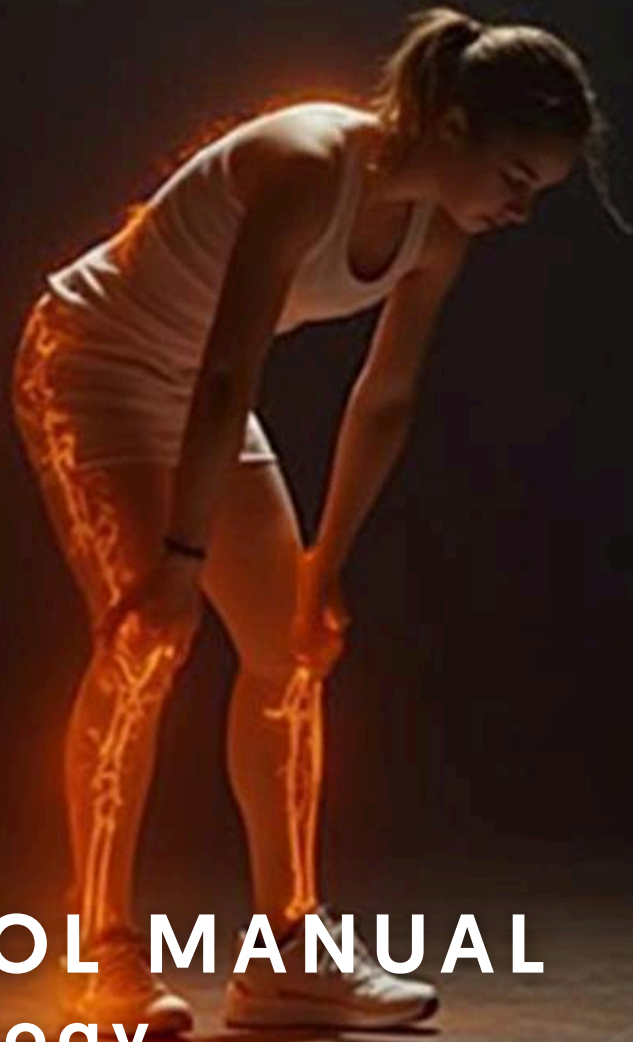




PROTOCOL MANUAL

Traumatology, Rehabilitation, and Sports

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INTRODUCTION

Getting Started – NESA® Guide

What does it entail?

This Protocol Manual serves as a concise guide for the standardisation of non-invasive NESA neuromodulation, based on extensive clinical experience and clinical trials. It is particularly valuable for hospitals and clinics requiring established treatment guidelines, whether due to limited familiarity with the technology or challenges in training healthcare personnel in clinical reasoning. As this concerns a medical device, the responsibility for implementing the protocols rests with the attending physician or healthcare professional, who must apply them in conjunction with the patient's medical history and their own clinical judgement.

The protocols presented herein aim to alleviate patients' symptoms and promote more versatile adaptive responses within the body by optimising autonomic nervous system function. Under no circumstances should the patient's pathology or condition be regarded as curable.

Who is the intended audience?

Physicians, physiotherapists, nurses, psychologists, speech and language therapists, podiatrists, and other university-qualified healthcare professionals.

Structure of the guide

NESA Cross-Cutting Protocols

Protocols applicable across various specialties, which have demonstrated a favourable degree of effectiveness, include those addressing sleep, pain, fatigue, and anxiety, all of which focus on the modulation of the autonomic nervous system.

Fundamental protocols by clinical specialty

A collection of standardised protocols developed by experts with extensive experience, grounded in interventions that have consistently demonstrated positive outcomes.

Advanced protocols by clinical specialty

Recommendations for the management of complex clinical cases should serve as guidance within a framework of sound clinical reasoning. Implementation without appropriate clinical judgement may compromise patient outcomes.

Frequently Asked Questions and Troubleshooting



Warning

The lack of fundamental training in clinical reasoning and/or continuing education (such as NESA Academy courses, NESA literature reviews, or community engagement) significantly limits the clinical outcomes that can be achieved.

FOUNDATIONAL CLINICAL REASONING

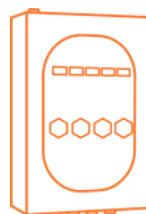
Principles of Responsible Usage



ASSESS



REASON



APPLY

Evaluate the patient and establish a therapeutic objective before selecting a protocol.

Adjust parameters: Use the tables as an initial reference and modify the location, frequency, and duration according to the patient's response.

Monitor clinical changes: Regularly ask the patient about any changes or sensations in order to adjust the programme for optimal outcomes. An objective assessment using questionnaires or supplementary tests is recommended every 10 to 30 sessions, depending on the specific case.

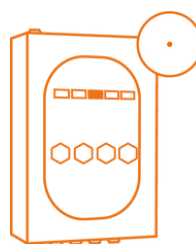
Document each session meticulously: Record the parameters, targeted electrode placement, patient-reported sensations during the session, and overall outcomes, including the date, to support clinical decision-making and track progression.



**Assessment of the
medical history**



Goals



**Select the programme
and position the
electrodes**



Re-evaluation

When embarking on the use of a new technology, such experiences are quite common

- Failure to apply the electrode
- Incorrect placement of electrodes on gloves and anklets (refer to the kits)
- Always maintain consistent programming
- Do not relocate the C7 targeting electrode

FOUNDATIONAL CLINICAL REASONING

Number of sessions and treatment frequency

Suggested frequency

The treatment frequency should be determined according to the therapeutic objective.

An induction phase, characterised by a high frequency of 2 to 5 sessions per week, is recommended during the initial treatment period until the desired results are achieved. As the patient progresses, and provided that a fixed protocol has not been established, the frequency of sessions may be gradually reduced, leading to the initiation of a maintenance phase. Depending on influencing factors, it may be appropriate either to conclude treatment or to proceed with a second, more extended maintenance phase.

When used as a supplementary treatment to a primary intervention (such as surgery or other therapies), it may be administered with the same frequency as the primary treatment (including a single session), provided that a direct clinical effect of XSignal is not expected, but rather to enhance the effectiveness of the primary treatment.

INDUCTION PHASE (1–4 months)

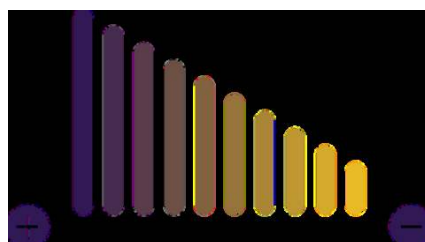
HIGH FREQUENCY

5–4–3 sessions per week

MEDIUM FREQUENCY

3–2 sessions per week

MAINTENANCE PHASE (≥ 2 months; indefinite)



LOW FREQUENCY

2–1 sessions per week

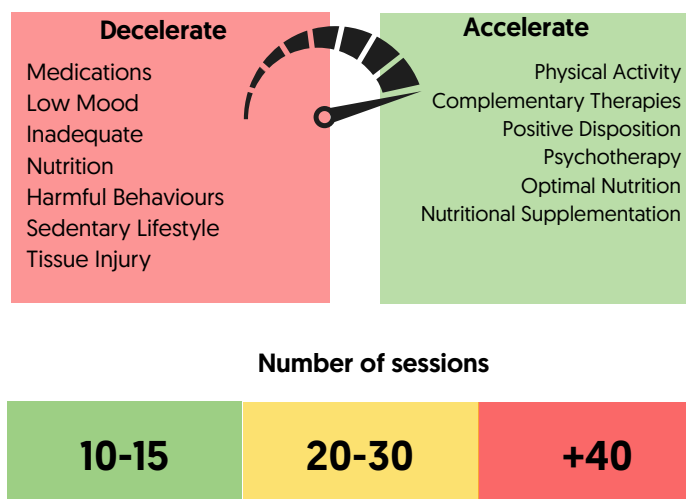
REMISE AND REHABILITATION

SESSIONS

AFTER COMPLETING NESA IN
ADDITION TO OTHER THERAPIES

Suggested frequency

The number of sessions required to modulate a patient's autonomic nervous system will depend on various factors and conditions. The diagrams below summarise these factors and indicate what can be expected from the treatments administered.



FOUNDATIONAL CLINICAL REASONING

PROGRAMMES

Low-intensity programme with stimuli applied over time.

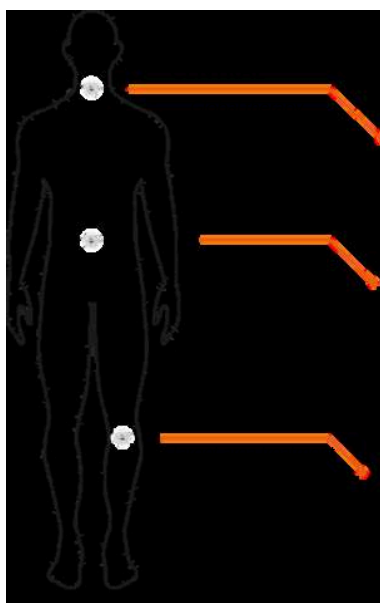
Programmes that stimulate isolated electrodes to elicit responses along specific body planes.

Programmes to be applied after electrode placement, which produce measurable results.

Targeted action programmes within the cranial region, encompassing both cerebral structures and the cranial nerves associated with the cephalic area.

	FUNCTION	SUGGESTED DURATION	LOCATION
Start PROGRAM 1	Homeostasis	15-45'	Central
Location PROGRAM 2	Ventral	15-30'	Central – Metamerie – Focal
PROGRAM 3	Dorsal	15-30'	Central – Metamerie – Focal
PROGRAM 4	Sagittal	15-30'	Central – Metamerie – Focal
Action PROGRAM 5	Resource Optimizer	15-60'	Central – Metamerie – Focal
PROGRAM 6	Analgesia	15-60'	Central – Metamerie – Focal
PROGRAM 7	Autonomic Nervous System	15-120'	Central – Metamerie – Focal
Tuning PROGRAM 8	Central Nervous System	15-30'	Central – Metamerie – Focal
PROGRAM 9	Facial and Trigeminal Nerves	15-120'	Central-cephalic region

Steering electrode



First Initial Phase

In the initial phase of treatment, the targeting electrode is positioned centrally to elicit both central and peripheral responses, thereby establishing a primary global contact.

Second Specific Phase

Following observation of the patient's initial response to treatment, the intervention is administered to targeted metamerie regions, in alignment with the objectives established for the specific case.

Third Impulse Phase

If the patient does not respond to the treatment as anticipated, the microcurrent may be directed to a specific point. If the response is excessively intense, it can be adjusted by reverting to metamerie treatment.

Professional accountability

Protocols serve as guidelines rather than prescriptions. The healthcare professional using this technology bears full responsibility for prescribing, monitoring, and adjusting treatment, based on clinical reasoning and the individual analysis of each patient.

Subsequent actions

- Review the principles on campus at <https://nesacamp.thinkific.com/>
- Complete the foundational module online
- Implement a pilot protocol and document progress
- Share your questions and findings with the NESA community (join the Telegram group [ES/EN] and/or email clinical@nesaworld.es with any queries)

NESA Clinical Team - 2025

EXPLANATORY GUIDE ON THE UTILIZATION OF THE MANUAL

How should I use this manual?

The NESA protocol manual serves as a fundamental introductory guide to support the development of clinical reasoning within the context of the autonomic nervous system. Readers are encouraged to establish their own criteria and rationale for adapting protocols to each patient's case history as they advance in daily practice and participate in other NESA training programmes, including the Expert and Clinical Guidelines Campus.

Warning: Protocols may not be suitable for all patients and should be tailored and adjusted to each individual case.

How should I read the protocols?

The protocols outlined in this manual are grounded in empirical clinical practice and scientific research. They are formulated within clearly defined frameworks that encompass all clinical reasoning variables relevant to the use of NESA, including programmes, application duration, number of sessions, electrode placement targeting, and evaluation recommendations.

Description of the clinical methodology

In patients experiencing pain, the extent of altered sensitivity is often unclear. Progression typically moves from central to local and subsequently to metameric. The electrode should be positioned at the site where changes are first observed. If a particular location induces discomfort, treatment should revert to more central or metameric areas until the patient progresses through the sessions.

Surveys and assessments

to objectively evaluate the patient's progress*



Recommended questionnaires and assessments:

- Pittsburgh
- Actigraphy

Time

The application duration for each programme is specified, with a minimum of 15 minutes. Sessions are standardised at 60 minutes.

Number of sessions

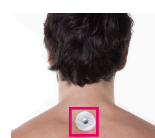
The final grid indicates the suggested quantity [...20] = 20 sessions.

Programmes

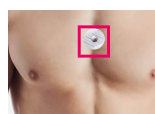
Each box denotes the programme used at the specified time. Select according to the region to be treated [P2 – Ventral, P3 – Dorsal, P4 – Sagittal]. Other indications are denoted by [*] and [**].

		% of time and programs			
		15 min	15 min	15 min	15 min
Number of sessions	1	P 1 30MIN		P 7 30MIN	
	2				
	3	P 2 15MIN	P 6 15MIN	P 7 15MIN	P 8 15MIN
	4				
Sternum	5	P 2 15MIN	P 7 30MIN		P 8 15MIN
	6				
Corresponding metamere	7	P2 P3 P4 15MIN		P 7 45MIN	
	8				
	9				
Tender point	10	P2 P3 P4 15MIN		P 7 45MIN	
	11				
	12				
...20		Repeat the sequence using the patient's most favourable response.			

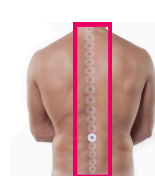
ANATOMICAL NOTES:
DIRECTIONAL ELECTRODE



Spinal Process C6-C7



Sternum



Corresponding metamer



Tender point

Guiding electrode

Location of the targeting electrode

The precise location is indicated to the left of the session number. For additional guidance, anatomical reference images are provided. The spinal column image refers to the metameric level and should be selected according to the clinical case. The full-body image should also be chosen in a focused manner, based on the clinical case.

Results documentation

Document the patient's response to each setting to facilitate selection of the most appropriate option thereafter.

NOTES:

- Most protocols adhere to this structure, with the exception of certain specialised protocols in which the procedure is explicitly outlined.
- Questionnaires should be administered in the patient's native language; translation is not appropriate. They must be obtained in their original version, which can readily be found online by searching for the questionnaire name and language. A selection is also available for download in Spanish or English from the Clinical Guidelines Campus.

MULTIDISCIPLINARY PROTOCOLS

Protocols applicable across various specialties have demonstrated a favourable degree of effectiveness in addressing issues such as sleep, pain, fatigue, and anxiety, through an approach centred on the modulation of the autonomic nervous system.



GENERAL SLEEP

Protocol developed to improve sleep quality in individuals without comorbidities. Several combinations are provided; repeat the one that best suits the patient’s needs.

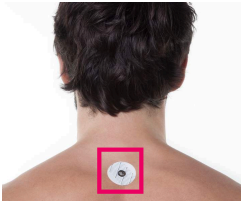
The number of sessions may range from 20 to 40, with frequency adjusted according to the patient’s reported progress. It is advisable to start with 3 to 4 sessions per week.

Number of sessions

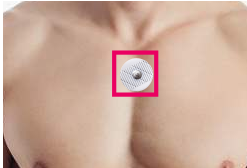
% of time and programs

		15 min	15 min	15 min	15 min
Spinous Process C6–C7	1	P 1 15MIN	P 2 15MIN	P 7 15MIN	P 8 15MIN
	2				
	3	P 2 15MIN	P 7 45MIN		
	4				
Sternum	5				
	6	P 2 15MIN	P 7 45MIN		
	7				
Nasion	8				
	9	P 2 15MIN	P 7 30 MIN	P 8 15MIN	
	10				
Mesenteric	11				
	12	P 2 15MIN	P 7 45MIN		
	13				
	...20	Repeat the sequence using the patient’s most favourable response.			

ANATOMICAL NOTES:
DIRECTIONAL ELECTRODE



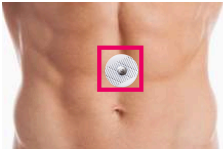
Spinous Process
C6–C7



Sternum



Nasion



Mesenteric



- Recommended questionnaires and assessments:
- Pittsburgh
 - Actigraphy

SLEEP AND ANXIETY

A protocol has been developed to improve sleep quality in individuals experiencing non-specific anxiety. Several combinations are proposed, with a recommendation to select the one that produces the most favourable response in the patient. Depending on the presence of triggering and perpetuating factors during treatment, continued maintenance may be required.



Recommended questionnaires and assessments:

- Pittsburgh
- Actigraphy
- GAD7

SLEEP AND CIRCADIAN RHYTHM

Circadian rhythm disturbances are observed in individuals who are shift workers, frequent travellers crossing time zones, or those who report behaviours such as nocturnal eating. In such cases, treatment may be palliative; assessment of deep and REM sleep using actigraphy is advisable.

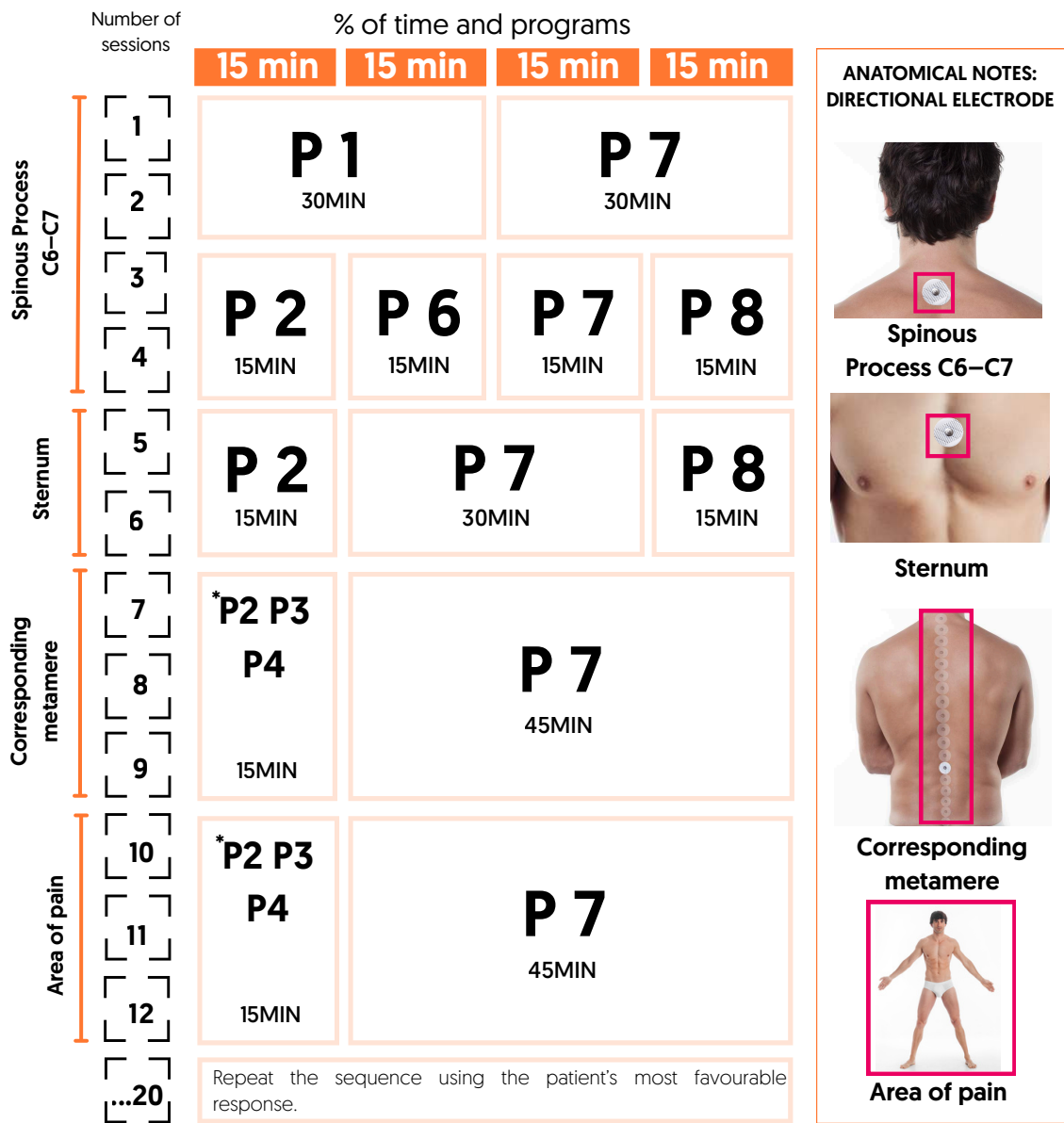


Recommended questionnaires and assessments:

- Pittsburgh
- Actigraphy
- Epworth

GENERALISED PAIN

In patients experiencing pain, the extent of altered sensitivity is often unclear. Progression typically moves from central to local and subsequently to metameric. The electrode should be positioned at the site where changes are first observed. If a particular location induces discomfort, treatment should revert to more central or metameric areas until the patient progresses through the sessions.



*Select according to the region to be treated (P2 – Ventral, P3 – Dorsal, P4 – Sagittal).



Recommended questionnaires and assessments:

- WeCardio
- Lattinen Test (Chronic Pain)
- LANSS Test (Neuropathic Pain)

GENERALIZED PAIN AND CENTRAL SENSITIZATION

Pain that extends beyond the natural progression of an injury or lacks a known trigger will, by definition, be linked to central sensitization. Sessions may be integrated with other peripheral pain protocols. Patients who experience fluctuating pain at different intervals may necessitate modulation of the vagus nerve and its descending pain inhibition pathway.

Number of sessions

% of time and programs

		15 min	15 min	15 min	15 min
Spinous Process C6–C7	1	P 1 15MIN	P 7 30MIN	P 8 15MIN	
	2				
	3	P 2 15MIN	P 7 30MIN	P 8 15MIN	
	4				
Sternum	5	P 2 15MIN	P 7 15MIN	P 8 30MIN	
	6				
	7				
Nasion	8	P 2 15MIN	P 7 15MIN	P 8* 15MIN	
	9				
	10				
	...20				

Repeat the sequence using the patient's most favourable response.

ANATOMICAL NOTES:
DIRECTIONAL ELECTRODE



Spinous Process C6–C7



Sternum



Nasion

- If the patient experiences nervousness following the session or encounters difficulty sleeping, substitute with an additional 15 minutes of P7.

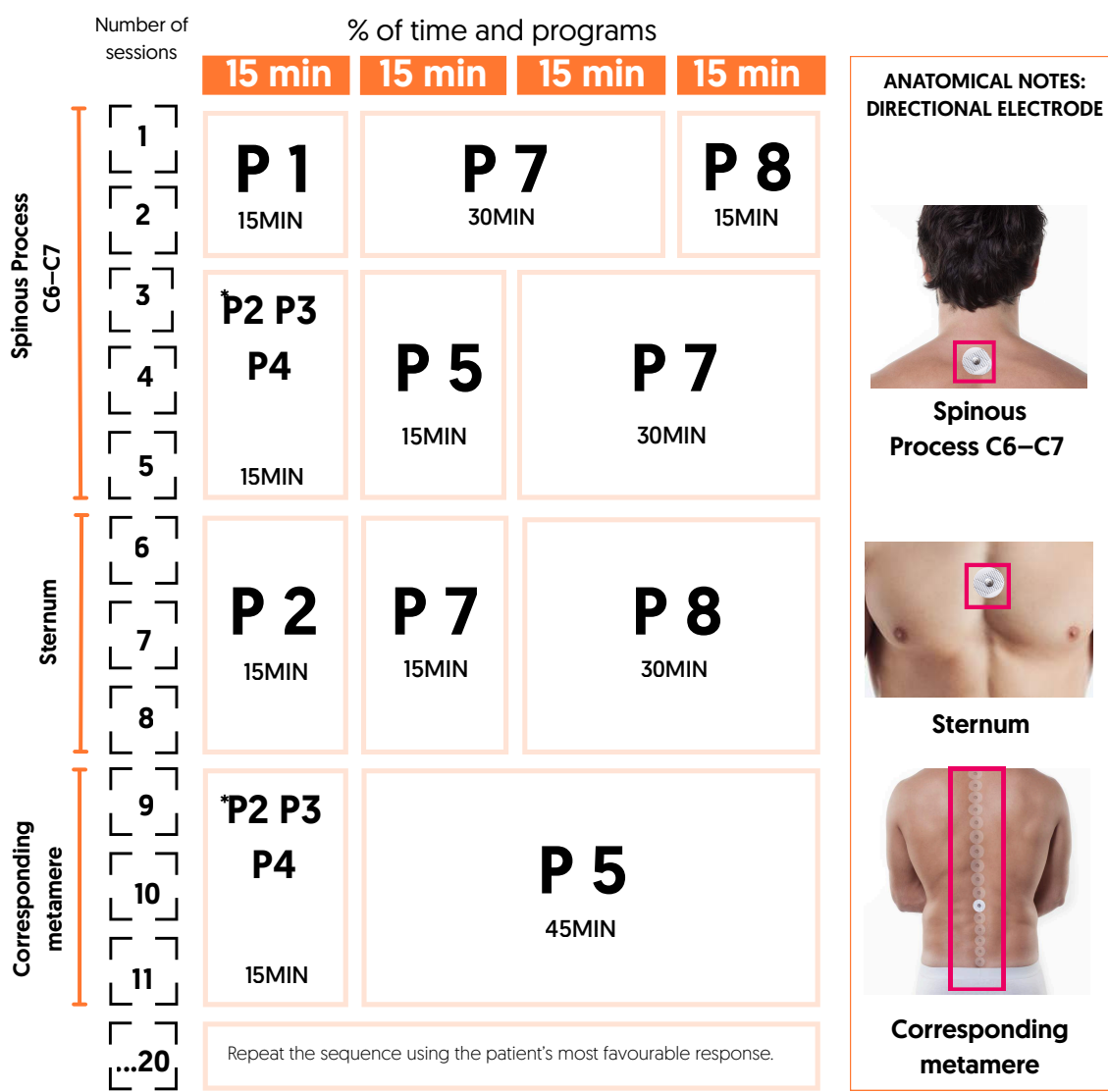


Recommended questionnaires and assessments:

- WeCardio
- Lattinen Test (Chronic Pain)
- LANSS Test (Neuropathic Pain)

GENERALIZED FATIGUE

Fatigue is a symptom characterised by multiple triggers and attributes. It requires a multidisciplinary approach, incorporating laboratory and complementary tests to establish a medical diagnosis. In this context, the recommended treatment focuses on the autonomic nervous system and mitochondrial electrical metabolism, providing a framework for subsequent individualisation.



*Select according to the region to be treated [P2 – Ventral, P3 – Dorsal, P4 – Sagittal].

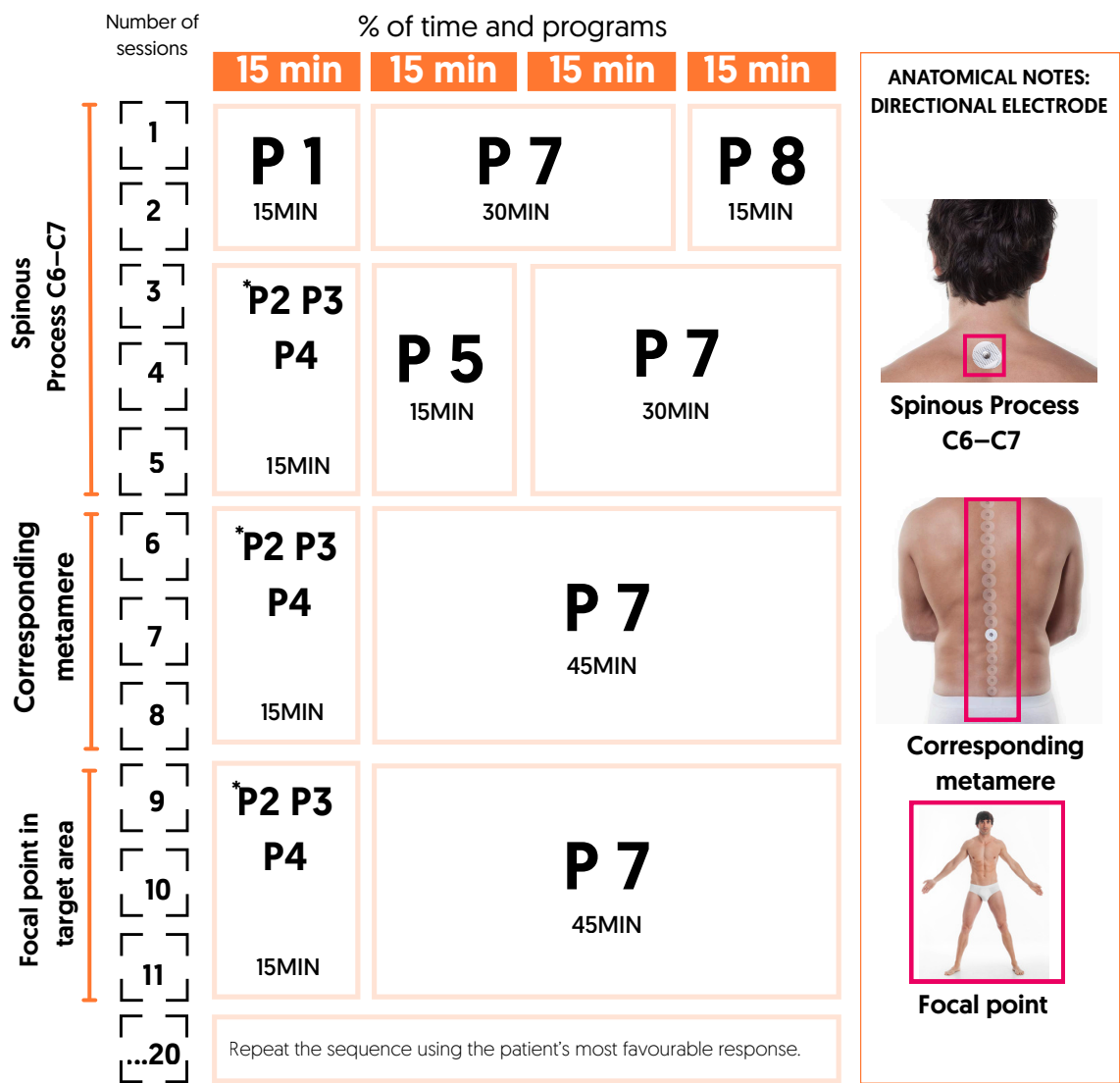


Recommended questionnaires and assessments:

- WeCardio
- Borg Scale
- Epworth

FATIGUE AND CHANGES IN MUSCLE TONE

Protocol for fatigue stemming from ineffective muscle contraction. It is also beneficial for spasticity. Assess each patient's requirement to integrate it with Program 5 to varying degrees, or prioritize Program 7.



*Choose according to the region to be addressed [P2-Ventral, P3-Dorsal, P4-Sagittal].

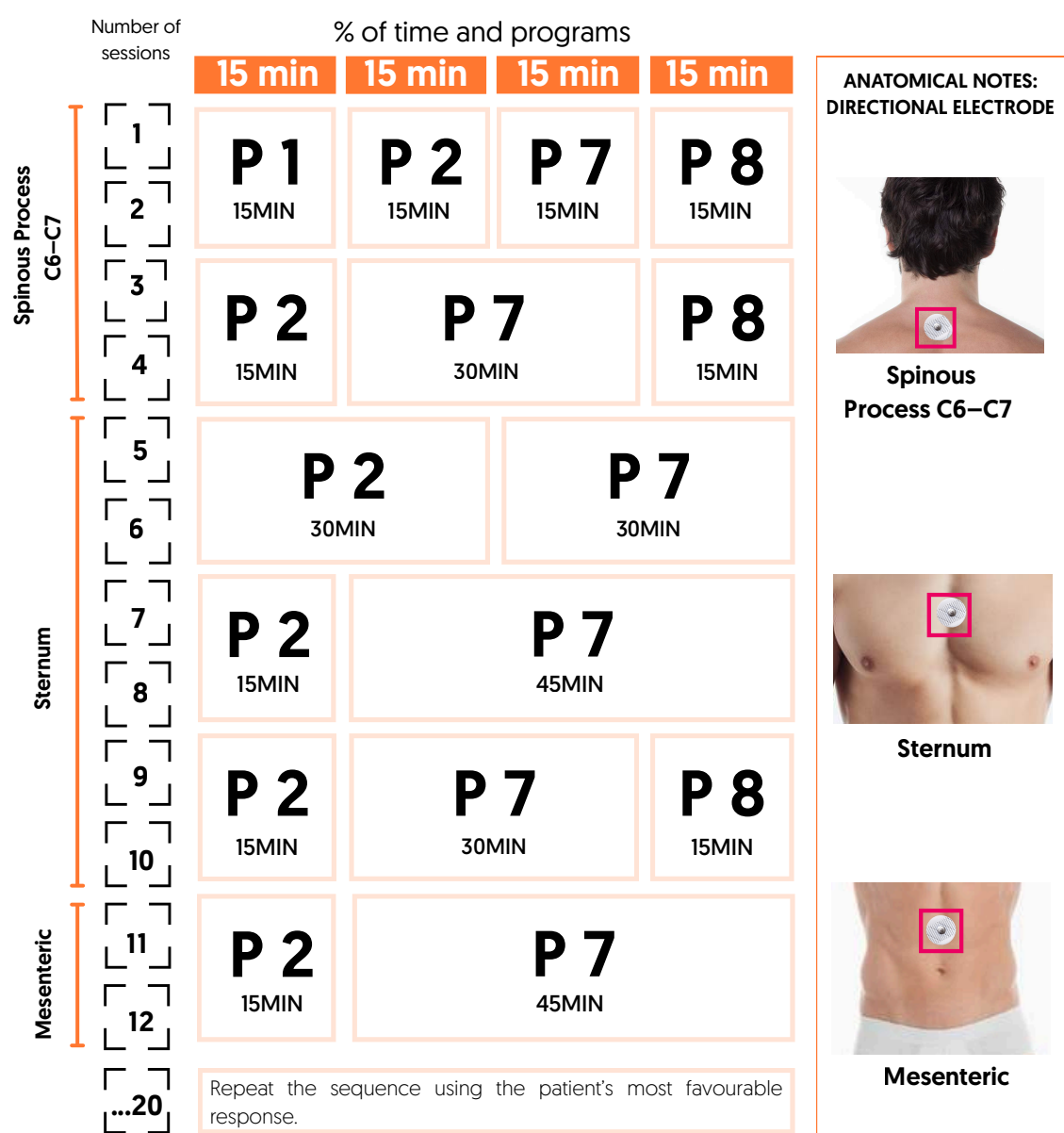


Recommended questionnaires and assessments:

- WeCardio
- Borg Scale
- Ashworth Scale

ANXIETY AND NON-SPECIFIC MOOD DISORDERS

The patient’s dysfunctions are frequently associated with anxiety. Clinical evidence indicates that treatment using NESA microcurrents, in conjunction with psychotherapy, can provide substantial benefits. These programme combinations have demonstrated effectiveness, even when applied independently in certain cases. It is essential to maintain the sequence that elicits the optimal response.



Recommended questionnaires and assessments:

- WeCardio
- Cortisol (if necessary)
- GAD-7
- Hamilton

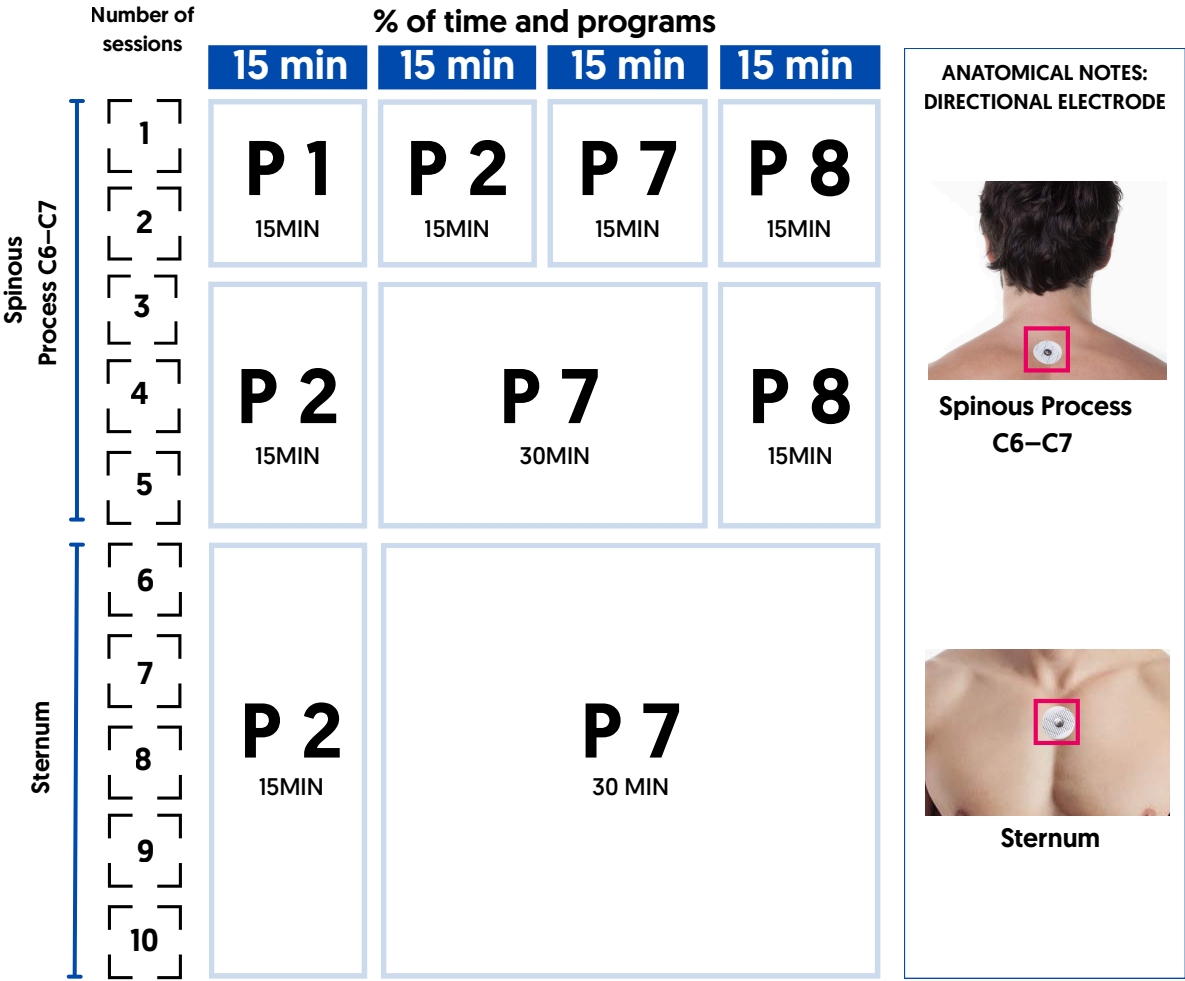
TRAUMATOLOGY, REHABILITATION AND SPORTS MEDICINE

Fundamentals by Clinical Specialty



PREPARATION FOR TRAUMA SURGERY

In patients scheduled for surgery, the Xsignal device may be used to improve their response to both physical and psychological stress. The primary objectives are to promote comprehensive adaptation of the autonomic nervous system and to enhance vagal tone, thereby counteracting potential sympathicotonia, modulating the inflammatory response systemically via cholinergic pathways, and supporting improved adaptation to pain. It is advisable to administer the final sessions more intensively in the days preceding surgery, beginning 3 to 4 weeks before the operation.



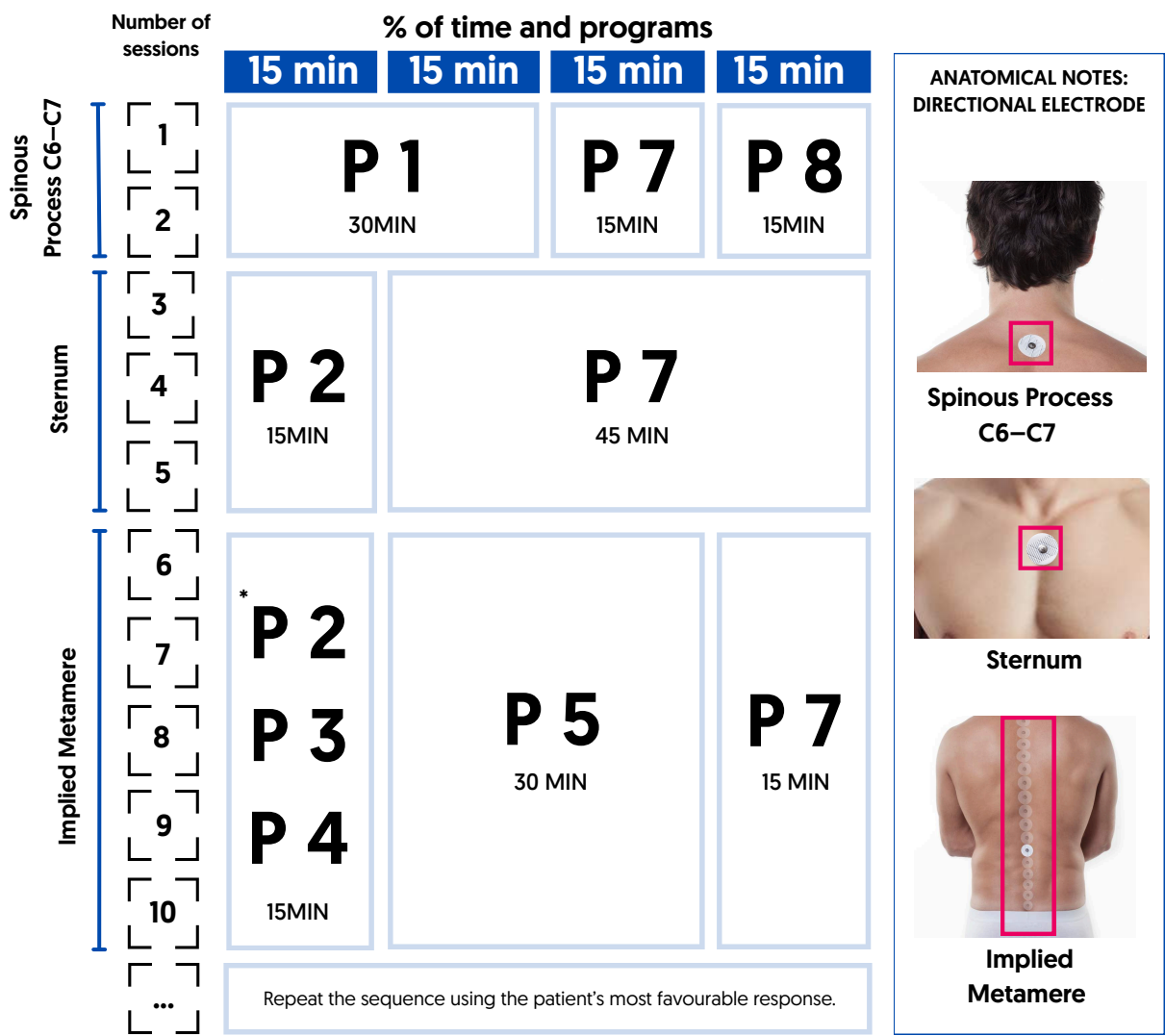


Recommended questionnaires and assessments:

- WeCardio
- GAD-7 (Anxiety)

POST-SURGICAL RECOVERY

The objective of this protocol is to improve the patient’s response to surgical side effects, mitigate postoperative pain, address potential amygdala activation resulting from the physical trauma of the operation, and facilitate regeneration. Depending on the severity of the surgery and the patient’s baseline condition, ongoing maintenance sessions are recommended, with a minimum of 10 sessions. The frequency of sessions should be increased in accordance with the complexity of the case.



*Select according to the region to be treated (P2-Ventral, P3-Dorsal, P4-Sagittal).

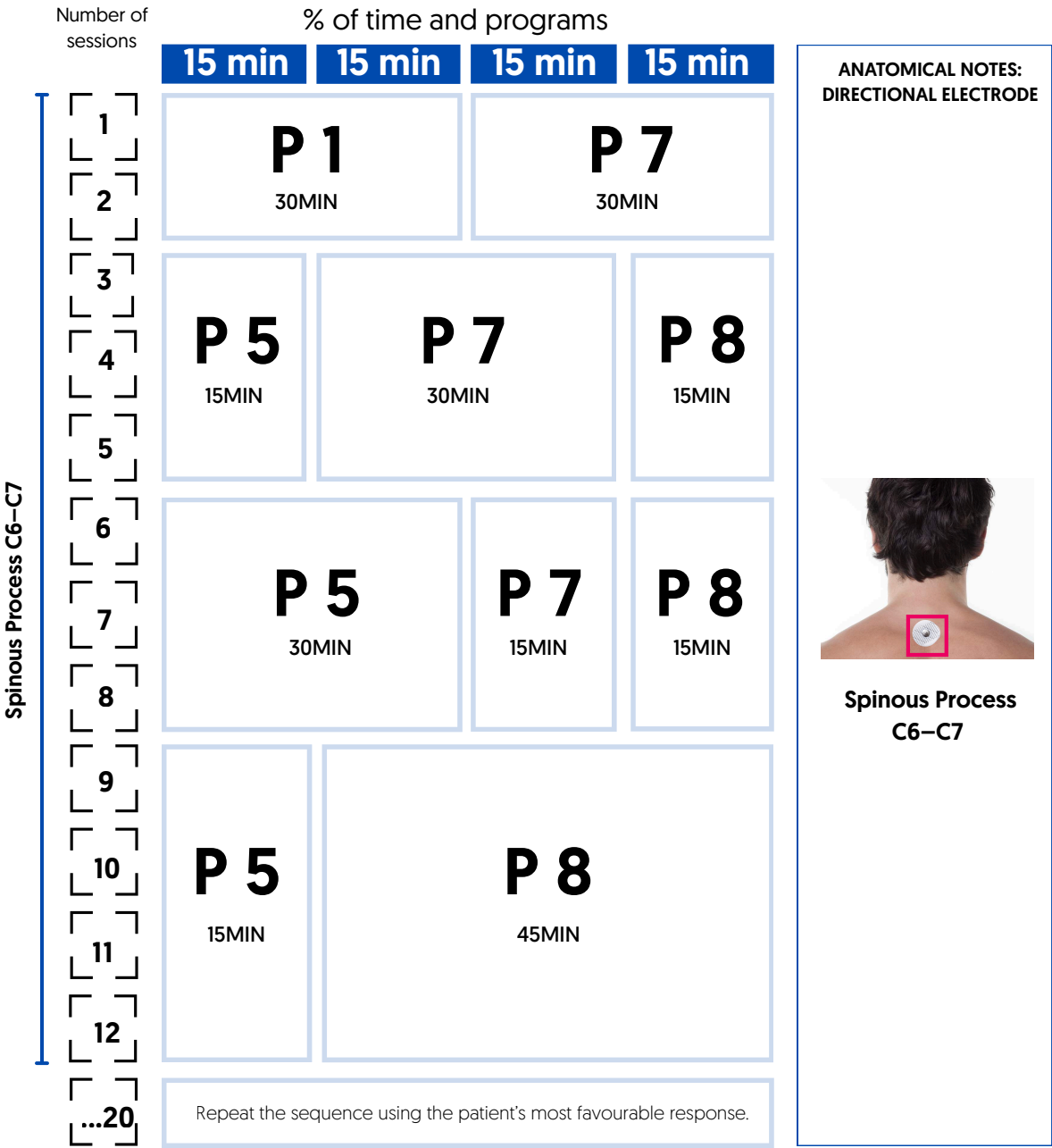


Recommended questionnaires and assessments:

- WeCardio
- VAS (Visual Analog Scale)

ATHLETIC ACHIEVEMENT

For patients who have already completed the initial sessions, the third session should begin immediately. Individual sessions may be scheduled at specific times to optimise athletic performance, using programmes 4, 5, 7, and 8, or this protocol may be followed to achieve improved long-term efficacy.



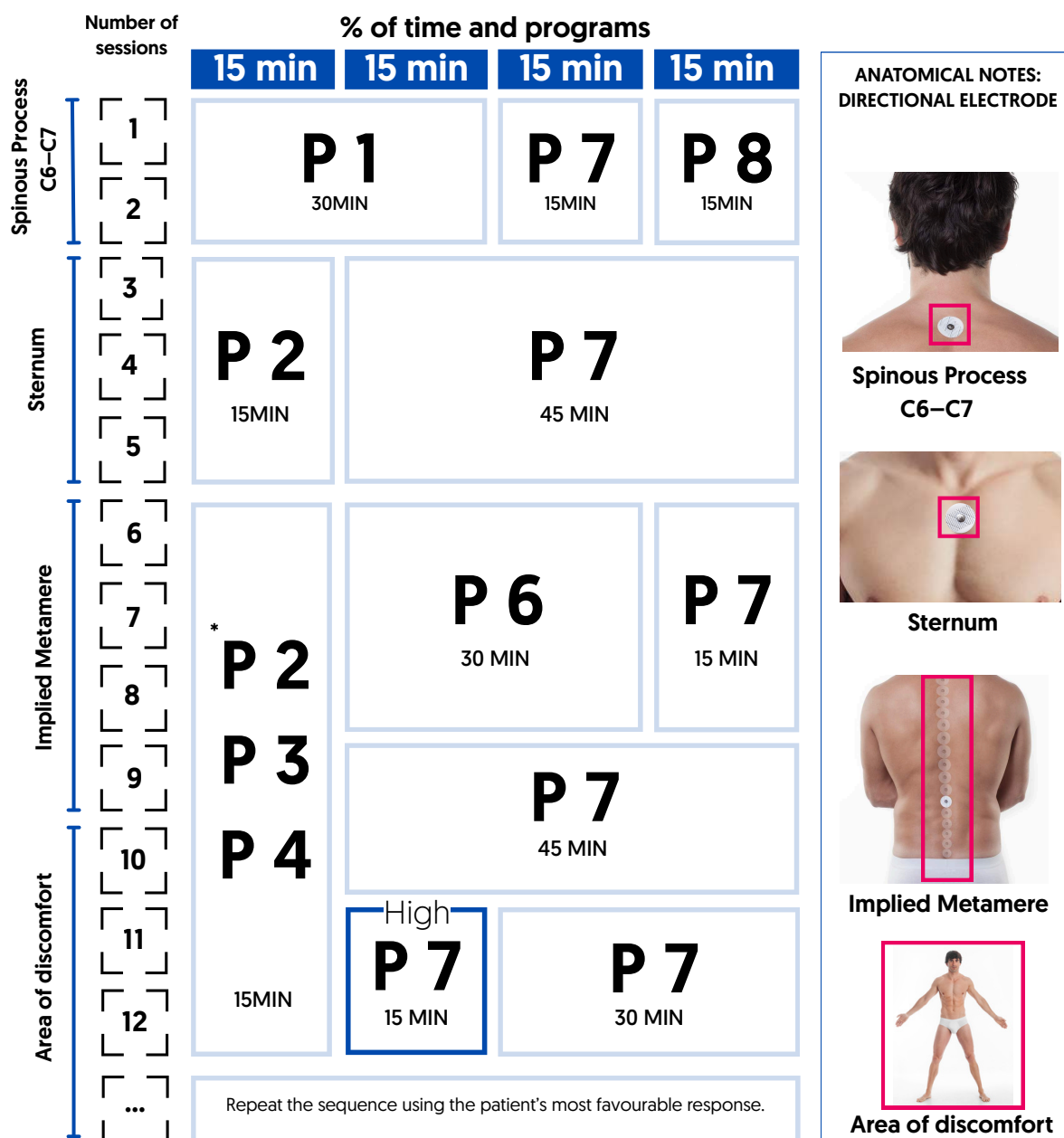


Recommended questionnaires and assessments:

- WeCardio / WHOOP
- Actigraphy

CHRONIC FOCAL PAIN

Chronic pain, even when localised, is frequently multifactorial, and in some cases the aetiology remains unclear. Regardless of the underlying structural lesions, the central nervous system can sustain the condition. To address the range of potential causes, the following protocol is recommended. Programme 7 in high mode should be employed when the patient has not reported any changes during the initial 10 sessions, and its application may be extended to 30 minutes.



*Select according to the region to be treated (P2-Ventral, P3-Dorsal, P4-Sagittal).



Recommended questionnaires and assessments:

- WeCardio
- Lattinen [Chronic Pain]
- VAS [Visual Analogue Scale]

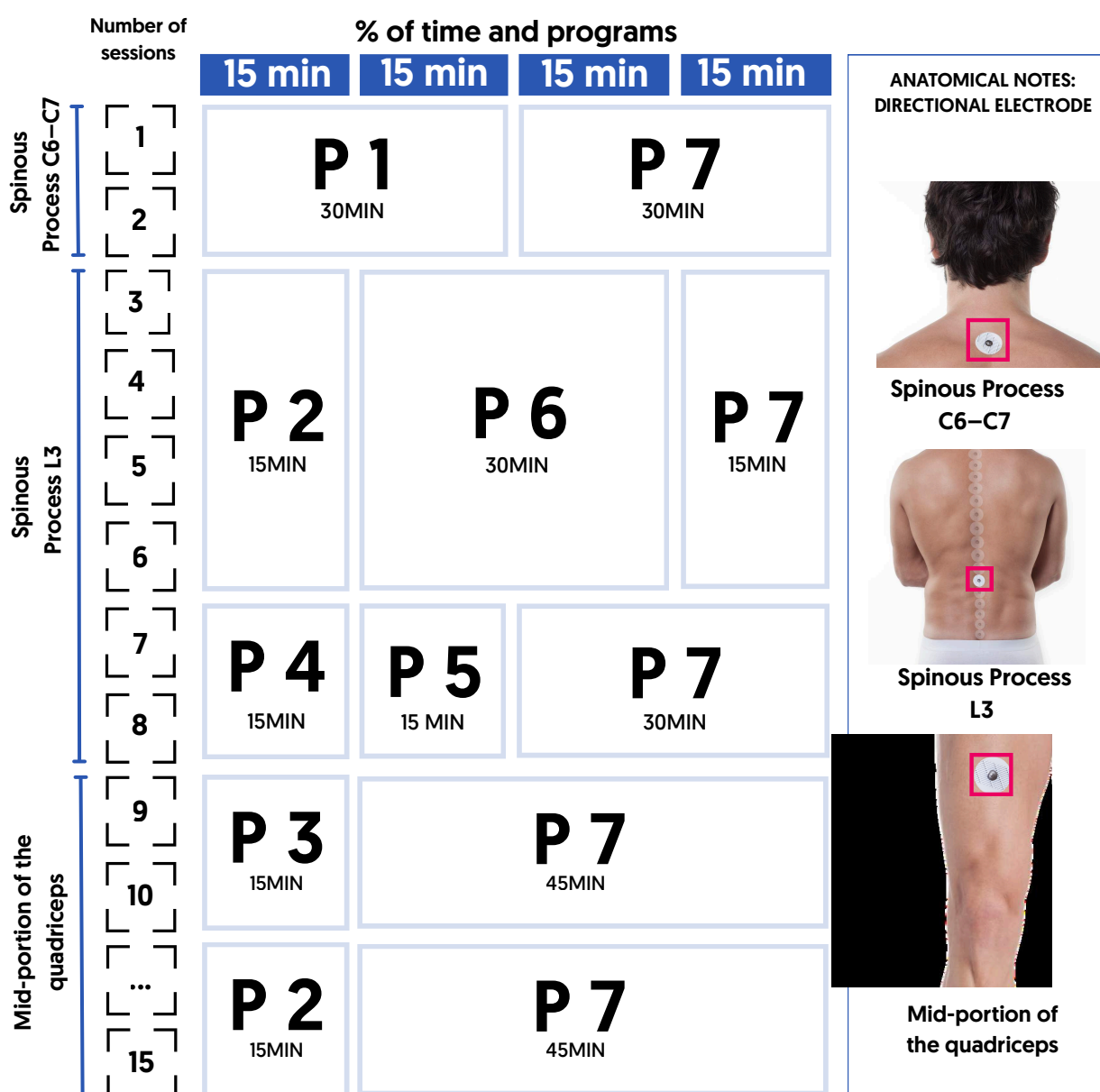
TRAUMATOLOGY, REHABILITATION AND SPORT

Specific protocols by clinical specialty



POSTOPERATIVE KNEE PROSTHESIS

Since 2019, the ICD has recognised pain as a distinct entity, with postoperative pain included within this classification. Clinical experience indicates that even after successful knee surgery, some patients may display inadequate pain adaptation, which can hinder recovery. Observational evidence suggests that the application of microcurrents can reduce pain, regardless of its neuropathic characteristics. It is advisable to initiate sessions as early as possible after surgery as a preventive measure. If treatment is started later, it is generally necessary to increase the number of sessions and adjust their frequency according to the patient's progress.



Recommended questionnaires and assessments:

- WeCardio
- Pain Assessment Questionnaire
- GAD-7

POSTOPERATIVE CARE FOR HIP PROSTHESIS

Since 2019, the ICD has classified postoperative pain as a distinct condition. Following hip replacement surgery, some patients may experience pain that hinders recovery, even after a successful operation. Clinical experience indicates that the use of microcurrents can alleviate both neuropathic and non-neuropathic pain. It is advisable to initiate sessions promptly as a preventive strategy; if commencement is delayed, it is often necessary to adjust the frequency and increase the number of sessions according to the patient's progress.

		% of time and programs			
		15 min	15 min	15 min	15 min
Spinous Process C6–C7	1	P 1 30MIN		P 7 30MIN	
	2				
Spinous Process L1	3	P 2 15MIN	P 6 30MIN		P 7 15MIN
	4				
	5				
	6	P 4 15MIN	P 5 15 MIN		P 7 30MIN
	7				
	8				
Iliac Fossa - Inguinal Region	9	P 3 15MIN	P 7 45MIN		
	10				
	...	P 2 15MIN	P 7 45MIN		
15					

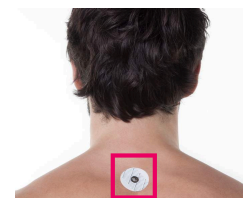
ANATOMICAL NOTES:
DIRECTIONAL ELECTRODE

Spinous Process C6–C7

Spinous Process L1

Iliac fossa - Inguinal region

ANATOMICAL NOTES: DIRECTIONAL ELECTRODE



Spinous Process
C6–C7



Spinous
Process L1



Iliac fossa -
Inguinal region



Recommended questionnaires and assessments:

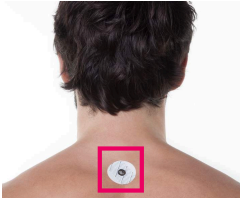
- WeCardio
- Pain Assessment Questionnaire
- GAD-7

POSTOPERATIVE CARE POST SHOULDER SURGERY

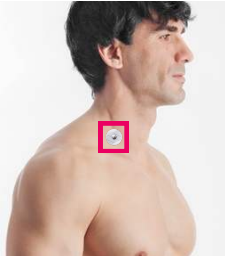
Since 2019, the ICD has recognised postoperative pain as a distinct medical condition. Following shoulder surgery, some patients may experience pain that impedes functional recovery, despite a successful surgical outcome. In clinical practice, the use of microcurrents has shown efficacy in alleviating pain in both neuropathic and non-neuropathic cases. It is advisable to initiate the protocol during the immediate postoperative phase as a preventive strategy; if application is delayed, a greater number of sessions is typically required, with frequency adjusted according to the patient's progress.

		% of time and programs			
		15 min	15 min	15 min	15 min
Spinous Process C6–C7	1	P 1 30MIN		P 7 30MIN	
	2				
	3	P 2 15MIN	P 6 30MIN		P 7 15MIN
	4				
5					
Brachial Plexus Supraclavicular Region	6	P 4 15MIN	P 5 15 MIN	P 7 30MIN	
	7				
	8	P 3 15MIN		P 7 45MIN	
	9				
	10	P 2 15MIN		P 7 45MIN	
	...				
	15				

ANATOMICAL NOTES:
DIRECTIONAL ELECTRODE

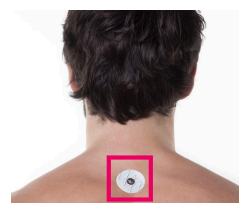


Spinous Process
C6–C7

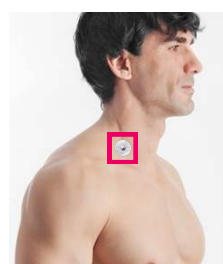


Brachial Plexus
Supraclavicular Region

ANATOMICAL NOTES: DIRECTIONAL ELECTRODE



Spinous Process
C6–C7



Brachial Plexus
Supraclavicular Region

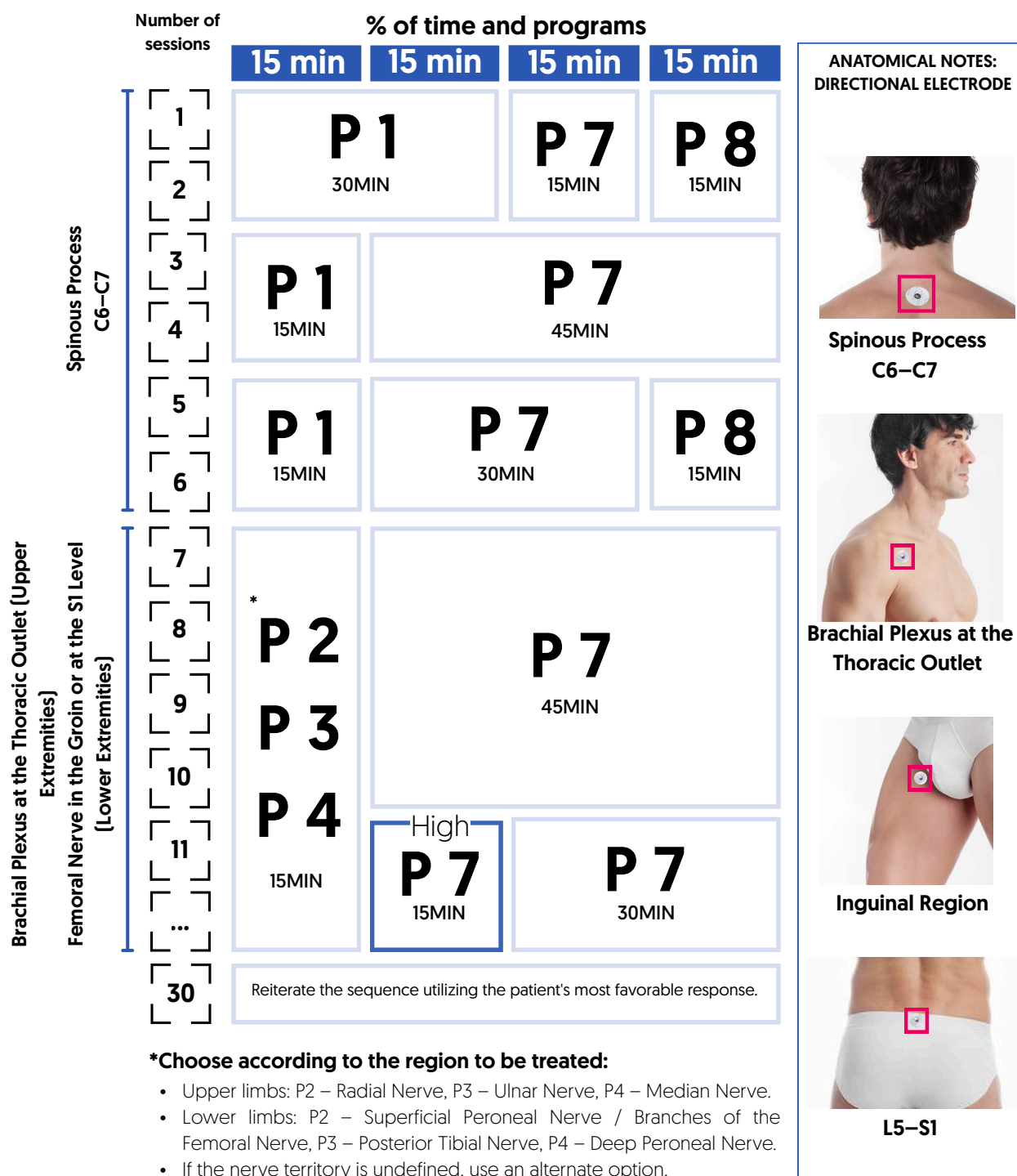


Recommended questionnaires and assessments:

- WeCardio
- Pain Assessment Questionnaire
- GAD-7

CRPS (SÜDECK'S DYSTROPHY). PREVENTION AND TREATMENT

Explanatory models for the pathophysiology of Complex Regional Pain Syndrome [CRPS] describe it as multifactorial, involving neurogenic inflammation, immunological factors, cortical reorganisation, and autonomic [sympathetic] dysfunction. Clinical observations with NESA microcurrents indicate reductions in pain and trophic alterations, particularly in short-term cases. In chronic cases, more frequent induction and maintenance therapy are required to stabilise outcomes.



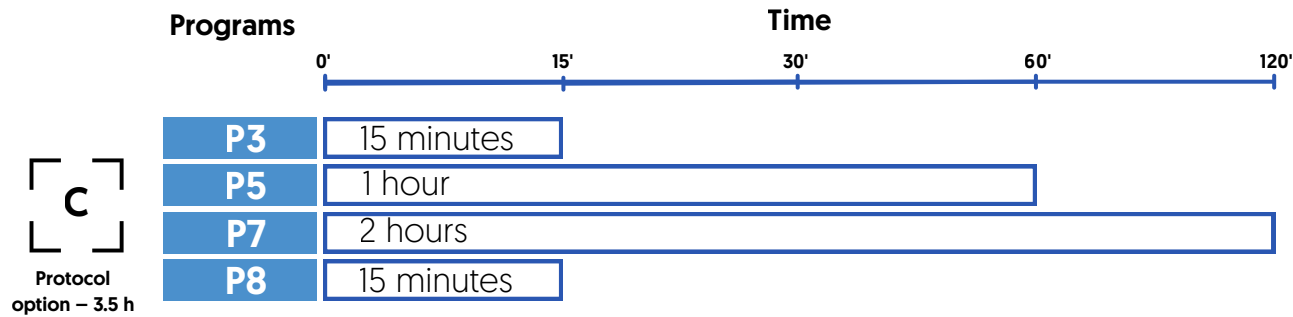
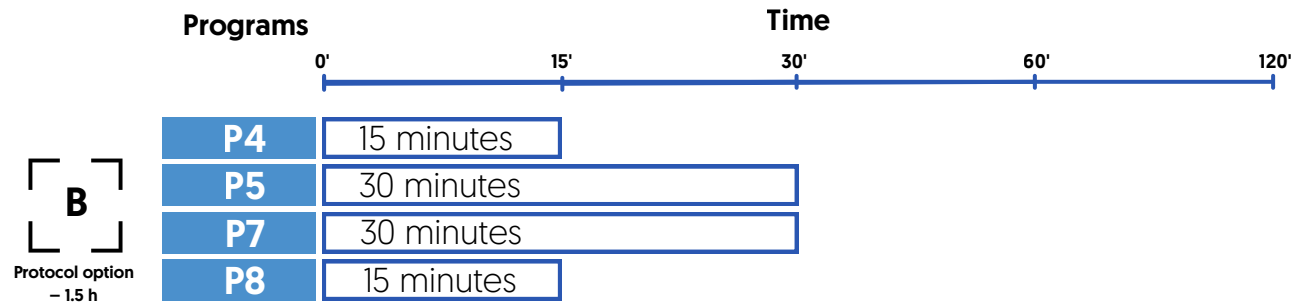
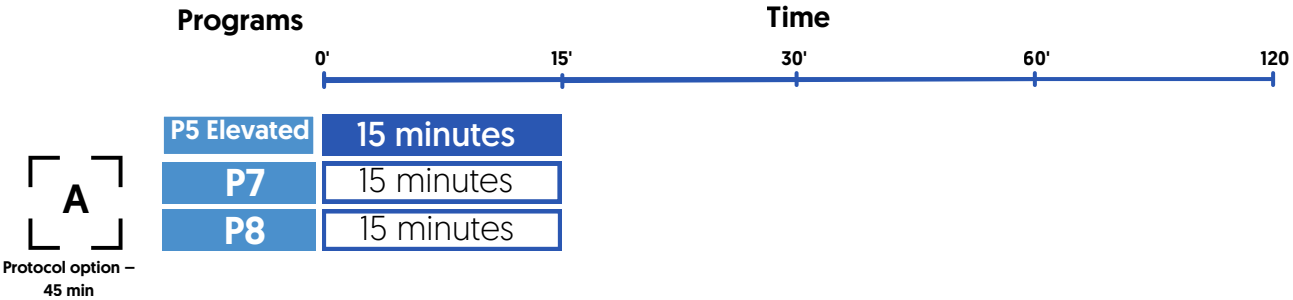
POST-WORKOUT RECOVERY

The resource optimisation achieved through NESA microcurrents has been clinically applied to improve athletic performance. In this context, these combinations are administered as individual sessions at specific intervals following a workout to support recovery from muscle fatigue.

This protocol is provided to patients who have already completed the initial sessions:

Three sample options are available: one lasting 45 minutes, another lasting 90 minutes, and a third lasting 3.5 hours. If deemed appropriate by the healthcare professional, these options may be combined to create additional alternatives. Option A is recommended after standard workouts, typical for the patient. Option B is suggested for workouts exceeding the patient’s usual intensity. Option C is advised after high-intensity activities such as marathons, ultramarathons, and competitions, to facilitate faster recovery and return to baseline.

The electrode should be positioned at C7.

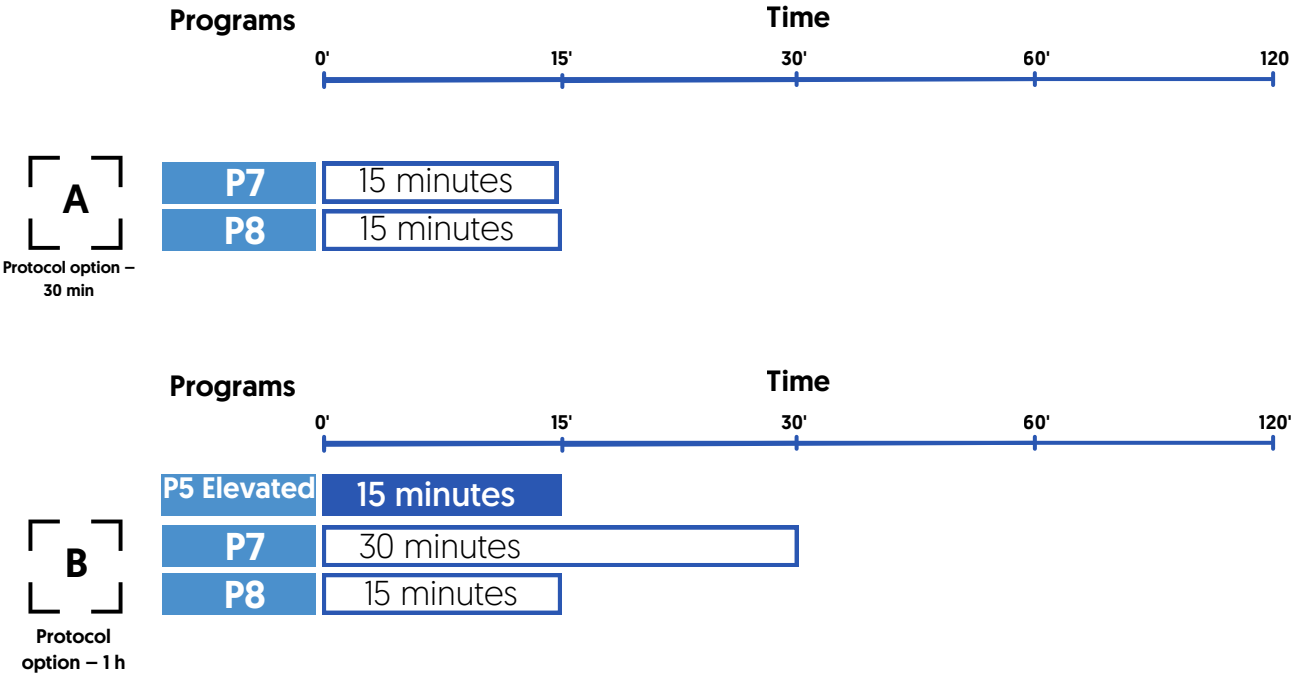


SIMULTANEOUS ACTIVE THERAPY FOR SPORTS MOVEMENT

In healthy patients without comorbidities, these isolated protocols may be applied during rehabilitation, physiotherapy, or physical conditioning without the need for preliminary sessions. The objective is to optimise both metabolic resources and mental focus in order to improve the effectiveness of motor control exercises, sports technique drills, and proprioceptive activities.

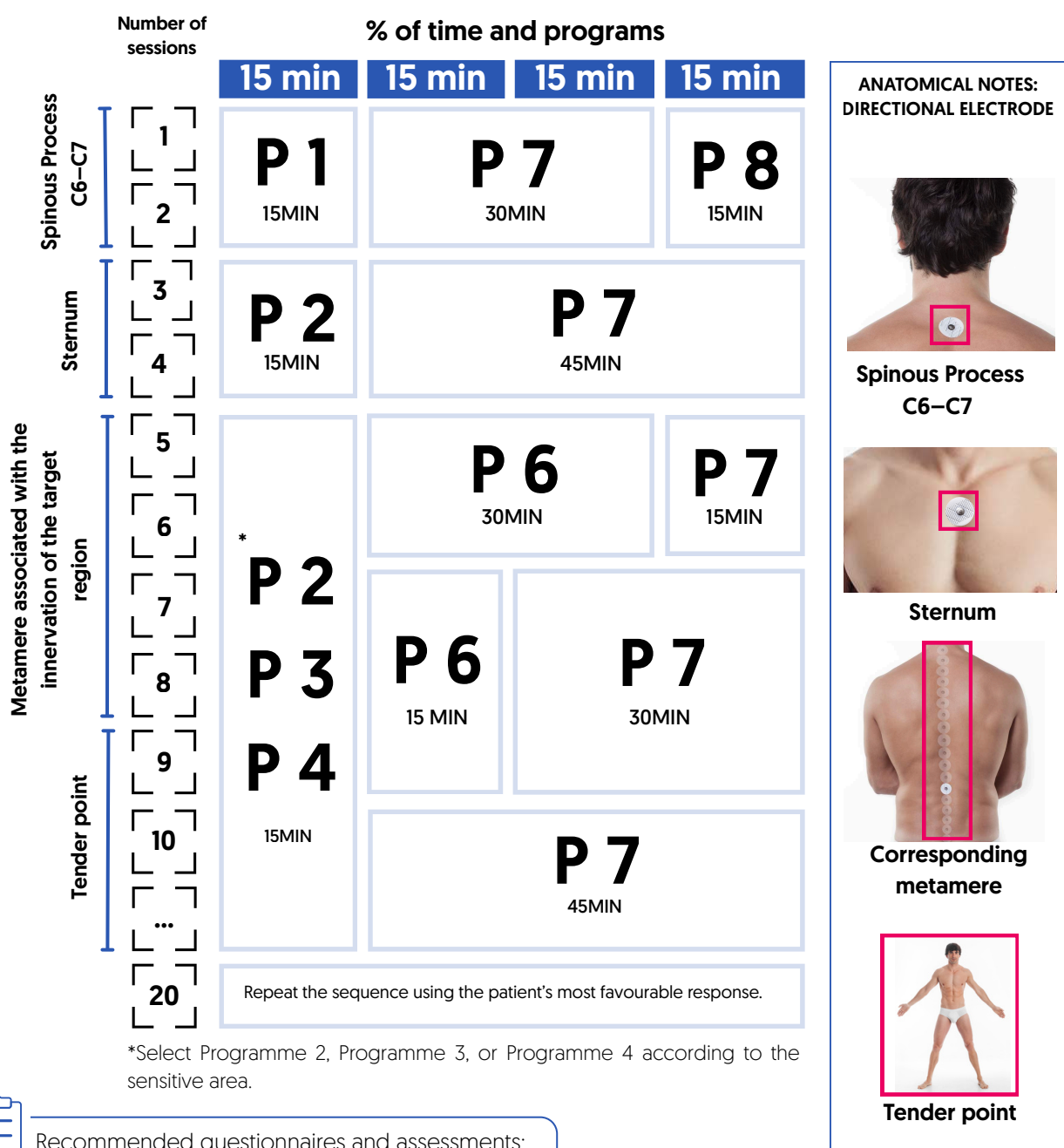
The device should be carried in a backpack that the patient can easily manage. Straps or tucking the cables through clothing should be used to ensure proper arrangement of the device for patient comfort. Users are reminded that electrodes must not be placed on the soles of the feet or the palms of the hands; accordingly, most exercises can be performed without difficulty.

The electrode should be positioned at C7.



REGENERATION OF CHRONIC TENDINOPATHIES

Depending on the mechanism of injury, the duration of the condition, and the patient's physiology, an affected tendon may either recover spontaneously or, conversely, evolve into a chronic disorder. Before administering NESA microcurrents for the treatment of tendinopathy, it is advisable to conduct a comprehensive medical history, rehabilitation and lifestyle assessment, together with an evaluation of muscle tone, appropriate load management, and, where feasible, an ultrasound examination to assess any visible tissue damage. If regenerative mechanisms prove insufficient, neuromodulation of the autonomic nervous system has shown efficacy in clinical observations, with favourable outcomes. Where tendon damage is confirmed, a medium- to long-term treatment plan [2–4 months] is required, with a frequency of three sessions per week. If the patient also experiences anxiety or sleep disturbances, priority should be given to tendon treatment.



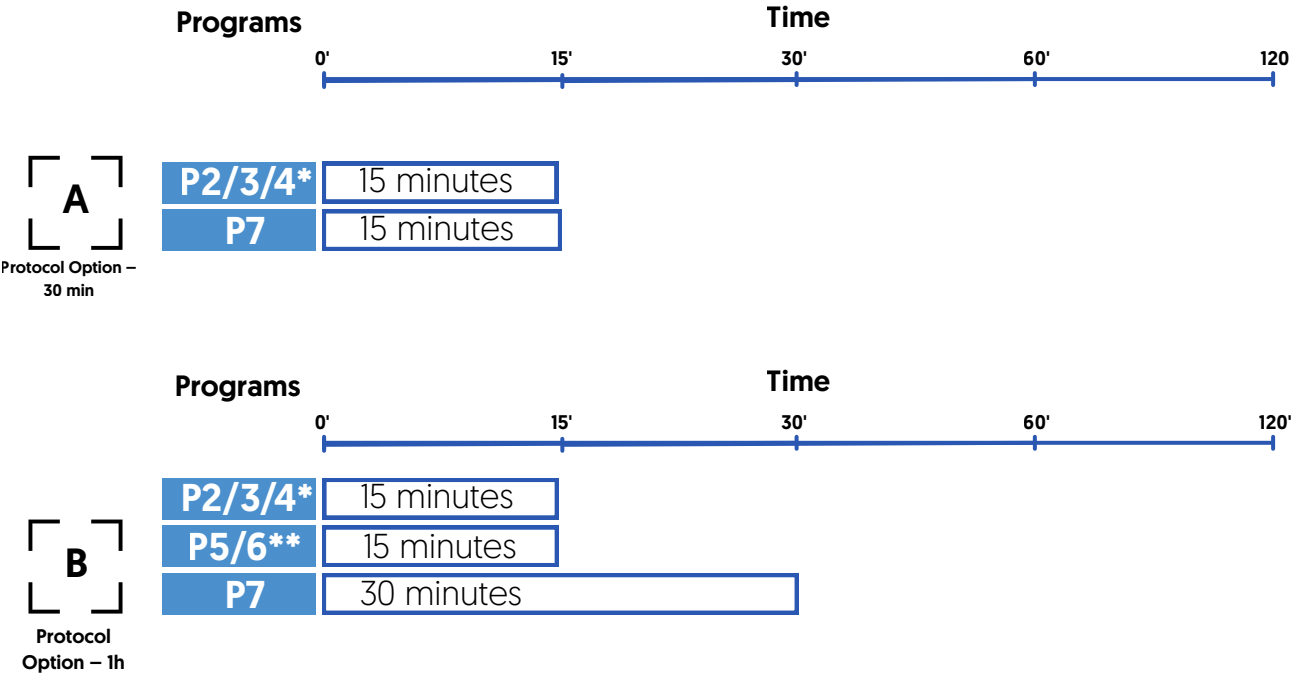
Recommended questionnaires and assessments:

- WeCardio
- Tendon Functionality Questionnaire
- Ultrasound – Doppler (Neovascularisation)

READAPTATION OF NON-SPECIFIC PAINFUL MOTIONS

This protocol outlines a programme for active rehabilitation, designed to alleviate low-intensity pain in specific, localised regions of non-specific origin. Clinical observations indicate improvement in mechanical pain, even in the absence of structural damage or dysfunction. It is recommended that NESA microcurrents be administered while the patient performs the movement that elicits pain. Short initial rest periods of a few minutes are advised, alternating with intervals of one to two minutes during which the painful movement is performed.

The electrode should be positioned locally, either at the site of pain or in close proximity. In patients with comorbidities, initial sessions are recommended prior to this treatment. The number of sessions required may range from 2 to 5, depending on the individual case. Once the patient shows improvement, the movement that was previously painful should be modified to maintain progress.

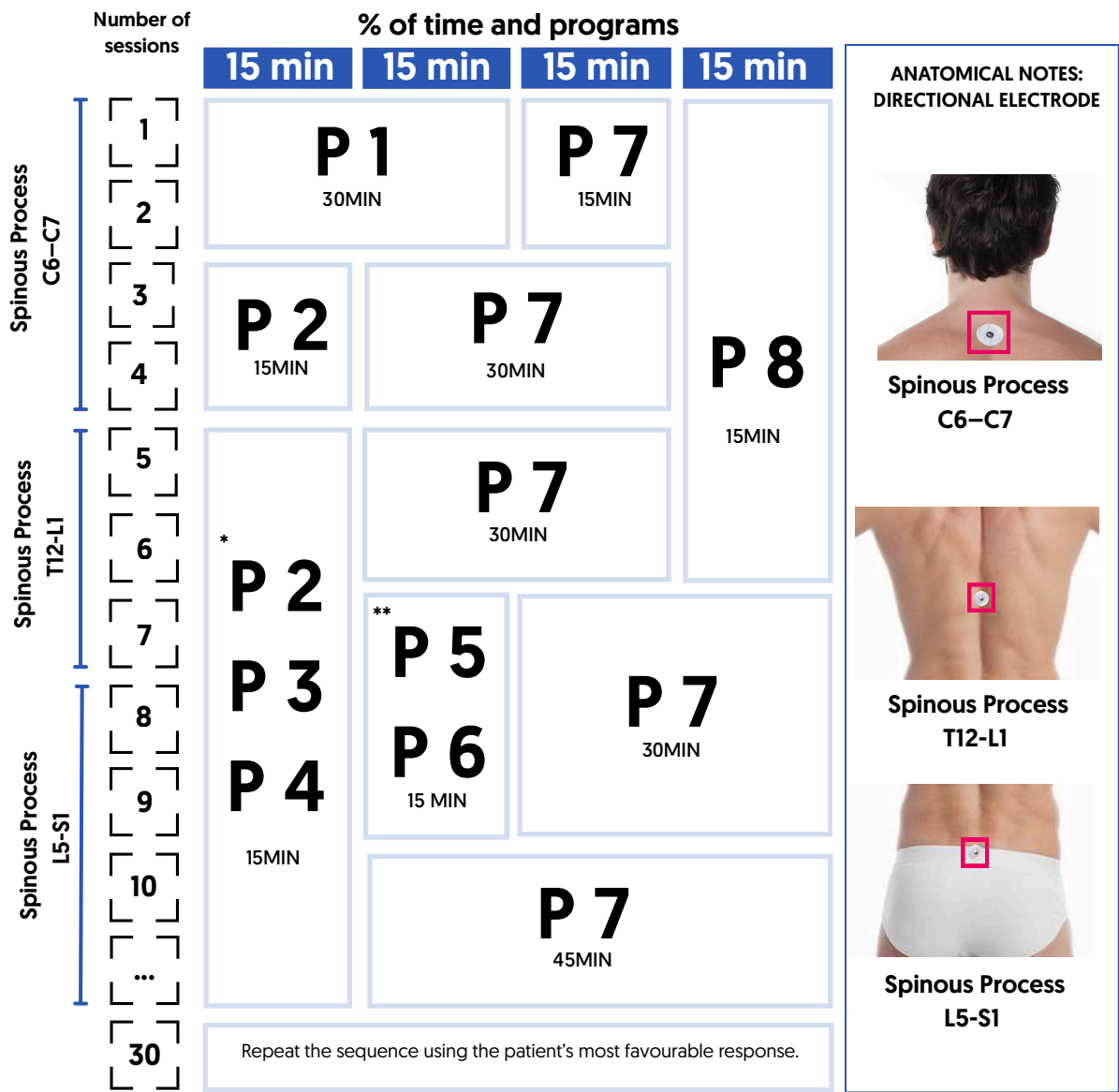


*Select according to the innervation of the painful region: P2 – Ventral, P3 – Dorsal, P4 – Sagittal. If the territory is not clearly delineated, these may be interchanged.

It is advisable to conduct an assessment to determine whether the pain is associated with muscle fatigue (P5) or with an inflammatory process or local sensitisation (P6).

PHANTOM LIMB SYNDROME (LOWER LIMB)

Phantom limb syndrome is prevalent among individuals who have experienced amputation. The sensation of feelings in the amputated limb significantly impacts their quality of life, particularly when accompanied by pain. The treatment provider should select programs 2, 3, or 4 based on the affected region. To identify the impacted area, it is necessary to inquire about the locations of greatest pain, irrespective of their current existence [we will address their pathway]. The recommended frequency of treatment is three times per week, with a total of 20 to 30 sessions depending on individual circumstances. A minimum of 10 cm of residual limb is crucial. The ankle brace should be substituted with a thigh brace.



Select according to the innervation of the painful region, even if it corresponds to the amputated area: P2 – Ventral, P3 – Dorsal, P4 – Sagittal. If the territory is not clearly delineated, these may be interchanged.

Incorporate P5 and P6 during this phase to determine whether the area requires adaptation [P5] or desensitisation [P6].



Recommended questionnaires and assessments:

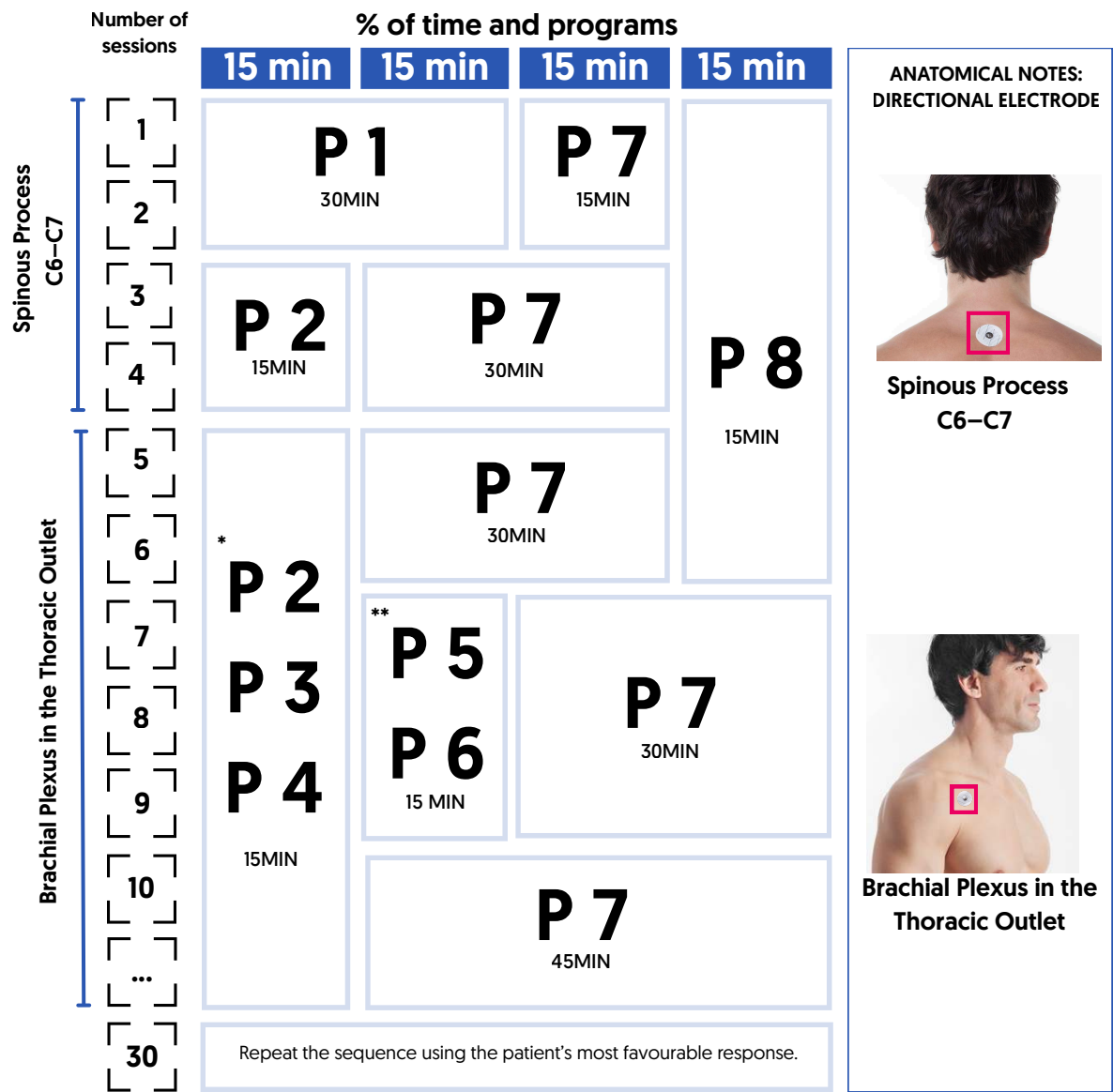
- WeCardio
- Pain Catastrophizing Scale (PCS)
- McGill



Thigh support for stump

PHANTOM LIMB SYNDROME (UPPER EXTREMITY)

Phantom limb syndrome is common among individuals who have undergone amputation. The perception of sensations in the amputated limb can significantly affect quality of life, particularly when accompanied by pain. The treatment provider should select Programmes 2, 3, or 4 according to the affected region. To identify the relevant area, it is necessary to ask the patient about the sites of greatest pain, irrespective of their current physical presence [the pathway will be addressed]. The recommended treatment frequency is three times per week, with a total of 20 to 30 sessions depending on individual circumstances. A minimum residual limb length of 10 cm is essential. The ankle brace should be replaced with a cuff.



Select according to the innervation of the painful region, even if it corresponds to the amputated area: P2 – Ventral, P3 – Dorsal, P4 – Sagittal. If the territory is not clearly delineated, these may be interchanged.

Incorporate Programmes P5 and P6 during this phase to determine whether the area requires adaptation [P5] or desensitisation [P6].



Recommended questionnaires and assessments:

- WeCardio
- Pain Catastrophizing Scale (PCS)
- McGill Pain



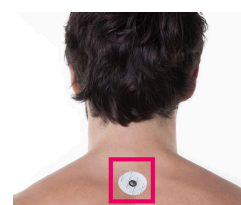
Residual Limb Sleeve

CHRONIC NON-SPECIFIC LOW BACK PAIN

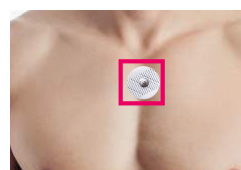
A comprehensive medical history, together with any additional tests required to confirm the diagnosis, is essential for initiating or referring the patient to appropriate treatment. Clinical observations indicate that in cases where the patient remains unresponsive to treatment, even after physiotherapy, NESA neuromodulation may serve as an effective alternative. The underlying causes may vary and are not necessarily localised, encompassing factors such as anxiety and visceral [intestinal] irradiation. The recommended frequency is three times per week, with a minimum of 20 sessions, and should ideally be complemented by exercise if this has not previously been undertaken.

		Number of sessions	% of time and programs			
			15 min	15 min	15 min	15 min
Spinous Process C6–C7	1		P 1 15MIN	P 3 15MIN	P 7 15MIN	P 8 15MIN
	2					
Sternum	3		P 2 15MIN	P 7 45MIN		
	4					
Superior Mesenteric	5		P 3 15MIN	P 7 45MIN		
	6					
Metamere or Zone of Discomfort	7		P 4 15MIN	P 5 15 MIN	P 7 30MIN	
	8					
	9		P 3 15MIN	P 6 30MIN		P 7 15MIN
	10					
	11		P 3 15MIN	P 7 45 MIN		
	...					
	20		Repeat the sequence using the patient's most favourable response.			

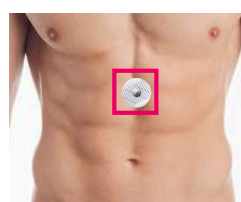
ANATOMICAL NOTES: DIRECTIONAL ELECTRODE



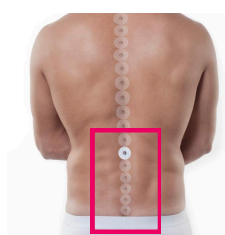
Spinous Process
C6–C7



Sternum



Superior
Mesenteric



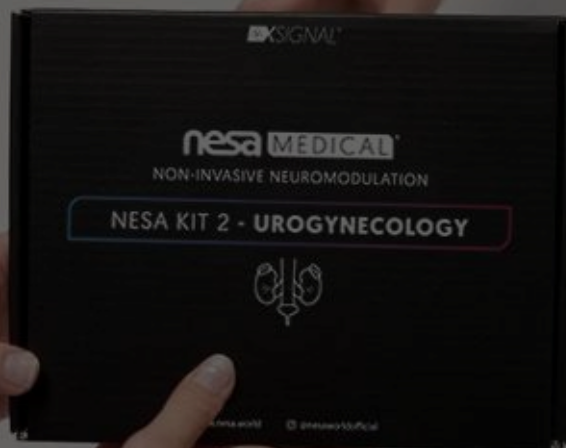
Metamere or
Zone of
Discomfort



Recommended questionnaires and assessments:

- WeCardio
- Lattinen Questionnaire (Chronic Pain)

PATIENT KITS



HOW SHOULD I USE THE KITS WITH THE PATIENT?

Objective: To standardise safety, enhance the patient experience, and improve outcomes, while facilitating compliance with the 2nd and 3rd bonus.

1. Assignment and Registration (Initial Visit)

- Provide the patient with a NESA® Kit (gloves and ankle braces) and document it in their medical record (the code/UDI may be recorded in the “treatment-associated material” field).
- Label the bag with the patient’s first and last name, the start date, and the “Single patient – multiple use [ISO 7000-3706]” symbol. This indicates that the bag must not be shared between patients and that repeated use is permitted solely for the same patient.

2. Education in 60 Seconds (Suggested Script)

- “This is your personal kit. It enhances hygiene, comfort, and consistency of stimulation. You will bring it to each session; this approach minimises cleaning time, optimises effective therapy duration, and ensures a uniform sensation with every use.”

3. Expedited Placement and Validation (Per Session)

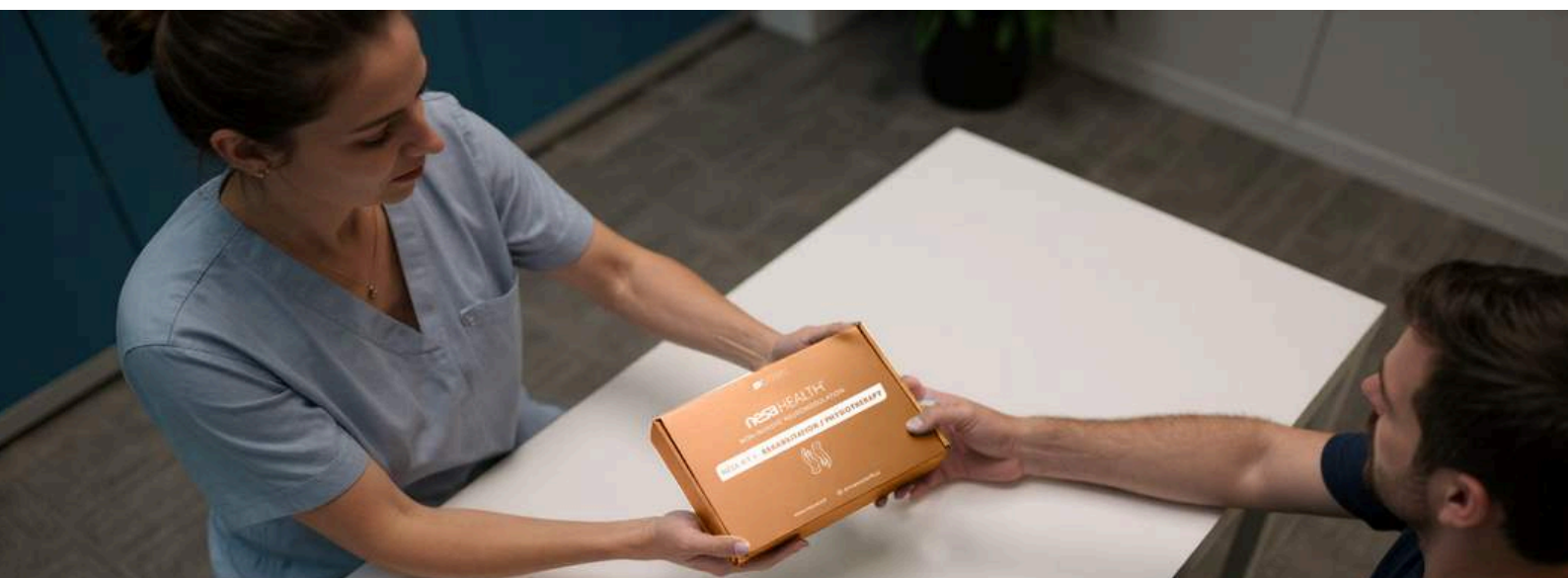
- Perform a skin assessment (no active wounds), adjust the glove/ankle brace, and evaluate moisture/conductivity in accordance with the device’s Instructions for Use.
- If there is an excess of cream or sweat, ensure the area is cleaned and dried to maintain consistent contact.
- Do not share the kit with another patient. If it is forgotten, follow the courtesy kit protocol (single-use or loaner with validated and documented reprocessing) or reschedule the session.

4. Conservation (Between Sessions of the Same Patient)

- Store the kit in the designated bag and inspect for signs of wear. If the material loses elasticity or comfort, replace it.

5. Value Communication (Every Two to Three Sessions)

- Reinforce perceived benefits: “Have you noticed that each session feels increasingly comfortable, with no alteration in sensation? This is due to your personal kit; it allows us to maintain the consistency of the stimulus.”



PATIENT BENEFITS

OF HAVING PERSONAL GLOVES AND ANKLE BRACES

Clinics and adherence

- Enhanced infection control: Prevents reuse between patients, thereby eliminating the need for complex reprocessing and additional validation. It complies with CDC guidelines, which stipulate that any reusable equipment must be cleaned and reprocessed before use on another patient. The implementation of a personal kit mitigates this operational risk.

Clinics and procedures

- Clinical time saved: Eliminates cleaning interruptions between patients, resulting in a more efficient and predictable workflow.
- Technical consistency: Maintaining the same fit and skin contact from session to session fosters a stable perception of the stimulus.
- Fewer incidents: Reduces friction and risk of cross-infection, improves treatment aesthetics, addresses hygiene concerns, and decreases complaints. It also strengthens traceability when the kit is documented in the patient's medical record.

Patient (experience and sentiment)

- Sense of safety and individualised care: "My kit = my health."
- Comfort [self-regulation] and confidence [privacy maintained].
- Active participation: By taking care of their kit, the patient becomes engaged and committed to the treatment plan.

Business (compliance and profitability)

- Immediate compliance and operational bonus: Providing the kit and ensuring a "zero-friction" experience during treatment.
- Enhanced conversion: Improves the perception of quality and consistency [increases satisfaction with the expected elements].
- Competitive differentiation: Positions the centre as a beneficiary of the patient's experience.



HOW AND WHEN TO INCORPORATE THE SESSION BONUS?

Indicative model (adjust according to your figures):

Incorporating the kit into the 10-session package extends explanation time by 0.5 to 1 minute during the initial visit, while reducing cleaning and preparation time by 3 to 5 minutes per session. Over 10 sessions, this results in a total time saving of 30 to 50 minutes in scheduling (equivalent to approximately 0.5 to 1 additional slot per package). If the billable hour is €60 or more, the time saved effectively offsets the cost of the kit while increasing capacity. Moreover, a 10–20% increase in renewals following the second package has a direct positive impact on lifetime value [LTV].

Rationale for incorporating the Individual Kit in the initial voucher (text prepared for your document)

1. Adherence to regulations and best practices

Complies with MDR [GSPR 10–11–23] and infection control guidelines, which mandate thorough reprocessing before reusable equipment is used on a different patient. Assigning a kit to an individual patient streamlines and reinforces compliance. [In Spain: refer to RD 192/2023, Chapter III].

2. Safety and hygiene in patient care

Reduces the risk of cross-contamination and hygiene-related issues, while enhancing patient confidence and acceptance of treatment from the first session. [CDC].

3. Ensuring the quality and consistency of the stimulus

By consistently using the same kit for the same patient, the fit and feel remain uniform, providing a more stable experience and improving the patient's perception of efficacy.

4. Distinction and allegiance

Personalised service, a perception of innovation, and a premium protocol foster renewals [second and third vouchers] as well as word-of-mouth recommendations.

How can I incorporate the kit into the treatment voucher price?

- Preferred Option [Straightforward and Effective]
- 10-session voucher, including the assessment session and kit.
- Automatic discount on the second and third vouchers (e.g., –X€, as the kit is already provided).
- Policy displayed at reception and included in the informed consent form: “A personal kit is included with your first voucher. Please bring your kit to each session.”

TEAM CHECKLIST

- ☐ Deliver and document the kit in the patient's medical record.
- ☐ Provide a 60-second explanation of use and care; the patient acknowledges understanding and confirms that it is personal.
- ☐ Ensure prompt placement and perform a skin check prior to each session.
- ☐ If the patient forgets to bring their kit, apply the documented courtesy protocol (no sharing).
- ☐ A discount or benefit is available on the second and third vouchers for bringing the kit.

REGULATIONS

MDR

CLICK



CDC (United States)

CLICK



EURO-Lex

CLICK



BOE (Spain)

CLICK



IMPORTANT LINKS

NESA® CAMPUS: <https://nesacamp.thinkific.com/>

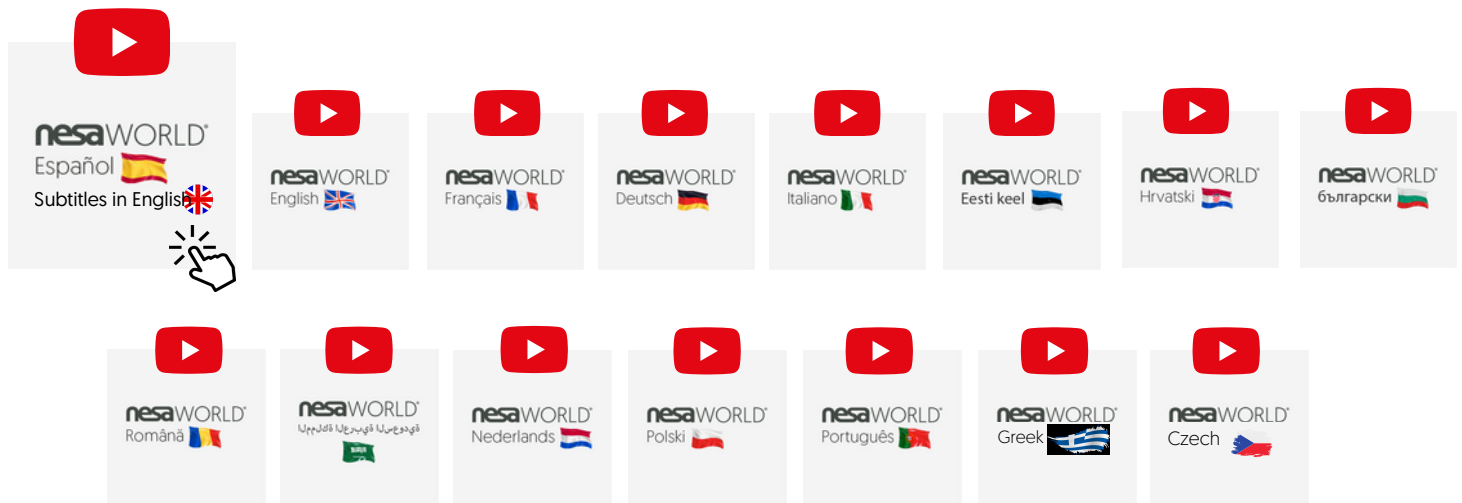


On Campus, you will find:

- SharePoint NESA®: provides all the documents, videos, and images required for daily use.
- NESA® Introductory Campus: designed to assist you in developing clinical reasoning with your patients, thereby supporting up to 70% of clinical outcomes.
- Clinical Guidelines Platform: featuring a search engine to access clinical reasoning for a variety of cases.
- Guide for Initiating Patient Engagement.
- Specialty-Specific Webinars and Clinical Reasoning.
- Monographic Training by Specialisation.
- Engagement with the Clinical Department and Customer Service.

If you are a NESAWORLD® customer and do not have your passwords, please request them from your distributor or directly from NESAWORLD®.

YOUTUBE CHANNELS



FAQs: Frequently Asked Questions and Responses

1. Technical FAQs — [CLICK HERE](#)
2. Physiology FAQs — [CLICK HERE](#)
3. Scientific Evidence FAQs — [CLICK HERE](#)
4. Clinical FAQs — [CLICK HERE](#)
5. Patient FAQs — [CLICK HERE](#)
6. Training and Events FAQs — [CLICK HERE](#)

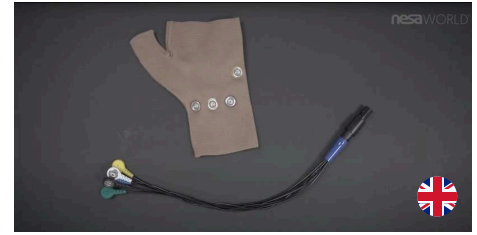
LINKS OF INTEREST



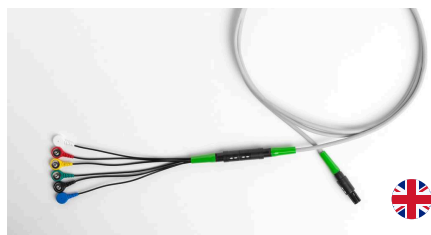
1. PROGRAMMING THE NESA X SIGNAL®
(Essential – 3 minutes)



2. HOW TO WEAR GLOVES AND ANKLE BRACES
(Important – 2 minutes)



3. HOW TO ADJUST GLOVE AND ANKLE BRACE SIZES



4. CABLE PLACEMENT PROCEDURES
(Important – 1 minute)



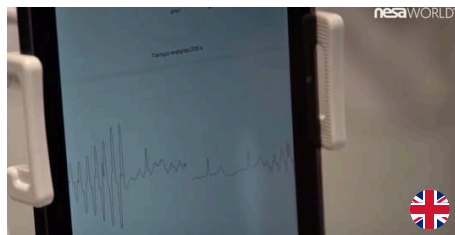
5. METHODS FOR SECURING CABLES DURING OPERATION (Important – 1 minute)



6. INSTRUCTIONS FOR USING THE INTERNATIONAL BATTERY CHARGER



HOW TO SUBMIT AN APPLICATION TO NESA®



HOW TO USE THE NESA X SIGNAL® AND THE WECARDIO ELECTROCARDIOGRAPH

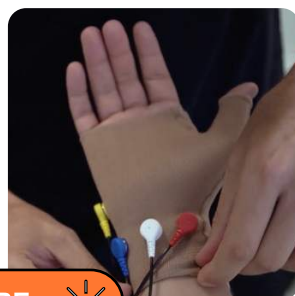
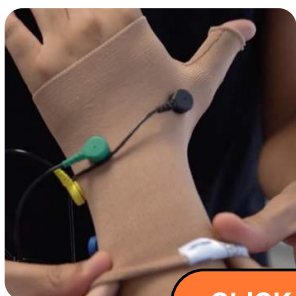


AM I ON THE CLINIC WEBSITE?

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