an average.

Number of Exchanges per Day (CAPD)[xii]

- Enter the number of fluid exchanges per day for this CAPD patient.
- The usual range is 1 to 7.

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xii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Total Volume per Day (CAPD) [xiii]

- Enter the total volume of fluid (mL) exchanged per day for this CAPD patient.
- The total volume per day is equal to the volume of fluid per exchange multiplied by the number of exchanges per day.
- The usual range is 2,000 mL to 15,000 mL.

Night Exchange Device Flag[xiii]

- Indicate whether a night exchange device was used.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Continuous Automated Peritoneal Dialysis (APD) Flag[xiii]

- Indicate if the patient is currently receiving APD. Includes patients on NPD, NIPD, CCPD, IPD and a combination of both APD and CAPD.

Volume Cycled per Night (APD)[xiii]

- Enter the volume (mL) cycled per night for this APD patient. Indicate the total volume cycled (i.e., fluid cycled in and out while the patient is hooked up to the cycler). Does not include “last bag option” fills or fluid delivered using “pause” or “walk away” options.
- The usual range is 5,000 mL to 35,000 mL.

Dwell Volume on Cycler (APD)[xiii]

- Enter the dwell volume on cycler for this APD patient.
- The usual range is 500 mL to 3,500 mL.

Volume of Individual Day Dwells (APD)[xiii]

- Enter the volume (mL) of individual day dwells for this APD patient.
- The usual range is 500 mL to 3,500 mL.

Number of Day Dwells (APD)[xiii]

- Enter the number of day dwells for this APD patient. Includes “last bag options” and “pause” and “walk away” options.
- The usual range is 0 to 3. If the patient is not on day dwells, the volume of individual day dwells should be 0.

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xiii. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

Amino Acid Dialysate Flag[xiv]

- Indicate whether this patient is using amino acid dialysate.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Non-Dextrose Dialysate Flag[xiv]

- Indicate whether this patient is using non-dextrose (i.e., icodextrin, no amino acid added) dialysate.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Patient Currently Active on the Renal Transplant Waiting List

- Indicate whether the patient is currently active on the waiting list for a kidney transplant.
- Acceptable values:

  1 = Not on waiting list

  2 = Currently in work-up for waiting list

  3 = Currently on waiting list

  9 = Unknown status

xiv. This data element was removed from the CORR Web-Entry Data Form but can be submitted as an optional value through eFile submission. Please see the Dialysis Submission Specifications Manual.

5 Facility profile

The **Facility Profile Questionnaire** has 1 general section, divided into hemodialysis and peritoneal dialysis. Separate forms allow each unit to complete the relevant portion and return it directly to CORR.

Facilities are required to complete the survey at year-end (December 31) of the current reporting year, using the best estimate when precise information is not available. We request that centres complete the questionnaire and return it within the time frame required. The form is designed to capture general information about facilities and the community centres affiliated with them.

Completing the Facility Profile: HD version

This form is to be completed by hospital HD or stand-alone, independent health facilities. Information on community centres (satellites) affiliated with hospitals, their patients and stations is included in the form submitted by hospitals.

Hospital Name

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital City

- Enter the name of the city where the hospital is located. The city is required in order to differentiate hospitals with the same name in different cities (e.g., St. Joseph’s in Hamilton, St. Joseph’s in Toronto).

Hospital Number

- Each hospital reporting to CORR is assigned a unique identifier.

Total Number of HD Stations

- Enter the total number of HD stations at your facility. *This does not include stations at community centres.*

Community Centre Name

- Enter the community centre affiliated with your facility (page 2 of questionnaire). Record as many community centres as exist.

Community Centre Location

- Enter the location for the community centre affiliated with your facility. Record as many locations as there are community centres for your facility.

Number of Stations per Community Centre

- Enter the number of stations at a community centre that is affiliated with your facility. Record as many numbers as there are community centres for your facility.

Temporary Visitors Flag

- Indicate whether your facility provides dialysis facilities to temporary visitors (including holidays).
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Temporary Visitors Always Flag

- Indicate whether your facility is always able to provide dialysis facilities to temporary visitors.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Adequate HD Facilities Flag

- Indicate whether your facility has adequate HD facilities (e.g., in terms of space/physical capacity or human resources).
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Reason Why Facility Does Not Have Adequate HD Facilities

- Record the top 2 reasons why your facility does not have adequate HD facilities.
- Should be answered only if your facility does not have adequate HD facilities.
- Acceptable values:

  1 = Inadequate space for patients

  2 = Inadequate space for machines

  3 = Inadequate space for training facilities

  4 = Lack of physical capacity to expand

  5 = Lack of qualified registered nurses

  6 = Lack of dietitians, social workers, pharmacists or other allied health professionals

  7 = Lack of technicians/technologists

  8 = Lack of dedicated nephrologist(s)

  9 = Other — please specify: _____

Free Choices Regarding Modality Flag

- Indicate whether staff and patients at your facility have free choice as to which modality is selected.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Reason Why Modality Choices Are Limited

- Record the top 2 reasons why staff and patients do not have free choice as to which modality is selected.
- Should be answered only if staff and patients do not have free choice as to which modality is selected.
- Acceptable values:

  1 = Other modality not supported at centre

  2 = Space restrictions limit options

  3 = Geographic access to centre by patients limits options

  9 = Other — please specify: _____

Contact information

Name of Person Who Completed Form

- Enter the name of the person who completed this form.

Date Form Completed

- Enter the date that the form was completed.
- Format: DD-MON-YYYY (e.g., 03-Jan-2020).

Completing the Facility Profile: PD version

Hospital Name

- Enter the name of the hospital in which the patient is receiving treatment.

Hospital City

- Enter the name of the city where the hospital is located. The city is required in order to differentiate hospitals with the same name in different cities (e.g., St. Joseph's in Hamilton, St. Joseph's in Toronto).

Hospital Number

- Completed by CORR. Each hospital reporting to CORR is assigned a unique identifier.

Adequate PD Facilities Flag

- Indicate whether your facility has adequate PD facilities (e.g., in terms of space/physical capacity or human resources).
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Reason Why Facility Does Not Have Adequate Peritoneal Facilities

- Record the top 2 reasons why your facility does not have adequate PD facilities.
- Should be answered only if your facility does not have adequate PD facilities.
- Acceptable values:

  1 = Inadequate space for patients

  2 = Inadequate space for machines

  3 = Inadequate space for training facilities

  4 = Lack of physical capacity to expand

  5 = Lack of qualified registered nurses

  6 = Lack of dietitians, social workers, pharmacists or other allied health professionals

  7 = Lack of technicians/technologists

  8 = Lack of dedicated nephrologist(s)

  9 = Other — please specify: _____

Free Choices Regarding Modality Flag

- Indicate whether staff and patients at your facility have free choice as to which modality is selected.
- Acceptable values:

  N = No

  Y = Yes

  U = Unknown/missing response

Reason Why Modality Choices Are Limited

- Record the top 2 reasons why staff and patients do not have free choice as to which modality is selected.
- Should be answered only if all staff and patients do not have free choice as to which modality is selected.
- Acceptable values:

  1 = Other modality not supported at centre

  2 = Space restrictions limit options

  3 = Geographic access to centre by patients limits options

  9 = Other — please specify: _____

Contact information

Name of Person Who Completed Form

- Enter the name of the person who completed this form.

Date Form Completed

- Enter the date that the form was completed.
- Format: DD-MON-YYYY (e.g., 03-Jan-2020).

Appendices

Appendix A — Participating dialysis centres

A listing of participating dialysis centres in Canada as of January 1, 2020, is located on the CORR web page.

Appendix B — Reporting forms

The Canadian Institute for Health Information and the Canadian Organ Replacement Register accepts electronic submissions only. Printable forms for reference can be requested from corr@cihi.ca.

help@cihi.ca

CIHI Ottawa
495 Richmond Road
Suite 600
Ottawa, Ont.
K2A 4H6
613-241-7860

CIHI Toronto
4110 Yonge Street
Suite 300
Toronto, Ont.
M2P 2B7
416-481-2002

CIHI Victoria
880 Douglas Street
Suite 600
Victoria, B.C.
V8W 2B7
250-220-4100

CIHI Montréal
1010 Sherbrooke Street West
Suite 602
Montréal, Que.
H3A 2R7
514-842-2226

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23467-1220