APPENDIX A EAPC/IASP detailed algorithm application instructions

EAPC/IASP Algorithm

Step A: *Pain Distribution*

Does the patient describe pain in a neuroanatomically plausible distribution?

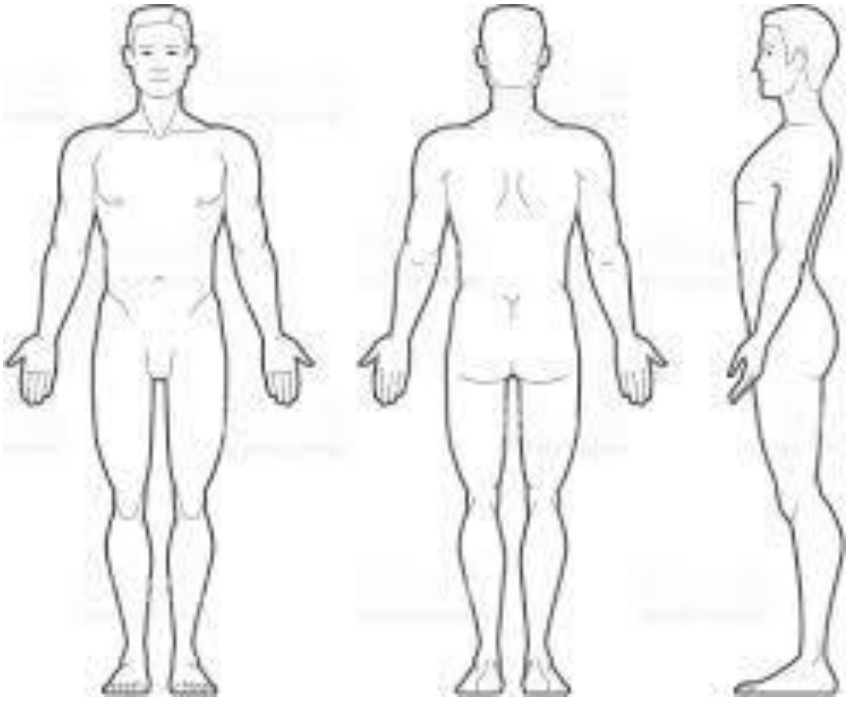
The pain distribution should be anatomically consistent with the suspected location of the lesion or disease in the peripheral or central somatosensory nervous system.

YES

- ☐ Unilateral small area of the skin in the face (or tongue), trunk or any limb
- ☐ Saddle area: buttocks, perineum, genitals
- ☐ Unilateral leg or arm
- ☐ Unilateral "belt like" in the chest
- ☐ Involvement of one or both legs and/or arms, with or without involvement of the trunk
- ☐ Partial or whole side of the body, with or without involvement of the same or the other side of the face
- ☐ Other:

  _____
- ☐ Pain not in a neuroanatomically plausible distribution

NO



On the diagram, shade in the areas where the patient feels pain. If there is more than one pain, put an X on the area that hurts the most.

Step B: *Objective Examination*

Is there evidence of abnormal sensation at the site of pain or in the area of its corresponding neuranatomically plausible distribution? For each test, check the box that best matches the patient's response:

Test	Normal	Reduced sensitivity / complete loss of sensation	Increased sensitivity / pain
Light touch using a cotton bud or soft brush	☐	☐	☐
Blunt pressure using examiners thumb	☐	☐	☐
Pinprick using a toothpick	☐	☐	☐

Step C: *History*

Is there evidence of an etiologic lesion from the patient's medical notes (including pain description*) and/or from existing imaging exams that could explain the pain perceived:

- ☐ potential infiltration/pressing/stretching of the nervous structure/s in the same distribution as the pain
- ☐ not available (see Step D)

**Pain descriptions such as burning or hot, electric shocks or shooting, pricking or pins and needles, pain evoked by light touching or cold, and non painful sensations such as numbness and tingling are suggestive of NP*

Step D : *Diagnostic Tests*

If a relevant history or imaging evidence are not available, further diagnostic tests should be undertaken to confirm the presence of a lesion associated

Keeping in mind the structure of the EAPC/IASP algorithm as attached below, is pain of neuropathic nature:

- ☐ YES
- ☐ NO

Adapted from :Rolke R, Baron R, Maier Ca, Tölle TR, Treede R, Beyer A, Binder A, Birbaumer N, Birklein F, Bötefür IC. Quantitative sensory testing in the German Research Network on Neuropathic Pain (DFNS): standardized protocol and reference values. Pain 2006;123:231-243.

APPENDIX B Quantitative Sensory Testing (QST) battery

-Thermal thresholds The MSA (Somedic, Sweden) was used for thermal testing. The thermode was applied close to the skin and either held in place by the researcher or fixed by the means of a Velcro strap.

1. Warm and cool detection thresholds (WDT, CDT), to test cold and warm sensation, subjects were instructed to stop stimulation when they first perceived cold or warm sensation as temperature changed from the neutral temperature (32°C). Ramped stimuli of 1°C/second, with an inter-stimulus interval of 5 seconds were applied 4 times, first for cold and then for warm measurements.

2. Heat and cold pain thresholds (HPT, CPT), to test heat and cold pain thresholds subjects were instructed to stop stimulation when they first perceived painful sensation, as temperature descended (cold pain) or ascended (heat pain) from the neutral temperature of 32°C. Ramped stimuli of 4/5°C/second with a return rate of 8°C /second for TSA were used, with an inter-stimulus interval 10 seconds applied 4 times.

Mechanical thresholds

3. Mechanical detection threshold (MDT), was assessed using a set of twelve calibrated von Frey monofilaments (SENSELab AESTHESIOMETER II) which exert forces between 0,63-235,36 mN. The contact area of the von Frey hairs with the skin was of uniform size and shape (rounded tip, 0.5 mm in diameter) to avoid sharp edges and ascending and descending stimulus intensities were applied, determining five thresholds.

4. Mechanical pain threshold (MPT), was assessed using a set of eight calibrated punctuated probes which exert forces between 8-512mN (‘‘The Pinprick’’; MRC Systems, Heidelberg, Germany). Starting with the lightest probe, the probes were applied at a rate of one second on, one second off in an ascending order until the first perception of sharpness was reached. The probes were then applied in descending order until the first perception of blunt touch (i.e., not sharp) is reached. This process was repeated until five threshold determinations were made.

5. Dynamic mechanical allodynia (DMA), was assessed using a calibrated soft brush (SENSELab Brush-05, Somedic, Sweden) exerting a force of 200–400 mN. The brush was stroked over a 2cm area of skin at a rate of one second on, one second off. Pain evoked was reported by the patient using a NRS 0-100.

6. Pressure pain threshold (PPT), was assessed using a pressure algometer (Wagner Instruments) which was pressed against the skin at a rate of 1kg per second until the participant reports the very first sensation of discomfort or 4kg of pressure is reached, whichever is first. This procedure was repeated three times.