ASHA's National Outcomes Measurement System (NOMS)

Clinician User Guide

Audiology Registry

May 2024

NOMS
ASHA's National Outcomes Measurement System

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What Is NOMS?

The National Outcomes Measurement System (NOMS) is a voluntary data collection registry that illustrates the value of audiology services and enables clinicians to improve the quality of those services.

The key to the NOMS Audiology Registry is the use of a combination of patient-reported outcomes (PROs) and clinically-administered tests to capture clinical improvements before and after audiological intervention.

As a NOMS participant, you will have access to online reports comparing your organization's data with the national benchmarks.

Log into NOMS

To access the NOMS data collection and reporting tool, go to https://nomsregistry.asha.org/login and log in with your ASHA website credentials.

How Do I Submit NOMS Data?

Each organization indicates their preferred data collection method when they register for NOMS.

Web

If your organization has chosen to submit data using the web-based NOMS tool, go to https://nomsregistry.asha.org/login, and login with your ASHA website email and password.

EMR

If your organization has chosen to submit data via your electronic medical record (EMR) using either the NOMS FHIR app or a customized interface, you should document your NOMS data in your EMR using the procedures established by your organization. The data will be transmitted to NOMS following the pre-determined schedule.

Contact the NOMS subscriber for your organization or email NOMS@asha.org with any questions regarding how you should submit data for your organization

The following badges are used in the next section to highlight various features in the web portal and FHIR app options:

Web Portal — ASHA NOMS website for manual data entry

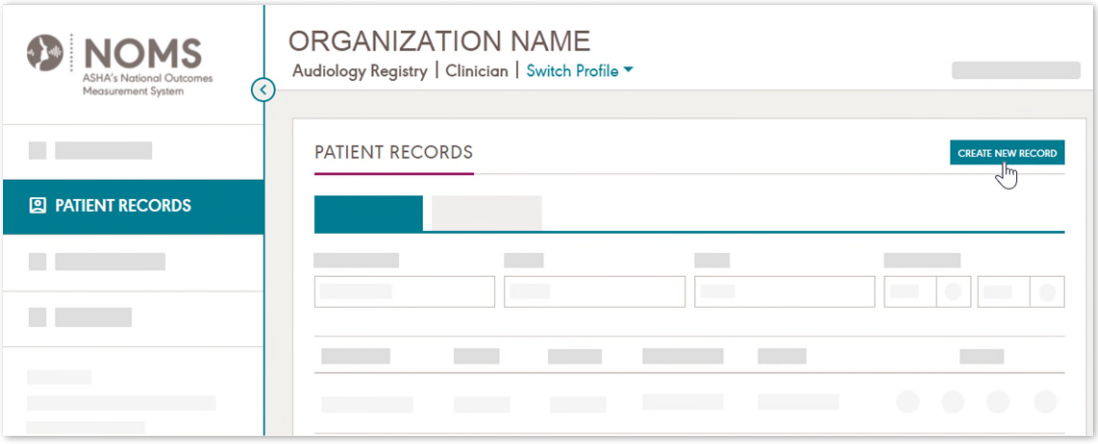
FHIR App — Integrated app for Epic and Cerner EMRs

Create a New Record

Web Portal

If your organization uses the web portal to submit data, follow the steps below to create a new record.

1. Login to NOMS and click **Patient Records** in the left menu.
2. Click the **Create New Record** button located at the top right corner of the page.



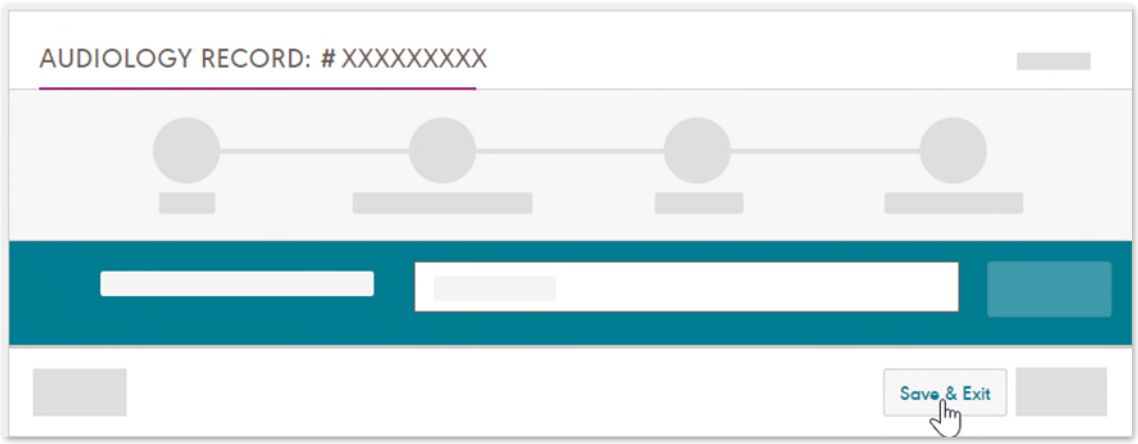
Tip: If you don't see the **Create New Record** button, use the "Switch Profile" button to switch to your clinician role. If you don't see the "Switch Profile" button, you need to be assigned the clinician role. Contact your NOMS subscriber for assistance.

If your organization uses the NOMS FHIR app, follow the internal data collection guidelines established for your EMR.

Save an Incomplete Form

Web Portal FHIR App

Click the **Save & Exit** to save an incomplete form.

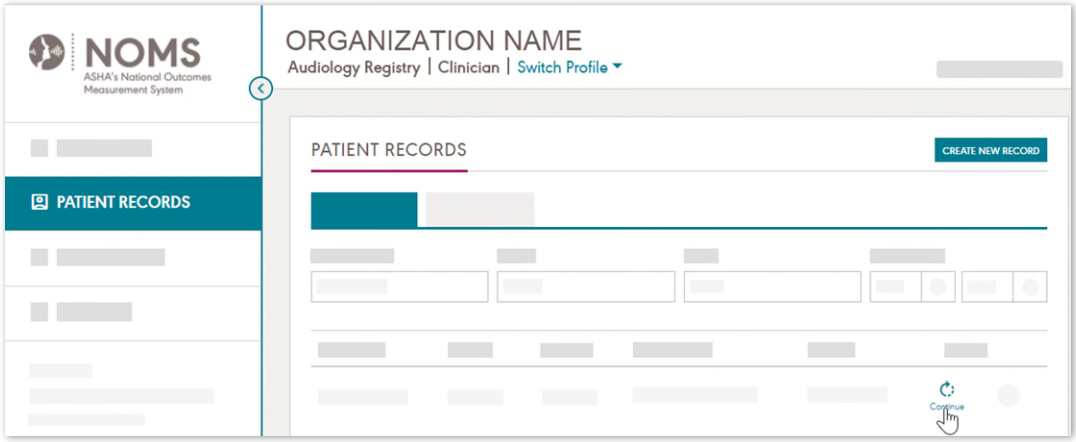


The system will provide you with the NOMS record number, which you should save so you can locate this record again in the future.

Continue an Incomplete Form

Web Portal

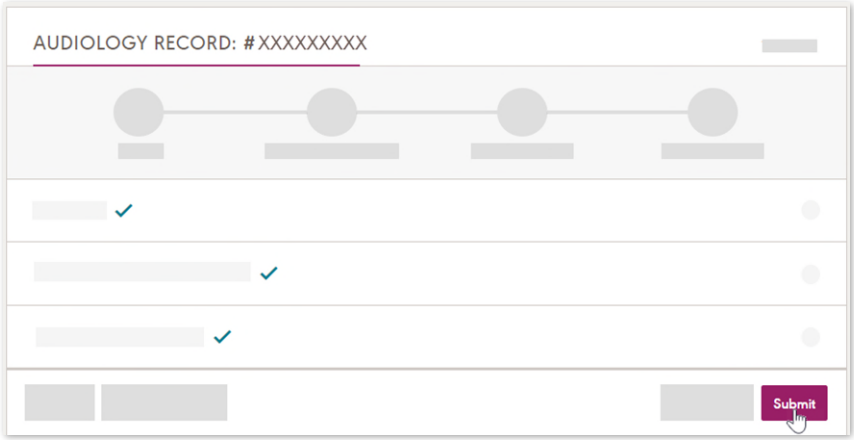
If you save a form, the form will have a status of “Incomplete Admission” or “Incomplete Discharge.” You can resume working on the form by clicking **Continue**.



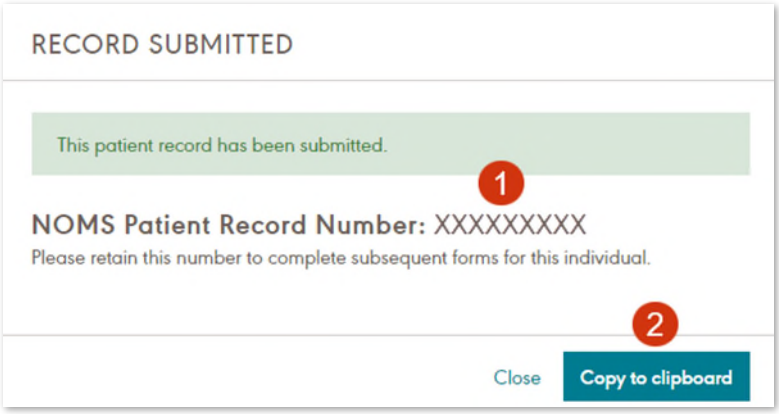
Submit a Completed Form

Web Portal FHIR App

When you have responded to all required questions on the form, click **Submit** to submit the form.



When you submit a form to NOMS via the web-based tool or via the NOMS app from within your electronic medical record (EMR), the system will provide you with a NOMS record number that you should save. You can copy the record number to your computer's clipboard to easily include it in the patient's record.



1. The unique NOMS record number **must be used** on all subsequent data collection forms.
2. The **Copy to Clipboard** button makes it easy to save this key information for each submitted form.

For organizations that transmit data electronically via CSV or JSON files, your organization will receive the assigned NOMS record number in the results file upon submission of each record.

Edit or Delete a Form

Web Portal FHIR App

Clinicians and subscribers can edit and delete a form with a status of “Incomplete.” To do this:

1. Locate the **Patient Record.**

   For *web users*, click **Patient Records** on the left menu. Click on the **Record ID** for the desired patient record. You will be taken to the Patient Record Details page.

   For *Epic and Cerner App users*, launch the app for the desired patient record. On the form selector screen, click the **Record Details** button.

2. Click **Continue** to edit the form or click **Delete** to delete the form.

To edit or delete a form that has been submitted (i.e., has a status of “Complete”), you must submit a request. To do this:

1. Locate the **Patient Record.**

   For *web users*, click **Patient Records** on the left menu. Click on the **Record ID** for the desired patient record. You will be taken to the Patient Record Details page.

   For *Epic and Cerner App users*, launch the app for the desired patient record. On the form selector screen, click the **Record Details** button.

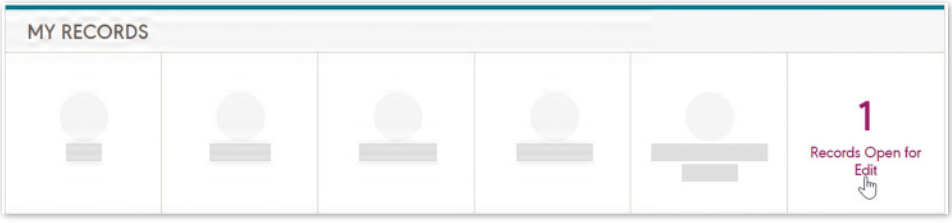
2. Click the **New Request** button for the desired form.
3. Fill out the Record Change Request form and click **Submit Change Request**. You will receive a confirmation email once the requested action has been completed.

Edit a Form That Has Been Opened for Edit

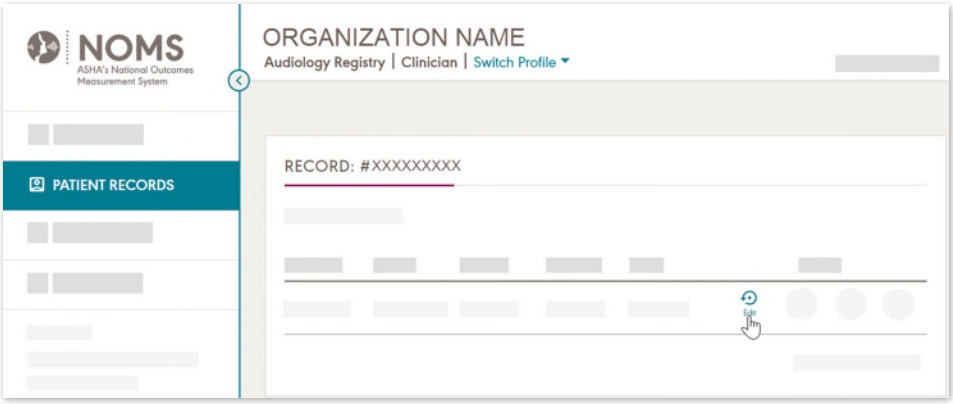
Web Portal

To edit a submitted form that has been opened for you:

1. From your dashboard, click the **Records Open for Edit** metric.



   Or click **Patient Records** on the left menu.
2. Click on the **Record ID** for the desired patient record. You will be taken to the Patient Record Details page.
3. Click the **Edit** button that's available for the selected form. *Note, the record will automatically lock if you open the form and leave without making any changes.*



4. Make any necessary changes to the record and click **Save and Close**

View Change History

Web Portal FHIR App

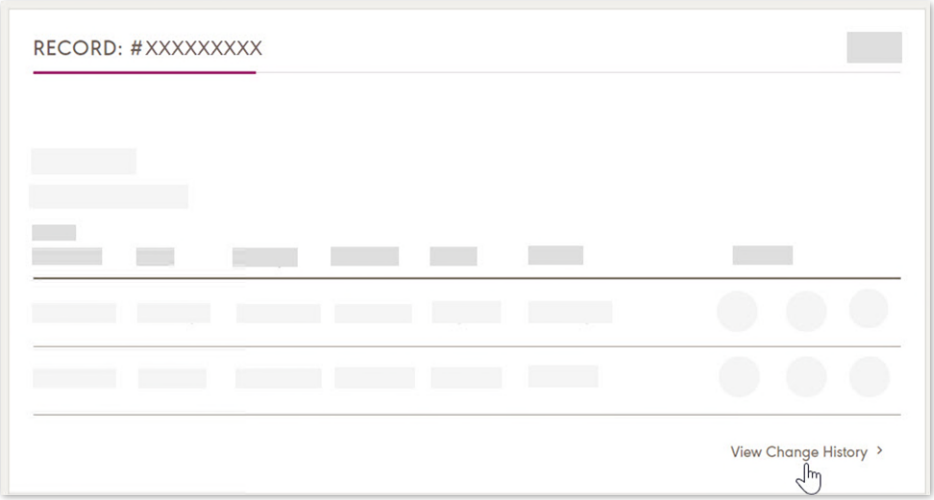
Clinicians and subscribers can view the history of change requests submitted for a patient's record. To do this:

1. Locate the **Patient Record.**

   For *web users*, click **Patient Records** on the left menu. Click on the **Record ID** for the desired patient record. You will be taken to the Patient Record Details page.

   For *Epic and Cerner App users*, launch the app for the desired patient record. On the form selector screen, click the **Record Details** button.

2. Click on **View Change History**.



NOMS Data Collection

The NOMS Audiology Registry captures patient progress using patient-reported outcomes (PROs). For NOMS purposes, audiologists should evaluate their patients on one or more of the following conditions: hearing, tinnitus, and vestibular.

If you evaluate the Hearing condition, you should administer the **Hearing Handicap Inventory for the Elderly or Adults (HHIE/HHIA)** and/or the **Abbreviated Profile of Hearing Aid Benefit (APHAB)** PRO.

If you evaluate the Tinnitus condition, you should administer the **Tinnitus Handicap Inventory (THI)** PRO.

If you evaluate the Vestibular condition, you should include only those patients who have received a vestibular assessment and/or **canalith repositioning**. Instead of a PRO, you will enter which maneuvers were performed and how many times each maneuver was administered.

Who Should I Include in NOMS?

You should include in NOMS all eligible individuals receiving audiologic services. Do not limit data collection to a specific population (e.g., individuals with Medicare as the primary source of funding).

Eligible patients meet the following criteria:

- At least 16 years of age
- Received a comprehensive hearing test (**hearing condition**), tinnitus evaluation (**tinnitus condition**), and/or vestibular assessment/canalith repositioning (**vestibular condition**), *and* treatment recommendations have been made.

When Should I Submit Data to NOMS?

You are not required to create a NOMS submission after every patient visit. Instead, you should submit data to NOMS at key encounters based on the condition(s) you evaluate.

Hearing

For the hearing condition, you should submit data to NOMS following a complete audiometric evaluation. This may be an initial hearing evaluation, annual evaluation, or interim evaluation if a significant change in hearing was detected.

For patients with amplification, you should also submit data to NOMS following the initial adjustment/acclimatization period (often the end of the trial period). You should administer the same PRO that you submitted prior to the fitting. You do NOT need to submit data following routine amplification checks or programming adjustments.

Tinnitus

For the tinnitus condition, you should submit data following a complete tinnitus evaluation. This may be an initial evaluation or reevaluation.

For patients receiving tinnitus treatment (e.g., sound therapy, habituation training), you should also submit data following the initial adjustment/acclimatization period (often the end of the trial period).

Vestibular

For the vestibular condition, you should submit data following a vestibular assessment and/or the administration of canalith repositioning maneuver(s).

Please wait to submit data until your planned treatment with the patient is finished. For example, if you see a patient once and administer the Dix-Hallpike maneuver but plan to see them in 1 week to possibly administer the maneuver again, do not submit to NOMS until after the second visit. At that time, you will enter the total number of visits and maneuvers provided.

Audiology Data Collection Form

When you submit data to NOMS, you will be required to fill out the audiology data collection form. The following data elements and descriptions apply to the form.

Age

Enter the patient's age at admission. Patients must be 16 years of age or older. If you enter an age over 89, the age will default to "90+ years."

Gender Identity

Select the individual's gender identity.

Race and Ethnicity

Select the racial and ethnic background of the patient. You can select multiple categories. Consult records that identify the individual's selection, or enter "Unknown."

Diagnosis Codes (ICD-10) Associated With Hearing Loss, Tinnitus, or Vestibular Impairment

Enter ICD-10 code(s) that correspond to the primary and secondary (if applicable) medical diagnoses associated with the audiology treatment. To locate a code, type the name of the diagnosis or enter the alphanumeric value. You may enter up to 25 codes.

CPT Code(s)

Select the CPT code(s) for *all* services provided at the most recent audiological session or since the previous submission to NOMS (for cases of subsequent submissions). Select from the drop-down menu, or type the numeric value or the description. You may enter more than one code.

Primary Payer

Funding Source	Description
CHIP	Children's Health Insurance Program (CHIP) is a state-based funding program that acts as either a Medicaid expansion program or a separate program that provides coverage to low-income or uninsured children.
IDEA/Educational Funding	Funding that is provided through an individualized education program (IEP) based on federal law (the Individuals with Disabilities Education Act [IDEA]) requiring free appropriate public education to school-aged students with disabilities, from 3 years of age to high school graduation.
Medicare Part A	Government-assisted hospital insurance that covers inpatient care and services provided in skilled nursing facilities, hospices, and home health care.
Medicare Part B	Government-assisted insurance that covers outpatient care and some home health care.
Medicare Part C/advantage	Private insurance companies that contract with Medicare to offer insurance coverage under Medicare Part A (hospital insurance) and Medicare Part B (medical insurance).
Medicaid (fee-for-service)	Government-assisted payment model where services are unbundled and paid for separately.
Medicaid (managed care)	A network of managed care organizations (MCOs) that have entered a contract or subcontract with the state Medicaid agency to offer benefits and services.
Organization-sponsored assistance	Funding provided by an outside organization other than a private health insurance company (e.g., Easterseals, Veterans Health Administration [VA], Scottish Rite).
Private health plan	Funding provided by entities other than the government.
Tricare	Health care program for uniformed service members, retirees, and their families around the world.
Workman's compensation	Business insurance administered by the U. S. Department of Labor that provides benefits to employees who suffer work-related injuries or illnesses.
Self-pay	Individual or responsible party pays the full amount.
Unknown	The primary funding source is unknown.

Tinnitus

Indicate if the patient reported experiencing tinnitus.

Vertigo/Balance/Dizziness

Indicate if the patient reported experiencing vertigo/balance problems/dizziness.

Hearing Loss

Indicate if the patient has known hearing loss in at least one ear. If hearing is normal in both ears, select "No."

Time Since Last Audiogram

Select the length of time that has elapsed since the patient's most recent audiogram. This does NOT include the current audiogram associated with this NOMS submission.

Example:

A patient had a hearing test done in January 2020 prior to your participation in NOMS. The patient is now back in March 2021 for his annual examination, which you will be submitting to NOMS. For this question, you would select "more than 12 months" since last audiogram.

Current Amplification Status

Select which type of amplification the patient is using for both left and right ears. If the patient does not currently utilize amplification, select "none."

Plan of Care

You may select more than one option if applicable.

Plan of Care	Description
Developed in conjunction with the patient	The patient participated in developing the plan of care.
Developed in conjunction with the family	The plan of care, including amplification options, was discussed with the spouse, family, or other caregivers' input.
Developed in conjunction with the educators	The plan of care, including amplification options, was discussed with the educators' input.
Shared with the primary care physician	The medical record should corroborate that a plan of care was shared with the primary care physician.
Shared with the referring physician	The medical record should corroborate that a plan of care was shared with the referring physician (if different than the primary care physician), to close the referral loop.
Not Developed	No plan of care was developed.

Conditions

To submit a form to NOMS, you must add at least one condition—Hearing, Tinnitus, or Vestibular.

Hearing

Hearing-Related Visits Since Most Recent NOMS Submission

Indicate the number of times the patient has been seen in the office since the previous NOMS submission. This includes any visits for amplification checks or adjustments.

If this is the first submission for the patient, this question will not appear.

Transducer for Pure Tones and Speech

Indicate the transducer used to obtain reported data. This question appears if you select one or more of the following CPT codes on the "Patient Characteristics" tab:

- 92557: Comprehensive audiometric evaluation
- 92552: Pure tone, air only
- 92553: Pure tone, air and bone
- 92579: Visual reinforcement audiometry
- 92582: Conditioning play audiometry
- 92555: Speech audiometry threshold
- 92556: Speech audiometry threshold with speech recognition
- 92583: Select picture audiometry

Current Hearing Status

Select the current hearing status based on the most recent audiogram.

Asymmetric = air-conduction pure-tone average (500 Hz, 1000 Hz, 2000, 3000 Hz) difference of ≥ 15 dB between ears.

If hearing loss is present, indicate the degree, configuration, and type.

Degree

Determined by the pure-tone average of 500 Hz, 1000 Hz, 2000, and 4000 Hz.

Configuration

Configuration	Description
Flat	No more than 5-10 dB difference per octave
Sloping	15 dB or greater slope
Rising	15 dB or greater reverse slope
Trough	20 dB or greater loss in mid-frequencies than extremes
Peaked	Hearing threshold at 3 Hz, 4 Hz, and/or 6 kHz is at least 10 dB greater than at other frequencies
Other	

Type

Indicate the type of hearing loss present.

Number of Visits to Confirm Hearing Status

Indicate the number of visits required to complete the audiometric evaluation.

ABR Stimulus

Indicate the type(s) of stimulus used to diagnose the hearing loss. This question appears if you select one or more of the following CPT codes on the "Patient Characteristics" tab:

- 92650: Auditory evoked potentials; screening of auditory potential with broadband stimuli, automated analysis
- 92651: For hearing status determination, broadband stimuli, with interpretation and report
- 92652: For threshold estimation at multiple frequencies, with interpretation and report
- 92653: Neurodiagnostic, with interpretation and report

Central Auditory Processing Test(s)

Indicate which type(s) of tests were administered. This question appears if you select one or more of the following CPT codes on the "Patient Characteristics" tab:

- 92571: Filtered speech test
- 92572: Staggered spondaic word test
- 92576: Synthetic sentence identification test
- 92620: Bundled central auditory processing test

CAPD Diagnosis

Indicate whether a central auditory processing disorder (CAPD) was diagnosed during this episode of care. This question appears if you select one or more of the following CPT codes on the "Patient Characteristics" tab:

- 92571: Filtered speech test
- 92572: Staggered spondaic word test
- 92576: Synthetic sentence identification test
- 92620: Bundled central auditory processing test

Auditory Neuropathy Spectrum Disorder Confirmation

Indicate which test(s) were administered to confirm diagnosis. This question appears only if you indicate that the patient's hearing loss type is "Auditory Neuropathy Spectrum Disorder."

Speech-in-Noise Testing

Select which type of speech-in-noise testing (CNC-Words or SNR-50) was administered. If speech-in-noise testing was not performed, select "was not administered." Select "with amplification" if testing was done aided; select "without amplification" if testing was done unaided. You may select more than one option, if appropriate.

Note: If scores are entered for both **with amplification** and **without amplification** on the same NOMS submission, speech-in-noise will be captured as an outcome within the data reports. This may be helpful when counseling regarding device use.

CNC-Words

For each ear, enter the percent correct of a CNC-word list when presented with noise. Do not enter scores for speech-in-quiet.

SNR-50

For each ear, record the dB level of the required increase in signal-to-noise ratio for the patient to score 50% correct (threshold score). Under "SNR Test Stimulus," select which SNR test resulted in the SNR-50.

Aural Rehabilitation (AR)

If you provided AR, select the type(s) from the available list.

Type of AR	Description
Informational counseling	Provided education and information to the patient (e.g., discussed the audiogram/hearing loss, use/care of amplification, hearing conservation, communication strategies training, environmental modifications, available tools/resources, possible treatment options).
Personal adjustment counseling	Provided counseling in relation to the psychological, social, and emotional impact of hearing loss and/or techniques to manage the stress associated with hearing loss.
Perceptual training	Provided training to aid in the processing of incoming auditory or auditory-visual signals (e.g., auditory training, lip/speech reading training).
Device management*	Provided ongoing services for amplification device(s) (e.g., cleaning and checking to ensure proper functioning, programming adjustments).
Device prescription*	Initial fitting of amplification device(s).
Included a communication partner in the AR process	Another person (e.g., significant other, spouse, child, friend, communication partner) was involved in at least some of the aural rehabilitation.
Other	Other AR provided.

*If you select “Device Prescription” or “Device Management,” you will also indicate:

Type of Verification

Select which form of verification was used from the available list, or provide a text response in the “other” field.

Number of Days Since Device Fitting

Enter how many days have elapsed since the amplification device(s) were fit. This can be estimated if the exact length of time is unknown (e.g., patient reports being fitted approximately 3 years ago by another provider).

Average Number of Hours of Device Use Per Day

Enter the average number of hours of device use per day. You can report the value based on data logging and/or patient report. There are two separate entry fields for this information, but only one is required.

Hearing Self-Assessments

A hearing self-assessment or PRO is required for an initial NOMS submission for the hearing condition and should be included in subsequent hearing submissions.

Abbreviated Profile of Hearing Aid Benefit (APHAB)

Following the scoring guide provided by the APHAB tool, enter the score for each category.

Indicate if the patient completed the questionnaire reflective of hearing abilities with or without amplification by providing the appropriate response to the "Amplification Status" question.

Hearing Handicap Inventory for Adults (HHIA)

Following the scoring guide provided by the HHIA tool, enter the "Social Score" (0–48) and "Emotional Score" (0–52).

Indicate if the patient completed the questionnaire reflective of hearing abilities with or without amplification by providing the appropriate response to the "Amplification Status" question.

Hearing Handicap Inventory for the Elderly (HHIE)

Following the scoring guide provided by the HHIE tool, enter the "Social Score" (0–48) and "Emotional Score" (0–52).

Indicate if the patient completed the questionnaire reflective of hearing abilities with or without amplification by providing the appropriate response to the "Amplification Status" question.

Other Hearing Self-Assessment(s) Administered

Enter the name of any other hearing self-assessments completed by the patient, if applicable. If only the HHIE/HHIA/APHAB was administered, leave this field blank.

Note: On subsequent submissions, a "patient refused" response option is available if the patient did not complete the assessment. If "patient refused" is selected, outcomes will not be available in the data reports for this episode of care. "Patient refused" cannot be selected on two subsequent submissions.

Length of Time Since Last Hearing Self-Assessment

Select the amount of time that has elapsed since the selected hearing assessment was last completed by the patient. If this is the first time it has ever been administered, select "N/A (first assessment)."

Recommendations

Select all recommendations you made to the patient for the hearing condition, regardless of whether the recommendations will be included in the plan of care.

Recommendations	Description
No further evaluation or recommendations	No action is required on the part of the patient.
Ongoing audiological monitoring	Patient should be seen in the future for audiological assessment to monitor auditory status (e.g., annual reevaluation).
Cochlear implant evaluation	Patient is referred to determine cochlear implant candidacy. This may be a referral within the same provider/office or to an external provider.
Referral to ENT	Patient is referred to an otolaryngologist.
Amplification (new) – hearing aid (left ear)	A new hearing aid is recommended for the left ear. This may be for a first-time user or an experienced user.
Amplification (new) – hearing aid (right ear)	A new hearing aid is recommended for the right ear. This may be for a first-time user or an experienced user.
Amplification (new) – personal sound amplification product (PSAP) - left ear	A new PSAP is recommended for the left ear. This may be for a first-time user or an experienced user.
Amplification (new) – personal sound amplification product (PSAP) - right ear	A new PSAP is recommended for the right ear. This may be for a first-time user or an experienced user.
Amplification (continued use) – left ear	Ongoing use of a previously fitted amplification device for the left ear is recommended.
Amplification (continued use) – right ear	Ongoing use of a previously fitted amplification device for the right ear is recommended.
Hearing assistive technology/assistive listening device	The use of assistive technology (e.g., FM system) by itself or in conjunction with an amplification device is recommended.
Use of hearing protection/hearing protective devices (HPDs)	The use of standard or custom hearing protection is recommended for work-related or personal use.
Other	Other recommendation provided.

What did the patient agree to include in their plan of care for hearing?

Select all recommendations that will be included in the plan of care. This may be different than your initial recommendation. If the patient did not agree, select “patient did not agree with any of the treatment recommendations.”

On the next hearing submission, you will be asked if the patient accomplished the plan of care to which they agreed. Indicate whether each of the components of the established plan of care was accomplished in the interim.

Tinnitus

Tinnitus-Related Visits Since Most Recent NOMS Submission

Indicate the number of times the patient has been seen in the office since the previous NOMS submission.

If this is the first submission for the patient, this question will not appear.

History of Tinnitus Treatment(s)

Indicate the history of tinnitus treatment(s) for the patient.

Tinnitus Self-Assessment

A tinnitus self-assessment or PRO is required for an initial submission and should be included in subsequent tinnitus submissions.

Tinnitus Handicap Inventory (THI)

Following the scoring guide provided by the THI tool, enter the total score (0–100).

Indicate the appropriate treatment status.

- Select "with treatment" if the patient completed the questionnaire to reflect the difficulties caused by tinnitus during or following treatment.
- Select "without treatment" if the patient completed the questionnaire to reflect the difficulties caused by tinnitus before or in the absence of treatment.

Other Tinnitus Self-Assessment(s) Administered

Enter the name of any other tinnitus self-assessments completed by the patient, if applicable. If only the THI was administered, leave this field blank.

Note: On subsequent submissions, a "patient refused" response option is available if the patient did not complete the assessment. If "patient refused" is selected, outcomes will not be available in the data reports for this episode of care. "Patient refused" cannot be selected on two subsequent submissions.

Length of Time Since Last THI Self-Assessment

Select the amount of time that has elapsed since the THI was last completed by the patient. If this is the first time it has ever been administered, select "N/A (first assessment)."

Recommendations

Select all recommendations you made to the patient for the tinnitus condition, regardless of whether the recommendations will be included in the plan of care.

Recommendations	Description
No further evaluation or recommendations	No action is required on the part of the patient.
Ongoing audiological monitoring	Patient should be seen in the future for audiological assessment to monitor auditory status (e.g., annual reevaluation).
Cochlear implant evaluation	Patient is referred to determine cochlear implant candidacy. This may be a referral within the same provider/office or to an external provider.
Referral to ENT	Patient is referred to an otolaryngologist.
Referral to mental health professional	Patient is referred to a mental health professional (e.g., psychiatrist).
Sound therapy	Includes the use of hearing aid(s) or sound generators to mask the tinnitus.
Habituation training	Includes models of therapy that use the neurophysiological model that employs the purposeful use of noise or sound to retrain the brain. Tinnitus Retraining Therapy (TRT) would be included under “habituation training.”
Education/counseling	Includes support groups and other educational activities.
Behavioral treatment	Includes behavioral modification techniques and exercises to relieve stress and anxiety related to the tinnitus.
Other	Other recommendation provided.

What did the patient agree to include in their plan of care for tinnitus?

Select all recommendations that will be included in the plan of care. This may be different than your initial recommendation. If patient did not agree, select “patient did not agree with any of the treatment recommendations.”

On the next tinnitus submission, you will be asked if the patient accomplished the plan of care to which they agreed. Indicate whether each of the components of the established plan of care was accomplished in the interim.

Vestibular

Total Number of Vestibular-Related Visits

Enter the total number of visits in which the patient was seen for the current vestibular-related episode of care.

Vestibular-Related Counseling

Indicate whether counseling was provided to the patient regarding their current symptoms, diagnosis, or management plan. This includes providing information about potential fall risks.

Canalith Repositioning

Indicate whether canalith repositioning was administered during this episode of care. Indicate the outcome of the canalith repositioning by selecting either “resolved” or “unresolved.”

If canalith repositioning was administered, indicate the number of times each selected maneuver was administered. This number should represent the total number of attempts in the office performed by the audiologist. Attempts reported by the patient or by other providers should not be included. Enter “0” for any maneuvers that were not administered.

Referrals

Select all referrals that were made to the patient at the completion of the vestibular-related episode. If you select “other,” you may specify the referral in the text box.