

Dialysis – Did you know?

October 2025

The main purpose of dialysis is to help impaired renal function. When kidneys are damaged, they are no longer able to remove waste and excess fluid from the bloodstream efficiently. Waste products such as nitrogen and creatinine build up in the bloodstream.

There are different types of dialysis:

- Peritoneal dialysis
- Haemodialysis
- Haemofiltration
- Haemodiafiltration.

Peritoneal dialysis

Peritoneal dialysis is where fluid is introduced into the peritoneal cavity via a Tenckhoff catheter. Uraemic solutes diffuse into it across the peritoneal membrane.

Haemodialysis

Haemodialysis is where blood goes through a special machine called a 'dialyser'. The machine removes waste and extra fluid from the blood before pumping it back into the body. The blood leaves and then returns to the body through a needle, usually in the arm, neck, or leg. Dialysis can be performed at a renal unit or in your home.

Haemodialysis removes solutes (dissolved solids) by diffusion. As such, it is relatively inefficient for solutes of high molecular weight as clearance by diffusion is inversely related to the molecular weight of the solute.

There are three different types of dialysis access used for hemodialysis:

- Central venous catheter (CVC)
- Arteriovenous fistula (AV Fistula)
- Arteriovenous graft (AV Graft).

Haemofiltration

Haemofiltration removes solutes by convection. It is used to remove excess fluid. Haemofiltration can be intermittent or continuous.

- Intermittent haemofiltration involves a higher removal rate of larger molecular weight substances which are removed poorly by dialysis.
- Continuous haemofiltration is a method of temporarily replacing kidney function.

Haemodiafiltration

Haemodiafiltration can also be intermittent or continuous. It is a combination of haemodialysis and haemofiltration.

- Haemodialysis is used to diffuse molecular solutes that are relatively small in weight and size.
- Haemofiltration is used to remove bigger molecular waste products and substances.

Do you know your dialysis acronyms?

APD	Automated peritoneal dialysis
CAPD	Continuous ambulatory peritoneal dialysis
CCPD	Continuous cyclic peritoneal dialysis
CHF	Continuous hemofiltration
CRRT	Complete renal replacement therapy
CVVH	Continuous veno-venous haemofiltration
CVVHD	Continuous veno-venous haemodialysis
CVVHDF	Continuous veno-venous haemodiafiltration
EDD	Extended daily dialysis
EDDF	Extended daily diafiltration
HD	Haemodialysis
IHD	Intermittent haemodialysis
IHDF	Intermittent haemodiafiltration
IHF	intermittent haemofiltration
IPD	Intermittent peritoneal dialysis
ISO UF	Isolated Ultrafiltration
NHHD	Nocturnal home haemodialysis
PD	Peritoneal dialysis
SLED	Sustained low efficiency dialysis
SLEDD	Sustained low efficiency daily dialysis

Validations

A common validation regarding dialysis is:

H652 - If this patient is admitted for same day dialysis, the principal diagnosis should be Z491.

This validation is generated when the below is in the source data:

- the Planned Same Day field is 'Yes, planned to be separated on the same day'
- a haemodialysis procedure code has been assigned and
- the principal diagnosis is **not** Z49.1 *Extracorporeal dialysis*

Reason for validation

As per Australian Coding Standard 1404 *Admission for kidney dialysis*, for episodes of care where the patient is discharged on the same day as the admission or on the next day after admission, code Z49.1 *Extracorporeal dialysis* as the principal diagnosis as appropriate.

Where a kidney dialysis episode of care is multi-day, but the intent for admission was same day, code as principal diagnosis the condition responsible for extending the patient's length of stay and Z49.1 as an additional diagnosis.

How to resolve the validation

There are a few things that you can check before responding in Electronic Validation Application (EVA) Plus for this validation including:

- confirming that the admission and discharge date/times are correct
- confirm the Planned Same Day field is correct
- that haemodialysis was performed during the episode of care
- that the principal diagnosis is correct.

Example 1

Patient was admitted for planned same day haemodialysis. During the episode of care while undergoing haemodialysis, the patient experienced chest pain and the clinical team decided to keep the patient in overnight for observation. The principal diagnosis assigned was R07.4 *Chest pain, unspecified* with Z49.1 *Extracorporeal dialysis* an additional diagnosis. The procedure code for haemodialysis was also assigned.

When this episode of care had been registered, the Planned Same Day field had been recorded as 'Yes, planned to be separated on the same day' as it had been anticipated that this would be a same day episode of care.

This validation had generated because the principal diagnosis is not Z49.1 *Extracorporeal dialysis* and the patient stayed overnight with the Planned Same Day recorded as 'Yes, planned to be separated on the same day'.

In EVA, the facility response noted “the patient had planned to be a same day episode of care but had to stay overnight due to chest pain. Coding is correct”. This validation was then able to be processed by the Statistical Services Branch (SSB).

PD	R07.4	Chest pain, unspecified
OD	Z49.1	Extracorporeal dialysis
PR	13100-00	Haemodialysis

Example 2

Patient presented to the Emergency Department with a severe migraine. The patient was admitted for one day and during that episode of care received haemodialysis for their known chronic renal failure. The principal diagnosis assigned was G43.9 *Migraine, unspecified* with N18.5 *Chronic Kidney Disease, stage 5* an additional diagnosis. The procedure code for haemodialysis was also assigned. As per ACS 1404 *Admission for kidney dialysis*, Z49.1 *Extracorporeal dialysis* was not coded.

In this episode of care the intent was not for haemodialysis but rather treatment for a migraine as an emergency presentation which progressed to an admitted acute episode of care with an overnight stay.

When this episode of care had been registered, the Planned Same Day field had been recorded as 'Yes, planned to be separated on the same day' as it had been anticipated that the patient would not be staying overnight.

The validation generated because the principal diagnosis was not Z49.1 *Extracorporeal dialysis* and the patient did stay overnight with the Planned Same Day recorded as 'Yes, planned to be separated on the same day'.

In EVA, the facility response noted “the patient was expected to be a same day episode of care but the clinician determined that the patient was to stay overnight due to the migraine. Coding is correct”. This validation was then able to be processed by the Statistical Services Branch (SSB).

PD	G43.9	Migraine, unspecified
OD	N18.5	Chronic kidney disease, stage 5
PR	13100-00	Haemodialysis

Example 3

Patient presented to the Emergency Department with a fractured neck of femur, following a fall at home. The patient was admitted and during the episode of care received haemodialysis twice for their known chronic renal failure. The fracture was confirmed via X-ray as a subcapital fracture of the right femur which was treated by hemiarthroplasty of the right femur under general anaesthesia, ASA 3.

PD	S72.03	Fracture of subcapital section of femur
EX	W19	Unspecified fall
EX	Y92.09	Other and unspecified place in home
EX	U73.9	Unspecified activity
OD	N18.5	Chronic kidney disease, stage 5
PR	47522-00	Hemiarthroplasty of femur
PR	92514-39	General anaesthesia, ASA 39
PR	13100-00	Haemodialysis

When dialysis is given multiple times during an episode of care and the same procedure code applies, assign the procedure code once only.

Example 4

Patient was admitted for a standard routine same day admission for haemodialysis.

For routine same day dialysis admissions it is assumed from the assignment of Z49.1 *Extracorporeal dialysis* or Z49.2 *Other dialysis* that the patient has chronic kidney disease. Therefore, a code from category N18 *Chronic kidney disease* is not assigned as an additional diagnosis.

When this episode of care had been registered, the Planned Same Day field had been recorded as 'Yes, planned to be separated on the same day' as it is anticipated that this would be a same day episode of care.

No validation will generate for this episode.

PD	Z49.1	Extracorporeal dialysis
PR	13100-00	Haemodialysis

Elective patient status

It is important to note that the correct Elective patient status for planned readmissions of dialysis patients is 3 *Not assigned*.

If a dialysis patient does not have this elective status, the following validation will generate:

H935 - Episode of care with intervention code | should have an Elective patient status of 3 Not assigned.

How to resolve the validation

There are a few things that you can check before responding in EVA for this validation including:

- confirming that the principal diagnosis is correct
- confirm that dialysis was performed during the episode of care
- check the Elective status and amend as appropriate.

For more information on Elective patient status, please refer to the [Queensland Hospital Admitted Patient Data Collection \(QHAPDC\) Manual](#).

Dialysis Care Type

Dialysis is considered acute care.

Dialysis, chemotherapy and some radiotherapy procedures are same day accommodation procedures. A patient cannot be admitted as a same day accommodation procedure whilst also admitted as an overnight patient. A patient receiving dialysis during a multi-day episode can be any care type and if receiving dialysis during a sub and non-acute patient (SNAP) episode of care the care type does not require adjustment to acute via a statistical discharge and readmission.

Same day only dialysis session is a separate acute admission except during a course in a SNAP episode of care.

Document History

Version	Date	Status	Key changes made	Author/s
1.0	January 2021	Approved	Version 1.0 published	Data Quality Team
2.0	August 2024	Approved	Data amendment, additional content, examples and formatting updated, following consultation at the SSB-CCSIG.	Data Quality Team
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