Item Descriptors and Explanatory Notes for Thoracic Medicine (Respiratory and Sleep Studies) – 1 November 2018

Note: This document includes the item descriptors (and associated MBS explanatory notes) for the following items:

Respiratory Items	Sleep Study Items	
11503	12203	12213
11505	12204	12215
11506	12205	12217
11507	12207	12250
11508	12208	
11512	12210	

MBS Item	Item Descriptor	MBS Fee
MBS Item	Item Descriptor	MBS F

11503 Complex measurement of properties of the respiratory system, including the lungs and respiratory muscles, that is performed:

- (a) in a respiratory laboratory; and
- (b) under the supervision of a consultant respiratory physician who is responsible for staff training, supervision, quality assurance and the issuing of written reports on tests performed; and
- (c) using any of the following tests:
 - (i) measurement of absolute lung volumes by any method;
 - (ii) measurement of carbon monoxide diffusing capacity by any method;
 - (iii) measurement of airway or pulmonary resistance by any method;
 - (iv) inhalation provocation testing, including pre-provocation spirometry and the construction of a dose response curve, using a recognised direct or indirect bronchoprovocation agent and post-bronchodilator spirometry;
 - (v) provocation testing involving sequential measurement of lung function at baseline and after exposure to specific sensitising agents, including drugs, or occupational asthma triggers;
 - (vi) spirometry performed before and after simple exercise testing undertaken as a provocation test for the investigation of asthma, in premises equipped with resuscitation equipment and personnel trained in Advanced Life Support;
 - (vii) measurement of the strength of inspiratory and expiratory muscles at multiple lung volumes;
 - (viii) simulated altitude test involving exposure to hypoxic gas mixtures and oxygen saturation at rest and/or during exercise with or without an observation of the effect of supplemental oxygen;
 - (ix) calculation of pulmonary or cardiac shunt by measurement of arterial oxygen partial pressure and haemoglobin concentration following the breathing of an inspired oxygen concentration of 100% for a duration of 15 minutes or greater;
 - (x) if the measurement is for the purpose of determining eligibility for pulmonary arterial hypertension medications subsidised under the Pharmaceutical Benefits Scheme or eligibility for the provision of portable oxygen—functional

\$138.65

exercise test by any method (including 6 minute walk test and shuttle walk test);

each occasion at which one or more tests are performed

Not applicable to a service performed in association with a spirometry or sleep study service to which item 11505, 11506, 11507, 11508, 11512, 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Not applicable to a service to which item 11507 applies

MBS Explanatory Note – Item 11503:

Respiratory Function Tests (Item 11503)

Fractional exhaled nitric oxide (FeNO) testing cannot be claimed under item 11503.

When laboratory based spirometry (item 11512) is performed on the same day as a test approved under item 11503, then 11503 must be claimed. When spirometry is the only laboratory test performed then 11512 must be claimed.

Maximum inspiratory and expiratory flow-volume loop testing for the purpose of diagnosing central airways obstruction is to be performed under item 11512 not 11503. Item 11503 is not for the purpose of investigation of sleep disorders. Polygraphic data obtained as part of a sleep study item in the range 12203 to 12250 cannot be used for the purpose of claiming item 11503.

11505 Measurement of spirometry, that:

\$41.10

- (a) involves a permanently recorded tracing, performed before and after inhalation of a bronchodilator; and
- (b) is performed to confirm diagnosis of:
 - (i) asthma; or
 - (ii) chronic obstructive pulmonary disease (COPD); or
 - (iii) another cause of airflow limitation;

each occasion at which 3 or more recordings are made

Applicable only once in any 12 month period

11506 Measurement of spirometry, that:

\$20.55

- (a) involves a permanently recorded tracing, performed before and after inhalation of a bronchodilator; and
- (b) is performed to:
 - (i) confirm diagnosis of chronic obstructive pulmonary disease (COPD); or
 - (ii) assess acute exacerbations of asthma; or
 - (iii) monitor asthma and COPD; or
 - (iv) assess other causes of obstructive lung disease or the presence of restrictive lung disease;

each occasion at which recordings are made

11512 Measurement of spirometry:

\$61.75

- (a) that includes continuous measurement of the relationship between flow and volume during expiration or during expiration and inspiration, performed before and after inhalation of a bronchodilator; and
- (b) that is performed with a respiratory scientist in continuous attendance; and

- (c) that is performed in a respiratory laboratory equipped to perform complex lung function tests; and
- (d) that is performed under the supervision of a consultant physician practising respiratory medicine who is responsible for staff training, supervision, quality assurance and the issuing of written reports; and
- (e) for which a permanently recorded tracing and written report is provided; and
- (f) for which 3 or more spirometry recordings are performed; each occasion at which one or more such tests are performed Not applicable for a service associated with a service to which item 11503, 11507 or 22018 applies

MBS Explanatory Note – Items 11505, 11506 and 11512:

Spirometry (Items 11505, 11506 and 11512)

Spirometry services billed to the MBS should meet international quality standards (Eur Respir J 2005; 26: 319–338).

The National Asthma Council's Australian Asthma Handbook (2016) and Lung Foundation Australia's and Thoracic Society of Australia and New Zealand's COPD-X Plan (2016) advise that properly performed spirometry is required to confirm airflow limitation and the diagnosis of asthma and/or COPD. Reversibility testing is the standard required for asthma diagnosis. The diagnosis of COPD is confirmed with post bronchodilator spirometry. Item 11505 should not be repeated when diagnosis has been previously confirmed by properly performed spirometry. To meet quality requirements patients must have three acceptable tests for each testing period (pre/post bronchodilator), and meet repeatability criteria with the best effort recorded. Spirometry should be performed by a person who has undergone training and is qualified to perform it to recommended standards (see Spirometry Handbook, National Asthma Council of Australia (https://www.nationalasthma.org.au/living-with-asthma/resources/health-professionals/information-paper/spirometry-handbook) and ATS/ERS Standardisation of spirometry paper (http://erj.ersjournals.com/content/erj/26/2/319.full.pdf).

11507 Measurement of spirometry:

\$100.20

- (a) that includes continuous measurement of the relationship between flow and volume during expiration or during expiration and inspiration, performed before and after inhalation of a bronchodilator; and
- (b) fractional exhaled nitric oxide (FeNO) concentration in exhaled breath;

if

- (c) the measurement is performed:
 - (i) under the supervision of a specialist or consultant physician; and
 - (ii) with continuous attendance by a respiratory scientist; and
 - (iii) in a respiratory laboratory equipped to perform complex lung function tests; and
- (d) a permanently recorded tracing and written report is provided;
- (e) 3 or more spirometry recordings are performed unless difficult to achieve for clinical reasons;

each occasion at which one or more such tests are performed Not applicable to a service associated with a service to which item 11503, 11512 or 22018 applies

MBS Explanatory Note – Item 11507:

Fraction of Exhaled Nitric Oxide (Item 11507)

Services billed to item 11507 should meet the following quality standards:

- An Official ATS Clinical Practice Guideline: Interpretation of Exhaled Nitric Oxide Levels (FENO) for Clinical Applications: Am J Respir Crit Care Med Vol 184. pp 602–615, 2011 DOI: 10.1164/rccm.912011ST.
- ATS/ERS Recommendations for Standardized Procedures for the Online and Offline Measurement of Exhaled Lower Respiratory Nitric Oxide and Nasal Nitric Oxide, 2005: Am J Respir Crit Care Med Vol 171. pp 912–930, 2005 DOI: 10.1164/rccm.200406-710ST

Fewer than three traces will be accepted as billable under item 11507 if three reproducible loops are difficult to achieve for clinical reasons. The clinical reason(s) for not achieving three reproducible loops must be documented.

Maximal symptom-limited incremental exercise test using a calibrated cycle ergometer or treadmill, if:

\$290.80

- (a) the test is performed for the evaluation of:
 - (i) breathlessness of uncertain cause from tests performed at rest; or
 - (ii) breathlessness out of proportion with impairment due to known conditions; or
 - (iii) functional status and prognosis in a patient with significant cardiac or pulmonary disease for whom complex procedures such as organ transplantation are considered; or
 - (iv) anaesthetic and peri-operative risks in a patient undergoing major surgery who is assessed as substantially above average risk after standard evaluation; and
- (b) the test has been requested by a specialist or consultant physician following professional attendance on the patient by the specialist or consultant physician; and
- (c) a respiratory scientist and a medical practitioner are in constant attendance during the test; and
- (d) the test is performed in a respiratory laboratory equipped with airway management and defibrillator equipment; and
- (e) there is continuous measurement of at least the following:
 - (i) work rate;
 - (ii) pulse oximetry;
 - (iii) respired oxygen and carbon dioxide partial pressures and respired volumes;
 - (iv) ECG;
 - (v) heart rate and blood pressure; and
- (f) interpretation and preparation of a permanent report is provided by a consultant respiratory physician who is also responsible for the supervision of technical staff and quality assurance

MBS Explanatory Note – Item 11508:

Cardiopulmonary Exercise Testing (Item 11508)

Services billed to item 11508 should meet the following quality standards:

 ATS/ACCP Statement on Cardiopulmonary Exercise Testing: Am J Respir Crit Care Med Vol 167. pp 211–277, 2003 DOI: 10.1164/rccm.167.2.211

Note: Item descriptors can also be viewed by using the search function on the MBS Online website at: www.mbsonline.gov.au

Overnight diagnostic assessment of sleep, for a period of at least hours duration, for a patient aged 18 years or more, to confirm diagnosis of a sleep disorder, if:

- (a) either:
 - (i) the patient has been referred by a medical practitioner to a qualified sleep medicine practitioner or a consultant respiratory physician who has determined that the patient has a high probability for symptomatic, moderate to severe obstructive sleep apnoea based on a STOP-Bang score of 4 or more, an OSA50 score of 5 or more or a high risk score on the Berlin Questionnaire, and an Epworth Sleepiness Scale score of 8 or more; or
 - (ii) following professional attendance on the patient (either face-to-face or by video conference) by a qualified sleep medicine practitioner or a consultant respiratory physician, the qualified sleep medicine practitioner or consultant respiratory physician determines that assessment is necessary to confirm the diagnosis of a sleep disorder; and
- (b) the overnight diagnostic assessment is performed to investigate:
 - (i) suspected obstructive sleep apnoea syndrome where the patient is assessed as not suitable for an unattended sleep study; or
 - (ii) suspected central sleep apnoea syndrome; or
 - (iii) suspected sleep hypoventilation syndrome; or
 - (iv) suspected sleep-related breathing disorders in association with non-respiratory co-morbid conditions including heart failure, significant cardiac arrhythmias, neurological disease, acromegaly or hypothyroidism; or
 - (v) unexplained hypersomnolence which is not attributed to inadequate sleep hygiene or environmental factors; or
 - (vi) suspected parasomnia or seizure disorder where clinical diagnosis cannot be established on clinical features alone (including associated atypical features, vigilance behaviours or failure to respond to conventional therapy); or
 - (vii) suspected sleep related movement disorder, where the diagnosis of restless legs syndrome is not evident on clinical assessment; and
- (c) a sleep technician is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (d) there is continuous monitoring and recording, performed in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) anterior tibial EMG;
 - (iv) continuous ECG;
 - (v) continuous EEG;
 - (vi) EOG;
 - (vii) oxygen saturation;
 - (viii) respiratory movement (chest and abdomen);
 - (ix) position; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events, cardiac abnormalities and limb movements) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and

- (f) interpretation and preparation of a permanent report is provided by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (g) the overnight diagnostic assessment is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 or 12250 is provided to the patient

Applicable only once in any 12 month period

Overnight assessment of positive airway pressure, for a period of at least 8 hours duration, for a patient aged 18 years or more, if:

\$588.00

- (a) the necessity for an intervention sleep study is determined by a qualified sleep medicine practitioner or consultant respiratory physician where a diagnosis of a sleep-related breathing disorder has been made; and
- (b) the patient has not undergone positive airway pressure therapy in the previous 6 months; and
- (c) following professional attendance on the patient by a qualified sleep medicine practitioner or a consultant respiratory physician (either face-to-face or by video conference), the qualified sleep medicine practitioner or consultant respiratory physician establishes that the sleep-related breathing disorder is responsible for the patient's symptoms; and
- (d) a sleep technician is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) there is continuous monitoring and recording, performed in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) anterior tibial EMG;
 - (iv) continuous ECG;
 - (v) continuous EEG;
 - (vi) EOG;
 - (vii) oxygen saturation;
 - (viii) respiratory movement;
 - (ix) position; and
- (f) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events, cardiac abnormalities and limb movements) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of a report; and
- (g) interpretation and preparation of a permanent report is provided by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (h) the overnight assessment is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 or 12250 is provided to the patient

Applicable only once in any 12 month period

12205

Follow-up study for a patient aged 18 years or more with a sleep-related breathing disorder, following professional attendance on the patient by a qualified sleep medicine practitioner or consultant respiratory physician, if:

(a) either:

- (i) there has been a recurrence of symptoms not explained by known or identifiable factors such as inadequate usage of treatment, sleep duration or significant recent illness; or
- (ii) there has been a significant change in weight or changes in co-morbid conditions that could affect sleep-related breathing disorders and other means of assessing treatment efficacy (including review of data stored by a therapy device used by the patient) are unavailable, or have been equivocal; and
- (b) a sleep technician is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (c) there is continuous monitoring and recording, performed in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) anterior tibial EMG;
 - (iv) continuous ECG;
 - (v) continuous EEG;
 - (vi) EOG;
 - (vii) oxygen saturation;
 - (viii) respiratory movement (chest and abdomen);
 - (ix) position; and
- (d) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events, cardiac abnormalities and limb movements) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (e) interpretation and preparation of a permanent report is provided by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (f) the follow-up study is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 or 12250 is provided to the patient

Applicable only once in any 12 month period

12207

Overnight investigation, for a patient aged 18 years or more, for a sleep-related breathing disorder, following professional attendance by a qualified sleep medicine practitioner or a consultant respiratory physician (either face-to-face or by video conference), if:

- (a) the patient is referred by a medical practitioner; and
- (b) the necessity for the investigation is determined by a qualified sleep medicine practitioner before the investigation; and
- (c) there is continuous monitoring and recording, in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) anterior tibial EMG;
 - (iv) continuous ECG;
 - (v) continuous EEG;

\$588.00

\$588.00

Note: Item descriptors can also be viewed by using the search function on the MBS Online

website at: www.mbsonline.gov.au

- (vi) EOG;
- (vii) oxygen saturation;
- (viii) respiratory movement (chest and abdomen)
- (ix) position; and
- (d) a sleep technician is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events and assessment of clinically significant alterations in heart rate and limb movement) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (f) interpretation and preparation of a permanent report is provided by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (g) the investigation is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 or 12250 is provided to the patient; and
- (h) previous studies have demonstrated failure of continuous positive airway pressure or oxygen
- (i) if the patient has severe cardio-respiratory failure—a further investigation is indicated in the same 12 month period to which items 12204 and 12205 apply to a service for the patient, for the adjustment or testing, or both, of the effectiveness of a positive pressure ventilatory support device (other than continuous positive airway pressure) in sleep

Applicable only once in the same 12 month period to which item 12204 or 12205 applies

Overnight investigation for sleep apnoea for a period of at least 8 hours duration, for a patient aged 18 years or more, if:

\$588.00

- (a) a qualified sleep medicine practitioner or consultant respiratory physician has determined that the investigation is necessary to confirm the diagnosis of a sleep disorder; and
- (b) a sleep technician is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (c) there is continuous monitoring and recording, in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) anterior tibial EMG;
 - (iv) continuous ECG;
 - (v) continuous EEG;
 - (vi) EOG;
 - (vii) oxygen saturation;
 - (viii) respiratory movement (chest and abdomen);
 - (ix) position; and
- (d) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events, cardiac abnormalities and limb movements) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (e) interpretation and preparation of a permanent report is provided

- by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (f) a further investigation is indicated in the same 12 month period to which item 12203 applies to a service for the patient because insufficient sleep was acquired, as evidenced by a sleep efficiency of 25% or less, during the previous investigation to which that item applied; and
- (g) the investigation is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 or 12250 is provided to the patient

Applicable only once in the same 12 month period to which item 12203 applies

Overnight paediatric investigation, for a period of at least 8 hours in duration, for a patient less than 12 years of age, if:

\$701.85

- (a) the patient is referred by a medical practitioner; and
- (b) the necessity for the investigation is determined by a qualified sleep medicine practitioner before the investigation; and
- (c) there is continuous monitoring of oxygen saturation and breathing using a multi-channel polygraph, and recordings of the following are made, in accordance with current professional guidelines:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) ECG:
 - (iv) EEG (with a minimum of 4 EEG leads or, in selected investigations, a minimum of 6 EEG leads);
 - (v) EOG;
 - (vi) oxygen saturation;
 - (vii) respiratory movement of rib and abdomen (whether movement of rib is recorded separately from, or together with, movement of abdomen);
 - (viii) measurement of carbon dioxide (either end-tidal or transcutaneous); and
- (d) a sleep technician, or registered nurse with sleep technology training, is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, and maturation of sleep indices, arousals, respiratory events and assessment of clinically significant alterations in heart rate and body movement) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (f) interpretation and report are provided by a qualified sleep medicine practitioner based on reviewing the direct original recording of polygraphic data from the patient

For each particular patient—applicable only in relation to each of the first 3 occasions the investigation is performed in any 12 month period

Overnight paediatric investigation, for a period of at least 8 hours in duration, for a patient aged at least 12 years but less than 18 years, if:

\$632.30

- (a) the patient is referred by a medical practitioner; and
- (b) the necessity for the investigation is determined by a qualified sleep medicine practitioner before the investigation; and
- (c) there is continuous monitoring of oxygen saturation and breathing using a multi-channel polygraph, and recordings of the following are made, in accordance with current professional guidelines:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) ECG;
 - (iv) EEG (with a minimum of 4 EEG leads or, in selected investigations, a minimum of 6 EEG leads);
 - (v) EOG;
 - (vi) oxygen saturation;
 - (vii) respiratory movement of rib and abdomen (whether movement of rib is recorded separately from, or together with, movement of abdomen);
 - (viii) measurement of carbon dioxide (either end-tidal or transcutaneous); and
- (d) a sleep technician, or registered nurse with sleep technology training, is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, and maturation of sleep indices, arousals, respiratory events and assessment of clinically significant alterations in heart rate and body movement) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (f) interpretation and report are provided by a qualified sleep medicine practitioner based on reviewing the direct original recording of polygraphic data from the patient

For each particular patient—applicable only in relation to each of the first 3 occasions the investigation is performed in any 12 month period

Overnight paediatric investigation, for a period of at least 8 hours in duration, for a patient less than 12 years of age, if:

\$701.85

- (a) the patient is referred by a medical practitioner; and
- (b) the necessity for the investigation is determined by a qualified sleep medicine practitioner before the investigation; and
- (c) there is continuous monitoring of oxygen saturation and breathing using a multi-channel polygraph, and recordings of the following are made, in accordance with current professional guidelines:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) ECG;
 - (iv) EEG (with a minimum of 4 EEG leads or, in selected investigations, a minimum of 6 EEG leads);
 - (v) EOG;
 - (vi) oxygen saturation;
 - (vii) respiratory movement of rib and abdomen (whether movement of rib is recorded separately from, or together with, movement of abdomen);
 - (viii) measurement of carbon dioxide (either end-tidal or transcutaneous); and

- (d) a sleep technician, or registered nurse with sleep technology training, is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, and maturation of sleep indices, arousals, respiratory events and assessment of clinically significant alterations in heart rate and body movement) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (f) interpretation and report are provided by a qualified sleep medicine practitioner based on reviewing the direct original recording of polygraphic data from the patient; and
- (g) a further investigation is indicated in the same 12 month period to which item 12210 applies to a service for the patient, for a patient using Continuous Positive Airway Pressure (CPAP) or non-invasive or invasive ventilation, or supplemental oxygen, in either or both of the following circumstances:
 - (i) there is ongoing hypoxia or hypoventilation on the third study to which item 12210 applied for the patient, and further titration of respiratory support is needed to optimise therapy;
 - (ii) there is clear and significant change in clinical status (for example lung function or functional status) or an intervening treatment that may affect ventilation in the period since the third study to which item 12210 applied for the patient, and repeat study is therefore required to determine the need for or the adequacy of respiratory support

Applicable only once in the same 12 month period to which item 12210 applies

Overnight paediatric investigation for a period of at least 8 hours in duration for a patient aged at least 12 years but less than 18 years, if:

- (a) the patient is referred by a medical practitioner; and
- (b) the necessity for the investigation is determined by a qualified sleep medicine practitioner before the investigation; and
- (c) there is continuous monitoring of oxygen saturation and breathing using a multi-channel polygraph, and recordings of the following are made, in accordance with current professional guidelines:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) ECG;
 - (iv) EEG (with a minimum of 4 EEG leads or, in selected investigations, a minimum of 6 EEG leads);
 - (v) EOG;
 - (vi) oxygen saturation;
 - (vii) respiratory movement of rib and abdomen (whether movement of rib is recorded separately from, or together with, movement of abdomen);
 - (viii) measurement of carbon dioxide (either end-tidal or transcutaneous); and
- (d) a sleep technician, or registered nurse with sleep technology training, is in continuous attendance under the supervision of a qualified sleep medicine practitioner; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, and maturation of

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sleep indices, arousals, respiratory events and assessment of clinically significant alterations in heart rate and body movement) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and

- (ii) stored for interpretation and preparation of report; and
- (f) interpretation and report are provided by a qualified sleep medicine practitioner based on reviewing the direct original recording of polygraphic data from the patient; and
- (g) a further investigation is indicated in the same 12 month period to which item 12213 applies to a service for the patient, for a patient using Continuous Positive Airway Pressure (CPAP) or non-invasive or invasive ventilation, or supplemental oxygen, in either or both of the following circumstances:
 - (i) there is ongoing hypoxia or hypoventilation on the third study to which item 12213 applied for the patient, and further titration is needed to optimise therapy;
 - (ii) there is clear and significant change in clinical status (for example lung function or functional status) or an intervening treatment that may affect ventilation in the period since the third study to which item 12213 applied for the patient, and repeat study is therefore required to determine the need for or the adequacy of respiratory support

Applicable only once in the same 12 month period to which item 12213 applies

Overnight investigation of sleep for a period of at least 8 hours of a patient aged 18 years or more to confirm diagnosis of obstructive sleep apnoea, if:

Scale score of 8 or more; or

(a) either:

- (i) the patient has been referred by a medical practitioner to a qualified sleep medicine practitioner or a consultant respiratory physician who has determined that the patient has a high probability for symptomatic, moderate to severe obstructive sleep apnoea based on a STOP-Bang score of 4 or more, an OSA50 score of 5 or more or a high risk score on the Berlin Questionnaire, and an Epworth Sleepiness
- (ii) following professional attendance on the patient (either face-to-face or by video conference) by a qualified sleep medicine practitioner or a consultant respiratory physician, the qualified sleep medicine practitioner or consultant respiratory physician determines that investigation is necessary to confirm the diagnosis of obstructive sleep apnoea; and
- (b) during a period of sleep, there is continuous monitoring and recording, performed in accordance with current professional guidelines, of the following measures:
 - (i) airflow;
 - (ii) continuous EMG;
 - (iii) continuous ECG;
 - (iv) continuous EEG;
 - (v) EOG;
 - (vi) oxygen saturation;
 - (vii) respiratory effort; and
- (c) the investigation is performed under the supervision of a qualified sleep medicine practitioner; and

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- (d) either:
 - (i) the equipment is applied to the patient by a sleep technician; or
 - (ii) if this is not possible—the reason it is not possible for the sleep technician to apply the equipment to the patient is documented and the patient is given instructions on how to apply the equipment by a sleep technician supported by written instructions; and
- (e) polygraphic records are:
 - (i) analysed (for assessment of sleep stage, arousals, respiratory events and cardiac abnormalities) with manual scoring, or manual correction of computerised scoring in epochs of not more than 1 minute; and
 - (ii) stored for interpretation and preparation of report; and
- (f) interpretation and preparation of a permanent report is provided by a qualified sleep medicine practitioner with personal direct review of raw data from the original recording of polygraphic data from the patient; and
- (g) the investigation is not provided to the patient on the same occasion that a service mentioned in any of items 11000 to 11005, 11503, 11700 to 11709, 11713 and 12203 is provided to the patient

Applicable only once in any 12 month period

MBS Explanatory Note – Items 12203 to 12250:

Investigations for sleep disorders (Items 12203 to 12250)

Items 12203 and 12250 are applicable for patients who require a diagnostic sleep study. They enable direct GP referral to testing without personal assessment by a sleep or respiratory physician, when validated screening questionnaires suggest a high pre-test probability for diagnosis of symptomatic, moderate to severe obstructive sleep apnoea (OSA). The screening questionnaires should be administered by the referring practitioner. Alternatively, the need for testing can be determined by a sleep or respiratory physician following direct clinical assessment (either face-to-face or by video conference).

Outdated or incomplete referrals (Items 12203 and 12250)

Referrals made prior to 1 November 2018 (or after 1 November 2018 but without the screening questionnaires) remain valid for the purposes of a service performed under items 12203 and 12250 from 1 November 2018 – providing:

- The patient is assessed by a qualified sleep medicine practitioner or consultant respiratory physician to determine the necessity for the sleep study; or
- The validated screening tools are administered to the patient by the sleep medicine
 practitioner, sleep technician or other practice staff. If the screening tools indicate a high pretest probability for the diagnosis of symptomatic, moderate to severe OSA, the patient can
 proceed to testing. If there remains any uncertainty about the necessity for the study, a
 qualified sleep medicine practitioner or consultant respiratory physician should assess the
 patient.

Referrals for attended (Level 1) diagnostic studies

Where a patient with suspected OSA has been directly referred for a Level 1 sleep study under item 12203, but there is insufficient information to indicate if there are any contraindications for a Level 2 study, the following options are available:

• The patient can be assessed by a qualified sleep medicine practitioner or consultant respiratory physician to determine the most suitable study (i.e. Level 1 or Level 2); or

• The validated screening tools can be administered to the patient by the sleep medicine practitioner, sleep technician or practice staff. If the screening tools indicate a high pre-test probability for the diagnosis of symptomatic, moderate to severe obstructive sleep apnoea, the sleep provider can either – arrange for the patient to have a Level 2 study (notifying the referring practitioner of this decision); or seek additional information from the referring practitioner on why a Level 1 study is required (e.g. whether the patient has any contraindications for a Level 2 study). If there remains any uncertainty about the type of study which the patient should receive, a qualified sleep medicine practitioner or consultant respiratory physician should assess the patient.

Referrals made without (or incomplete) screening questionnaires (Items 12203 and 12250)

If a patient has been directly referred for testing without the use of the screening questionnaires, they can be administered to the patient by the sleep provider (e.g. by a sleep technician or other practice staff). Where the screening questionnaires have been provided with the referral but they are incomplete, the sleep provider can contact the patient to determine what their responses were to the relevant questions.

Attended versus unattended sleep studies

Determination of the need for testing should conform with Australasian Sleep Association guidelines.

Unattended sleep studies are suitable for many patients with suspected OSA but patients with other sleep disorders should undergo an attended study. Assessment for potential contraindications to an unattended sleep study can be undertaken by either the referring practitioner, qualified adult sleep medicine practitioner or consultant respiratory physician. Standardised referrals should request sufficient information to enable such assessment.

In accordance with the Australasian Sleep Association's Guidelines for Sleep Studies in Adults, relative contraindications for an unattended sleep study to investigate suspected OSA include but are not limited to:

- (a) intellectual disability or cognitive impairment;
- (b) physical disability with inadequate carer attendance;
- (c) significant co-morbid conditions including neuromuscular disease, heart failure or advanced respiratory disease where more complex disorders are likely;
- (d) suspected respiratory failure where attended measurements are required, including measurement of carbon dioxide partial pressures;
- (e) suspected parasomnia or seizure disorder;
- (f) suspected condition where recording of body position is considered to be essential and would not be recorded as part of an unattended sleep study;
- (g) previously failed or inconclusive unattended sleep study;
- (h) unsuitable home environment including unsafe environments or where patients are homeless; and
- (i) consumer preference based on a high level of anxiety about location of study or where there is unreasonable cost or disruption based on distance to be travelled, or home circumstances.

Patients who have these features may be suitable for either attended (Level 1) or unattended (Level 2) studies.

Treatments options following testing

The results and treatment options following any diagnostic sleep study should be discussed during a professional attendance with a medical practitioner before the initiation of any therapy. If there is

uncertainty about the significance of test results or the appropriate management for that individual then referral to a sleep or respiratory medicine specialist is recommended.

Any professional attendance by a qualified adult sleep medicine practitioner or consultant respiratory physician associated with this service may be undertaken face-to-face or by video conference.

Treatment effectiveness study (Item 12205)

The necessity for a treatment effectiveness sleep study is determined by a qualified adult sleep medicine practitioner or consultant respiratory physician where:

- (a) The patient has undergone a therapeutic intervention including but not limited to PAP, upper airway surgery, appropriate oral appliance, >10% weight loss in the previous 6 months, oxygen therapy; and
- (b) There is clinical evidence of sub-optimal response, OR uncertainty regarding control of sleep disordered breathing.

Meaning of 'at least 8 hours duration'

The requirement 'for a period of at least 8 hours duration' means the overnight investigation (including patient set-up time and actual period of recording) must be of at least 8 hours duration. Providers must keep evidence of the duration of the overnight investigation (including set-up time and period of recording) as part of their administrative records for MBS sleep studies.

Polygraphic data

Item 11503 is not for the purpose of investigation of sleep disorders. Polygraphic data obtained as part of a sleep study item in the range 12203 to 12250 cannot be used for the purpose of claiming item 11503.

Billing requirements for sleep studies

Items 12203 to 12250 do not support a figurehead billing arrangement. Figurehead or 'headline' billing is where one practitioner's provider number is used to bill patients for the services provided by other practitioners.

While individual components of the sleep study service (e.g. supervision of the investigation and interpretation and preparation of a permanent report) do not need to be performed by the same qualified sleep medicine practitioner, it is an MBS requirement that the qualified sleep medicine practitioner who prepared the report on the results of the investigation bill the relevant item.

Benefits are not payable for items 12203 to 12250 where the interpretation and preparation of a permanent report is provided by a technician or supervised staff rather than by a qualified adult sleep medicine practitioner.

Where the date of service for a sleep study item is the same as the date of service of any items 11000 to 11005, 11503, 11700 to 11709, 11713 and 12203/12250, for a benefit to be payable, there must be written notification on the account identifying that the service under any of those items was not provided on the same occasion as the sleep study item.

The date of service for the purposes of items 12203 to 12250 is deemed to be the day of the morning the overnight investigation is completed. Billing for the service must only occur once all of the requirements of the item have been fulfilled.