

February 10, 2025

VIA ELECTRONIC SUBMISSION

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Centers for Medicare & Medicaid Services

Mail Stop: C4-01-26

7500 Security Blvd.

Baltimore, Maryland 21244

RE: Potentially Misvalued Code (PVMC) Nomination for CPT code 95800

Dear CMS:

In accordance with the Centers for Medicare & Medicaid Services' (CMS') public nomination process for potentially misvalued codes, ZOLL Itamar (Itamar), a manufacturer and distributor of home sleep apnea testing (HSAT) devices, respectfully submits this nomination of potentially misvalued CPT code 95800¹ for the calendar year (CY) 2026 Medicare Physician Fee Schedule (PFS) rulemaking cycle.

As discussed in greater detail below, and consistent with the PVMC request made in the CY 2025 rule, Itamar believes that code 95800 is misvalued because clinical practice changes support the conclusion that the "typical procedure" reported with code 95800 utilizes disposable HSAT technology rather than the reusable equipment currently included in the procedure's direct practice expense (PE) inputs. This misalignment between current medical practice and the PE inputs for CPT 95800 has resulted in inaccurate direct practice expenses for code 95800 and created access challenges for Medicare beneficiaries, particularly in rural and remote areas.

In response to the CY 2025 PVMC request, CMS declined to grant the request, stating that the Agency required more information to confirm whether disposable devices were now used in the "typical practice" for services reported with code 95800. In response to this request, ZOLL Itamar commissioned an independent survey of home sleep apnea test (HSAT) providers, conducted by KNG Health Consulting LLC ("KNG Health"), to evaluate the relative utilization of reusable vs. disposable HSAT devices used in procedures reported with CPT code 95800. **The KNG Health survey, which was developed with the expert input of the American Academy of Sleep Medicine (AASM), concluded that 60 percent (60%) of procedures reported with code 95800 used fully disposable HSAT equipment, among a random sample of survey respondents that reported this service in CY 2023.** The report summarizing those survey results, which confirms that the typical procedure reported with code 95800 uses a fully disposable device, is attached at Appendix 1.

¹ Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (eg, by airflow or peripheral arterial tone), and sleep time.



Accordingly, we request that CMS update the direct PE supply and equipment inputs for CPT 95800 to reflect the typical procedure's use of disposable HSAT technology. Specifically, we believe that the most accurate PE adjustments for code 95800 would:

1. **DELETE** equipment code EQ335 (reusable WatchPAT 200 unit), equipment code EQ336 (oximetry and airflow device), and supply code SD263 (WatchPAT probes used with reusable WatchPAT unit); and
2. **ADD** supply code SD362 (the WatchPAT ONE device) as a replacement for the deleted items.

I. WATCHPAT ONE BACKGROUND

The WatchPAT is a wrist-mounted device that allows sleep testing in the comfort of the patient's own home. Using Peripheral Arterial Tonometry (PAT) technology, the WatchPAT enables the non-invasive recording, measurement and analysis of the biological PAT signal, which measures changes in a patient's pulsatile arterial volume, providing a "window" to the cardiovascular system and the sympathetic branch of the autonomic nervous system. Home sleep tests performed with WatchPAT devices are typically reported with code 95800.

The WatchPAT product line includes the reusable WatchPAT 200 and WatchPAT 300, as well as the single-use WatchPAT ONE device. Like the other WatchPAT products, the WatchPAT ONE measures seven (7) channels (PAT signal, heart rate, oximetry, actigraphy, body position, snoring, and chest motion) and offers the same accuracy as the reusable WatchPAT products, but is entirely disposable. The cloud-based solution available through the WatchPAT ONE provides clinicians with immediate access to sleep data and study results, without the need to wait for the return of the reusable capital equipment to download the study data, thus allowing fast diagnosis and treatment. This configuration also enables physicians to extend care to rural populations that may not otherwise receive sleep testing services and reduces potential reinfection risk from reusable HSATs.

Similar to other reusable HSAT services reliant on PAT technology, the single-use WatchPAT One service is currently reported using CPT code 95800. The practice expenses associated with single-use, disposable HSATs are different from those associated with reusable tests. While eliminating the cost for reusable equipment, disposable HSAT services involve higher costs for single-use supplies. As discussed below, these disparities in the equipment and supply costs for HSATs performed with disposable versus reusable devices result in underpayment to physicians who purchase the device when performing HSAT services using the disposable WatchPAT ONE.

II. CPT 95800: HISTORICAL VALUATION AND CLINICAL CHANGES

Valuation for CPT 95800 was last reviewed by CMS in the CY 2019 PFS Final Rule, when CMS finalized the existing work and direct PE inputs for three HSAT codes (CPT codes 95800, 95801, and 95806).² The existing inputs are based on a survey and recommendations from the April 2017 meeting of the American Medical Association (AMA) Relative Value System Update Committee (RUC), which

² 83 Fed. Reg. 59,452, 59,568 (Nov. 23, 2018).



adopted without modification the direct practice expense input recommendations of the specialty societies.³ The supply and equipment inputs for CPT 95800 are shown below.⁴

CURRENT SUPPLY INPUTS (CY 2024 PFS FINAL RULE)				
CPT	Category	Supply Code	Description	Quantity
95800	Accessory, Procedure	SD263	WatchPAT pneumo-opt slp probes	1
95800	Wound Care, Dressings	SG005	adhesive remover, liquid (Detachol) (0.67ml uou)	1
95800	Wound Care, Dressings	SG078	tape, surgical occlusive 1in (Blenderm)	8
95800	Pharmacy, NonRx	SJ053	swab-pad, alcohol	5
95800	Office Supply, Grocery	SK057	paper, laser printing (each sheet)	2
95800	Infection Control	SM021	sanitizing cloth-wipe (patient)	2
95800	Infection Control	SM022	sanitizing cloth-wipe (surface, instruments, equipment)	2

CURRENT EQUIPMENT INPUTS (CY 2024 PFS FINAL RULE)				
CPT	Category	Equip Code	Description	Price
95800	OTHER EQUIPMENT	EQ335	WatchPAT 200 Unit with strap, cables, charger, booklet and patient video	1,237.5
95800	OTHER EQUIPMENT	EQ336	Oximetry and Airflow Device	1,195

In the time since these direct PE values were established for CPT 95800, there have been significant changes in the technologies available to perform HSAT services, as well as in clinical practice. Testing volume has shifted away from traditional airflow-based tests, while PAT-based (non-airflow) test volume grows. Many sleep physicians transitioned to single-use, disposable sleep tests as an alternative to the reusable testing equipment that is shipped from patient-to-patient after post-use cleaning. This shift was initially driven in large part by concerns related to COVID-19 transmission and a higher degree of cleaning required between patients, as well as the recommendation of the leading sleep medicine society, the American Academy of Sleep Medicine (AASM), that “[u]sing single-use, fully disposable devices and/or components is an option to reduce the risk of virus transmission from surface contact.” The trend towards disposable HSATs has continued to develop beyond the conclusion of the PHE, given the many other clinical and operational advantages offered by disposable technology.⁵ Among other things, disposable HSAT technology reduces patient burden (travel time, expense, absence from work), especially for elderly patients with limited transportation access, expands sleep testing

³ See April 2017 RUC Meeting Minutes at 51–52, <https://www.ama-assn.org/system/files/2018-11/6-april-2017-ruc-meeting-minutes.pdf>; see also AMA/Specialty Society Update Process Practice Expense Summary of Recommendation (SoR) Non Facility Direct Practice Expense (PE) Inputs (revised Apr. 27, 2017), <https://www.ama-assn.org/system/files/2018-11/3-may-2017-ruc-recommendations-final.pdf> [PDF page 2500–2506].

⁴ See CY 2024 PFS Final Rule Direct PE Inputs-Updated 12/19/2023, available at <https://www.cms.gov/medicare/medicare-fee-service-payment/physicianfeesched/pfs-federal-regulation-notices/cms-1784-f>.

⁵ AASM, Considerations for the practice of sleep medicine during COVID-19, <https://aasm.org/covid-19-resources/considerations-practice-sleep-medicine> (last visited Feb. 1, 2024).



access to underserved patients and remote geographic areas, and provides faster results leading to more rapid treatment and consistent follow-up.

III. UPDATED UTILIZATION AND RESPONSE TO CY 2025 RULEMAKING

Following requests by the AASM and CMS to obtain further information on the use of disposable and reusable devices with HSATs reported with code 95800, ZOLL Itamar can now confirm that an independent survey of sleep medicine providers concluded through a random sample that approximately 60% of sleep tests reported with code 95800 use disposable devices. This survey, described in further detail below and summarized in [Appendix 1](#), confirms that the typical procedure reported with code 95800 now use disposable devices rather than reusable equipment.

For background, in recognition of the changing clinical practice for code 95800, ZOLL Itamar submitted a PVMC request in the CY 2025 rulemaking cycle, requesting that CMS revise direct practice expense inputs for code 95800 to reflect use of disposable devices rather than reusable equipment. In the original request and comments to the proposed rule, ZOLL Itamar provided sales data suggesting that disposable HSAT devices accounted for more than 50% of procedures reported with code 95800 (approximately 53% in the first six months of 2024). Utilization has continued to shift towards disposable devices, with more procedures with WatchPAT technology performed with disposable devices in 2025 than reusable equipment. The AASM provided data to CMS on use of disposable devices across all home sleep tests used by AASM-accredited sleep facilities in 2022 – not only those tests reported with code 95800 – that suggested there was insufficient information at that time to determine whether disposable devices were more typical than reusable devices. The AASM suggested continued monitoring and further data collection to answer this question, and CMS agreed with this recommendation. CMS finalized its proposal not to nominate CPT code 95800 as potentially misvalued, noting that the Agency looked forward to considering additional information in the future as to whether disposable or reusable devices were more common and represented the typical practice.

In response to this recommendation, ZOLL Itamar engaged KNG Health Consulting, LLC (“KNG Health”), an independent health consulting firm with experience in conducting provider surveys, to gather additional data from sleep medicine providers. As summarized in the report attached at [Appendix 1](#), KNG Health developed a survey tool in collaboration with the AASM to evaluate relative use of disposable and reusable devices in performing HSATs reported with codes 95800, 95806, and G0399. KNG Health distributed the survey to a random sample of providers that billed code 95800 to Medicare Part B in CY 2023. Respondents provided information on the volume of tests performed; use of disposable devices; use of reusable devices; practice size; and typical HSAT devices used.

The most relevant results are found in Table 5, in which KNG Health reported that respondents used fully disposable HSAT equipment in 60.4% of tests reported with code 95800, compared with 39.6% of tests that were performed with reusable equipment. As a result, KNG Health concluded that “fully disposable devices are more frequently used to perform HSATs reported with CPT code 95800” and that “disposable devices appear to be associated with the typical procedure reported with code 95800.” Survey responses also aligned with information provided by AASM in the last rulemaking cycle, as KNG Health noted that most sleep medicine providers continued to use reusable equipment to perform other sleep tests (e.g., tests reported with code 95806), and that while the relative proportion of providers using reusable and disposable equipment is approximately 50/50, the **volume** of 95800 procedures reported using disposable devices exceeds the number of procedures using reusable

ZOLL Itamar



equipment. These data confirm the conclusion that the typical procedure reported with code 95800 currently use disposable devices rather than reusable equipment.

IV. CPT 95800: PROPOSED UPDATES TO SUPPLY AND EQUIPMENT INPUTS

As discussed in the sections above, the current direct PE inputs are valued with inputs that describe reusable equipment (e.g., the WatchPAT 200 Unit), and do not account for the cost of the WatchPAT ONE device as a single-use supply for this service. The KNG Health survey confirms that the “typical” procedure reported with code 95800 in CY 2025 uses a disposable HSAT device, not reusable equipment. Accordingly, the direct PE resources that are “required for the typical service” will align with the use of disposable, not reusable, test equipment—consistent with CMS’ standard methodology for establishing Direct Practice Expense inputs.⁶

To reflect the resource costs associated with disposable HSAT technology, Itamar requests that CMS update the direct PE inputs for CPT code 95800 to: (1) remove the reusable equipment codes (EQ335 and EQ336) and the supply code associated with reusable equipment (SD263, single-use probes used with reusable WatchPAT unit); and (2) add supply code SD362 (the disposable WatchPAT ONE device).

a. Proposed Equipment Input Changes

The current equipment inputs for CPT 95800 are EQ335 (describing the reusable WatchPAT 200 and related accessories) and EQ336 (describing a traditional airflow test device). CMS should **remove** both codes to reflect the shift away from reusable equipment in favor of a single-use disposable supply:

EQUIPMENT INPUTS: PROPOSED UPDATES						
CPT	Category	Equip Code	Description	Price	Equip Cost Per Minute	Equipment Status
95800	OTHER EQUIPMENT	EQ335	WatchPAT 200 Unit with strap, cables, charger, booklet and patient video	1,237.5	4.707	DELETE
95800	OTHER EQUIPMENT	EQ336	Oximetry and Airflow Device	1,195	4.545	DELETE

b. Proposed Supply Input Changes

The current SD263 supply code describes single-use WatchPAT probes used with the reusable WatchPAT equipment. The new WatchPAT One supply code (SD362) is an entire, single-use HSAT testing system that effectively replaces both the reusable HSAT testing units (EQ335 and EQ336) and the single-use WatchPAT probes (SD263). To reflect this configuration, CMS should **remove** supply code SD263 and **add** the new supply code SD362 to describe the WatchPAT One system:

SUPPLY INPUTS: PROPOSED UPDATES

⁶ *Id.* at 78,892.



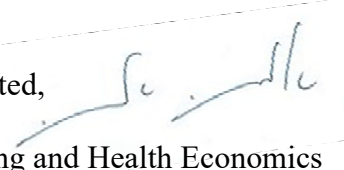
CPT	Category	Supply Code	Description	Price	Quantity	Supply Cost	Supply Status
95800	Accessory, Procedure	SD263	WatchPAT pneumo-opt slp probes	73.32	1	73.32	DELETE
<u>95800</u>	<u>Accessory, Procedure</u>	<u>SD362</u>	<u>WatchPAT ONE device</u>	<u>98.20</u>	<u>1</u>	<u>98.20</u>	<u>ADD</u>
95800	Wound Care, Dressings	SG005	adhesive remover, liquid (Detachol) (0.67ml uou)	2.4	1	2.4	RETAIN
95800	Wound Care, Dressings	SG078	tape, surgical occlusive lin (Blenderm)	0.007	8	0.056	RETAIN
95800	Pharmacy, NonRx	SJ053	swab-pad, alcohol	0.04	5	0.2	RETAIN
95800	Office Supply, Grocery	SK057	paper, laser printing (each sheet)	0.02	2	0.04	RETAIN
95800	Infection Control	SM021	sanitizing cloth-wipe (patient)	0.07	2	0.14	RETAIN
95800	Infection Control	SM022	sanitizing cloth-wipe (surface, instruments, equipment)	0.07	2	0.14	RETAIN

Establishing direct PE inputs consistent with the adjusted equipment and supply inputs described above for code 95800, while retaining current labor and malpractice inputs, would result in an accurate valuation that reflects the costs associated with disposable HSAT device services.

* * *

Itamar appreciates CMS' attention to this important issues and thanks the Agency for its consideration of these comments. As described in detail above, further information developed following the CY 2025 rule supports a conclusion that code 95800 is misvalued, and that CMS should update the direct PE inputs to recognize the changing utilization patterns for code 95800 by recognizing the disposable technology commonly used to perform that service.

Should you have any questions about the contents of this letter, please do not hesitate to contact Etai Amitai at etai.amitai@zoll.com.

Respectfully submitted,

 Etai Amitai
 VP Strategic Planning and Health Economics
 ZOLL Itamar



Appendix 1

Home Sleep Test Provider Survey: Utilization of Disposable and Reusable Devices

Prepared For:

ZOLL Itamar

Submitted by:

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February 10, 2025

Research objective

Obstructive sleep apnea is a serious chronic condition that affects as many as 30 million people in the US.¹ During sleep, individuals with the condition stop breathing or have their breathing severely restricted. When untreated, sleep apnea can increase the risk of developing high blood pressure, stroke, and Type 2 diabetes, and more than double the risk of dying from heart disease.² Several options for diagnosing sleep apnea exist, including in-lab overnight sleep studies and home sleep apnea tests (HSATs). HSATs vary in design, but typically include finger, wrist, and chest sensors that measure physiologic signals that are clinically relevant for diagnosing sleep disorders such as apnea. HSAT devices can be fully disposable or reusable (with or without some disposable components).

HSAT devices for the diagnosis of obstructive sleep apnea are covered by Medicare under the Medicare Physician Fee Schedule (MPFS). Under the MPFS, providers are reimbursed for professional work and practice expenses associated with a service, which include the costs of equipment, labor, and supplies used to provide the service. To establish practice expense reimbursement levels, the Centers for Medicare & Medicaid Services (CMS) makes assumptions regarding the supplies and equipment used and the costs associated with those materials. Currently, CMS modeled reimbursement for the HSAT reported with CPT code 95800 based on the use of a reusable sleep testing device with a consumable component (the WatchPAT 200, with a WatchPAT probe). Since the advent of COVID-19, the industry has reported that sleep testing providers have made greater use of fully disposable devices to perform HSATs, especially tests reported with code 95800. In the CY 2025 MPFS rule, CMS acknowledged that the practice of medicine is evolving, including in the use of reusable to disposable HSAT equipment. CMS stated that it would consider additional information in the future to inform the Agency's decision on whether disposable or reusable HSAT devices are more common, as more information is needed to confirm whether disposable devices are typically reported with code 95800.³

The goal of this study was to collect valid practice expense data on the use of disposable versus reusable device systems for HSATs across practices to better understand how often reusable versus disposable equipment is used. Such information could help inform CMS as it updates practice expense assumptions for HSATs reimbursed under the MPFS. Specifically, CMS currently assumes that reusable devices are used for HSATs, which have different costs than disposable devices. This study will provide data to indicate whether CMS should modify its assumption on the types of devices used for HSATs to ensure accurate reimbursement for practice expenses.

In addition, this study collected information on additional HSAT billing codes used by providers. HSAT services are covered by several CPT (95800, 95801, and 95806) and HCPCS codes (G0398-G0400) detailed in Table 1. There is little data available on which billing codes are most commonly used on claims when a fully disposable device is used versus a reusable device is used (but which may have disposable

¹ Berg S. What doctors wish patients knew about sleep apnea. Aril 1, 2022. Accessed on 1/30/2025 at <https://www.ama-assn.org/delivering-care/public-health/what-doctors-wish-patients-knew-about-sleep-apnea>

² American Association of Sleep Medicine website. Accessed on 1/30/2025 at <https://sleepeducation.org/get-involved/campaigns/sleep-apnea-hurts-heart/>

³ See CMS, CY 2025 MPFS Final Rule, 89 Fed. Reg. 97709, 97743 (Dec. 9, 2024).

component). Our survey is intended to specifically fill the gap in understanding the use of disposable devices for services reported with CPT 95800.

Table 1: Billing Codes for Home Sleep Apnea Tests

Code type	Description
CPT 95800	Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time
CPT 95801	Sleep study, unattended, simultaneous recording; minimum of heart rate, oxygen saturation, and respiratory analysis (e.g., by airflow or peripheral arterial tone)
CPT 95806	Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)
HCPCS 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
HCPCS 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
HCPCS G0400	Home sleep test (HST) with type IV portable monitor; unattended; minimum of 3 channels

Methodology

Survey. KNG Health designed and fielded a survey containing 12 questions related to practice and provider level use of disposable and reusable HSATs, the proportion of each type used in cases when both are used, and CPT codes used for reimbursement. The expert input of the American Academy of Sleep Medicine (AASM) was requested and incorporated into the survey instrument following review by the AASM’s health policy and clinical experts. The study was sponsored by ZOLL Itamar, but KNG Health designed the survey instrument, launched the survey, and conducted all data analyses.

Additionally, the survey contained questions about practice size (i.e., the average volume of cases per month in the past six months, practice setting, and state where practice is located), as well as open-ended questions about advantages of using one type of the device system over another type. Based on consultation with the experts in the field, instead of collecting data on all six CPT/HCPCS codes, we collected detailed data on type and volume for three billing codes that, according to published utilization data, account for approximately 95% of the total HSATs billing.⁴ We believed these codes were most likely to be utilized when using disposable devices: 95800, 95806, and G0399.

⁴ CMS. Part B National Summary Data File. Accessed on 2/10/2025 at: <https://www.cms.gov/data-research/statistics-trends-and-reports/part-b-national-summary-data-file>

KNG Health maintained control of all aspects of the study, and the survey sample was treated as confidential and not shared with the study sponsor. Prior to deployment, the survey was reviewed by ZOLL Itamar and the AASM and all feedback was incorporated. The survey was deployed electronically using the SurveyMonkey platform. The survey questionnaire and the prompt email are reported in Appendix.

The survey was deployed on January 21, 2025, and was in the field for 17 days. A total of four reminders were sent during this time frame, targeting those who have not attempted to complete the survey. We also extended the initial deadline of February 3 to February 6 to maximize the number of responses. Finally, to increase the number of responses, we introduced a monetary incentive of a \$25 e-gift card for respondents who submitted a complete survey.

Target population. The target population was identified as Medicare-enrolled providers billing CPT code 95800 (Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time) to Medicare Part B in 2023. To identify these providers, KNG Health used a random 5% sample of the 2023 annual Medicare fee-for-service carrier claims file. The 5% carrier file is based on a random sample of beneficiaries selected by CMS and includes all carrier claims for these beneficiaries submitted by professional providers, including physicians, physician assistants, clinical social workers, and nurse practitioners.

A total of 904 providers with the corresponding billing provider NPI number were identified. Then, KNG Health merged the obtained list of NPI's to a publicly accessible monthly database of all active NPIs - the CMS National Plan and Provider Enumeration System (NPPES)⁵ – to obtain information about the NPI entity type (individual vs organization), provider organization legal business name or individual provider name, provider business practice address, and telephone number. We dropped 3 providers from the sample, because we were not able to match NPI from the claims to the NPPES dataset (i.e., invalid entry 9999999992 and two NPIs have been deactivated by CMS). Finally, we added email contact information by merging NPIs of providers in our sample to a proprietary database that contained electronic contact information for these NPIs. Given that an individual provider can work for multiple practices, the final sample of 901 NPIs was linked to 1,857 email addresses. KNG Health maintained control over the list of NPIs, as well email addresses to which the survey has been deployed. This information was not shared with ZOLL Itamar or AASM.

Results

Survey Response Rate. The survey engagement rate was 12 percent. Of the responses received, 22 percent or 25 responses were deemed complete (i.e., survey was started and finished and the information on volume and device types was provided). Table 2 below summarizes descriptive statistics on responses relative to the deployment.

The complete responses represented volume and billing patterns across a total of 35 clinicians. The majority, or 92 percent, of responses were either from physicians or advanced care providers (non-

⁵ NPPES downloadable data is accessible at <https://www.cms.gov/medicare/regulations-guidance/administrative-simplification/data-dissemination>

physicians) and the remaining responses are provided by practice/facility managers or administrators. The latter responses were provided for the entire practice rather than for individual providers working at the clinic/center with practice sizes ranging from 3 to 9 providers.

Table 2: Survey Response Statistics

Responses	Count	Percent
Total sample of NPIs included in the sample	901	100%
Total emails deployed	1,857	
Total emails filtered out (bounced, survey opt-out, etc.)	302	
Total responses received	109	12%
Complete	25	22%
Incomplete	84	78%

Respondent Characteristics. Most respondents worked in the office-based setting (64%), with the hospital-based setting being the next frequent (28%). Independent diagnostic testing facilities and other settings such as Federally Qualified Health Centers were mentioned least frequently. The survey covered all geographic regions with South and West each representing one third of responses, Northeast 20% and Midwest 16%.

Survey respondents reported that they generally used some or all of the three identified CPT codes to bill for home sleep apnea tests: 95800 (76% of responses), 95806 (36%), and G0399 (20%). No other CPT codes were reported in the open-ended option “Other”. Among providers that billed CPT 95800 and CPT 95806, both codes were used to report services performed with fully disposable device systems and reusable device systems (that may have disposable components). Specifically, twelve provider respondents reported using only reusable devices to perform HSATs reported with CPT code 95800, while eight providers reported using only fully disposable device systems, and three providers reported using both types of devices. The distribution of provider responses by each CPT code and type of device is reported in Appendix Table 1.

To evaluate the typical procedure performed by volume, the survey respondents reported on the average volume of HSATs conducted per month. Volume questions were asked by CPT code, as providers frequently utilize several billing codes, and the survey intended to capture volume associated with each code. A count of responses by average monthly volume and corresponding CPT is reported in Table 3.

Table 3. Average Volume per Month Observed in the Past Six Months by CPT Code

HSAT Volume per month	Count of responses		
	95800	95806	G0399
0	1	0	1
1-25	4	5	3
26-50	4	2	1
51-100	7	0	0
101-250	3	2	0
251-500	0	0	0
501-999	0	0	0
1,000+	0	0	0
Total responses	19	9	5

Note: The same provider can report different volumes for each CPT used for HSAT billing.

Finally, respondents were asked and reported using a variety of HSAT devices, with WatchPAT ONE, WatchPAT 200 / 300, and AliceNight ONE mentioned most frequently. Other devices mentioned included Apnealink, NoxT3s, SleepImage Ring, SleepView, Belun Sleep System, Clevemed, and Watermark/ARES devices.

Volume by Device Type. Based on respondents' reported HSAT volume and device type use, we analyzed the total volume of fully disposable device systems and reusable device systems used among respondents, including the share of disposable device volume for CPT 95800 and CPT 95806 (Table 4). Since HSAT procedure volume questions collected data for ranges of monthly volume (i.e., monthly procedure volume between 1 and 25, 26 and 50, etc.), we used the range's midpoint to calculate total volumes by CPT code (i.e., 13 for range 1-25, 38 for range 26-50, etc.). For responders who reported using both types of devices, we allocated appropriate share of volume to disposable devices and reusable devices based on the indicated proportion of each type used.

Table 4. Respondent Counts by Volume and Device Type

Volume	95800			95806		
	Reusable	Disposable	Both	Reusable	Disposable	Both
0	1	0	0	1	0	0
1-25	5	2	0	5	2	0
26-50	1	3	1	3	1	0
51-100	5	1	1	1	0	0
101-250	0	2	1	1	0	1
251-500	0	0	0	0	0	0
501-999	0	0	0	0	0	0
1,000+	0	0	0	0	0	0

The total weighted procedure volume by device type and CPT code is reported in Table 5, which shows that fully disposable devices represent 60 percent of total HSAT volume reported under CPT 95800, with 40 percent of services reported with code 95800 performed with reusable equipment. Conversely, while the estimated total monthly volume for CPT 95806 was half of the volume of CPT 95800, HSAT services reported with code 95806 were largely performed with reusable devices. That is, the share of fully disposable device systems in CPT 95806 was only 18 percent, while the share of reusable device systems was 82 percent.

Table 5. Total Monthly Volume across Survey Participants, by CPT Code and Device Type

CPT	Device type		
	Reusable	Fully disposable	Total
95800	529 (39.6%)	807 (60.4%)	1,336
95806	548 (81.9%)	122 (18.2%)	669
G0399	*	*	77
Total			2,082

Note: *The survey included a question about the volume of HSATs billed with G0399, but did not include a question about what type of devices (reusable, disposable, both) are billed with G0399, as we did not anticipate frequent use of this billing code for HSATs.

Due to rounding, components might not add up to the number in Total column.

Reasons for Chosen Devices. The survey asked respondents to provide reasons for choosing a specific HSAT device system. These open-ended questions were optional. We got 8 responses for users of fully disposable device systems and 9 responses from users of reusable device systems.

Among users of fully disposable systems, most providers noted convenience for both patients and staff alike related to not having to return the device; several providers mentioned cost (e.g., less expensive, best cost-benefit analysis); other less frequent reasons included ease of use, no reprocessing associated with these devices, no worry about broken devices, as well as concerns of loss or breakage of reusable devices. Users of reusable device systems also noted the cost-effectiveness of these devices but also noted that they believed reusable devices reduced waste, produced better quality data, and were more convenient for patients who are not tech savvy (e.g., cannot download or use a cellphone app) and those who were located near the facility.

Conclusion

Our results, based on a random sample of providers who billed code CPT 95800 to Medicare Part B in 2023 and who responded to our survey, indicate that fully disposable devices are more frequently used to perform HSATs reported with CPT code 95800 (i.e., 60% of HSAT volume reported for CPT 95800 used disposable devices). The current reimbursement used by CMS relies on prices associated with reusable devices for sleep apnea studies. However, since disposable devices appear to be associated with the typical procedure reported with code 95800, the results of this report could be useful to CMS as it develops appropriate reimbursement assumptions and rate for CPT 95800.

Appendix

Survey invitation email text

Dear Sleep Medicine Provider,

We hope this email finds you well and Happy New Year! We are reaching out to sleep medicine providers who perform Home Sleep Tests (HSTs), with the goal of understanding the role of disposable devices in HSTs. We are asking for your assistance to complete a short online survey that collects data on the use of disposable versus reusable home sleep testing devices across practices. **The data from the survey will be used to help ensure that HSTs are adequately and accurately reimbursed, but your individual responses will remain anonymous and confidential.**

The survey will be open until February 3, 2025. It contains 12 questions and should take less than 10 minutes to complete.

Survey: <https://www.surveymonkey.com/r/SBQSCSZ>

An experienced healthcare consulting firm, KNG Health Consulting LLC, will be responsible for aggregating and analyzing providers' responses. If you have any questions about the survey, please reach out to Dr. Inna Cintina.

Thank you for your time and dedication to helping advance sleep care and enhance sleep health.

Sincerely,

Inna Cintina, PhD

Principal Research Associate

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Home Sleep Apnea Test Survey Questionnaire

We are asking for your assistance to complete a short online survey that collects data on the use of disposable versus reusable sleep testing devices for Home Sleep Tests (HSTs) across practices. **The data from the survey will be used to help ensure that providers performing HSTs are adequately and accurately reimbursed for practice expenses.**

If you have questions about the survey, please reach out to Dr. Inna Cintina (inna.cintina@knghealth.com).

Thank you for your time and dedication to helping advance sleep care and enhance sleep health.

Question Number	Question Wording	Style of Question	Answer Choices or Example Answer
Section: Respondent type			
#1	Who is answering this survey?	Multiple choice (Select one)	<ul style="list-style-type: none"> Physician Advanced care provider (non-physician) Practice / facility manager or administrator
If the answer is "Practice / facility manager or administrator" in question #1, then:			
#1a	How many clinical providers in your practice/facility perform home sleep studies?	Write in a number	Example: 5
<ul style="list-style-type: none"> Practice / Facility managers or administrators: in completing this survey, please provide responses for the entire practice Physicians / Advanced care providers: in completing this survey, please provide responses for yourself rather than the practice level 			
Section: Devices and billing codes used			
#2	What CPT code(s) do you use to bill for home sleep apnea tests? (choose all applicable from the list provided)	Multiple select (choose all applicable)	<ul style="list-style-type: none"> 95800 ("Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time") 95806 ("Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)") 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") <ul style="list-style-type: none"> • Other (write in)
#3	Think of the technology you provided to patients to conduct HSTs in the last 6 months. When you performed a test reported with CPT code 95800 , what type(s) of HST device did you provide to your patients? <i>95800 code refers to "Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time"</i>	Multiple choice (Select one)	<ul style="list-style-type: none"> • Reusable device system (may have disposable components) • Fully disposable device system • Both types • I don't use this billing code
If the answer in question #3 is "Both", then:			
#3a	On a typical month in the last 6 months, what percentage of the HST procedures billed with CPT 95800 were performed using a fully disposable device ?	Write in a number 0-100	Example: 70 (entry is limited to numbers and range between 0 and 100)
#4	Think of the technology you provided to patients to conduct HSTs in the last 6 months. When you performed a test reported with CPT code 95806 , what type(s) of HST device did you provide to your patients? <i>95806 code refers to "Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)"</i>	Multiple choice (Select one)	<ul style="list-style-type: none"> • Reusable device system (may have disposable components) • Fully disposable device system • Both types • I don't use this billing code
If the answer in question #4 is "Both", then:			
#4a	On a typical month in the last 6 months, what percentage of the HST procedures billed with CPT code 95806 were performed using a fully disposable device ?	Write in a number 0-100	Example: 70 (entry is limited to numbers and range between 0 and 100)
#5	What are your three most commonly used brands of HST devices in your practice / facility?	Multiple select (Choose three)	<ul style="list-style-type: none"> • AliceNight ONE • Apnealink • NightOwl • NoxT3s • SleepImage Ring • SleepView • Somfit

			<ul style="list-style-type: none"> • Sunrise • WatchPAT 200 / 300 • WatchPAT ONE • Wesper Lab • Other (write in)
#6	<p>Thinking about the past 6 months, what was the average monthly volume of procedures reported with CPT code 95800?</p> <p>Practice / facility managers or administrators, please provide the monthly average at the practice level; physicians / advanced care providers – at your individual level.</p> <p><i>95800 code refers to "Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (e.g., by airflow or peripheral arterial tone), and sleep time"</i></p>	Multiple choice (Select one)	<ul style="list-style-type: none"> • 0 per month • 1-25 per month • 26-50 per month • 51-100 per month • 101-250 per month • 251-500 per month • 501-999 per month • 1,000+ per month
#7	<p>Thinking about the past 6 months, what was the average monthly volume of procedures reported with CPT code 95806?</p> <p>Practice / facility managers or administrators, please provide the average at the practice level; physicians / advanced care providers – at your individual level.</p> <p><i>95806 code refers to "Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)"</i></p>	Multiple choice (Select one)	<ul style="list-style-type: none"> • 0 per month • 1-25 per month • 26-50 per month • 51-100 per month • 101-250 per month • 251-500 per month • 501-999 per month • 1,000+ per month
#8	<p>Thinking about the past 6 months, what was the average monthly volume of procedures reported with HCPCS code G0399?</p> <p>Practice / facility managers or administrators, please provide the average at the practice level; physicians / advanced care providers – at your individual level.</p> <p><i>G0399 code refers to "Home sleep test (HST) with type III portable monitor; unattended;</i></p>	Multiple choice (Select one)	<ul style="list-style-type: none"> • 0 per month • 1-25 per month • 26-50 per month • 51-100 per month • 101-250 per month • 251-500 per month • 501-999 per month • 1,000+ per month

	<i>minimum of 4 channels: 2 respiratory movement/airflow, 1 ECG/heart rate and 1 oxygen saturation"</i>		
Section: Practice information			
#9	What type of setting is your practice?	Multiple choice (Select one)	<ul style="list-style-type: none"> • Hospital-based • Office-based • Independent diagnostic testing facility (IDTF) • Other (write in)
#10	What state is your practice in?	Multiple choice (Select one)	<ul style="list-style-type: none"> • Alabama • Alaska • Arizona • ... • Wyoming • Other (write in)
#11	(optional) What is your practice's NPI? This information is requested only for aggregation of individual physician answers to the practice level.	Write in a 10-digit number	Example: 1234567890
We would appreciate it if you could answer two additional questions on the disposable vs reusable devices.			
#12a	(optional) If you use fully disposable HST systems, please provide the reasons why you choose a disposable device.	Text entry	
#12b	(optional) If you use reusable HST systems, please provide the reasons why you choose a reusable device.	Text entry	

Thank you for your responses!

Appendix Table 1. Distribution of Provider Responses Based on HSAT Device Type for Each CPT Code

Device Type	95800		95806	
	Count	Percent	Count	Percent
Number of providers reporting only use of reusable device system	12	52%	11	73%
Number of providers reporting only use of fully disposable device system	8	35%	3	20%
Number of providers reporting use of both types of device systems	3	13%	1	7%
I do not use this billing code	2	9%	10	67%

Note: These counts represent the count of responses regardless of their HSAT volume.