Neurology History and Physical Guidelines

HISTORY

Chief Complaint — A **maximally succinct statement** of the patient:

- Age, handedness, gender
- **Problem and its duration**
- May include **major relevant risk factors** (if any), e.g. hypertension, coronary artery disease in a stroke patient.
- **Rarely** need to mention imaging if that was reason for the consult (not in every case)
- May specify who the historian was and quality of informant's history if different from usual
- E.g: 56 year old right-handed woman that presents with three days of garbled speech and right sided weakness with a history significant for high blood pressure, high cholesterol, and diabetes mellitus

History of Present Illness —

- **Briefly include usual state of health (baseline):** e.g: "normal, active, fully functional"; "residual mild right hemiparesis and can ambulate 50 feet with walker"; "at baseline, oriented to self, transfers by lift, and cannot recognize family members", etc.
- **Concisely and chronologically** describe symptoms which prompted medical attentions **(Timeline)**
- For each try to include as many details: **location, quality/severity, chronology (when it first began, mode of onset, mode of ending, duration, frequency), setting, aggravating and alleviating factors, treatment, associated symptoms, overall course, effect on normal activities, previous history of similar symptoms**
- Include **pertinent negative symptoms** that relate to differential diagnosis and localization
- **Pertinent** past medical history and family history
- **Put present symptoms in context of pre-existing chronic illness.** If the chronic illness is neurological, how it was diagnosed/confirmed
- **Hospital course: most relevant information** (vital signs, early exam, treatments, response to therapy, symptom evolution)
- Only include information that contributes in an important way to diagnosis or management. That includes labs or study results (only mention if they are critical to the HPI at this time).
- Differential diagnosis should be clear from the HPI.

Past Medical History — To include current, treated, and pertinent past medical conditions and surgeries (may optionally list surgical history as it's own category, especially if lengthy or complicated).

Allergies and Adverse Reactions — Should include both type of agent and reaction, severity, and whether dose dependent.

Medications — ideally includes name (generic or brand if pertinent), dosage, route of administration (default assumption is oral), frequency, and when started if relevant. Verify that medications correlate with past medical history problems.

Family History — There is *no* such thing as a noncontributory family history. If adopted with no knowledge of family, note here. Report presence or absence of neurologic diseases or

family risk factors for neurologic diseases. Ages and causes of death of first degree relatives may be relevant, especially in age related diseases.

Social History — Should include maximum education level achieved, occupation, substance use (alcohol, tobacco, recreational drugs), and sexual activity as applicable.

Review of Systems — List positives of questionable relation to the HPI. **Pertinent positives and negatives should go in the HPI**. List systems reviewed. For a complete work-up, the *requirement* is for 10 to 14 systems to have been reviewed from the following categories: Constitutional, Eyes, HENT, Respiratory, Cardiovascular, Gastrointestinal, Genitourinary, Integument/breast, Hematologic/lymphatic, Musculoskeletal, Neurological, Behavioral/Psych, Endocrine, Allergic/Immunologic

EXAMINATION

Vital Signs — Minimum of 3 vital signs (e.g. blood pressure, heart rate, temperature, pain, etc.). In the inpatient setting the maximum and minimum vitals for the past 24 hours may be more useful. Note that the vitals may be reported from nursing measures and need not be done by the student.

Include orthostatic vital signs if patient has syncope, passing out spells, hypotension.

General Appearance — General observations such as whether well nourished, well developed, in distress or not, appearance for stated age, etc.

Cardiovascular — Examine at least one item such as auscultation of the carotids, auscultation of the heart, palpation for peripheral pulses, choosing which one or multiple would be most relevant to the case.

Ophthalmologic — Should attempt and comment upon the appearance of the optic disc at minimum, though blood vessel and other funduscopic findings of note may be reported. Note that every clinic room, ER room, and hospital floor (ask nursing for this) have ophthalmoscopes available for use, so not having one is not an acceptable excuse for omitting this from examination.

Mental Status — To include at minimum:

- **level of consciousness, orientation to person, place and time**
- **language fluency and content, comprehension, repetition, naming**
- **recent and remote memory**
- **attention & concentration**
- **fund of knowledge**
- *The rest of the higher cortical exam should be limited, focused, and guided by the localization hypothesis you have developed before you start this exam or as may arise on testing. Higher cortical functions can include but is not limited to visuospatial function, neglect (line bisection and line cancellation), construction, calculation, right-left confusion, finger agnosia, praxis, graphesthesia, kinesis (akinetic or bradykinetic), and contrasting programs.*

Cranial Nerves II-XII — When giving oral report, it is acceptable to summarize as CN II –XII intact if they are all intact in function and expected to have been from the presentation. If any are abnormal or there was reason to expect them to be abnormal, it is best to report the actual types of testing done in detail, and in written documentation it is best to document type of testing as listed in the outline.

Motor — Check all four extremities. Includes strength, drift in the upper extremities and fine motor movement in the hands, muscle tone, and bulk (noting any atrophy or fasciculations).

Reflexes — Check all four extremities. Deep Tendon and Pathological Reflexes such as plantar responses (Babinski sign); frontal lobe release signs.

Sensory — Check all four extremities. Include pinprick (or temperature), touch, vibration, position. May also be useful to assess for Romberg Sign. *The sensory exam should be limited, focused, and guided by the localization hypothesis you have developed before you start this exam (i.e. don't check every single dermatome in the body!).*

Coordination — Include finger to nose maneuver, rapid alternating movements, heel to shin testing (or foot tapping if a screen). Note adventitious movements such as tremor, chorea

Gait & Station — Should be performed when level of consciousness, strength, and coordination allows patient to stand safely with assistance. Minimum expected is natural gait noting posture, stance, speed, stride length, arm swing, turns. Younger patients where subtle abnormalities are expected may consider assessing tandem gait, heel walking, toe walking.

DATA REVIEWED — Summarize **in your own words (not copy and paste)** any relevant test results such as imaging, labs, neurophysiology tests, etc. **The results should be reported only in terms of their relevance to the case.**

ASSESSMENT AND PLAN (may start with a repetition of info from chief complaint if appropriate)

Localization — Be as specific as appropriate for the history and physical results, but at the very least should include whether unifocal or multifocal, level of neuroaxis (muscle, neuromuscular junction, peripheral nerve, plexus, spinal cord, brainstem, subcortical structures, cerebrum, etc.), lateralization or bilateral, as well as the localization in time (acute, chronic, progressive, fluctuating, etc.). **Describe the reasoning for the proposed and alternative localization** (e.g: "Based upon symmetric leg weakness, urinary retention and thoracic sensory level, the most likely localization is spinal cord. However, reflexes are absent, so we should also consider a polyradiculitis or peripheral nerve"). If the case has multiple possible localizations, report them all noting their likelihood in your estimation. If one or more is removed by results of testing, can report those possible based on history and examination and then note to which localization to which the testing has narrowed down.

Differential Diagnosis — Should be based upon your localization(s) and the history and examination details. It is recommended that you list first the most likely diagnosis, then emergent and common diagnoses, and lastly any remaining diagnoses (if extensive, these can be listed by groups (hormonal, electrolyte, etc). It is acceptable to list diagnoses that have been ruled out by the history, exam, and work-up to date if it is known or suspected that others may consider those diagnoses but then it should be stipulated why they are ruled out.

Evaluation — Recommendations for evaluation should be based on the differential diagnosis. If there is an evaluation item you are considering that can not be associated with a diagnosis on the differential, then you may be missing a diagnosis, or the recommended evaluation is unnecessary.

Management — Management refers to interventions such as medications, surgeries, rehabilitation, diet, etc. Management recommendations can be for immediate stabilization of known problems to be implemented immediately, and/or speculative based on likely diagnosis or diagnoses that can be acted upon once the diagnosis is verified. Any and all

management recommendations should be linked to one or more of the diagnoses listed in the differential.

If possible and to support your evaluation or treatment plan list appropriate literature relating to patient's presentation, prognosis, guidelines, consensus statements.

Counseling — Counseling is one of the most important items that physicians perform in practice. This section of the assessment and plan should document what the patient and family have been told about the case, or how you recommend they be advised. This often includes explanation in layman's term of what the problem is or might be, what the evaluation process is for, what management options there are, etc.

Any part of the history and physical that cannot be obtained should be listed with the reason as to why it could not be assessed.