

Continuous Ventilatory Support (i.e. invasive ventilation)

What is continuous ventilatory support (CVS)?

- CVS or invasive ventilation refers to the application of ventilation via an invasive artificial airway, such as that provided via an endotracheal tube (ETT) or a tracheostomy tube. With CVS, the patient receives continuous variable degrees of assistance to meet respiratory requirements in an uninterrupted continuous fashion.
- The assignment of an Australian Classification of Health Interventions (ACHI) procedure code identifies the mode of CVS and period of time CVS is provided.

Calculating the duration of CVS

- The rules for calculating the duration of CVS are as per Australian Coding Standard (ACS) 1006 *Ventilatory support*, beginning with the initiation of ventilatory support, tracheostomy or admission of a ventilated patient; and ending with extubation, cessation of CVS, discharge, death, transfer or change of episode type.
- For the Queensland hospital admitted patient data collection (encompassing public and private patients), the duration of CVS is the total time a patient has spent on continuous ventilatory support during a single episode of admitted patient care, expressed as hours and minutes¹.
- Individual periods of CVS that meet the criteria of ACS 1006 *Ventilatory support* within an episode of care should be added together.
- Weaning of CVS is included in the calculation of duration of CVS.

When to assign a ventilatory support procedure code

- CVS that is not initiated as part of a surgical procedure and is greater than 60 minutes should be assigned a ventilatory support procedure code and have time calculated/reported.
- CVS that is initiated during surgery and continues for > 24 hours post surgery should be assigned a ventilatory support procedure code and have time calculated/reported.
- While individual hours and minutes are supplied for CVS duration, for the purpose of code assignment, CVS time should be interpreted as completed cumulative hours. For example; CVS duration of 24 hours and 15 minutes is 24 cumulative completed hours.

When not to code CVS or report CVS duration

- Ventilatory support that is provided to a patient during surgery is considered to be associated with anaesthesia and is therefore an integral part of the surgical procedure. The patient may remain on CVS for a period of time while recovering following surgery. Where ventilation is

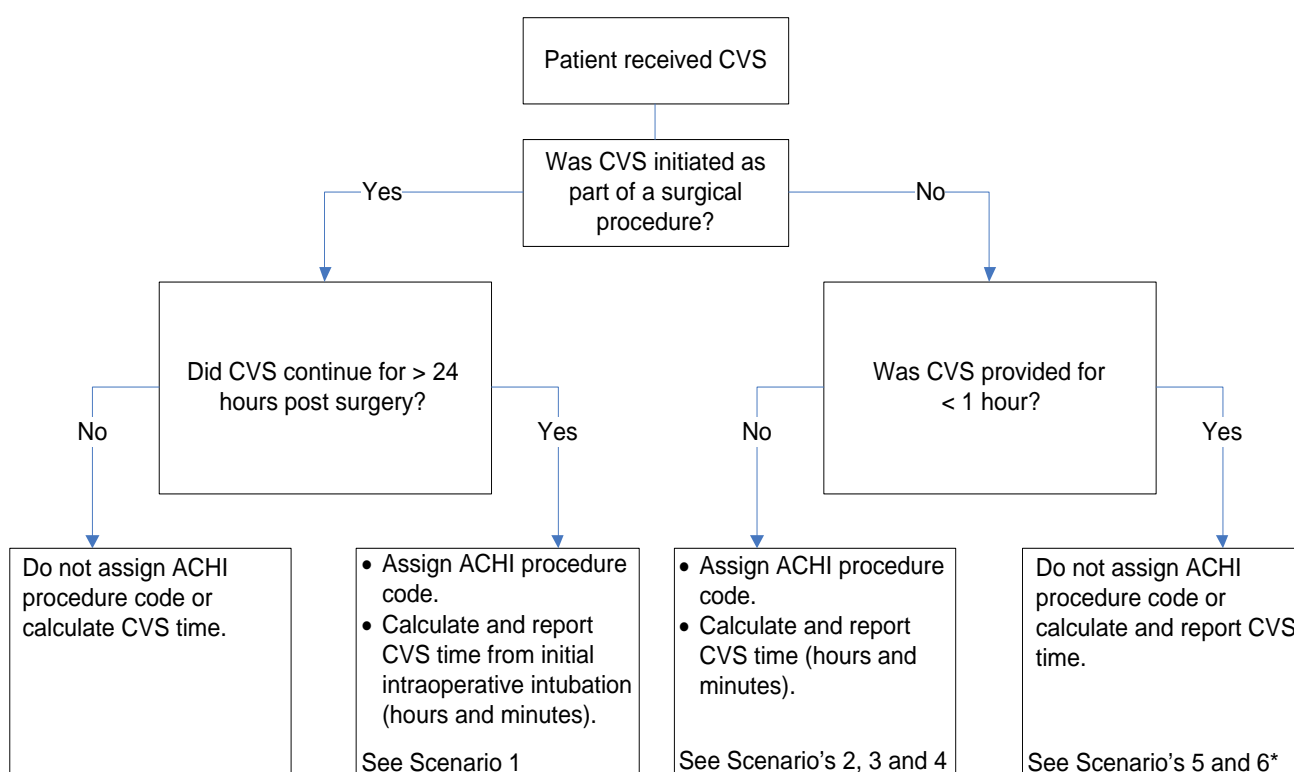
¹ Queensland Health Data Dictionary, accessed 1 November 2021, https://oascrasprod.health.qld.gov.au:8443/ords/f?p=103:DE_DETAIL::DE:NO::P7_SEQ_ID:43764&cs=19D6652FBCE09524E118C46D917C91873

initiated during surgery and continues for **≤ 24 hours post surgery**, the time should not be reported and a ventilatory support procedure code should not be assigned.

- For CVS where the duration is < 1 hour – do not assign a ventilatory support procedure code or reported CVS duration. This includes where CVS ceases due to extubation, discharge, death, transfer or change of episode type.
- Ventilation (for example intermittent positive-pressure ventilation (IPPV) or intermittent positive-pressure breathing (IPPB)) administered for resuscitation of a newborn at birth should not be coded.

Where and how is CVS data used?

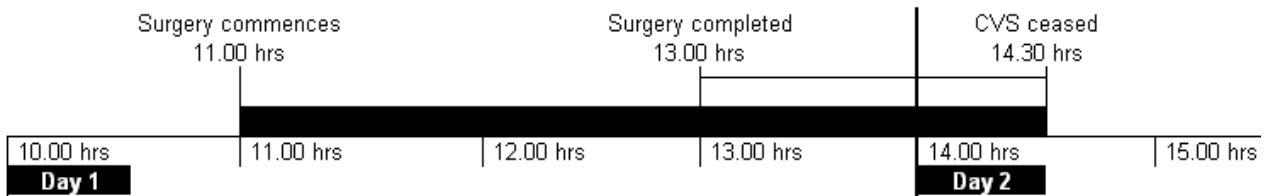
CVS data is used for many purposes including performance reporting, morbidity and mortality reviews, Activity Based Funding, resource planning and service utilisation.



*Note: Scenario 6 - Where the event meets the ACS 1006 *Ventilatory support* criteria for calculation and coding of CVS, assign the ACHI procedure code, and calculate and report the CVS time. If there is a further period of CVS that is provided for < 1 hour prior to transfer to another facility, do not include the pre-transfer CVS time in the ACHI procedure code duration or calculation and reporting of total CVS time (hours and minutes).

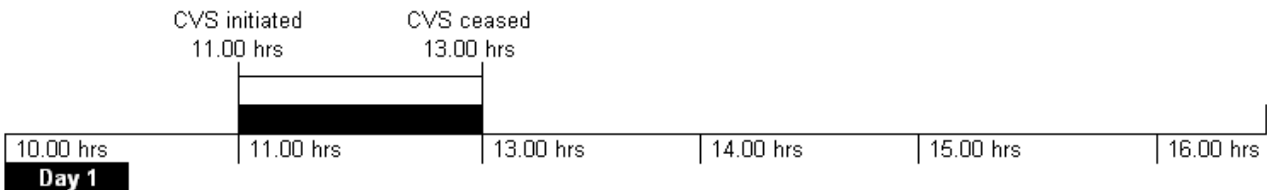
Scenario 1

A patient is admitted for a surgical procedure. On the day of admission (Day 1), the patient is intubated and CVS commenced as part of the surgical procedure at 11.00 hrs. The surgical procedure is completed at 13.00 hrs and the patient is transferred to the Intensive Care Unit with CVS continuing. CVS continues overnight and the patient is extubated (CVS ceasing) at 14.30 hrs on Day 2. As the patient received ventilatory support for > 24 hours post operatively (Day 2: 14.30 hrs minus Day 1: 13.00 hrs = 25.30), the total CVS time (Day 2: 14.30 hrs minus Day 1: 11.00 hrs = 27.30) and associated ventilatory support procedure code (13882-01 [569] *Management of continuous ventilatory support, > 24 and < 96 hours*) should be recorded and reported.



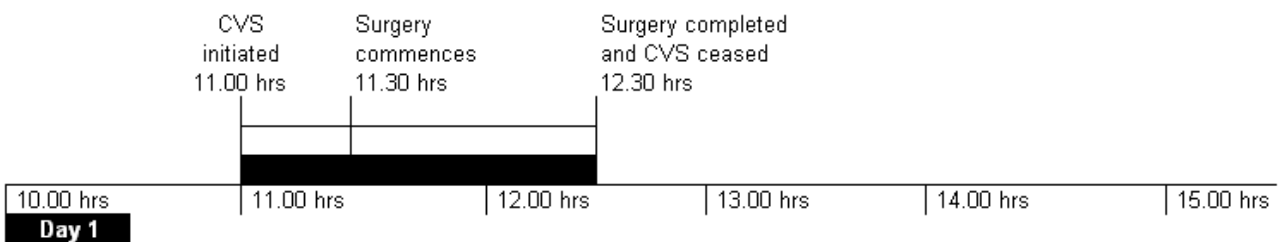
Scenario 2

A patient is admitted at 10.00 hrs. At 11.00 hrs, the patient's condition suddenly deteriorates and continuous ventilatory support (CVS) is commenced. The patient's condition improves and the patient is extubated (CVS ceased) at 13.00 hrs. The total CVS time of 2 hours (13.00 hrs minus 11.00 hrs) and associated ventilatory support procedure code (13882-00 [569] *Management of continuous ventilatory support, ≤ 24 hours*) should be recorded and reported.



Scenario 3

A patient is admitted at 10.00 hrs in a serious condition and requires urgent surgery. At 11.00 hrs, prior to going to surgery, the patient's condition suddenly deteriorates with intubation and ventilatory support required. While being provided ventilatory support, the patient is transferred to the operating theatre with a surgical procedure commencing at 11.30 hrs. The surgical procedure is completed at 12.30 hrs and the patient is extubated (CVS ceased). As ventilatory support commenced prior to the surgical procedure, the CVS time 1 hour and 30 minutes (12.30 hrs minus 11.00 hrs) and associated ventilatory support procedure code (13882-00 [569] *Management of continuous ventilatory support, ≤ 24 hours*) should be recorded and reported.



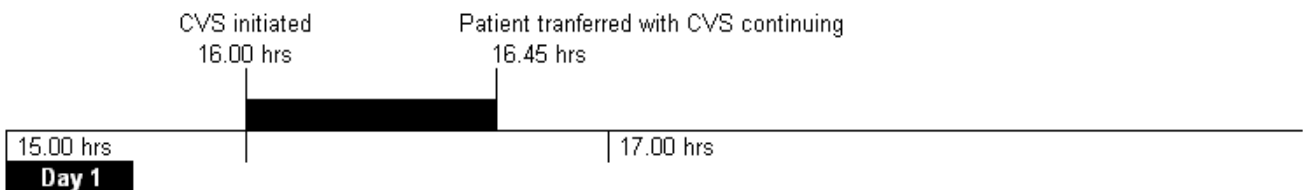
Scenario 4

A patient is admitted at 10.00 hrs for an elective procedure. At 11.00 hrs on the day of admission (Day 1) prior to going to surgery, the patient's condition suddenly deteriorates and continuous ventilatory support (CVS) is initiated. On Day 2 at 11.30 hrs the patient is extubated (CVS ceased). The patient is discharged without having undergone the elective procedure. The total CVS time of 24 hours and 30 minutes (Day 2: 11.30 hrs minus Day 1: 11.00 hrs) and the associated ventilatory support code (13882-00 [569] *Management of continuous ventilatory support, ≤ 24 hours*) should be recorded and reported.



Scenario 5

A patient is admitted at 15.00 hrs in a serious condition. At 16.00 hrs on the day of admission, the patient's condition suddenly deteriorates and continuous ventilatory support (CVS) is commenced. At 16.45 hrs the patient is transferred to a different facility with ongoing ventilatory support. Neither the CVS time nor a ventilatory support code is recorded or reported.



Scenario 6

A patient is admitted at 10.00 hrs in a serious condition. At 12.00 hrs on the day of admission (Day 1), the patient's condition suddenly deteriorates and continuous ventilatory support (CVS) is commenced. At 18.00 hrs on the day of admission (Day 1), the patient is extubated (CVS ceased). At 13.30 hrs on Day 2, the patient required re-commencement of CVS and is transferred to another facility 50 minutes later whilst still on CVS. The total CVS time of 6 hours (Day 1: 18.00 hrs minus Day 1: 12.00 hrs = 6.00) and the associated ventilatory support code (13882-00 [569] *Management of continuous ventilatory support, ≤ 24 hours*) should be recorded and reported. The CVS time prior to transfer is not counted or reported.



For further information, contact the Principal Statistical Data Standards Officer, Statistical Services Branch, 07 3708 5653.