

Coding and VAED reporting of continuous ventilatory support

Updated 2015

Introduction

The purpose of this article is to provide clarity for Victorian coders in regard to the current DHHS rules for reporting of continuous ventilatory support and code assignment according to standards and conventions. The article was originally published in 2012 and has been updated to align with the current reporting guide of VAED data element Admission Time for admission from non-admitted services.

Coding of continuous ventilatory support (CVS)

1. Intubation codes are only assigned when intubation occurs without ventilation – all patients
2. No codes are assigned for the tube or mask that is used to deliver the ventilatory support
3. There is no differentiation of coding rules based on age
4. Ventilation/intubation is not coded if it is for <1 hour prior to transfer to another hospital
5. Surgical Patients: The ventilatory support that is provided to a patient during surgery is associated with anaesthesia and is considered an integral part of the surgical procedure. Therefore, the following points apply for calculation of the duration of ventilatory support for these patients:
 - 5.1. Ventilatory support initiated in a ward (including Short Stay Observation Unit (SSOU)), continuing through surgery. These patients are assigned a code based on total hours since intubation, rounding down for incomplete hours.
 - 5.2. Ventilatory support initiated in the Emergency Department (ED), continuing through to surgery. These patients are assigned a code based on total hours since the time of admission, rounding down for incomplete hours.
 - 5.3. Ventilatory support initiated in theatre: These patients must have >24 hours of ventilatory support post surgery before a code can be assigned. Once >24 hours of ventilatory support have been provided post surgery, the duration is counted from the time of intubation in theatre.
 - 5.4. Ventilatory support initiated in theatre for multiple visits to theatre with extubation between visits:
 - 5.4.1. For each visit to theatre the patient must have >24 hours of ventilatory support post surgery before those hours can be counted for coding. If this criterion is met, the hours are calculated from the time of intubation, for each qualifying period of ventilatory support.
 - 5.4.2. CVS hours for all visits to theatre that meet this criterion are combined to calculate the cumulative hours for coding, rounding down for incomplete hours.
 - 5.5. Ventilatory support initiated in theatre, for multiple visits to theatre, without extubation between visits:

5.5.1. The CVS that is continuous since the original surgery is considered to be continuous ventilation for respiratory support rather than for anaesthesia as otherwise patients would be extubated between visits to theatre.

5.5.2. The patient must receive >24 hours ventilatory support post original surgery before the management of CVS code can be assigned. The calculation of duration of CVS starts with the intubation time for the original surgery and continues through all the subsequent visits to theatre, rounding down for incomplete hours.

6. **Non-Surgical Patients:** Where ventilatory support is not initiated for anaesthesia but for respiratory support, all hours of CVS from the time of admission, are used for code assignment, rounding down for incomplete hours.

Reporting duration of CVS hours in ICU/NICU to VAED

Instructions relating these data items can be found in the VAED Manual, Section 3 – Data Definitions. Please refer to the HDSS website <http://www.health.vic.gov.au/hdss/vaed/vaed-manual.htm> for detailed information about the calculation and reporting of these data items.

The reporting of duration of CVS provided in ICU or Neonatal Intensive Care Unit (NICU) is mandatory.

Note: The counting of duration of CVS in ICU or NICU for reporting is independent of the counting of hours of CVS for coding. Thus hours of CVS can be reported to the VAED where they do not qualify for coding.

Counting duration of CVS hours in ICU/NICU for VAED reporting

1. CVS hours for reporting are to commence once a ventilated patient has been admitted to an ICU/NICU (a patient in ED awaiting transfer to ICU is not considered an ICU patient for the counting to commence).
2. If the patient has more than one period of CVS in ICU/NICU during an episode, the total duration of the combined periods is reported, rounding up for incomplete hours.
3. Where a patient is intubated and CVS commences in theatre, the counting of the duration of CVS for reporting commences when the patient enters the ICU/NICU.
4. Where a ventilated patient is absent from ICU/NICU (for example, for a visit to theatre) and is still ventilated on return to ICU/NICU, the count of CVS hours is continuous. It is not necessary to stop the CVS count when a ventilated patient is transferred from ICU to theatre and back.
5. Where a patient receives CVS in a combined ICU/CCU, report the ICU/CCU hours in the ICU field and not the CCU field.

CVS examples for surgical patients

The following examples are provided to help coders understand the calculation of CVS hours for surgical patients.

CVS initiated prior to patient going to theatre

1. Patient intubated in ED on 1/7/14 at 12.00. Admitted to a ward at 13.00. At 16.30 the patient was taken to theatre for 4 hours. Transferred to ICU at 20.30 and was extubated at 23.50 on 1/7/14

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/7/14 20.30 -1/7/14 23.50 3 hrs 20 mins	4	1/7/14 13.00 -1/7/14 23.50 10 hrs 50 mins	10

Assign code 13882-00 *Management of continuous ventilatory support, ≤24 hours* as the patient was initially intubated for respiratory support, not for anaesthesia.

Hours in ED are not counted as they are not part of the admitted episode.

2. Patient intubated in ED at 03.00 on 6/8/14. Transferred to ICU at 04.00 6/8/14 still intubated. At 13.00 went to theatre for 3 hours. Returned to ICU at 16.00 and was extubated at 12:00 8/8/14.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
6/8/14 04.00 - 8/8/14 12.00 56 hrs	56	6/8/14 04.00 - 8/8/14 12.00 56 hrs	56

Assign code 13882-01 *Management of continuous ventilatory support, > 24 and < 96 hours*.

Hours in ED are not counted as they are not part of the admitted episode.

CVS Initiated in theatre

3. Patient intubated in theatre at 11.00 on 1/7/14. Went to ICU intubated at 16.00 after 5 hours in OR. Patient was extubated at 09.00 on 2/7/14.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/7/14 16.00 - 2/7/14 09.00 17 hrs	17	1/7/14 16.00 - 2/7/14 09.00 17 hrs	Nil

No procedure code assigned as the patient was not intubated for >24 hours post surgery.

4. Patient intubated in theatre at 09.00 on 1/7/14. After 3 hours in theatre was transferred to ICU at 12.00 still intubated. Patient was extubated at 11.20 on 2/7/14

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/7/14 12.00-2/7/14 11.20 23 hrs 20 mins	24	1/7/14 12.00-2/7/14 11.20 23 hrs 20 mins	Nil

No procedure code assigned as patient was NOT ventilated for >24 hours post surgery.

5. Patient intubated in theatre at 12.00 on 6/8/14. In theatre for 3 hours. Went to ICU at 15.00 for 8 hours and remained ventilated. Patient then returned to theatre at 23.00 for 6 hours and went back to ICU at 05.00 hours. Patient was extubated at 17.00 on 7/8/14.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
6/8/14 15.00 - 7/8/14 17.00 26 hrs	26	6/8/14 12.00 - 7/8/14 17.00 29 hrs	29

Assign code 13882-01 *Management of continuous ventilatory support, > 24 and < 96 hours*. Even though the CVS was initiated for surgery, it continued for >24 hours post surgery (including subsequent surgical episodes). The initiation time is taken from the intraoperative intubation, therefore cumulative hours are 29.

26 hours are reported for VAED as the count starts from the first entry to ICU and continues through return visits to theatre (6 hours) from ICU, where CVS continues.

6. Patient intubated in theatre on 1/8/14 at 06.00. In theatre for 6 hours. Went to ICU at 12.00, ventilated for a further 20 hours. Patient extubated on 2/8/14 at 08.00. Patient returned to theatre on 2/8/14 at 13.00 and was re-intubated and in theatre for 5 hours and returned to ICU at 18.00. Patient was extubated at 14.00 on 3/8/14.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/8/14 12.00 - 2/8/14 08.00 20 hrs	40	1/8/14 12.00 - 2/8/14 08.00 20 hrs	Nil
2/8/14 18.00 - 3/8/14 14.00 20 hrs		2/8/14 18.00 - 3/8/14 14.00 20 hrs	
Total 40 hrs		Total 40 hrs	

No procedure code is assigned as in both post-surgical periods, the patient was not ventilated for >24 hours post-surgery. Each post-surgical period must be greater than 24 hours to assign the procedure code.

7. Patient intubated in theatre on 1/8/14 at 06.00 for 6 hours. Went to ICU still intubated at 12.00 for 13 hours before returning to theatre on 2/8/14 at 01.00 for a further 2 hours. Patient transferred back to ICU still intubated on 2/8/14 at 03.00 for a further 16 hours before extubation on 2/8/14 at 19.00.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/8/14 12.00 - 2/8/14 19.00 31 hrs	31	1/8/14 06.00 - 2/8/14 19.00 37 hrs	37

Assign code 13882-01 *Management of continuous ventilatory support, > 24 and < 96 hours*. Even though the CVS was initiated for surgery, it continued for >24 hours post surgery (including subsequent surgical episodes).

Count for CVS hours in ICU continues when patient returns to theatre.

8. Patient intubated in theatre on 1/8/14 at 06.00. Was in theatre for 6 hours. Patient transferred to ICU while intubated at 12.00 on 1/8/14, stayed intubated for 20 hours, extubated on 2/8/14 at 08.00. Patient returned to theatre on 2/8/14 at 20.00 and was re-intubated for surgery. Was in theatre for 3 hours, returned to ICU and remained intubated for 30 hours before being extubated on 4/8/14 at 05.00. Patient returned to theatre for a third time on 4/8/14 at 12.00, and was re-intubated for a procedure that lasted for 4 hours and returned to ICU where patient remained intubated for another 23 hours and was extubated at 15.00 on 5/8/14.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
1/8/14 12.00 – 2/8/14 08.00 20 hrs 2/8/14 23.00 – 4/8/14 05.00 30 hrs 4/8/14 16.00 – 5/8/14 15.00 23 hrs Total 73 hrs	73	1/8/14 12.00 - 2/8/14 08.00 20 hrs 2/8/14 20.00 – 4/8/14 05.00 33 hrs 4/8/14 16.00 – 5/8/14 15.00 23 hrs Total 76 hrs	33

Assign code 13882-01 *Management of continuous ventilatory support, > 24 and < 96 hours*.

The second period of intubation meets the criterion for assignment of the CVS procedure code.

The other two periods were not ventilated for greater than 24 hours post surgery, and the ventilation was not continuous, therefore cannot be included in the total calculation of CVS hours for coding.

9. Patient intubated for a procedure in theatre on 25/9/14 at 13.30. Patient was extubated in theatre at 15:45. Re-intubated in recovery at 17.00 on 25/9/14. Patient was then transferred to ICU on the 26/9/14 at 07.08. The patient was extubated in ICU on 26/9/14 at 18.55.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
26/9/14 07.08-26/9/14 18.55	12	25/9/14 17.00 – 26/9/14 18.55	25
11 hrs 47 mins		25 hrs 55 mins	

Assign code 13882-01 *Management of continuous ventilatory support, > 24 and < 96 hours*. Do not include the hours where patient was intubated for the initial procedure as was extubated in theatre.

Patient was re-intubated in recovery more than one hour following extubation in theatre at 17:00; therefore start the count from the recovery intubation time to assign the appropriate procedure code.

Tracheostomy and weaning

10. Patient with a permanent tracheostomy in situ arrived ventilated via ambulance and admitted directly to ICU on 2/8/14 at 15:00. Patient remained ventilated for 92 hours until started Trache-Shielding (T/S) for weaning purposes on 6/8/14 at 11:00 for 23 hours. Patient returned to receiving CVS at 10:00 on 7/8/14 for another 21.5 hours before being placed back on T/S on 8/8/14 at 07:30 for the remainder of their admission.

VAED Reporting		Coding	
CVS hours reporting	VAED (round UP)	Total CVS count	Count for coding (round DOWN)
2/8/14 15:00 – 6/8/14 11:00 92 hrs	137	2/8/14 15:00 – 6/8/14 11:00 92 hrs	136
6/8/14 11:00 – 7/8/14 10:00 23 hrs of T/S (weaning)		6/8/14 11:00 – 7/8/14 10:00 23 hrs of T/S (weaning)	
7/8/14 10:00 – 8/8/14 07:30 21.5 hrs		7/8/14 10:00 – 8/8/14 07:30 21.5 hrs	
Total 136.5 hrs		Total 136.5 hrs	

Assign code 13882-02 *Management of continuous ventilatory support, 96 hours or more*.

The 23 hours of Trache-shielding is included in the total hours of CVS, as this was for weaning from CVS but resulted in the patient going back on CVS for a further period.