

Neurodiagnostic procedures I.

Approach to the patient with neurologic disease:
taking the history and neurologic examination

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How to make a diagnosis in Neurology?

take detailed history!

- Ask for the course of illness, (sudden, acute, gradual, step-wise, chronic, insidious)
- Ask for specific symptoms
 - weakness,
 - numbness (localization),
 - vertigo-dizziness (lightheadedness, giddiness), headache,
 - loss of consciousness (diabetes? hearth problem? how long? Epilepsy ? (seizures, enuresis, tongue-bite, tenebrosity)

Pain

- Location
- Radiation e.g. sciatica
- Quality precipitating factors – neuropathic pain
- Relieving factors – eg. rest, warm, cold etc.



Questionnaire DN4

Please complete this questionnaire by ticking one answer for each item in the 4 questions below:

INTERVIEW OF THE PATIENT

Question 1: Does the pain have one or more of the following characteristics?

	YES	NO
1 - Burning	<input type="checkbox"/>	<input type="checkbox"/>
2 - Painful cold	<input type="checkbox"/>	<input type="checkbox"/>
3 - Electric Shocks	<input type="checkbox"/>	<input type="checkbox"/>

Question 2: Is the pain associated with one or more of the following symptoms in the same area?

	YES	NO
4 - Tingling	<input type="checkbox"/>	<input type="checkbox"/>
5 - Pins and Needles	<input type="checkbox"/>	<input type="checkbox"/>
6 - Numbness	<input type="checkbox"/>	<input type="checkbox"/>
7 - Itching	<input type="checkbox"/>	<input type="checkbox"/>

4 yes proves
Neuropathic pain

EXAMINATION OF THE PATIENT

Question 3: Is the pain located in an area where the physical examination may reveal one or more of the following characteristics?

	YES	NO
8 - Touch Hypoesthesia	<input type="checkbox"/>	<input type="checkbox"/>
9 - Pricking Hypoesthesia	<input type="checkbox"/>	<input type="checkbox"/>

Question 4: In the painful area, can the pain be caused or increased by:

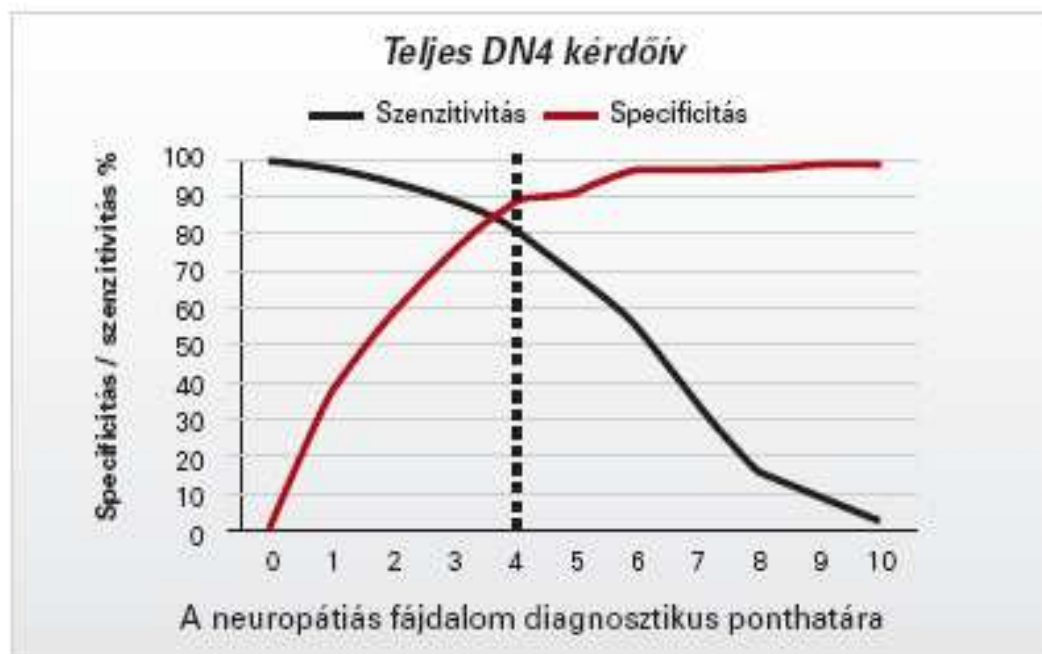
	YES	NO
10 - Brushing	<input type="checkbox"/>	<input type="checkbox"/>

Patient Score: /10

Comparison of pain syndromes associated with nervous or somatic lesions and development of a new neuropathic pain diagnostic questionnaire (DN4)

A teljes DN4 kérdőív

A beteg kikérdezésével és vizsgálatával szereshető 10 pontból 4 vagy magasabb pontszám elérése esetén a neuropátiás fájdalom diagnózisa nagy biztonsággal felállítható.



How to make a diagnosis in Neurology?

take detailed history!

- **Be neutral** (do not suggest symptoms)
- Think of prevalence (be more clever by chance)
- Consider the gender, age, race (e.g. nystagmus and vertigo in case of a young Caucasian female = susp. of multiple sclerosis, same in case of an **old lady with hypertension and diabetes = susp. of vertebrobasilar stroke**)

Depression and somatisation

- At least 40% of patients referred to a neurology outpatient service is **depressed** 'only'
(JNNP2000:68:202-6)
- Prevalence of depression is remarkable in neurological disorders (e.g. 20-30% post stroke, up to 50% in MS, 20-30% in Parkinson disease, út to 40% in low back pain)
- Think of (masked) depression or somatisation if previous test have not showed pathology that really explains patient's complain(s)!

How to make a diagnosis in Neurology?

take detailed history!

- interview also relative(s) (or anybody who may have relevant information) especially if the patient is demented, or confused or unconscious)
- Ask for similar symptoms, disorders among relatives (inherited disorders)
- Make notes during the interview

How to make a diagnosis in Neurology?

the neurologic examination

- **Observe the patient** while history is being obtained (behavior, cooperation, alertness, involuntary movements, facial expression etc.)
- **Examine in a standard pattern** (e.g. cranial nerves, neck, trunk, motor reflexes, weakness, sensory, cerebellar functions etc. (for details <http://www.emedicine.com/neuro/topic632.htm>)
- **Observe the patient during natural activities** (walking, dressing - abnormalities of gait, balance, malingerers)

How to make a diagnosis in Neurology?

- Make a written summary
- Draw your conclusion (create a hypothesis based on the history and the finding of physical examination)
- Create a diagnostic algorithm for your patients (consider the relevant guidelines)
- Explain to the patients why and what are you planning
- 'Be (realistically) paranoid