



Medtronic

Engineering the extraordinary

2024 Billing and Coding Guide

Monitoring technologies

Overview

Coding

Reimbursement

FAQ &
Resources

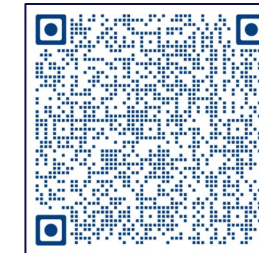
Overview

This guide is intended to aid providers in appropriate procedure code selection for Monitoring Technology procedures. The document reflects applicable and commonly billed procedure codes as well as the unadjusted national Medicare average rates assigned to the CPT®¹ code.



Instructions for use:

- Full code descriptions and details of code reporting requirements and/or guidance, can be found in the section labeled coding.
- Physician, Hospital Outpatient, and/or Ambulatory Surgery Center (ASC) rates, can be found in the section labeled reimbursement
- Details surrounding specialized coding and reimbursement information can be found in the corresponding appendices, FAQ sections, and indicated in footnotes.
- This document is not all-inclusive, nor does it replace advice from your coding and compliance departments and/or CPT®¹ coding manuals.



Medtronic provides this information for your convenience only. It does not constitute legal advice or a recommendation regarding clinical practice. Information provided is gathered from third-party sources and is subject to change without notice due to frequently changing laws, rules and regulations. The provider has the responsibility to determine medical necessity and to submit appropriate codes and charges for care provided. Medtronic makes no guarantee that the use of this information will prevent differences of opinion or disputes with Medicare or other payers as to the correct form of billing or the amount that will be paid to providers of service. Please contact your Medicare contractor, other payers, reimbursement specialists and/or legal counsel for interpretation of coding, coverage and payment policies. This document provides assistance for FDA approved or cleared indications. Where reimbursement is sought for use of a product that may be inconsistent with, or not expressly specified in, the FDA cleared or approved labeling (e.g., instructions for use, operator's manual or package insert), consult with your billing advisors or payers on handling such billing issues. Some payers may have policies that make it inappropriate to submit claims for such items or related service.

Overview

Coding

Reimbursement

FAQ &
Resources

Coding



The coding information below does not replace seeking coding advice from the payer and/or your own coding staff. The ultimate responsibility for correct coding lies with the provider of services. All diagnosis and procedure codes must be supported by clear documentation within the medical record.

- ✓ HCPCS² II codes
- ✓ CPT^{®1} procedure codes
- ✓ ICD-10-PCS⁴ codes
- ✓ Coding appendix

Overview

Coding

Reimbursement

FAQ &
Resources

HCPCS² II codes

Level II HCPCS² codes are primarily used to report supplies, drugs and implants that are not reported by a CPT^{®1} code. HCPCS codes are reported by the physician, hospital or DME provider that purchased the item, device, or supply. Different payers have different payment methods for these items.

C-codes are a series of HCPCS codes that facilities reimbursed under the Medicare Outpatient Prospective Payment System (OPPS) are required to report for eligible items and services. Medicare assigns C codes to specific devices eligible for pass-through payment. Every year, in the OPPS rule, Medicare publishes a list of CPT^{®1} and HCPCS codes that are designated as device-intensive procedures. When reporting procedures on this list, facilities should capture both the CPT^{®1} code representing the procedure performed and the C-code representing the device used. Although C-codes only affect Medicare outpatient reimbursement, facilities may also want to report C-codes on inpatient claims if the device is not used exclusively for inpatient procedures. Medicare tracks this information and uses it in its rate-setting process. Non-OPPS facilities may report C- codes at their discretion.

If the device or supply is reimbursed under the Durable Medical Equipment, Prosthetic, Orthotic or Supply (DMEPOS)³ fee schedule, Medicare may reimburse based on a ceiling and floor amount, average wholesale price or other methodologies.

HCPCS ² code	Description
A4606	Oxygen probe for use with oximeter device, replacement
E0445	Oximeter device for measuring blood oxygen levels noninvasively

Overview

Coding

Reimbursement

FAQ &
Resources

CPT^{®1} procedure codes

CPT ^{®1} code	Description
Remote patient monitoring	
BioIntellisense - BioButton[®]	
99453	Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment
99454	Remote monitoring of physiologic parameter(s) (eg, weight, blood pressure, pulse oximetry, respiratory flow rate), initial, device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days
99457	Remote monitoring of physiologic treatment management services, clinical staff/physician/other qualified health care professional time in a calendar month requiring interactive communication with patient/caregiver during the month; first 20 minutes
99458	Remote physiologic monitoring treatment management services, clinical staff/physician/other qualified health care professional time in a calendar month requiring interactive communication with the patient/caregiver during the month; each additional 20 minutes (List separately in addition to code for primary procedure)
99091	Collection and interpretation of physiologic data (eg, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional, qualified by education, training, licensure/regulation (when applicable) requiring a minimum of 30 minutes of time, each 30 days
Monitoring and capnography	
Bispectral Index[™] monitoring system and Invos[™] cerebral/somatic oximetry	
95999	Unlisted neurological or neuromuscular diagnostic procedure
Microstream[™] capnography technology	
94799	Unlisted pulmonary service or procedure

Overview

Coding

Reimbursement

FAQ &
Resources

CPT^{®1} procedure codes

CPT ^{®1} code	Description
Oximetry	
Nellcor™ pulse oximetry technology	
94760	Noninvasive ear or pulse oximetry for oxygen saturation; single determination
94761	Noninvasive ear or pulse oximetry for oxygen saturation; multiple determinations (eg, during exercise)
94762	Noninvasive ear or pulse oximetry for oxygen saturation; by continuous overnight monitoring (separate procedure)
NOTE: Below specifies coding related to sleep studies	
95800	Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (eg, by airflow or peripheral arterial tone), and sleep time
95801	Sleep study, unattended, simultaneous recording; minimum of heart rate, oxygen saturation, and respiratory analysis (eg, by airflow or peripheral arterial tone)
95806	Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (eg, thoracoabdominal movement)
95807	Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist
G0398	Home sleep study test (HST) with type II portable monitor, unattended; minimum of 7 channels: EEG, EOG, EMG, ECG/heart rate, airflow, respiratory effort and oxygen saturation
G0399	Home sleep test (HST) with type III portable monitor, unattended; minimum of 4 channels: 2 respiratory movement/airflow, 1 ECG/heart rate and 1 oxygen saturation
G0400	Home sleep test (HST) with type IV portable monitor, unattended; minimum of 3 channels

Overview

Coding

Reimbursement

FAQ &
Resources

ICD-10-PCS⁴ codes

ICD-10-PCS⁴ procedure codes are used by hospitals to report surgeries and procedures performed in the inpatient setting. Below are commonly used ICD-10-PCS procedure codes, however codes listed below are not exhaustive as other codes may apply.

ICD-10-PCS ⁴ code	Description
Remote patient monitoring	
BioIntellisense BioButton®	
4A1ZXKZ	Measurement of Temperature, External Approach
4A12XCZ	Monitoring of Cardiac Rate, External Approach
4A19XCZ	Monitoring of Respiratory Rate, External Approach
Monitoring and capnography	
Bispectral Index™ monitoring system	
4A10X4G	Monitoring of Central Nervous Electrical Activity, Intraoperative, External Approach
4A10X4Z	Monitoring of Central Nervous Electrical Activity, External Approach
and Invos™ cerebral/somatic oximetry	
8E02XDZ	Near Infrared Spectroscopy of Circulatory System, External Approach
Oximetry	
Nellcor™ pulse oximetry technology	
4A03XR1	Measurement of Arterial Saturation, Peripheral, External Approach
4A13XR1	Monitoring of Arterial Saturation, Peripheral, External Approach

Overview

Coding

Reimbursement

FAQ &
Resources

Coding appendix

Modifiers

Modifiers are used to supplement the information or adjust the care description to provide extra details concerning a procedure or service. Modifiers help further describe a procedure code without changing its definition. Modifiers are appended to CPT^{®1} codes. List of modifiers can be found in the CPT^{®1} book.⁵

Unlisted codes

Unlisted codes do not have established RVUs under Medicare's Physician Payment System and are typically priced by the contractor after review and individual consideration.

Unlisted CPT^{®1} codes do not carry a rate assignment from Medicare in the physician office setting. Payment may be available on a case-by-case basis with submission of medical records.

NCCI edits

The Centers for Medicare & Medicaid Services (CMS) National Correct Coding Initiative (NCCI) promotes national correct coding methodologies and reduces improper coding, with the overall goal of reducing improper payments of Medicare Part B and Medicaid claims. Providers should consider NCCI edits when submitting claims.⁶

Overview

Coding

Reimbursement

FAQ &
Resources

Reimbursement



This section provides 2024 Medicare unadjusted national average allowable rates for physician, hospital outpatient, and ambulatory surgery settings. CPT^{®1} code descriptions in this section have been shortened to the consumer-friendly version per AMA guidelines.⁷

Providers may choose to perform multiple procedures during the same encounter. When this occurs, providers must report all procedures and the payment may be subject to packaging rules, multiple procedure reduction, complexity adjustments, or multiple endoscopy reductions.

- ✔ Physician⁸, Hospital outpatient⁹ and Ambulatory Surgery⁹ national unadjusted reimbursement rates
- ✔ Inpatient¹⁰ national unadjusted reimbursement rates
- ✔ Reimbursement appendix

Overview

Coding

Reimbursement

FAQ &
Resources

Reimbursement

Physician, Hospital Outpatient, and Ambulatory Surgery national unadjusted reimbursement rates

CPT ^{®1} code	Description	Physician ⁸			Hospital Outpatient ⁹			Ambulatory Surgery ⁹	
		Work RVU	Office Rate	Facility Rate	APC	Status indicator	Rate	Payment indicator	Rate
Remote patient monitoring									
BioIntellisense BioButton[®]									
99453	Remote monitoring of physiologic parameters, initial set up and patient education on use of equipment	0.00	\$20	NA	5012	V	\$126	NA	NA
99454	Remote monitoring of physiologic parameters, initial supply of devices with daily recordings or programmed alerts transmission, each 30 days	0.00	\$47	NA	5741	Q1	\$36 [§]	NA	NA
99457	Management using the results of remote vital sign monitoring per calendar month, first 20 minutes	0.61	\$48	\$29	NA	B	NA	NA	NA
99458	Management using the results of remote vital sign monitoring per calendar month, each additional 20 minutes	0.61	\$39	\$29	NA	B	NA	NA	NA
99091	Collection and interpretation of physical parameters stored in computers and/or transmitted by the patient and/or caregiver to qualified health care professional, requiring 30 minutes or more, per 30 days	1.10	\$53	\$53	NA	N	NA [§]	NA	NA

 Please refer to page 13 for footnotes

Overview

Coding


[Reimbursement](#)

FAQ &
Resources

Reimbursement

Physician, Hospital Outpatient, and Ambulatory Surgery national unadjusted reimbursement rates

CPT ^{®1} code	Description	Physician ⁸			Hospital Outpatient ⁹			Ambulatory Surgery ⁹	
		Work RVU	Office Rate	Facility Rate	APC	Status indicator	Rate	Payment indicator	Rate
Monitoring and capnography									
Bispectral Index™ monitoring system and Invos™ cerebral/somatic oximetry									
95999	Other diagnostic neurological or neuromuscular procedure		Carrier priced		5721	Q1	\$149 [§]	NA	NA
Microstream™ capnography technology									
94799	Other service or procedure on lung		Carrier priced		5721	Q1	\$149 [§]	NA	NA
Oximetry									
Nellcor™ pulse oximetry technology									
94760	Test to measure oxygen level in blood using ear or finger device	0.00	\$3	NA	NA	N	NA [§]	NA	NA
94761	Test to measure oxygen level in blood using ear or finger device multiple times	0.00	\$4	NA	NA	N	NA [§]	NA	NA
94762	Test to measure oxygen level in blood using ear or finger device continuously overnight	0.00	\$25	NA	5721	Q3 [§]	\$149	NA	NA

 Please refer to page 13 for footnotes

Overview

Coding

Reimbursement

FAQ &
Resources

Reimbursement

Physician, Hospital Outpatient, and Ambulatory Surgery national unadjusted reimbursement rates

CPT ^{®1} code	Description	Physician ⁸			Hospital Outpatient ⁹			Ambulatory Surgery ⁹	
		Work RVU	Office Rate	Facility Rate	APC	Status indicator	Rate	Payment indicator	Rate
Oximetry									
Nellcor™ pulse oximetry technology									
95800	Sleep study including heart rate, breathing, and sleep time	0.85	\$134	\$38	5721	S	\$149	NA	NA
95801	Sleep study including heart rate and breathing	0.85	\$96	\$39	5733	Q1	\$58 ^s	NA	NA
95806	Sleep study including heart rate, breathing, airflow, and effort	0.93	\$93	\$42	5721	S	\$149	NA	NA
95807	Sleep study including heart rate and breathing attended by technician	1.28	\$403	\$57	5723	S	\$511	NA	NA
G0398	Home sleep study test (HST) with type II portable monitor, unattended; minimum of 7 channels: EEG, EOG, EMG, ECG/heart rate, airflow, respiratory effort and oxygen saturation	NA	NA	NA	5721	S	\$149	NA	NA
G0399	Home sleep test (HST) with type III portable monitor, unattended; minimum of 4 channels: 2 respiratory movement/airflow, 1 ECG/heart rate and 1 oxygen saturation	NA	NA	NA	5721	S	\$149	NA	NA
G0400	Home sleep test (HST) with type iv portable monitor, unattended; minimum of 3 channels	NA	NA	NA	5722	S	\$299	NA	NA

 Please refer to page 13 for footnotes

Overview

Coding

Reimbursement

FAQ &
Resources

Footnotes

- NA Indicates that there is no established Medicare allowable in this site of care
- + Add-on codes are always listed in addition to the primary procedure code
- † Comprehensive APCs (C-APCs)
- ¶ Device intensive
- § Packaged Payment, see Status Indicators in Reimbursement Appendix
- || Modifier, see definitions in Reimbursement Appendix
- RVU Indicates Relative Value Unit

Overview

Coding

Reimbursement

FAQ &
Resources

Reimbursement

Inpatient¹⁰ national unadjusted reimbursement rates

Under Medicare's MS-DRG¹⁰ methodology for hospital inpatient payment, each inpatient stay is assigned to one of about 750 diagnosis-related groups, based on the ICD-10 codes assigned to the diagnoses and procedures. Each MS-DRG has a relative weight that is then converted to a flat payment amount. Only one MS-DRG is assigned for each inpatient stay, regardless of the number of procedures performed. MS-DRGs shown are those typically assigned to the following scenarios when the patient is admitted specifically for the procedure.

For pulse oximetry provided during an inpatient admission payment is included in the associated DRG assignment. Hospitals may choose to report the ICD-10-PCS code to track the procedure.

Overview

Coding

Reimbursement

FAQ &
Resources

Reimbursement appendix

Carrier priced

Carrier priced codes are not assigned a rate on a national level. Local contractors will determine the reimbursement amount on a case-by-case basis.

Status Indicator

In the Hospital Outpatient, Status Indicator (SI) shows how a code is handled for payment purposes: C= Inpatient procedures, not paid under OPPOS; J1 = paid under comprehensive APC, single payment based on primary service without separate payment for other adjunctive services; S = procedure or service not discounted when multiple procedure; Additional details can be found in Addendum D1 of the OPPOS rule.

Packaged codes

Codes with Status Indicators Q1 & Q2 are packaged codes in the outpatient setting. Payment for these services are packaged in certain circumstances.

Overview

Coding

[Reimbursement](#)

FAQ &
Resources

Reimbursement appendix

Work Relative Value Unit (RVU)

The Work RVU is a unit of measure that describes the work associated with a physician's procedural services and is factored into the total physician payment. Work RVU is one of three total components on which physician payment is based: physician work RVU, practice expense RVU, and medical malpractice RVU.⁸

Payment Indicator

In the ASC, the Payment Indicator shows how a code is handled for payment purposes. J8 = device-intensive procedure, payment amount adjusted to incorporate device cost; A2 = surgical procedure, payment based on hospital outpatient rate adjusted for ASC; G2 = surgical procedure, non-office based, payment based on hospital outpatient rate adjusted for ASC.

Overview

Coding

Reimbursement

FAQ &
Resources

Frequently asked questions

01

How do I code for cerebral or somatic oximetry?

CPT^{®1} does not provide codes that are specific or unique to cerebral or somatic oximetry. When cerebral or somatic oximetry is performed outside the operating room, physicians may consider using an unlisted CPT^{®1} code. The code will vary based on the site being monitored.

02

Can placement and interpretation of Nellcor oximetry, Microstream capnography, BIS[™] system or INVOS[™] sensor values be reported separately during surgery?

Placement and interpretation of the Nellcor, Microstream, BIS[™] or INVOS[™] system values are not separately reportable. According to the National Correct Coding Initiative (NCCI) policy, "anesthesia HCPCS/ CPT^{®1} codes include all services integral to the anesthesia procedure, including placement of external devices (eg EEG monitors, oximetry) and intraoperative interpretation of monitored functions."⁶

Overview

Coding

Reimbursement

[FAQ &
Resources](#)

Frequently asked questions

03

Are monitoring services separately coded in the hospital outpatient and/or ambulatory surgery setting?

Monitoring services related to anesthesia are not separately coded in the hospital outpatient or ambulatory surgery center setting. Per CMS guidelines, anesthesia services are packaged and not separately payable.⁶

04

Are there unlisted codes that apply for Monitoring Technologies?

Yes, 95999 (unlisted neurological or neuromuscular diagnostic procedure) can be utilized in instances where cerebral or somatic oximetry, or EEG is performed outside of the operating room or when utilized as a diagnostic test measuring at a single point in time. CPT^{®1} code 94799 (unlisted pulmonary service or procedure) may be used in a similar circumstance for capnography. Payment may be available on a case by case basis with submission of medical records.

Overview

Coding

Reimbursement

[FAQ &
Resources](#)

Frequently asked questions

05

Is there a CPT^{®1} code for capnography monitoring?

No, while there was previously a CPT^{®1} code 94770 (Carbon dioxide, expired gas determination by infrared analyzer), the code was deleted effective 12/31/2020. It is not appropriate to report an expired code. Outside of the operating room or when utilized as a diagnostic test measuring at a single point in time CPT^{®1} code 94799 (unlisted pulmonary service or procedure) may be use for capnography. Payment may be available on a case by case basis with submission of medical records.

06

Is noninvasive pulse oximetry reimbursable in the outpatient setting?

CPT^{®1} codes 94760 and 94761 may be used when performed as a diagnostic test measuring SpO2 at a single point in time. Note, however physician payment is bundled if billed on the same date with another service paid under the Physician Fee Schedule. Commercial payer policies may vary.

07

Does remote physiological monitoring require monitoring for a specific amount of time to be reported?

In the 2023 Final Rule, CMS stated that CPT codes 99453 and 99454 require monitoring for a period of 16 or more days, except for the duration of the COVID-19 PHE, where 2 days of data are allowed.¹¹

Overview

Coding

Reimbursement

FAQ &
Resources

Frequently asked questions

08

Can remote patient monitoring be ordered by non-physician providers?

Remote patient monitoring (RPM) can be ordered and billed only by qualified physicians and non-physician providers eligible to bill evaluation and management (E/M) services.⁹

09

Does BioIntellisense BioButton® have a dedicated HCPCS code?

The product, BioIntellisense BioButton® does not have a dedicated HCPCS Level II code.

10

Is monitoring with BioIntellisense BioButton® separately reimbursable in the inpatient setting?

For continuous vital sign monitoring provided during an inpatient admission, payment is included in the associated MS-DRG assignment. Hospitals may choose to report ICD-10-PCS codes for the various vital signs it collects, however this is optional as the codes do not impact DRG assignment.

Overview

Coding

Reimbursement

FAQ &
Resources

Resources

Medtronic Reimbursement Support is available to assist you with your coding and reimbursement questions. If your coding or reimbursement questions were not answered in this guide, please check out these additional resources:



Visit our website: <https://www.medtronic.com/us-en/healthcare-professionals/reimbursement.html>



Email us: rs.medtronicpmrreimbursement@medtronic.com

Overview

Coding

Reimbursement

FAQ &
Resources

References

1. CPT copyright 2023 American Medical Association. All rights reserved. CPT® is a registered trademark of the American Medical Association. Applicable FARS/DFARS Restrictions Apply to Government Use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.
2. Centers for Medicare and Medicaid Services. Healthcare Common Procedure Coding System (HCPCS) Quarterly Update. <https://www.cms.gov/medicare/coding/hcpcsreleasecodesets/hcpcs-quarterly-update>. Accessed January 26, 2024
3. Centers for Medicare and Medicaid Services. Medicare Program; January 2024 DME Fee Schedule. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/DMEPOSFeeSched/DMEPOS-Fee-Schedule>. Accessed January 11, 2024.
4. Centers for Medicare and Medicaid Services. International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS). <https://www.cms.gov/medicare/icd-10/2023-icd-10-pcs>. Accessed January 11, 2024
5. CPT 2027 Professional Edition. American Medical Association. 2022.
6. Centers for Medicare and Medicaid Services. Medicare NCCI Policy Manual. <https://www.cms.gov/medicare-medicare-coordination/national-correct-coding-initiative-ncci/ncci-medicare/medicare-ncci-policy-manual>. Accessed January 11, 2024
7. American Medical Association. Consumer and Clinician Descriptors in CPT Data Files. <https://commerce.ama-assn.org/catalog/media/Consumer-and-Clinician-Descriptors-in-CPT-Data-Files.pdf>. Accessed January 11, 2023
8. Centers for Medicare and Medicaid Services. Medicare Program; CY 2024 Payment Policies Under the Physician Fee Schedule and Other Changes to Part B Payment Policies; Federal Register (88 Fed. Reg. No. 220 78818-80047) <https://www.govinfo.gov/content/pkg/FR-2023-11-16/pdf/2023-24184.pdf>. 2024 National Physician Fee Schedule Relative Value File January Release <https://www.cms.gov/medicare/payment/fee-schedules/physician/pfs-relative-value-files/rvu24a>. Published Jan 3, 2024
9. Centers for Medicare and Medicaid Services. Medicare Program: Hospital Outpatient Prospective Payment and Ambulatory Surgical Center Payment Systems; Final Rule, Federal Register (88 Fed. Reg. No. 224 81540-82185), <https://www.govinfo.gov/content/pkg/FR-2023-11-22/pdf/2023-24293.pdf>. Published November 22, 2023. January 2024 ASC Approved HCPCS Code and Payment Rates. https://www.cms.gov/medicare/medicare-fee-for-service-payment/ascpayment/11_addenda_updates. Published December 27, 2023.
10. Centers for Medicare and Medicaid Services. Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long Term Care Hospital Prospective Payment System and Policy Changes and Fiscal Year 2022 Rates; Final Rule, Federal Register (87 Fed. Reg. No. 153 48780-49499), <https://www.govinfo.gov/content/pkg/FR-2022-08-10/pdf/2022-16472.pdf> Published August 10, 2022.

Overview

Coding

Reimbursement

FAQ &
Resources