MADISON NEUROLOGY · NEUROLOGY SYMPTOM GUIDE

Slurred or unclear speech

Structured history, interpretation & clinical review

Symptom 49 of 94
Clinical educational workbook
Version 1.0 · October 2026

Not for clinical use. This guide cannot diagnose, triage, or exclude an emergency. Seek emergency care for severe, sudden, or worsening symptoms.

Contents

Scope and safe use 3

Section 1: Input form 4

1A. Immediate safety screen 4

1B. Timeline 4

1C. Discriminating features 4

1D. Associated findings 5

1E. Clinical context 5

Section 2: Interpreting the input form 7

Section 3: Clinical review 9

Selected references 11

> **Document purpose**
> A structured educational history and diagnostic-reasoning workbook. Treatment is outside its scope.

Scope and safe use

Slurred speech, word-finding difficulty, and impaired comprehension are separated into dysarthria, aphasia, apraxia, cognitive/language problems, and neuromuscular bulbar dysfunction.

Not for clinical use.
This educational workbook does not diagnose, triage, estimate probability, replace examination, or exclude an emergency. If a safety-screen answer is Yes or uncertain, follow the stated action rather than continuing routine interpretation.

How to complete the workbook

- Record the current episode and the person’s usual baseline; use a witness account for events with impaired awareness.
- Check one option per question unless a clinician documents a different combination. “Not sure” is unresolved information, not a negative answer.
- Complete the safety screen before all other sections. Record exact onset or last-known-well time for sudden deficits.
- Use Section 2 only after the form is complete. More than one pattern may be relevant; urgency takes precedence.
- Use Section 3 to plan focused examination and clinician-selected investigations. No test is automatic or universally required.

Specific escalation rule

New severe headache, new focal weakness or numbness, new speech/language difficulty, reduced consciousness, a prolonged seizure, severe breathing or swallowing difficulty, sudden visual loss, or rapidly progressive weakness requires emergency assessment. Call 911 in the United States.

Section 1: Input form

Checkbox history for Slurred or unclear speech

1A. Immediate safety screen

Is there new face droop, one-sided weakness or numbness, difficulty speaking or understanding, double vision, or severe loss of coordination?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now and record the exact time the person was last known well.

Is there new confusion, reduced consciousness, a seizure, or difficulty awakening?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now. Do not leave the person alone or give food, drink, or medication by mouth.

Is there new severe breathlessness, inability to swallow saliva, blue lips, or rapidly worsening weakness?

☐ No ☐ Yes ☐ Not sure

If Yes: Call emergency services now; breathing and swallowing problems can become critical quickly.

Is there sudden loss of vision, a new missing visual field, or a painful red eye?

☐ No ☐ Yes ☐ Not sure

If Yes: Seek emergency eye or emergency-department assessment now.

> **Stop rule:** Any Yes answer triggers the action printed under that question. Any Not sure answer requires prompt in-person clarification; do not treat it as No.

1B. Timeline

How did the symptom begin?

☐ Suddenly, over seconds or minutes ☐ Over hours to days ☐ Gradually over weeks or months ☐ Longstanding or since childhood ☐ Not sure

Use the first occurrence for recurrent episodes; use the current episode for a changing symptom.

What is the overall course?

☐ One persistent episode ☐ Separate recurrent episodes ☐ Steadily worsening ☐ Fluctuating or variable ☐ Currently resolved

Has this exact pattern been assessed before?

☐ Definitely new ☐ The same pattern occurred before ☐ Present and stable for a long time ☐ Not sure

1C. Discriminating features

Which best describes the problem?

☐ Words are formed but sound slurred or unclear ☐ Difficulty finding or producing words ☐ Difficulty understanding spoken or written language ☐ More than one of these

Are reading, writing, naming, or repetition also affected?

☐ Yes, one or more is affected ☐ No, only speech sound production ☐ Not tested

Is there swallowing difficulty, nasal regurgitation, chewing fatigue, or weak cough?

☐ Yes ☐ No ☐ Not sure

Is this a single sudden event, recurrent episodes, or progressive change?

☐ One persistent event ☐ Recurrent brief episodes ☐ Gradually progressive ☐ Not sure

1D. Associated findings

Are there other neurological symptoms—weakness, numbness, speech change, double vision, swallowing difficulty, or severe imbalance?

☐ Yes ☐ No ☐ Not sure

Are there systemic clues—fever, weight loss, cancer, infection risk, pregnancy/postpartum status, or a new medication?

☐ Yes ☐ No ☐ Not sure

How much does this affect daily activity?

☐ Noticeable but activities continue ☐ Some activities are limited ☐ Cannot perform usual activities ☐ Not sure

1E. Clinical context

Who is being assessed?

☐ Adult or adolescent ☐ Child under 12 ☐ Adult aged 65 or older

Could a medicine, substance, withdrawal, or recent dose change be relevant?

☐ No plausible contributor ☐ Yes or possibly ☐ Not reviewed

Include sedatives, dopamine-blocking drugs, stimulants, decongestants, anticholinergics, alcohol, and non-prescribed substances when relevant.

Is there a relevant neurological, muscular, metabolic, cardiovascular, autoimmune, or sleep disorder?

☐ No known relevant condition ☐ Yes ☐ Not sure

What prior information is available?

☐ A previous examination or investigation ☐ Prior records but no clear explanation ☐ No useful prior assessment ☐ Not sure

Additional history and documentation

Record exact dates/times, witness details, relevant medication doses and changes, prior investigation reports, and the person’s baseline function.

Section 2: Interpreting the input form

Answer combinations generate a differential and an assessment pathway—not a diagnosis.

> **Precedence:** Emergency safety answers override every pattern below. Otherwise, the highest-urgency fully matched pattern takes precedence. If entries are incomplete, contradictory, or match no pattern, use the unresolved-information pathway.

Pattern 1: Sudden speech or language disturbance

How did the symptom begin? Suddenly, over seconds or minutes
Which best describes the problem? Words are formed but sound slurred or unclear / Difficulty finding or producing words / Difficulty understanding spoken or written language / More than one of these

Emergency warning pattern — Now

Sudden dysarthria or aphasia requires emergency stroke assessment.

Differential to review:

- Stroke/TIA or focal language-network lesion

Action: Call 911 or go to the nearest emergency department now. Do not drive yourself.

Pattern 2: Bulbar neuromuscular speech pattern

Is there swallowing difficulty, nasal regurgitation, chewing fatigue, or weak cough? Yes
Is this a single sudden event, recurrent episodes, or progressive change? Gradually progressive

Urgent assessment pattern — Same day

Progressive speech change with chewing/swallowing or cough symptoms needs urgent bulbar and respiratory assessment.

Differential to review:

- Bulbar motor neuron, junction, or cranial-nerve disorder

Action: Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

Pattern 3: Progressive language-network pattern

Which best describes the problem? Difficulty finding or producing words / Difficulty understanding spoken or written language
Are reading, writing, naming, or repetition also affected? Yes, one or more is affected
Is this a single sudden event, recurrent episodes, or progressive change? Gradually progressive

Prompt clinical review pattern — Promptly

Progressive production/comprehension plus other language-domain changes follows a language-network assessment.

Differential to review:

- Primary progressive aphasia, neurodegenerative, or structural language disorder

Action: Arrange an in-person medical or neurological review promptly, usually within days. Seek sooner care if the pattern changes.

Pattern 4: Recurrent stereotyped speech episodes

Is this a single sudden event, recurrent episodes, or progressive change? Recurrent brief episodes

Urgent assessment pattern — Same day

Recurrent speech arrests or language episodes need prompt vascular, seizure, and migraine phenotyping.

Differential to review:

- Stroke/TIA or focal language-network lesion
- Functional, medication-related, developmental, or articulation disorder

Action: Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

Unresolved-information pathway: The entries need structured in-person characterization.

Urgent assessment pattern — Same day

Do not guess missing answers or convert uncertainty into reassurance. Document what is unknown, perform an in-person examination, clarify the timeline with a witness or records when available, and reassess if any new feature appears.

Action: Arrange same-day medical assessment. If symptoms are rapidly worsening or severe, call 911.

Section 3: Clinical review

Diagnostic modules and focused investigation logic

The examination comes before a test list. Select investigations only after localization, urgency, comorbidity, pregnancy status, renal function, anticoagulation, and prior results have been considered.

3.1 Stroke/TIA or focal language-network lesion

Discriminating features: Sudden aphasia, comprehension loss, dysarthria with focal signs, or recurrent stereotyped episodes.

Logical investigations: Emergency stroke/vascular assessment for sudden onset; brain imaging and language examination for progressive patterns.

3.2 Bulbar motor neuron, junction, or cranial-nerve disorder

Discriminating features: Progressive slurring, nasal speech, chewing/swallowing fatigue, weak cough, or atrophy/fasciculations.

Logical investigations: Bulbar/respiratory and neuromuscular examination; electrodiagnostics and junction testing according to phenotype.

3.3 Primary progressive aphasia, neurodegenerative, or structural language disorder

Discriminating features: Progressive word-finding, naming, comprehension, reading, or writing impairment without an acute vascular course.

Logical investigations: Formal language/cognitive assessment and MRI; speech-language and specialist neurological evaluation.

3.4 Functional, medication-related, developmental, or articulation disorder

Discriminating features: Drug/intoxication timing, stuttering/articulation phenotype, or longstanding developmental history can mimic acquired neurological speech loss.

Logical investigations: Medication/substance and developmental review, oral/speech examination, and targeted testing for acquired or atypical changes.

Reassessment and documentation

- If the symptom pattern changes, repeat the safety screen and timeline rather than carrying forward an earlier interpretation.
- If a test is unrevealing but the deficit persists or progresses, revisit localization and seek specialist review; a normal result does not automatically end assessment.
- If symptoms resolve, document duration, completeness of recovery, recurrence, and any residual deficit. Resolved sudden focal symptoms can still require urgent vascular assessment.
- If the history and examination conflict, obtain collateral information and in-person review rather than forcing a single diagnostic label.

Selected references

Sources provide background standards and do not replace local emergency pathways or current specialist guidance. Accessed October 2026.

1. National Institute for Health and Care Excellence. (2019, updated 2023). *Suspected neurological conditions: recognition and referral (NG127)*. https://www.nice.org.uk/guidance/ng127