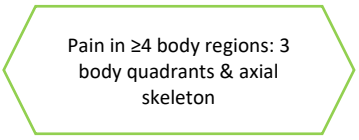
Classification Algorithm for the ICD-11 Chronic Pain Classification (CAL-CP)

What is the CAL-CP?

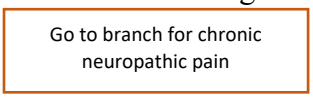
- The CAL-CP is a linear decision tree to guide through the ICD-11 diagnostic criteria of chronic pain.
- It was developed for pain specialists, practice, and research.
- It is based on the guidelines of the Society for Medical Decision Making Committee on Standardization of Clinical Algorithms (1992).
- The aim of the CAL-CP is to facilitate and standardize the classification process; we cannot guarantee that diagnoses are correct.
- In primary care and settings with limited resources, the initial decision trunk (p. 8) can be used as a stand-alone algorithm to find a diagnosis on the first diagnostic level.
- In specialty settings, such as multimodal pain treatment, using the full version of the algorithm is strongly recommended.
- The neuropathic pain grading scheme (Finnerup et al., 2016) has been incorporated in the branches for chronic neuropathic pain.
- The algorithm does not aim at finding an underlying disease that causes the pain, but which has not yet been diagnosed.
    - Instead: Find the chronic pain code that goes with a known underlying disease if the pain is not of a primary nature.
    - Does this patient show any symptoms suggestive of an underlying disease that has not been diagnosed previously? Please assess these red flags as you would usually do in your field of expertise. Avoid unnecessary testing.
    - If you suspect that an underlying, not yet diagnosed disease is present and causes the pain (e.g., rheumatoid arthritis, cancer), please take the appropriate diagnostic steps. Go back to the algorithm after that diagnostic process.
- If the criteria require that a diagnostic test confirms an underlying disease, you can refer to existing test results from your medical records if you judge them to be conclusive.
- This algorithm is not applicable for chronic headache or orofacial pain (neither primary nor secondary). When a patient presents with chronic headache, please refer to the 3rd edition of the International Classification of Headache Diseases (ICHD-3, IHS, 2018) for diagnostic criteria. When a patient presents with chronic orofacial pain, please refer to the International Classification of Orofacial Pain (ICOP, 2020) for diagnostic criteria. In both instances, you will also need to refer to the ICD-11 Coding Tool in order to find the corresponding ICD-11 code.
- In the case of chronic secondary pain, you will need to use the ICD-11 Coding Tool to find the diagnostic code for the underlying disease(s).
- To learn more about the ICD-11, go to the ICD-11 website or to the ICD-11 Reference Guide.

Structure of the CAL-CP

- The algorithm consists of a linear decision tree with several branches and an initial decision trunk.
- There are different forms of boxes:
  - Decision box (hexagon): This box requires you to make a diagnostic decision, i.e., judge whether a diagnostic criterion is present or absent. A yes or no arrow leads you to the following box.

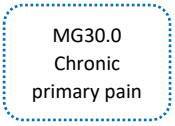


  - Action box (rectangle): This box informs you to take a certain action, e.g., continue with a different branch of the algorithm

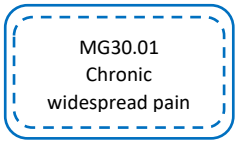


  - Diagnosis box (rectangle, rounded corners): Whenever you arrive at a diagnosis, this box also gives the respective ICD-11 code. Different lines (continuous line vs. dotted line) indicate different levels of diagnostic granularity (levels 1 to 4). Whenever possible, you should arrive at box with a continuous line in a specialty setting (level 3 diagnosis or level 4 in rare cases). A continuous line (example on the left side) indicates the diagnosis with most detail (level 3 or level 4 where applicable). A dashed line indicates a diagnosis that is slightly less specific (example on the right side, level 2). You will find instructions on whether you need to continue to the next level in the comment for each diagnosis box. Hyperlinks will also guide you to the next relevant branch.

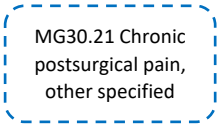
You can assign a code that is in a box with a dotted line as well, but this code is less specific (level 1) and should only be used in primary care settings and settings with fewer resources:



  - Some boxes have two lines. Here, the diagnosis on the next level applies to only some patients. You may stop at the double lined box, even if it is a level 2 diagnosis. Decide whether you need to continue to the next level on an individual basis.



- All level 3 diagnoses share the level 2 diagnostic code, but also have an individual uniform resource identifier (Foundation ID) to distinguish them further. This is due to the "diagnostic shoreline" of the ICD-11: Diagnoses are assigned on the 6-digit level (e.g., MG 30.21 Chronic postsurgical pain). Diagnoses that are more specific are part of the so-called ICD-11 Foundation layer and are summarized under the 6-digit code. For example: Chronic pain after herniotomy has the diagnostic code MG30.21, and the Foundation ID 10263346. In the CAL-CP, Foundation IDs are listed as "ID" in all level 3 and level 4 diagnosis boxes (see example box above).
- Chronic pain syndromes that do not have a specific Foundation ID may still be classified as a level 2 diagnosis, for example, MG30.21 Chronic postsurgical pain also applies to chronic pain after Caesarean section. Therefore, you will find the level 2 diagnosis box again after going through a branch with level 3 diagnoses. For a better overview, these boxes are called "other specified" (e.g., MG30.21 Chronic postsurgical pain, other specified). Please note that this supplement "other specified" has not been entered in the ICD-11 Browser (there, you will find only MG30.21 Chronic postsurgical pain). For example:



- **All boxes are numbered.** Some boxes have comments (e.g., diagnostic tests you may use, or specifications of symptoms). If boxes have comments, their numbers also serve as footnotes to the respective comments. You find all comments below the respective branch or on the next page. **It is essential that you always check whether a box has a comment that goes with it. Here, you will find page references and instructions on where to continue.**
- The **Appendix gives an exemplary list of diseases** that may be associated with chronic secondary pain (p. 41). This list also indicates which category of chronic pain may be associated with it (e.g., chronic secondary musculoskeletal pain from persistent inflammation due to rheumatoid arthritis). Refer to this list if you are unsure what form of chronic pain may be caused by a given disease. The algorithm also specifies cases in which you can refer to this list. Please note: chronic pain is not automatically associated with a given underlying disease. You still need to go through the algorithm if a disease (e.g., rheumatoid arthritis or cancer) is present. This is to make sure that the diagnostic criteria for the respective chronic pain condition are met.

Procedure

1. Go through the introduction form (p. 6–7) with the patient to assess **red flags**, to code the **chronic pain specifiers**, and to go through the **pain location chart**.
    - If a patient has several chronic pain conditions (e.g., chronic back pain and chronic abdominal pain): assess the specifiers separately for each chronic pain condition, if possible.
    - If the head or the orofacial region is highlighted: refer to the ICHD-3, the ICOP, and the ICD-11 as outlined above.

2. The decision tree begins with an **initial decision trunk** (p. 8), covering all categories of chronic pain on the first diagnostic level.
    - Highlight all categories you will need to assess further with an X and begin with the first one.
    - If red flags for chronic secondary pain are present, you will start with the respective chronic secondary pain branch. Please refer to the initial decision trunk for page numbers. Hyperlinks are given as well.
    - If no red flags are present, and if the pain is not better accounted for by a chronic secondary pain diagnosis, you will begin with the branch for chronic primary pain.
3. Generally:
    - Check for each diagnostic criterion if it is met and follow the respective arrow (yes: the criterion is met vs. no: the criterion is not met).
    - **Each time you arrive at a diagnosis box, you need to decide whether all chronic pain has been accounted for.**
        - Go back to the pain location chart on page 7 and the initial decision trunk on page 8 to check whether you need to go through the algorithm for another form of chronic pain.
        - **This also applies if you want to assign a diagnosis on level 2 without continuing to the next diagnostic level.**
        - For diagnoses on the final level of the classification the following sign will remind you to go back: ↻
    - Hyperlinks have been implemented to facilitate navigating through the different branches of the decision tree (blue underlined text indicates a hyperlink). In addition, all page references are listed in the comments of a given box if applicable.
    - In the case of chronic secondary pain, you need to assign a diagnostic code for the underlying disease as well. Go to the ICD-11 Coding Tool to assign the applicable diagnostic code.
    - For some level 3 diagnoses, the new ICD-11 concept of **double parenting** applies. This means that a diagnosis can be conceptualized as belonging to two (or more) of the seven main chronic pain categories. These entities always have only one diagnostic code. For example: MG30.50 Chronic central neuropathic pain associated with spinal cord injury (ID869493945) has as parents MG30.50 Chronic central neuropathic pain as well as MG30.20 Chronic post traumatic pain. You will arrive at the correct diagnosis regardless if you choose to use the branch for chronic post traumatic pain or the branch for chronic neuropathic pain. The comment of the diagnosis box will state the second parent of a given diagnosis where applicable.
4. Other vs. unspecified chronic pain:
    - In the branches for level 2 diagnoses, you will find the distinction between other specified chronic pain and chronic pain unspecified. These are residual categories for chronic pain conditions that meet the criteria of the main chronic pain category, but that do not fit any of the subcategories. You will find

specific examples in the comments of each “other specified” box. Select “other specified” in instances where you can identify a specific form of chronic pain (e.g., rare cases of chronic neuropathic pain that are both central and peripheral). If the information available at time of diagnosis is very unspecific, if information is missing to assign a specific diagnosis, or if the criteria of more specific sub-levels are not met, please choose “unspecified”. You may also assign an unspecified diagnosis if you are not sure which specific chronic pain diagnosis applies to a patient.

References

Finnerup, NB; Haroutnunian, S; Kamerman, P; Baron, R; Bennett, DLH; Bouhassira, D; Cruccu, G; Freeman, R; Hansson, P; Nurmikko, T; Raja, SN; Rice, ASC; Serra, J; Smith, BH; Treede, RD; Jensen T, Finnerup NB, Haroutounian S, Kamerman P, Baron R, Bennett DLH, Bouhassira D, Cruccu G, Freeman R, Hansson P, Nurmikko T, Raja SN, Rice ASC, Serra J, Smith BH, Treede RD, Jensen TS. Neuropathic pain: an updated grading system for research and clinical practice. PAIN 2016;157:1599–1606. http://dx.doi.org/10.1097/j.pain.0000000000000492

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International Classification of Orofacial Pain, 1st edition (ICOP). Cephalalgia 2020;40:129–221. https://doi.org/10.1177/0333102419893823

Society for Medical Decision Making Committee on Standardization of Clinical Algorithms. Proposal for Clinical Algorithm Standards. Med Decis Mak 1992;38:149–154. https://doi.org/10.1177/0272989X9201200208

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World Health Organization. ICD-11 Maintenance Platform. 2019. Available: https://icd.who.int/dev11/l-m/en. Accessed 21 Sep 2019.

World Health Organization. ICD-11. The global standard for diagnostic health information, Available: https://icd.who.int/en. Accessed 21 Sep 2020.

World Health Organization. ICD-11 Reference Guide. 2019. Available: https://icd.who.int/icd11refguide/en/index.html. Accessed 21 Sep 2020.

CAL-CP – Introduction Form

Before you begin: Does this patient show any symptoms suggestive of an underlying disease that has not been diagnosed previously? Please assess these red flags as you would usually do in your field of expertise and decide whether further diagnostic processes or referral are necessary.

1. **Chronic Pain Specifier**

Note: If the patient presents with several forms of chronic pain, please assess the chronic pain specifier separately for each chronic pain condition.

a. When did the pain begin? (month/year):

_____ / _____

Note: Pain must have been present for longer than 3 months to be considered as chronic!

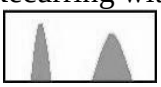
b. Ask the patient to rate his or her average pain intensity over last week:

0	1	2	3	4	5	6	7	8	9	10
No pain										Worst pain imaginable

c. Ask the patient to describe the temporal pattern of the pain over time:

- Persistent

- Recurring with pain-free intervals



- Persistent with overlapping pain attacks

d. Pain-related distress: Ask the patient to rate his or her average pain-related distress over the last week on the following scale (for example, how much it has caused worries, a sense of helplessness, low self-esteem, or anger):

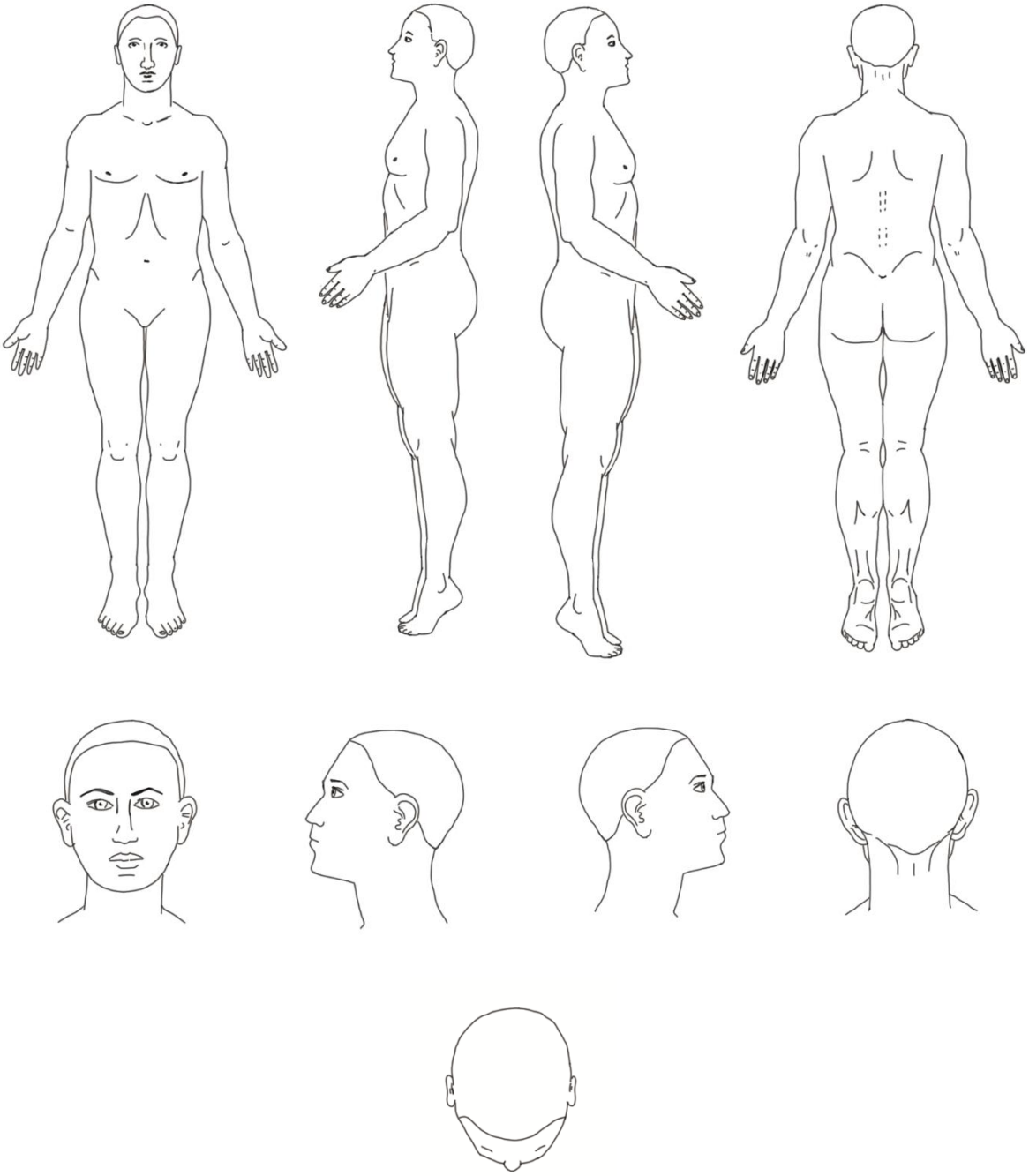
0	1	2	3	4	5	6	7	8	9	10
No pain-related distress										Extreme pain-related distress

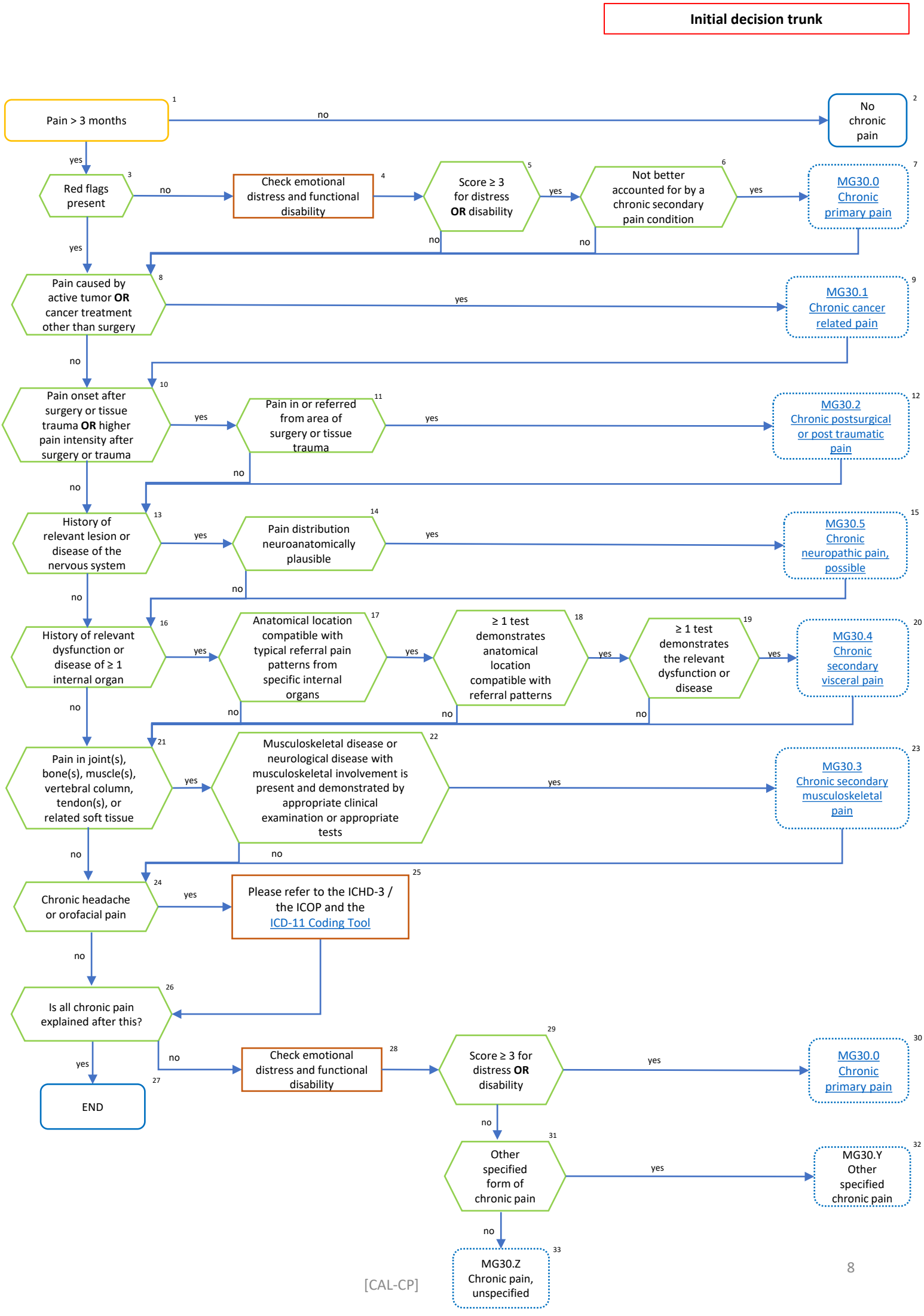
e. Pain-related interference: Ask the patient to rate his or her average pain-related interference in daily activities over the last week (for example, regarding work, school, household duties, exercise, or sleep):

0	1	2	3	4	5	6	7	8	9	10
No interference										Unable to to carry on activities

2. Pain location chart

Note: Review the pain location chart together with the patient and ensure that no location of chronic pain is missing. Only go to the relevant sections of the algorithm.




Initial decision trunk
1
Pain > 3 months
no
2
No chronic pain
yes
3
Red flags present
no
4
Check emotional distress and functional disability
5
Score ≥ 3 for distress OR disability
yes
6
Not better accounted for by a chronic secondary pain condition
yes
7
MG30.0 Chronic primary pain
yes
no
no
8
Pain caused by active tumor OR cancer treatment other than surgery
yes
9
MG30.1 Chronic cancer related pain
no
10
Pain onset after surgery or tissue trauma OR higher pain intensity after surgery or trauma
yes
11
Pain in or referred from area of surgery or tissue trauma
yes
12
MG30.2 Chronic postsurgical or post traumatic pain
no
no
13
History of relevant lesion or disease of the nervous system
yes
14
Pain distribution neuroanatomically plausible
yes
15
MG30.5 Chronic neuropathic pain, possible
no
no
16
History of relevant dysfunction or disease of ≥ 1 internal organ
yes
17
Anatomical location compatible with typical referral pain patterns from specific internal organs
yes
18
≥ 1 test demonstrates anatomical location compatible with referral patterns
yes
19
≥ 1 test demonstrates the relevant dysfunction or disease
yes
20
MG30.4 Chronic secondary visceral pain
no
no
no
21
Pain in joint(s), bone(s), muscle(s), vertebral column, tendon(s), or related soft tissue
yes
22
Musculoskeletal disease or neurological disease with musculoskeletal involvement is present and demonstrated by appropriate clinical examination or appropriate tests
yes
23
MG30.3 Chronic secondary musculoskeletal pain
no
no
24
Chronic headache or orofacial pain
yes
25
Please refer to the ICHD-3 / the ICOP and the ICD-11 Coding Tool
no
26
Is all chronic pain explained after this?
yes
27
END
no
28
Check emotional distress and functional disability
29
Score ≥ 3 for distress OR disability
yes
30
MG30.0 Chronic primary pain
no
31
Other specified form of chronic pain
yes
32
MG30.Y Other specified chronic pain
no
33
MG30.Z Chronic pain, unspecified

[3] Yes, if the patient has a history of any of the following: history of cancer or cancer treatment, pain began or intensified after a surgery or trauma, history of a disease or lesion of the central or peripheral nervous system, history of inflammatory disease of one or more internal organs, history of alterations of arterial or venous blood vessels from or to internal organs, history of mechanical factors affecting one or more internal organs, history of inflammatory musculoskeletal disease, history of structural changes of the musculoskeletal system, history of a neurological disease that may affect the musculoskeletal system.

[4, 28] Check NRS on page 6. Pain-related emotional distress and pain-related interference should be assessed in all patients with chronic pain, chronic primary pain as well as chronic secondary pain. The ratings can be converted into the WHO severity scheme and can be coded as an extension code. However, in chronic primary pain, the presence of emotional distress or functional disability also is a diagnostic criterion, and thus represents a prerequisite to assign this diagnosis.

[7, 30] Continue on page 10. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

[7, 9, 12, 15, 20, 23, 30, 32, 33] Only if you are assigning a diagnosis on this first diagnostic level: Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[8] If the chronic pain began after cancer surgery, it should be coded as chronic postsurgical or post traumatic pain, continue with box 10.

[9] Continue on page 16. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

[12] Continue on page 21. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

[13] History of lesion or disease of the peripheral or central somatosensory nervous system, for example: polyneuropathy, nerve injury, stroke (see Appendix on page 41 for a list of examples).

[15] Continue on page 27. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

[16] History of inflammatory disease of one or more internal organs or history of alterations of arterial and/or venous blood vessels from or to internal organs, or history of mechanical factors affecting one or more internal organs. For example: Morbus Crohn, sickle cell disease, stenosis (see Appendix on page 41 for a list of examples).

[19] For example: blood sampling, ultrasound.

[20] Continue on page 32. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

[21] The pain may be spontaneous or movement induced.

[22] At least one of the following is fulfilled:

a) Musculoskeletal disease with inflammation due to infection, auto-immunity, auto-inflammation, or metabolic disorders (crystals) is present (demonstrated by appropriate clinical examination or appropriate tests) and causes the local activation of nociceptors.

b) Musculoskeletal disease with structural/biomechanical factors (demonstrated by appropriate clinical examination or appropriate tests) is present and causes the local activation of nociceptors.

c) Neurological disease (classified elsewhere) is present, and causes altered biomechanical function (demonstrated by appropriate clinical examination or appropriate tests) that is responsible for the activation of nociceptors.

See Appendix (page 41) for examples of relevant diseases.

Examples for diagnostic tests include, e.g., blood tests for systemic inflammation, X-ray, uric acid.

[23] Continue on page 37. This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

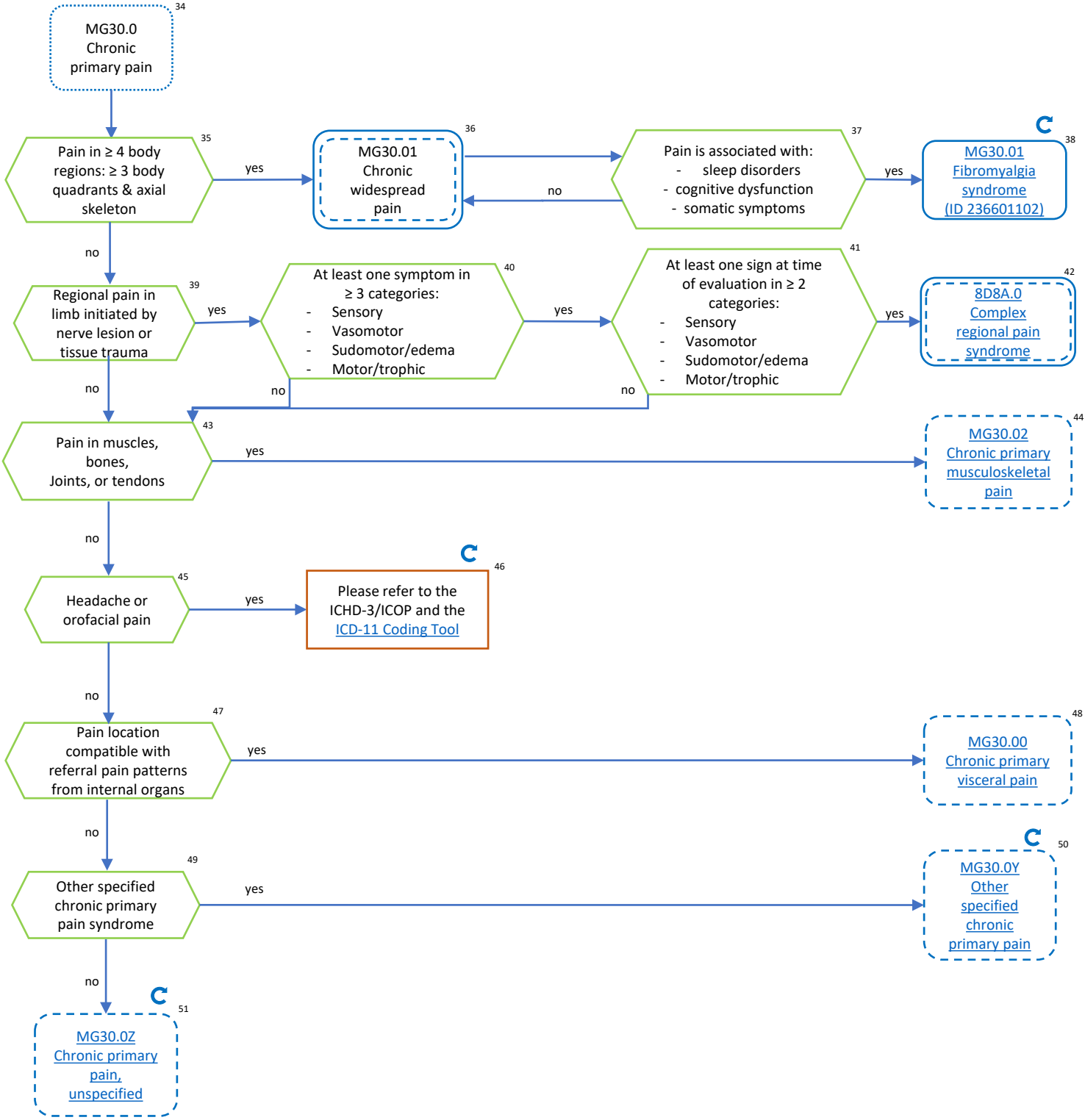
[25] Headache Classification Committee of the International Headache Society (IHS). The International Classification of Headache Disorders, 3rd edition (ICHD-3). Cephalalgia 2018;38:1–211. https://doi.org/10.1177/0333102417738202

International Classification of Orofacial Pain, 1st edition (ICOP). Cephalalgia 2020;40:129–221. https://doi.org/10.1177/0333102419893823

World Health Organization. ICD-11 Coding Tool. Mortality and Morbidity Statistics (MMS) 2020-09. Available at: https://icd.who.int/ct11/icd11_mms/en/release

On a general level, the following diagnoses for chronic primary and secondary headache or orofacial pain are available in the ICD-11: MG30.03 Chronic primary headache or orofacial pain, MG30.6 Chronic secondary headache or orofacial pain

[31] For example: chronic pain associated with a disease of the skin.


34
MG30.0 Chronic primary pain
35
Pain in ≥ 4 body regions: ≥ 3 body quadrants & axial skeleton
yes
36
MG30.01 Chronic widespread pain
37
Pain is associated with:
- sleep disorders
- cognitive dysfunction
- somatic symptoms
yes
38
MG30.01 Fibromyalgia syndrome (ID 236601102)
no
no
39
Regional pain in limb initiated by nerve lesion or tissue trauma
yes
40
At least one symptom in ≥ 3 categories:
- Sensory
- Vasomotor
- Sudomotor/edema
- Motor/trophic
yes
41
At least one sign at time of evaluation in ≥ 2 categories:
- Sensory
- Vasomotor
- Sudomotor/edema
- Motor/trophic
yes
42
8D8A.0 Complex regional pain syndrome
no
no
no
43
Pain in muscles, bones, Joints, or tendons
yes
44
MG30.02 Chronic primary musculoskeletal pain
no
45
Headache or orofacial pain
yes
46
Please refer to the ICHD-3/ICOP and the ICD-11 Coding Tool
no
47
Pain location compatible with referral pain patterns from internal organs
yes
48
MG30.00 Chronic primary visceral pain
no
49
Other specified chronic primary pain syndrome
yes
50
MG30.0Y Other specified chronic primary pain
no
51
MG30.0Z Chronic primary pain, unspecified

[35] Body quadrants are defined by upper-lower/left-right side of the body; axial skeleton: neck, back, chest, and abdomen.

[36] This is the second diagnostic level. Decide whether you need to continue to the next level.

[40, 41] – Sensory signs and symptoms: hyperalgesia (to pinprick) and/or allodynia (to light touch or deep somatic pressure, or joint movement)

- Vasomotor symptoms: temperature asymmetry and/or skin color changes and/or asymmetry

- Sudomotor/edema: edema and/or sweating changes and/or sweating asymmetry

- Motor/trophic symptoms: decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nails, skin)

These signs and symptoms are consistent with the established CRPS Budapest criteria, see:

Bruehl S, Harden NR, Galer BS, Saltz S, Bertram M, Backonja M, Gayles R, Rudin N, Bhugra MK, Stanton-Hicks M. External validation of IASP diagnostic criteria for Complex Regional Pain Syndrome and proposed research diagnostic criteria. PAIN 1999;81:147–154. https://doi.org/ 10.1016/s0304-3959(99)00011-1

[42] Decide whether you need to continue. If yes, continue on page 12. This diagnosis has two parents: MG30.0 Chronic primary pain, MG30.2 Chronic postsurgical or post traumatic pain. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

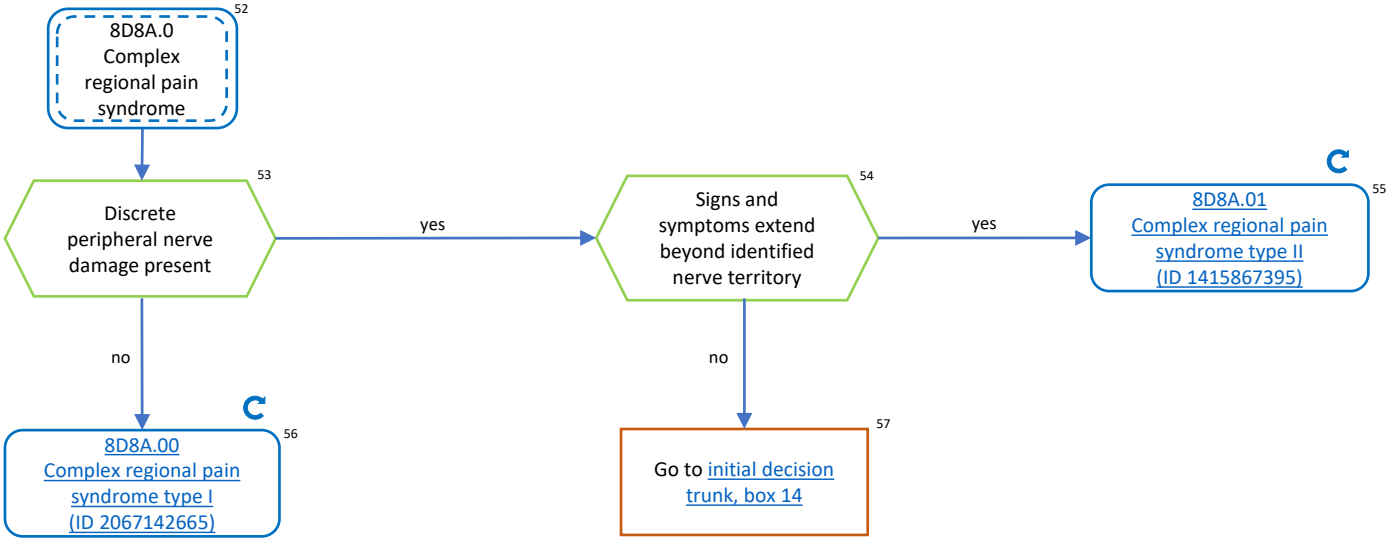
[44] Continue on page 13. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[46] Coding Tool available at https://icd.who.int/ct11/icd11_mms/en/release

[47] The referral pain pattern should be demonstrated by at least one test.

[48] Continue on page 14. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[38, 46, 50, 51] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

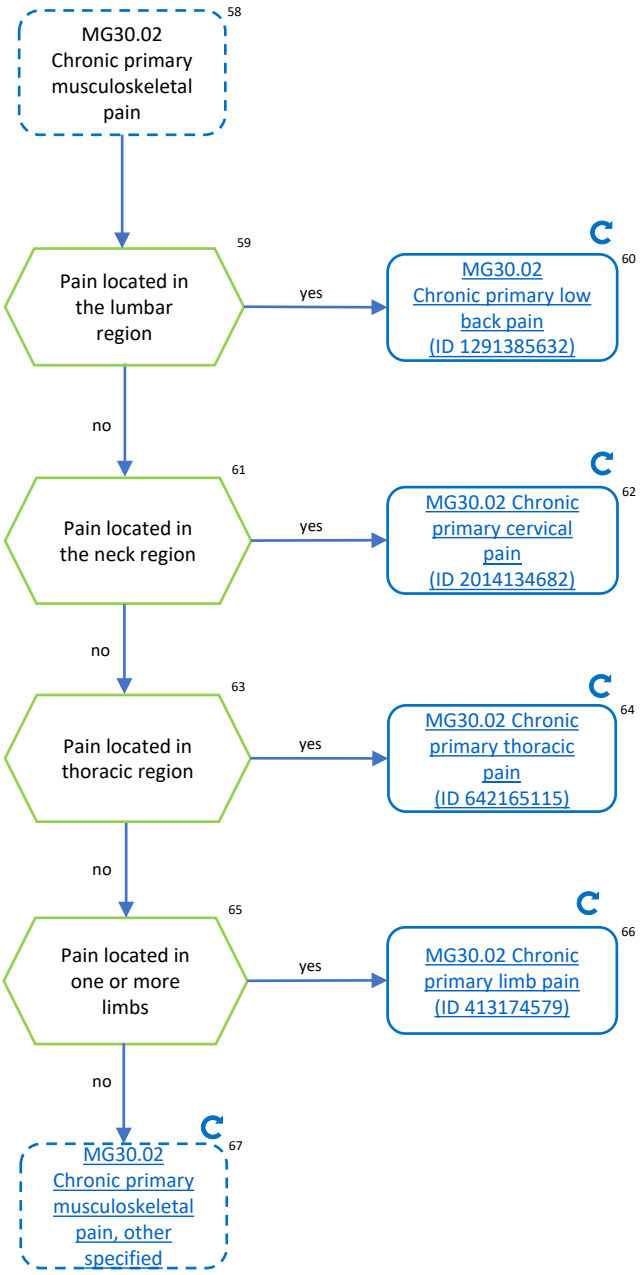


[53] As indicated by neurological examination, electrodiagostic testing, or quasi-objective testing

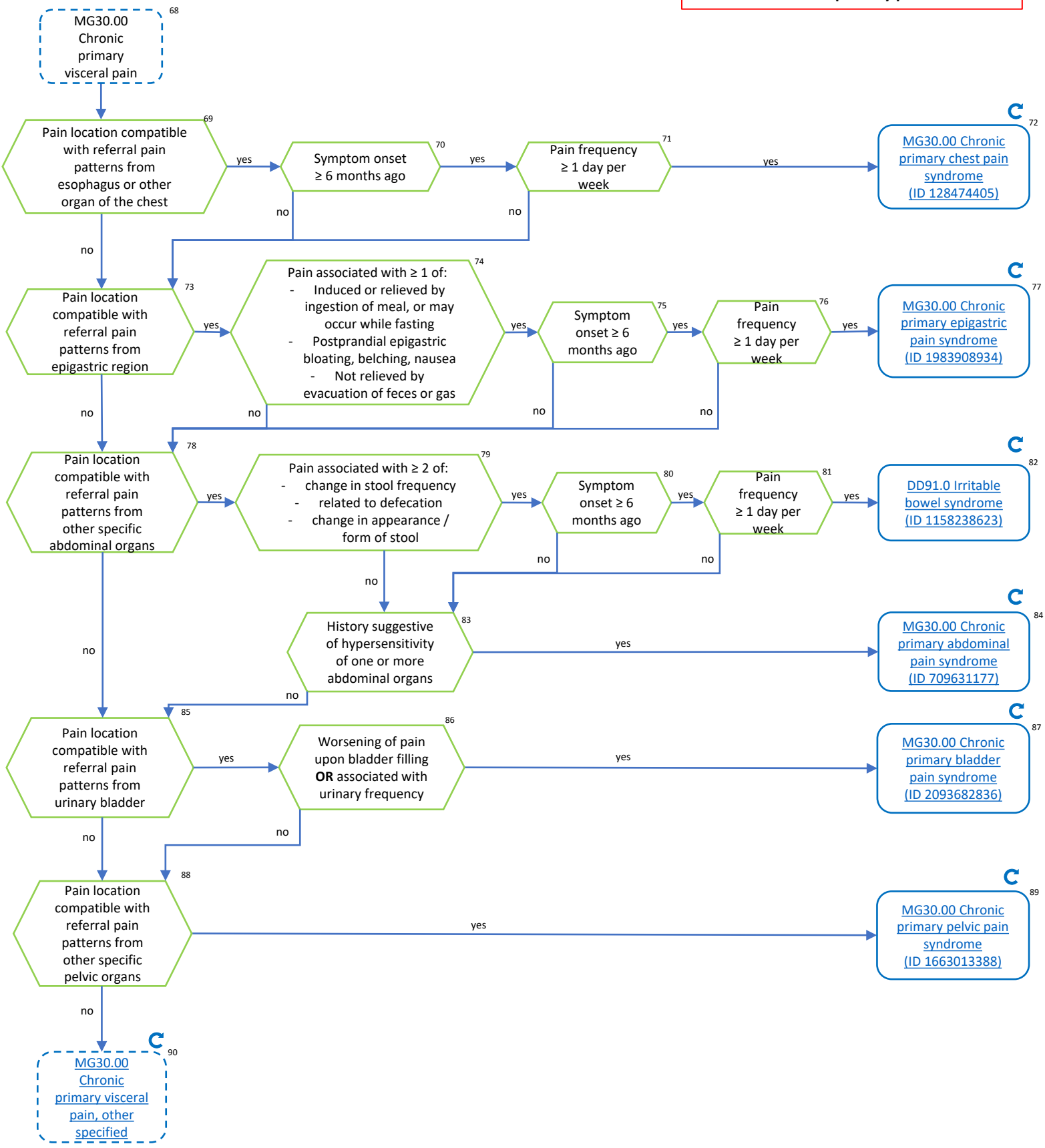
[55, 56] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue. These diagnoses have two parents: MG30.0 Chronic primary pain, MG30.2 Chronic postsurgical or post traumatic pain.

[54] See boxes 36 and 37 on page 10 for the signs and symptoms

[57] Continue on page 8, box 14.



[60, 62, 64, 66, 67] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.


MG30.00 Chronic primary visceral pain
68
Pain location compatible with referral pain patterns from esophagus or other organ of the chest
69
yes
Symptom onset ≥ 6 months ago
70
yes
Pain frequency ≥ 1 day per week
71
yes
MG30.00 Chronic primary chest pain syndrome (ID 128474405)
72
no
no
no
Pain location compatible with referral pain patterns from epigastric region
73
yes
Pain associated with ≥ 1 of:
- Induced or relieved by ingestion of meal, or may occur while fasting
- Postprandial epigastric bloating, belching, nausea
- Not relieved by evacuation of feces or gas
74
yes
Symptom onset ≥ 6 months ago
75
yes
Pain frequency ≥ 1 day per week
76
yes
MG30.00 Chronic primary epigastric pain syndrome (ID 1983908934)
77
no
no
no
no
Pain location compatible with referral pain patterns from other specific abdominal organs
78
yes
Pain associated with ≥ 2 of:
- change in stool frequency
- related to defecation
- change in appearance / form of stool
79
yes
Symptom onset ≥ 6 months ago
80
yes
Pain frequency ≥ 1 day per week
81
yes
DD91.0 Irritable bowel syndrome (ID 1158238623)
82
no
no
no
History suggestive of hypersensitivity of one or more abdominal organs
83
yes
MG30.00 Chronic primary abdominal pain syndrome (ID 709631177)
84
no
Pain location compatible with referral pain patterns from urinary bladder
85
yes
Worsening of pain upon bladder filling OR associated with urinary frequency
86
yes
MG30.00 Chronic primary bladder pain syndrome (ID 2093682836)
87
no
no
Pain location compatible with referral pain patterns from other specific pelvic organs
88
yes
MG30.00 Chronic primary pelvic pain syndrome (ID 1663013388)
89
no
MG30.00 Chronic primary visceral pain, other specified
90

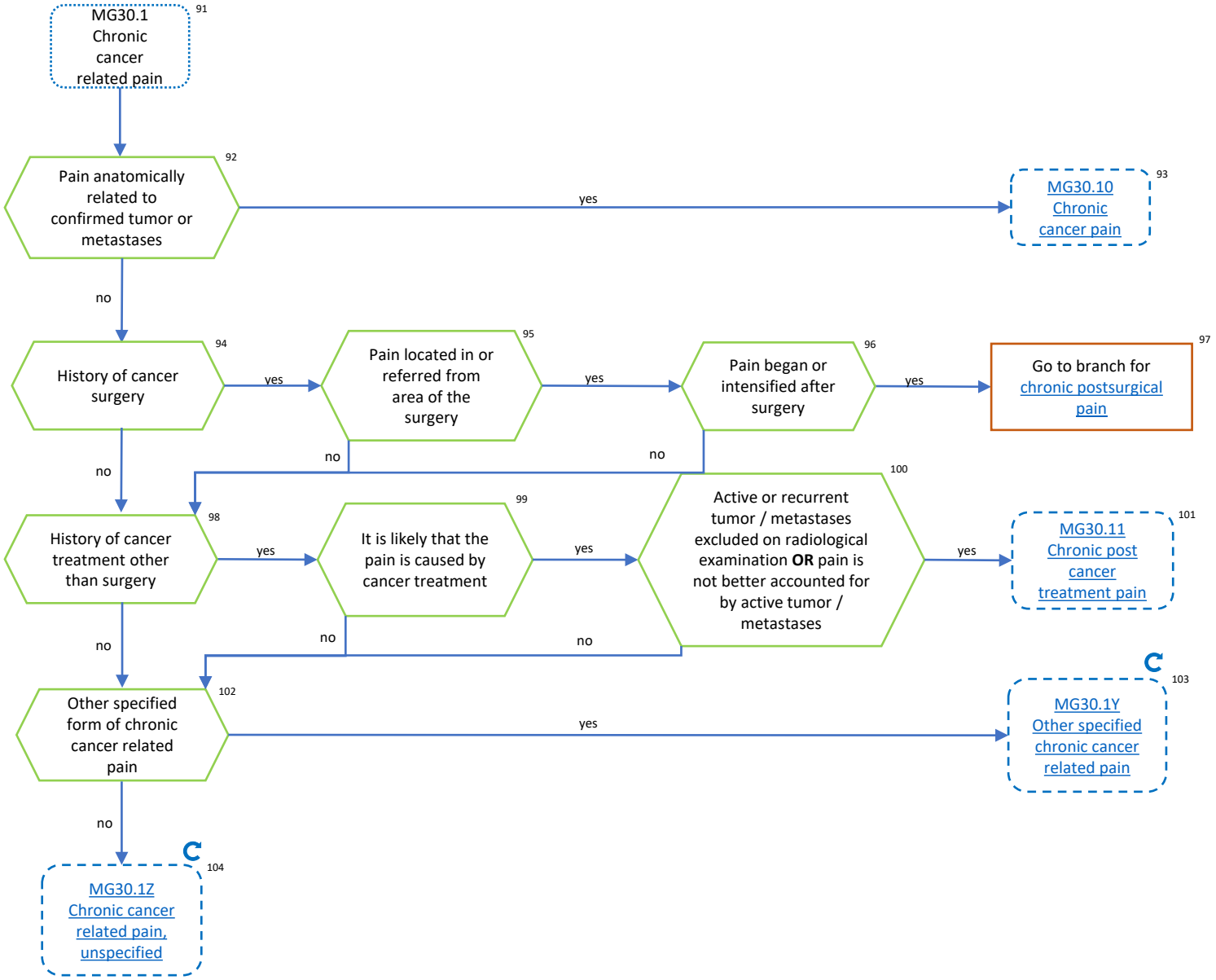
[72, 77, 82, 84, 87, 89, 90] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[77] Heartburn is not a dyspeptic symptom but may often coexist. Other digestive symptoms (such as from gastro-esophageal reflux disease and irritable bowel syndrome) may coexist with chronic primary epigastric pain syndrome.

[86] Urinary frequency during day-time and/or nighttime

[87] This diagnosis also applies to what has previously been termed chronic interstitial cystitis.

[89] This diagnosis also applies to chronic dysmenorrhea and nonbacterial/idiopathic chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS).



[92] Tumor or metastases should be confirmed on clinical and radiological examination.

[93] Continue on page 17. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

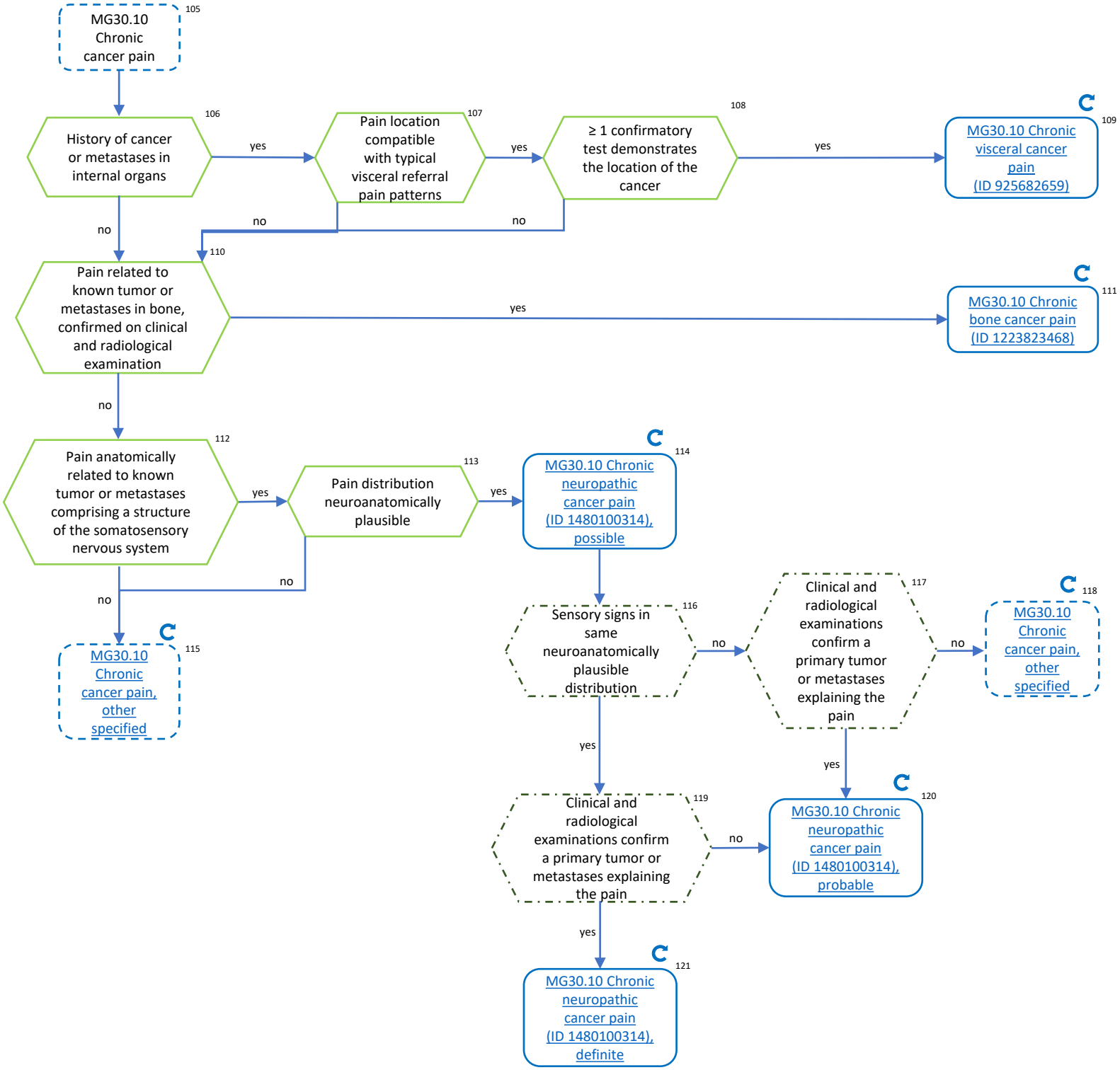
[97] Continue on page 22.

[98] Relevant cancer treatments include but are not limited to surgery, chemotherapy, hormonal treatment, radiotherapy, biological therapies.

[101] Continue on page 18. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[102] For example: painful soft-tissue invasion by tumor, skin pain in T-cell lymphoma, painful lymph node metastases, pain after insertion of esophageal or rectal stent.

[103, 104] Check the pain location chart on page 7whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



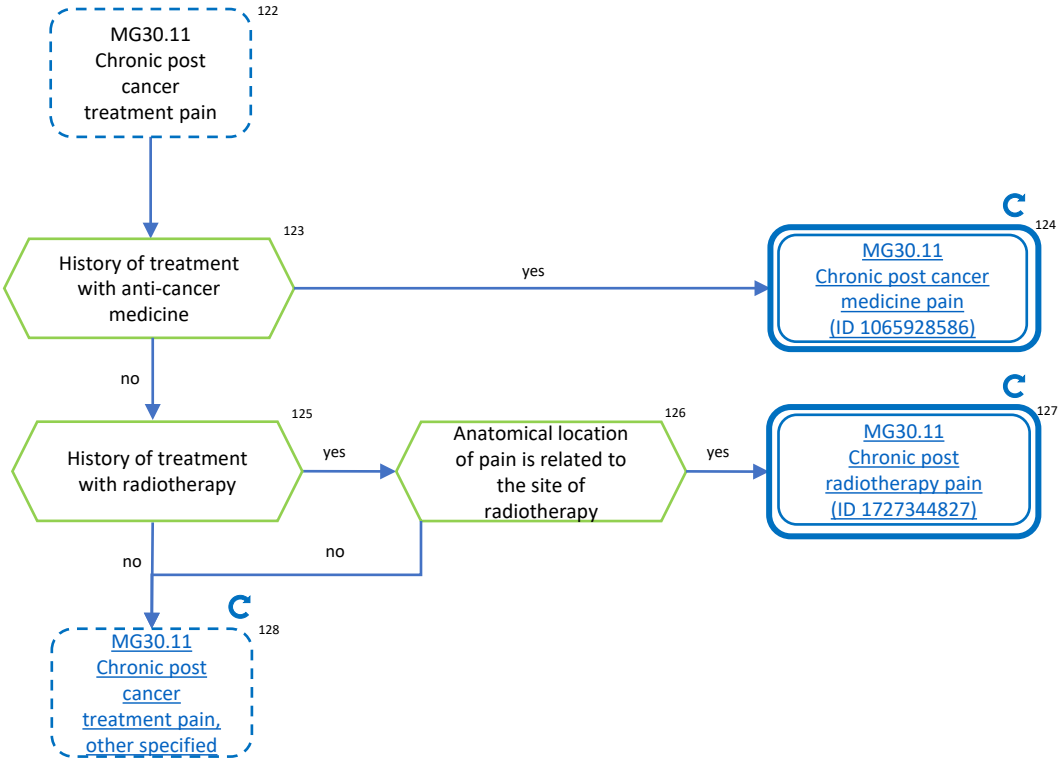
[108] For example: radiological examination, MRI.

[109, 111, 114, 115, 118, 120, 121] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[109] This diagnosis has two parents: MG30.1 Chronic cancer related pain, MG30.4 Chronic secondary visceral pain.

[114, 120, 121] This diagnosis has two parents: MG30.1 Chronic cancer related pain, MG30.5 Chronic neuropathic pain.

[116, 117, 119] Negative or positive sensory signs consistent with the distribution of the pain may be sufficient to indicate the presence of a lesion or disease of the somatosensory nervous system. The clinical examination may be supplemented by laboratory tests, e.g., quantitative sensory testing. Tests that reveal the relevant lesion or disease affecting the somatosensory system may, e.g., consist of surgical or radiological confirmation of nerve compression, nerve conduction study, laser-evoked potentials, blink reflex, or skin biopsy confirmation of reduced nerve fiber terminals. Positive findings in these investigations may provide important diagnostic hints at the source of pain. However, all clinical and diagnostic aspects of the pain need to be considered before assuming causality. **If clinical examination or diagnostic testing are performed, and the results are negative, neuropathic pain is unlikely (or less likely). Consider using another chronic pain diagnosis.**

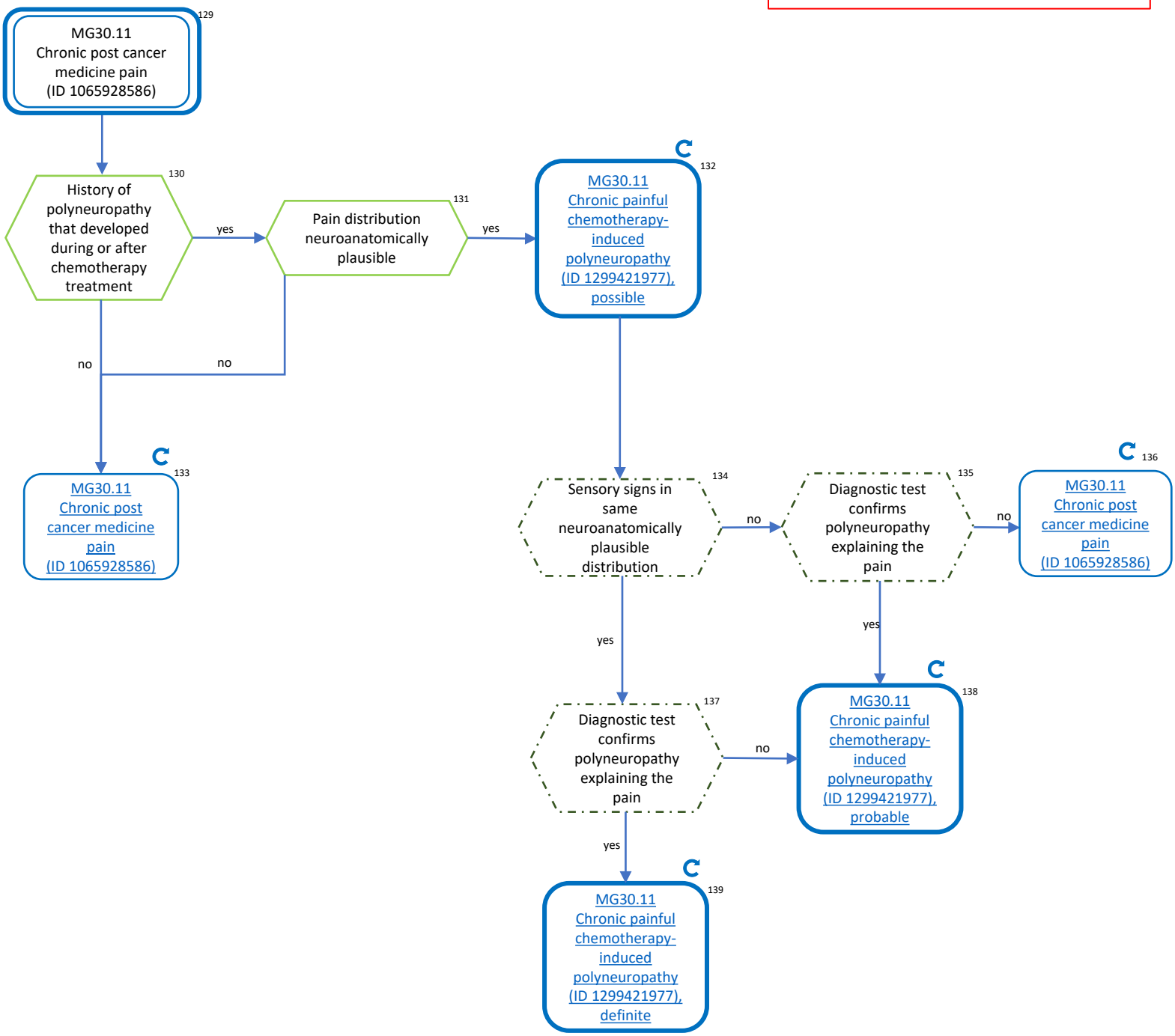


[123] For example: systemic chemotherapy, hormonal treatment, biological therapies.

[124, 127, 128] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[124] Decide whether you need to continue. If yes, continue on page 19. This is the third diagnostic level. Continue to find the correct diagnosis on level 4.

[127] Decide whether you need to continue. If yes, continue on page 20. This is the third diagnostic level. Continue to find the correct diagnosis on level 4.

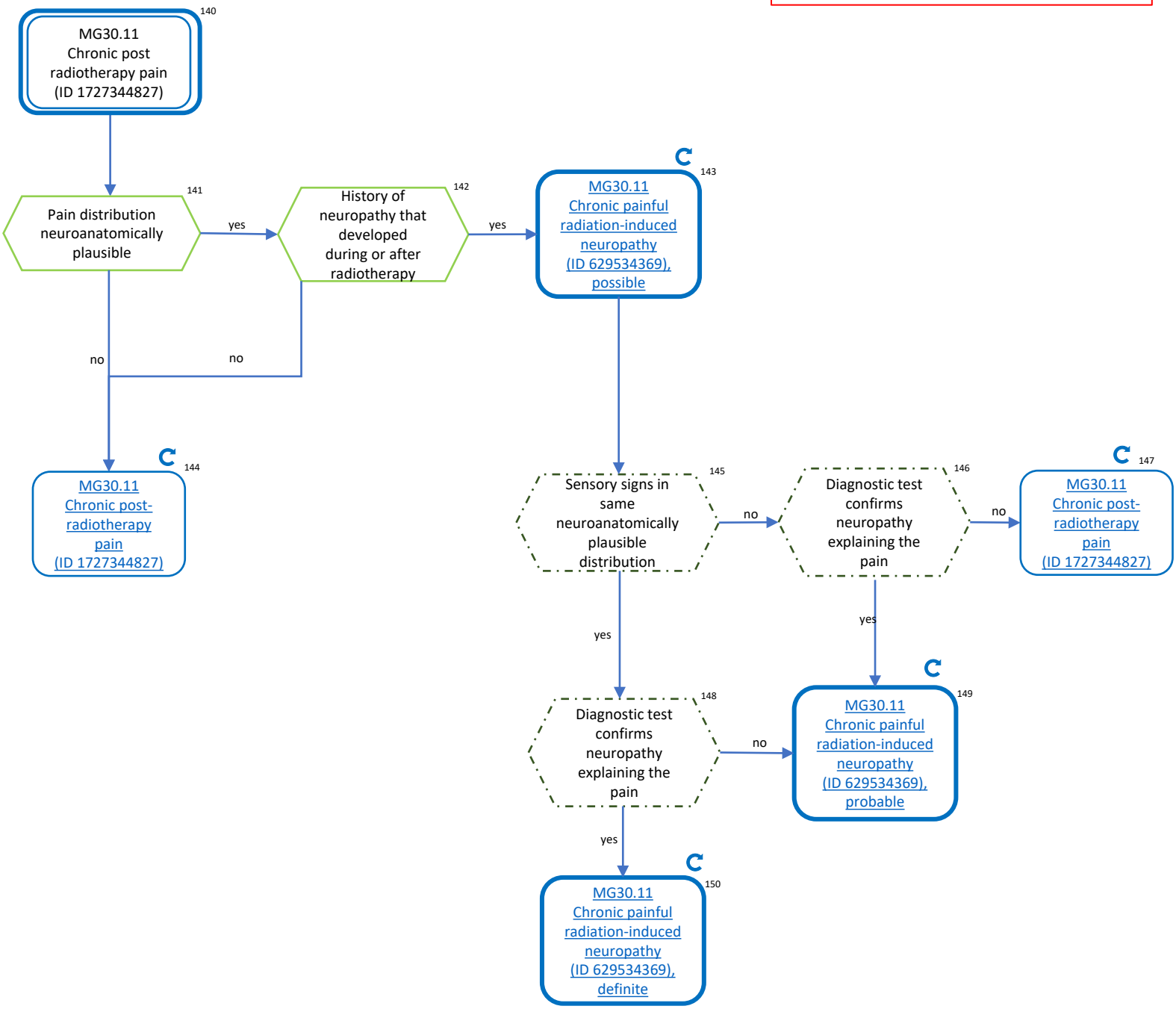


[131] Typically distal symmetric.

[134, 135, 136, 137] Negative or positive sensory signs consistent with the distribution of the pain may be sufficient to indicate the presence of a lesion or disease of the peripheral somatosensory nervous system. The clinical examination may be supplemented by laboratory tests, e.g., quantitative sensory testing. Tests that reveal the relevant lesion or disease affecting the somatosensory system may, e.g., consist of surgical or radiological confirmation of nerve compression, nerve conduction study, laser-evoked potentials, blink reflex, or skin biopsy confirmation of reduced nerve fiber terminals. Positive findings in these investigations may provide important diagnostic hints at the source of pain. However, all clinical and diagnostic aspects of the pain need to be considered before assuming causality. **If clinical examination or diagnostic testing are performed, and the results are negative, neuropathic pain is unlikely (or less likely). Consider using another chronic pain diagnosis.**

[132, 133, 136, 138, 139] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

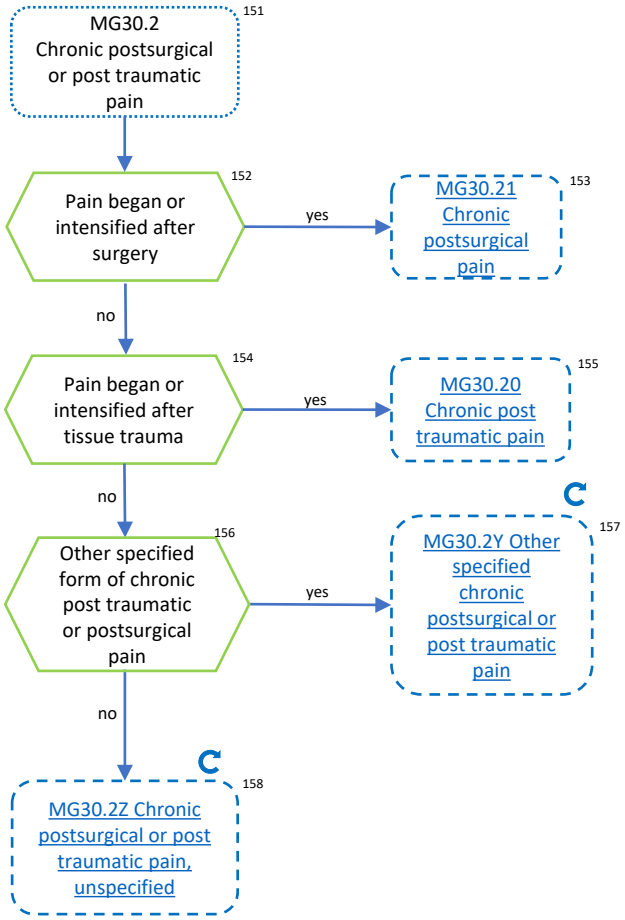
[132, 138, 139] This diagnosis has two parents: MG30.11 Chronic post cancer treatment pain, MG30.51 Chronic peripheral neuropathic pain.



[145, 146, 148] Negative or positive sensory signs consistent with the distribution of the pain may be sufficient to indicate the presence of a lesion or disease of the peripheral somatosensory nervous system. The clinical examination may be supplemented by laboratory tests, e.g., quantitative sensory testing. Tests that reveal the relevant lesion or disease affecting the somatosensory system may, e.g., consist of surgical or radiological confirmation of nerve compression, nerve conduction study, laser-evoked potentials, blink reflex, or skin biopsy confirmation of reduced nerve fiber terminals. Positive findings in these investigations may provide important diagnostic hints at the source of pain. However, all clinical and diagnostic aspects of the pain need to be considered before assuming causality. **If clinical examination or diagnostic testing are performed, and the results are negative, neuropathic pain is unlikely (or less likely). Consider using another chronic pain diagnosis.**

[143, 144, 147, 149, 150] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

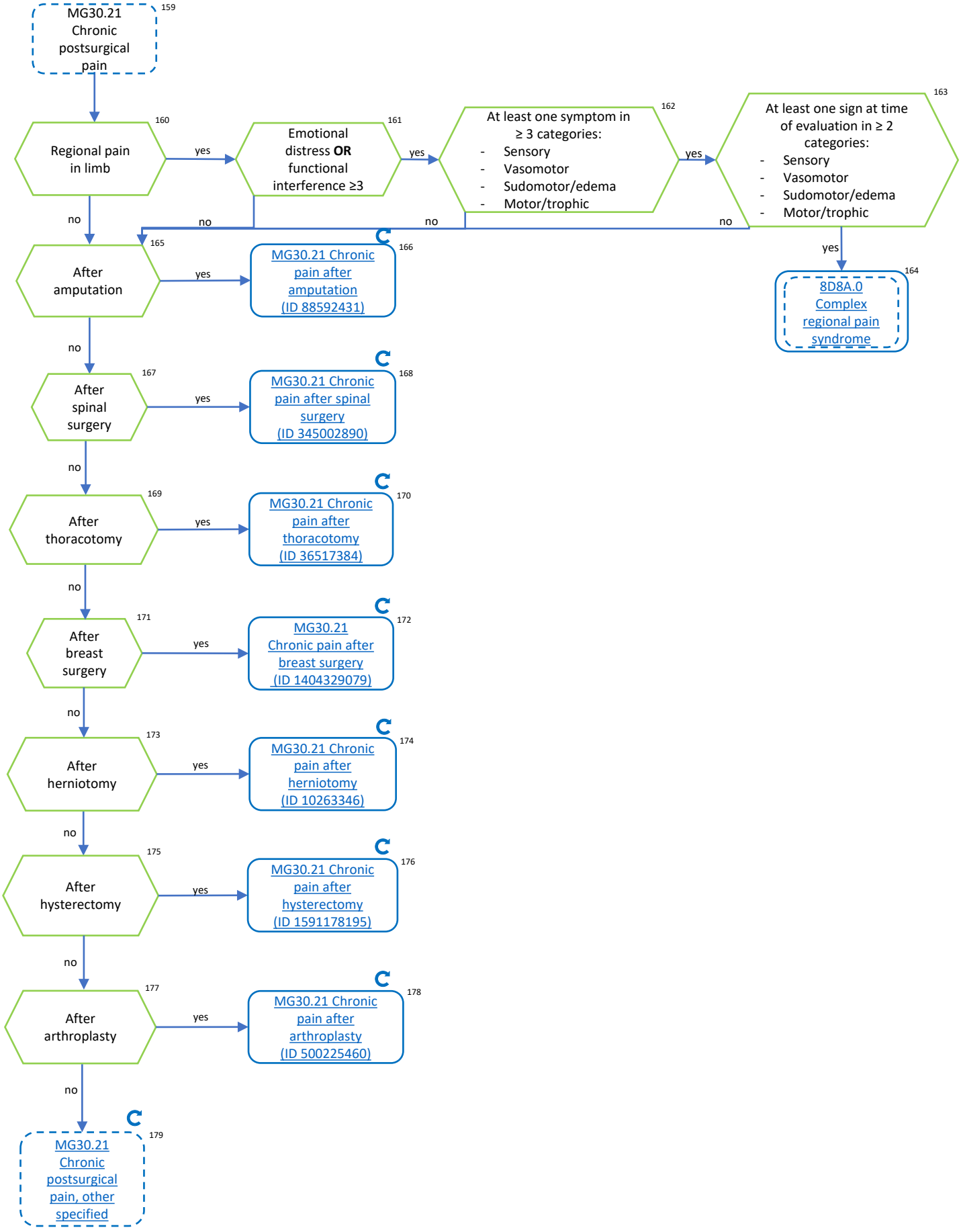
[143, 149, 150] This diagnosis has two parents: MG30.11 Chronic post cancer treatment pain, MG30.51 Chronic peripheral neuropathic pain.



[153] Continue on page 22. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[155] Continue on page 24. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.
If you do not wish to continue, and the pain is associated with an injury of the nervous system, go to the initial decision trunk on page 8, box 14 to check whether the criteria for chronic neuropathic pain are met, and to find the correct diagnosis on the second diagnostic level. If the pain is located in a limb, and associated with sensory, vasomotor, sudomotor / edema, motor or trophic symptoms, go to the initial decision trunk on page 8, box 4, to check whether the criteria for chronic primary pain are met, and continue.

[157, 158] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.


159
MG30.21 Chronic postsurgical pain
160
Regional pain in limb
yes
161
Emotional distress **OR** functional interference ≥3
yes
162
At least one symptom in ≥ 3 categories:
- Sensory
- Vasomotor
- Sudomotor/edema
- Motor/trophic
yes
163
At least one sign at time of evaluation in ≥ 2 categories:
- Sensory
- Vasomotor
- Sudomotor/edema
- Motor/trophic
yes
164
8D8A.0 Complex regional pain syndrome
no
no
no
no
165
After amputation
yes
166
MG30.21 Chronic pain after amputation (ID 88592431)
no
167
After spinal surgery
yes
168
MG30.21 Chronic pain after spinal surgery (ID 345002890)
no
169
After thoracotomy
yes
170
MG30.21 Chronic pain after thoracotomy (ID 36517384)
no
171
After breast surgery
yes
172
MG30.21 Chronic pain after breast surgery (ID 1404329079)
no
173
After herniotomy
yes
174
MG30.21 Chronic pain after herniotomy (ID 10263346)
no
175
After hysterectomy
yes
176
MG30.21 Chronic pain after hysterectomy (ID 1591178195)
no
177
After arthroplasty
yes
178
MG30.21 Chronic pain after arthroplasty (ID 500225460)
no
179
MG30.21 Chronic postsurgical pain, other specified

[162, 163] – Sensory symptoms: hyperalgesia (to pinprick) and/or allodynia (to light touch or deep somatic pressure, or joint movement)

- Vasomotor symptoms: temperature asymmetry and/or skin color changes and/or asymmetry

- Sudomotor/edema: edema and/or sweating changes and/or sweating asymmetry

- Motor/trophic symptoms: decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nails, skin)

These signs and symptoms are consistent with the established CRPS Budapest criteria, see:

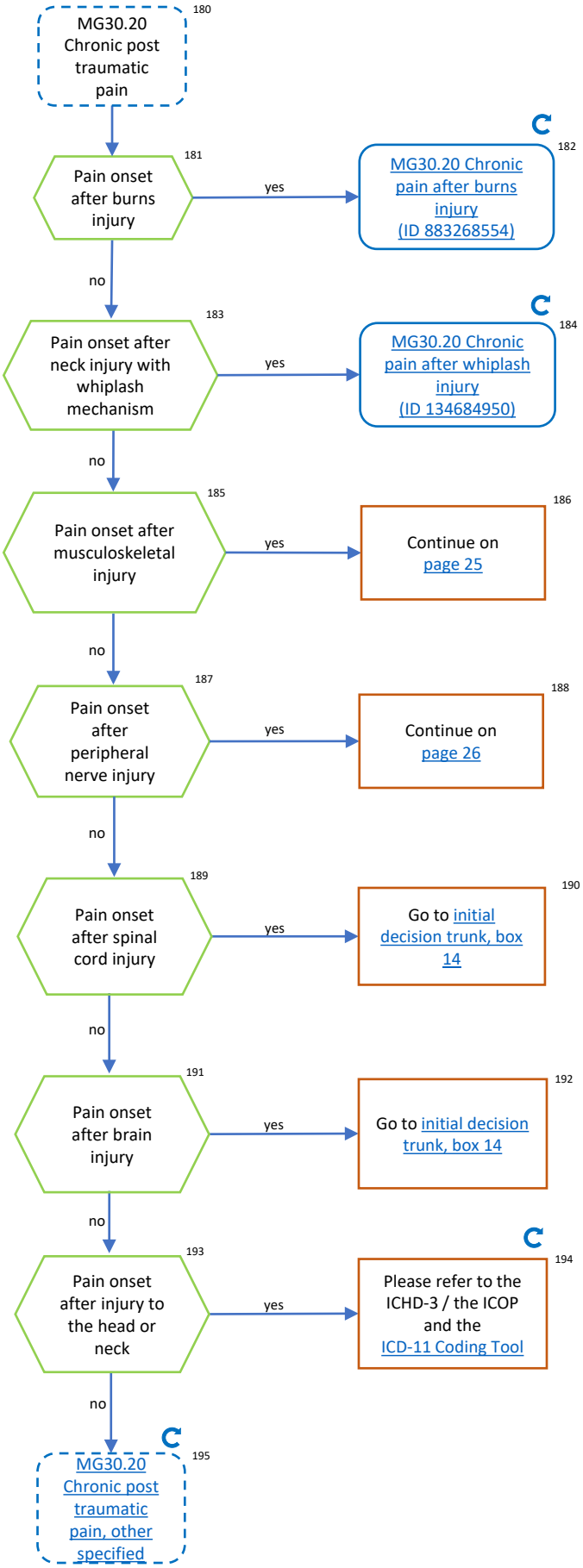
Bruehl S, Harden NR, Galer BS, Saltz S, Bertram M, Backonja M, Gayles R, Rudin N, Bhugra MK, Stanton-Hicks M. External validation of IASP diagnostic criteria for Complex Regional Pain Syndrome and proposed research diagnostic criteria. PAIN 1999;81:147–154. https://doi.org/ 10.1016/s0304-3959(99)00011-1

[164] Decide whether you need to continue. If yes, continue on page 12. This diagnosis has two parents: MG30.0 Chronic primary pain, MG30.2 Chronic postsurgical or post traumatic pain. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[166] This diagnosis has two parents: MG30.21 Chronic postsurgical pain, MG30.51 Chronic peripheral neuropathic pain.

[166, 168, 170, 172, 174, 176, 178, 179] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[179] This also includes chronic pain after abdominal surgery (bowel and colorectal), Caesarean delivery, cholecystectomy, craniotomy, dental surgery, inguinal herniotomy, melanoma resection, sternotomy, vasectomy, traumatic amputation, contusion, among others.



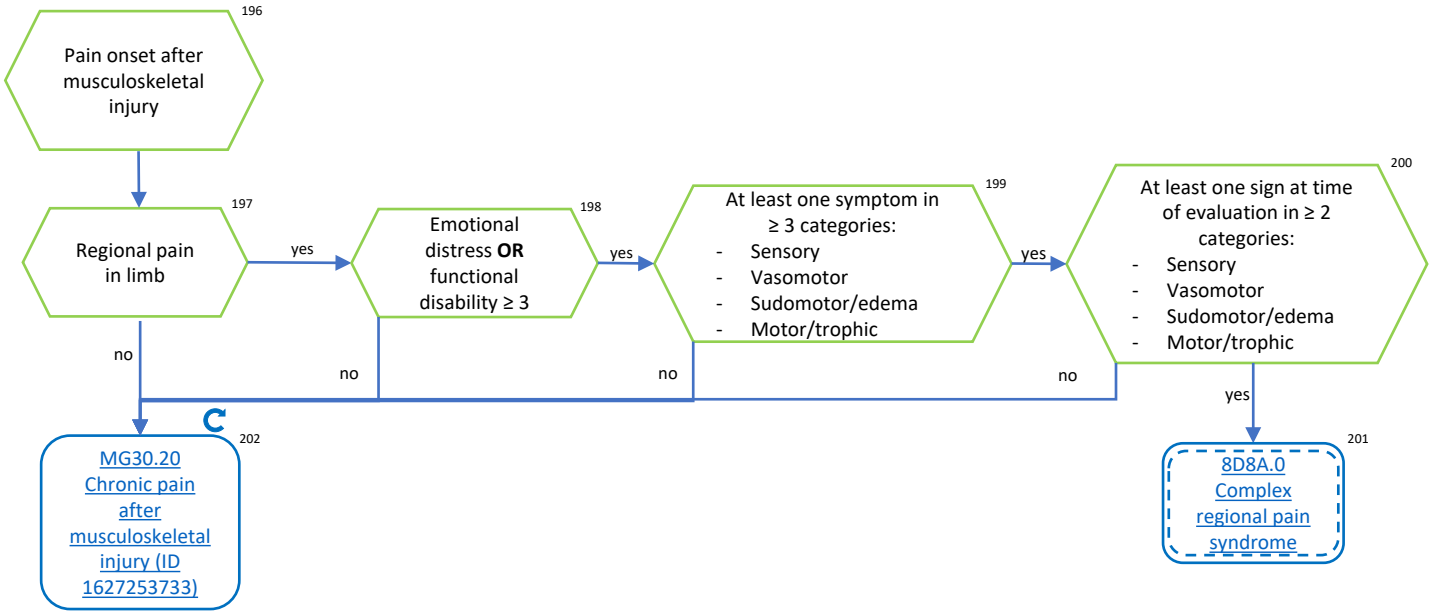
182, 184, 194, 195 Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

185 For example: muscle injury, bone fractures, joint trauma.

187 This may be a mechanical, thermal, radiation, or chemical injury.

190, 192 Continue on page 8, box 14.

194 Coding Tool available at https://icd.who.int/ct11/icd11_mms/en/release



[198] Check NRS on page 6.

[199, 200] – Sensory symptoms: hyperalgesia (to pinprick) and/or allodynia (to light touch or deep somatic pressure, or joint movement)

- Vasomotor symptoms: temperature asymmetry and/or skin color changes and/or asymmetry

- Sudomotor/edema: edema and/or sweating changes and/or sweating asymmetry

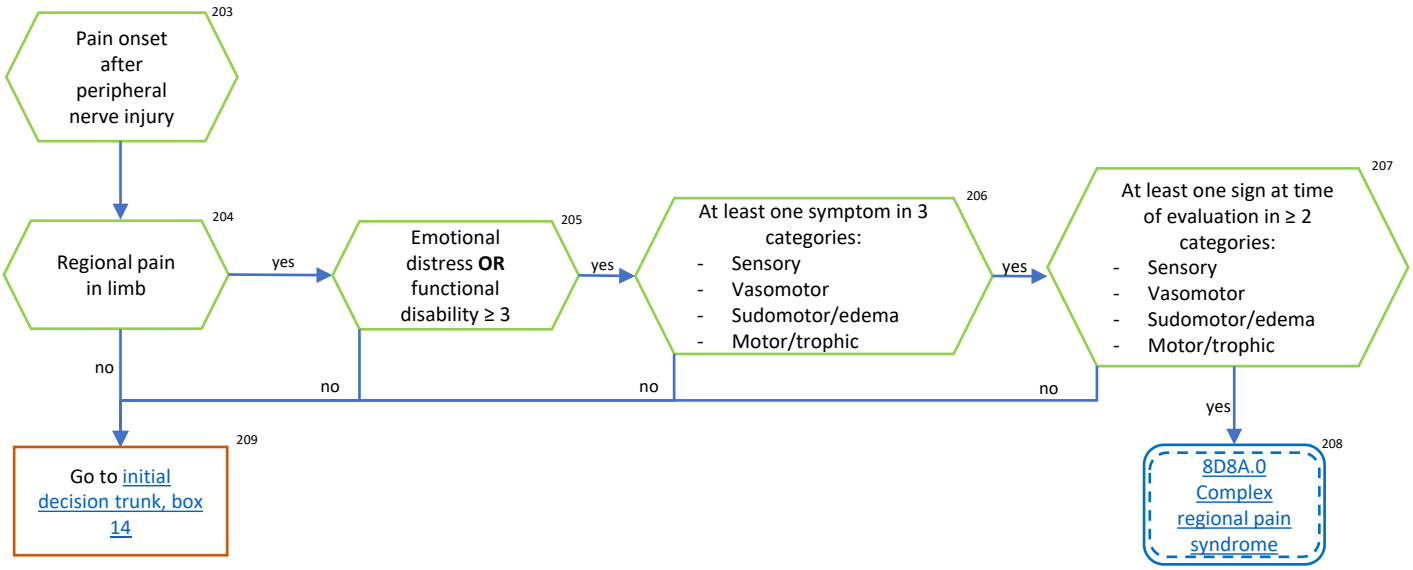
- Motor/trophic symptoms: decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nails, skin)

These signs and symptoms are consistent with the established CRPS Budapest criteria, see:

Bruehl S, Harden NR, Galer BS, Saltz S, Bertram M, Backonja M, Gayles R, Rudin N, Bhugra MK, Stanton-Hicks M. External validation of IASP diagnostic criteria for Complex Regional Pain Syndrome and proposed research diagnostic criteria. PAIN 1999;81:147–154. https://doi.org/ 10.1016/s0304-3959(99)00011-1

[201] Decide whether you need to continue. If yes, continue on page 12. This diagnosis has two parents: MG30.0 Chronic primary pain, MG30.2 Chronic postsurgical or post traumatic pain. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[202] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



[205] Check NRS on page 6

[206, 207] – Sensory symptoms: hyperalgesia (to pinprick) and/or allodynia (to light touch or deep somatic pressure, or joint movement)

- Vasomotor symptoms: temperature asymmetry and/or skin color changes and/or asymmetry

- Sudomotor/edema: edema and/or sweating changes and/or sweating asymmetry

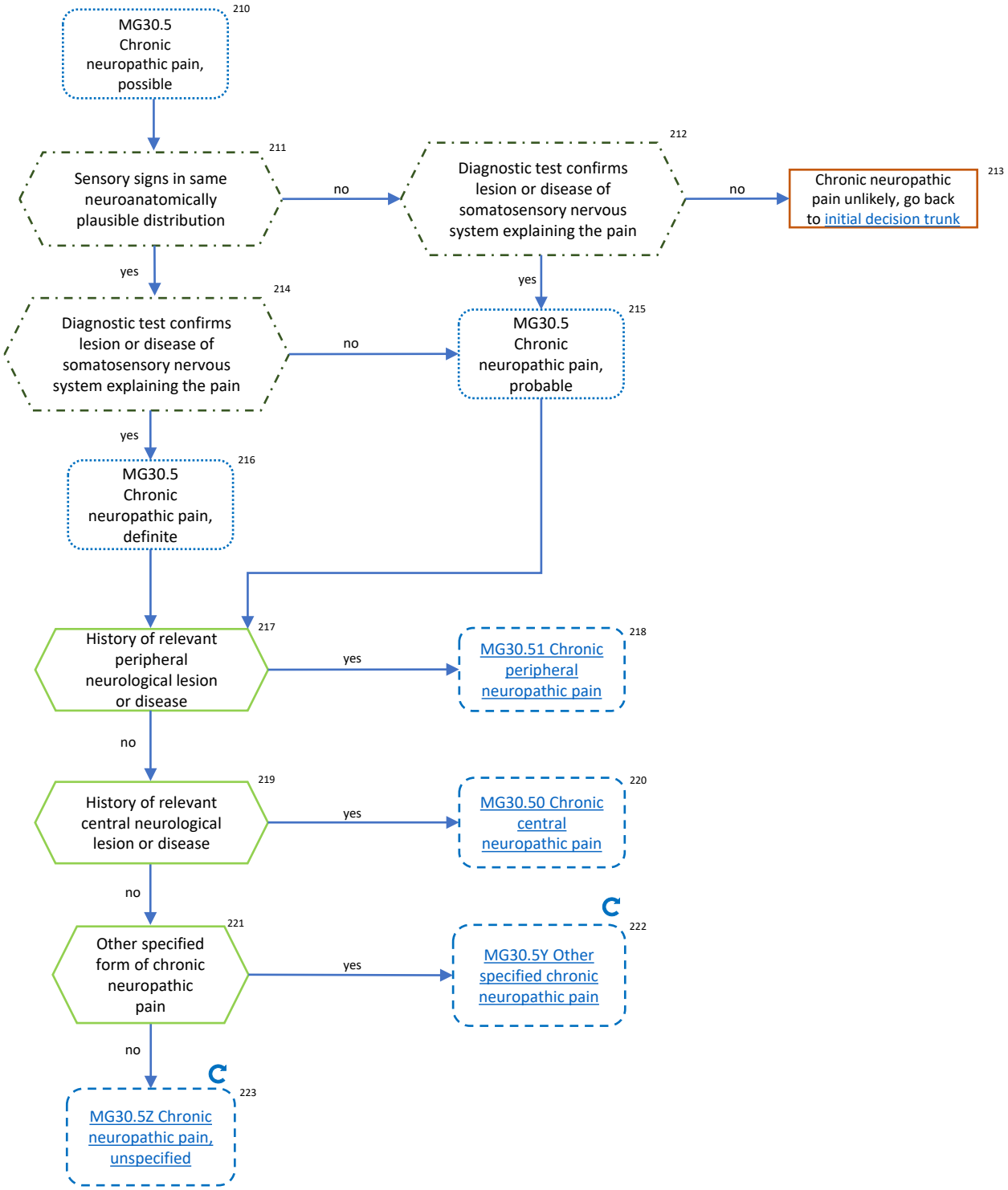
- Motor/trophic symptoms: decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nails, skin)

These signs and symptoms are consistent with the established CRPS Budapest criteria, see:

Bruehl S, Harden NR, Galer BS, Saltz S, Bertram M, Backonja M, Gayles R, Rudin N, Bhugra MK, Stanton-Hicks M. External validation of IASP diagnostic criteria for Complex Regional Pain Syndrome and proposed research diagnostic criteria. PAIN 1999;81:147–154. https://doi.org/ 10.1016/s0304-3959(99)00011-1

[208] Decide whether you need to continue. If yes, continue on page 12. This diagnosis has two parents: MG30.0 Chronic primary pain, MG30.2 Chronic postsurgical or post traumatic pain. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[209] Continue on page 8, box 14.


210
MG30.5 Chronic neuropathic pain, possible
211
Sensory signs in same neuroanatomically plausible distribution
no
212
Diagnostic test confirms lesion or disease of somatosensory nervous system explaining the pain
no
213
Chronic neuropathic pain unlikely, go back to initial decision trunk
yes
yes
214
Diagnostic test confirms lesion or disease of somatosensory nervous system explaining the pain
no
215
MG30.5 Chronic neuropathic pain, probable
yes
216
MG30.5 Chronic neuropathic pain, definite
217
History of relevant peripheral neurological lesion or disease
yes
218
MG30.51 Chronic peripheral neuropathic pain
no
219
History of relevant central neurological lesion or disease
yes
220
MG30.50 Chronic central neuropathic pain
no
221
Other specified form of chronic neuropathic pain
yes
222
MG30.5Y Other specified chronic neuropathic pain
no
223
MG30.5Z Chronic neuropathic pain, unspecified

[211, 212, 214] Negative or positive sensory signs consistent with the distribution of the pain may be sufficient to indicate the presence of a lesion or disease of the somatosensory nervous system. The clinical examination may be supplemented by laboratory tests, e.g., quantitative sensory testing. Tests that reveal the relevant lesion or disease affecting the somatosensory system may, e.g., consist of surgical or radiological confirmation of nerve compression, nerve conduction study, laser-evoked potentials, blink reflex, or skin biopsy confirmation of reduced nerve fiber terminals. Positive findings in these investigations may provide important diagnostic hints at the source of pain. However, all clinical and diagnostic aspects of the pain need to be considered before assuming causality. **If clinical examination or diagnostic testing are performed, and the results are negative, neuropathic pain is unlikely (or less likely). Consider using another chronic pain diagnosis.**

For an overview of screening instruments that may assist you to assess chronic neuropathic pain, see:

Attal N, Bouhassira D, Baron R. Diagnosis and assessment of neuropathic pain through questionnaires. The Lancet Neurology 2018;17:456–466. https://doi.org/10.1016/S1474-4422(18)30071-1

[213] Go to initial decision trunk on page 8.

[215, 216] This is the first diagnostic level. Continue to find the appropriate diagnosis on the next level.

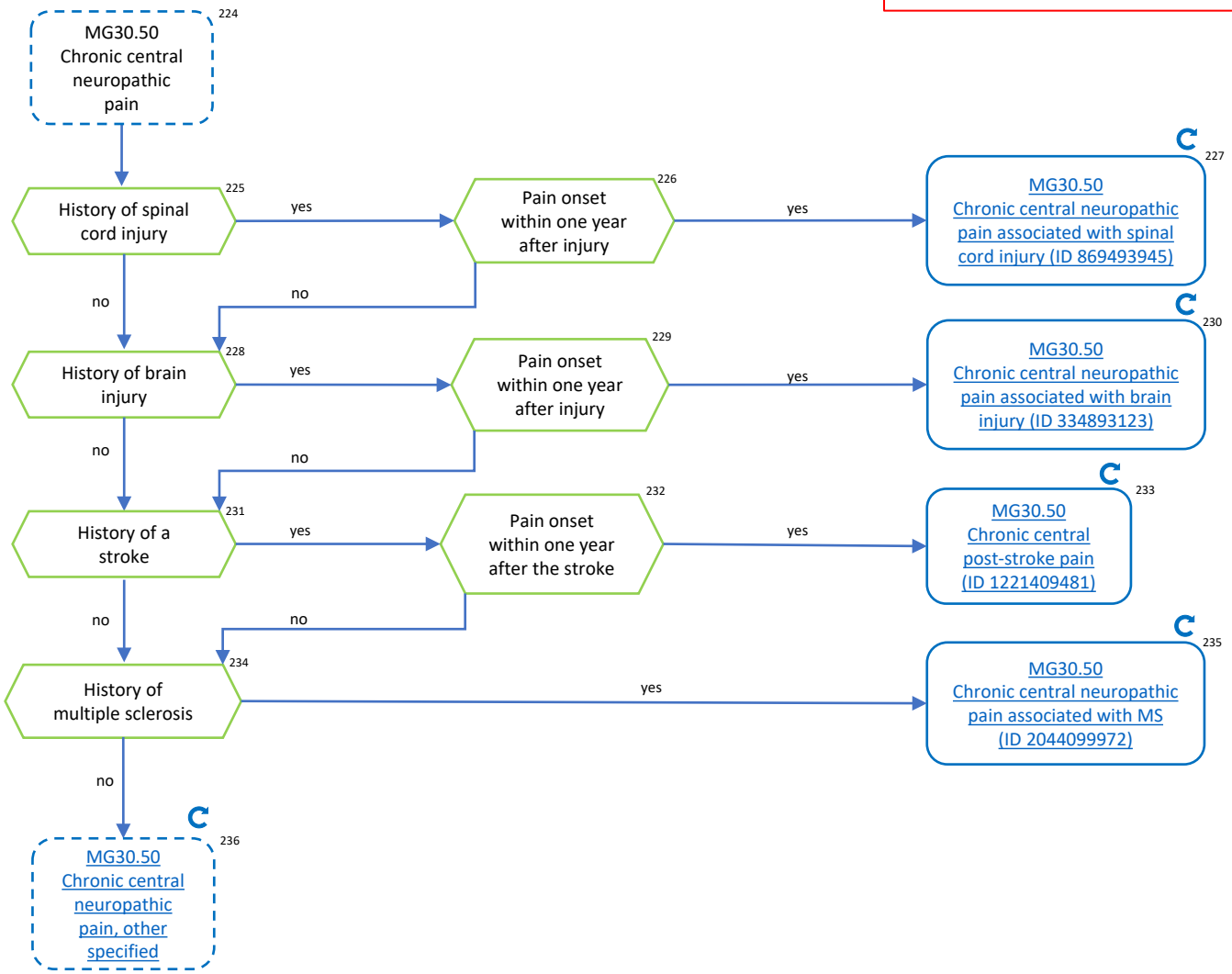
[217] For example: herpes zoster, radiculopathy (see Appendix on page 41 for a list of examples).

[218] Continue on page 30. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[219] For example: brain injury, stroke (see Appendix on page 41 for a list of examples).

[220] Continue on page 29. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

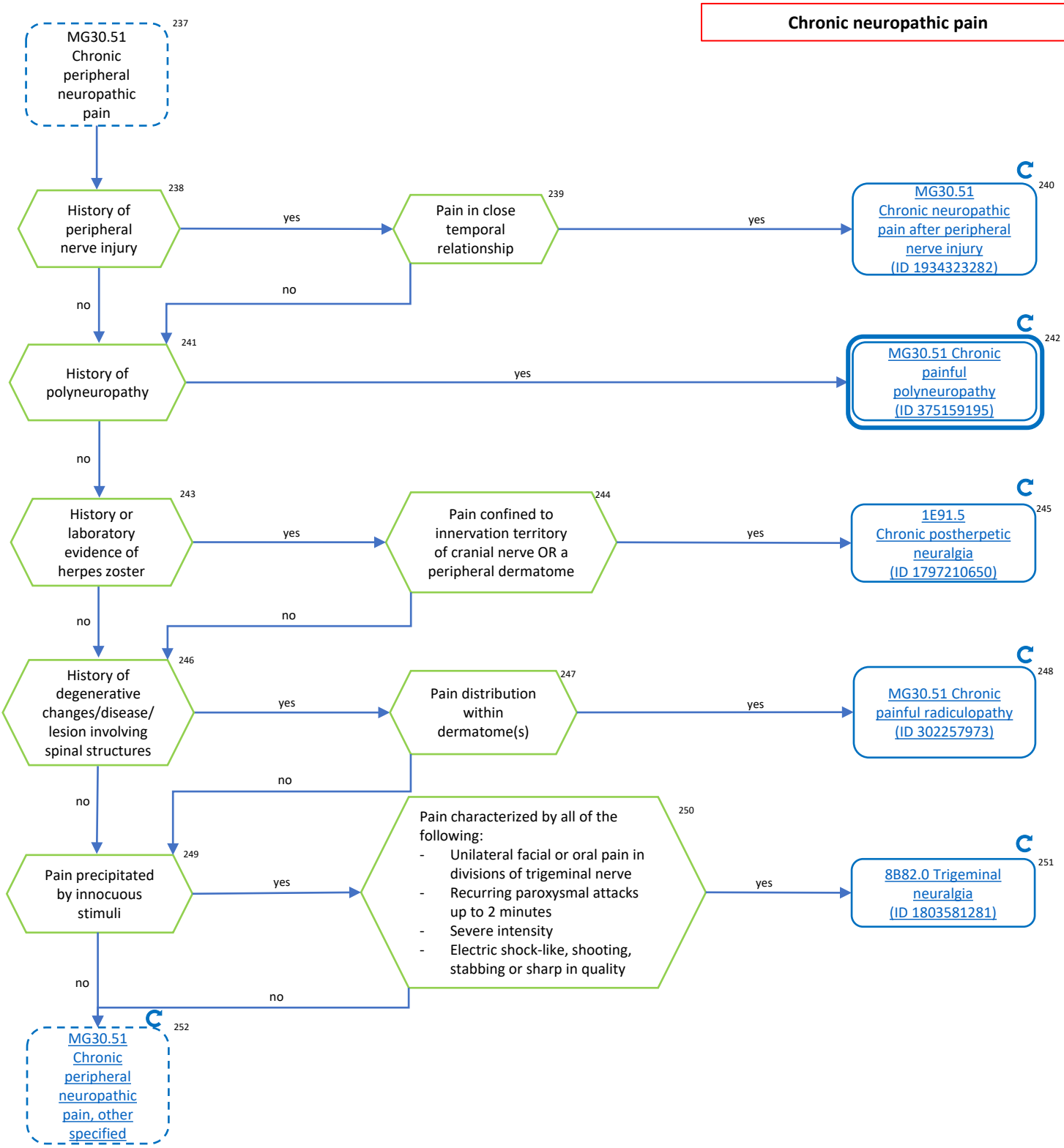
[222, 223] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



[227, 230, 233, 235, 236] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[227] This diagnosis has two parents: MG30.50 Chronic central neuropathic pain, MG30.20 Chronic post traumatic pain.

[230] This diagnosis has two parents: MG30.50 Chronic central neuropathic pain, MG30.20 Chronic post traumatic pain.



[240] This diagnosis has two parents: MG30.51 Chronic peripheral neuropathic pain, MG30.20 Chronic post traumatic pain.

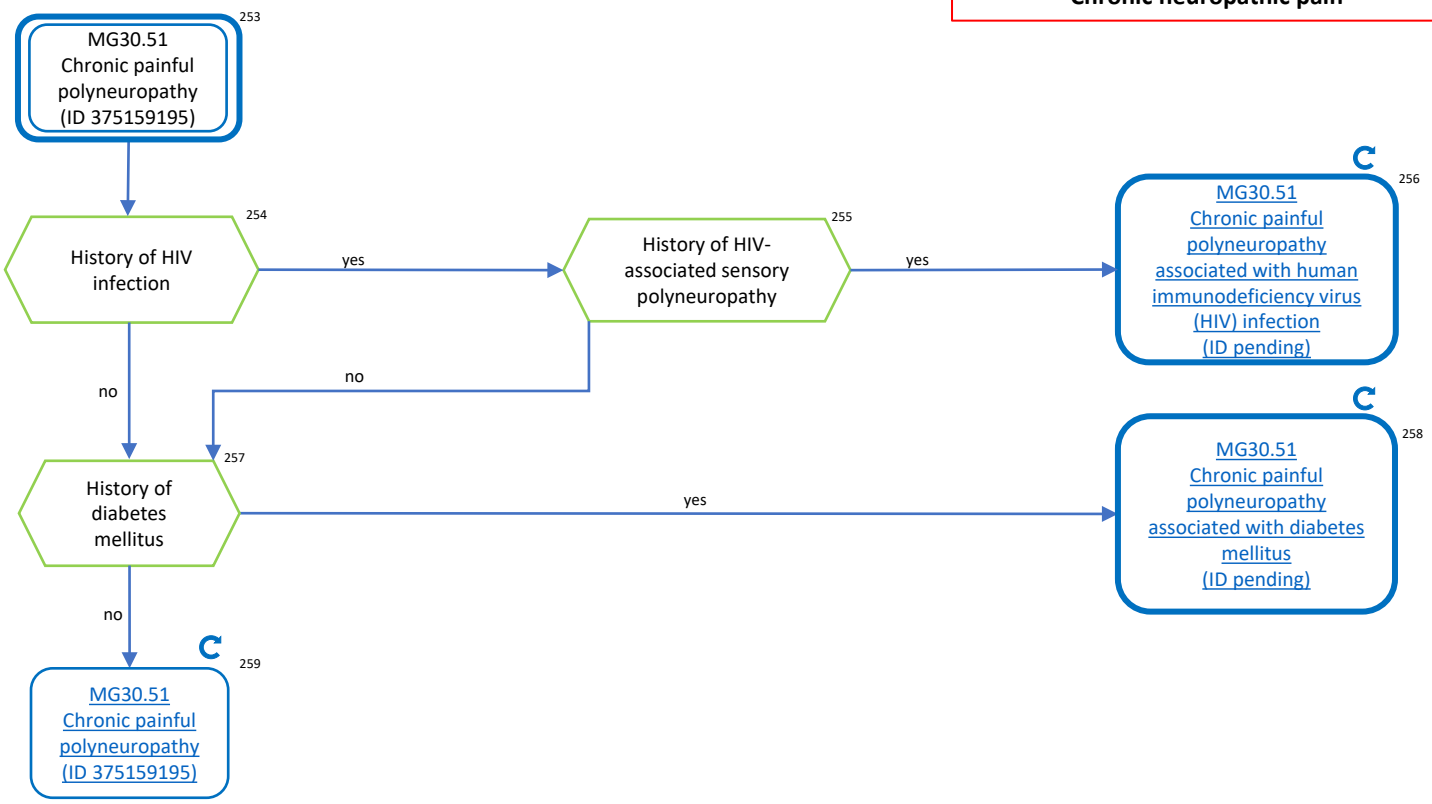
[242] Decide whether you need to continue. If yes, continue on page 31. This is the third diagnostic level. Continue to find the correct diagnosis on level 4.

[240, 242, 245, 248, 251, 252] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[249] Pain location typically within the affected trigeminal territory and always on the ipsilateral side of the face.

[251] This diagnosis has two parents: MG30.50 Chronic peripheral neuropathic pain, MG30.62 Chronic neuropathic orofacial pain.

[252] This also includes, e.g., chronic neuropathic pain associated entrapment, for example carpal tunnel syndrome, Morton's neuroma, pudendal syndrome, neuropathies after intensive care unit (ICU) treatment.

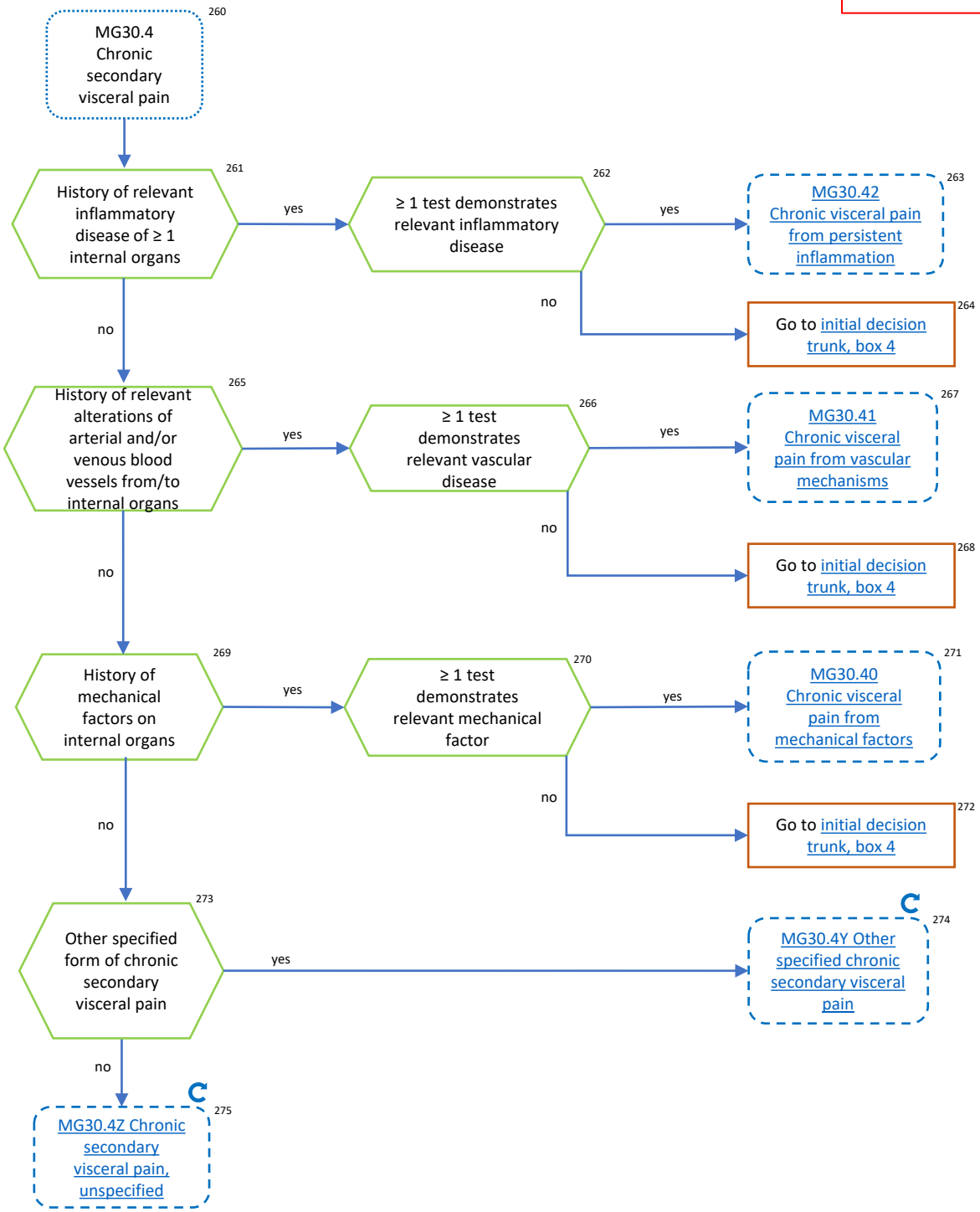


[257] Demonstrated by at least one diagnostic test.

[256, 258, 259] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[256, 258] At the date of publication, the implementation of these entities into the ICD-11 is still pending.

[259] Other causes of chronic painful polyneuropathy include, e.g.,: leprosy, alcohol use disorder, metabolic disorders, toxins, genetic conditions, immune system diseases, with vitamin insufficiency (see Appendix on page 41 for a list of examples).


260
MG30.4 Chronic secondary visceral pain
261
History of relevant inflammatory disease of ≥ 1 internal organs
yes
262
≥ 1 test demonstrates relevant inflammatory disease
yes
263
MG30.42 Chronic visceral pain from persistent inflammation
no
264
Go to initial decision trunk, box 4
no
265
History of relevant alterations of arterial and/or venous blood vessels from/to internal organs
yes
266
≥ 1 test demonstrates relevant vascular disease
yes
267
MG30.41 Chronic visceral pain from vascular mechanisms
no
268
Go to initial decision trunk, box 4
no
269
History of mechanical factors on internal organs
yes
270
≥ 1 test demonstrates relevant mechanical factor
yes
271
MG30.40 Chronic visceral pain from mechanical factors
no
272
Go to initial decision trunk, box 4
no
273
Other specified form of chronic secondary visceral pain
yes
C
274
MG30.4Y Other specified chronic secondary visceral pain
no
C
275
MG30.4Z Chronic secondary visceral pain, unspecified

[260] No minimal frequency of pain attacks has been defined for chronic secondary visceral pain. It depends on the clinical judgment of each individual case to decide whether visceral pain associated with an underlying disease that has been recurring in attacks for longer than 3 months should be considered as chronic secondary visceral pain.

[261] For example: endometriosis, chronic pancreatitis, chronic gastritis, reflux disease (see Appendix on page 41 for a list of examples).

[262] For example: indices of inflammation in blood or serum, indices of bacterial infections in blood or serum.

[263] Continue on page 34. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[264, 268, 272] Go to the initial decision trunk on page 8, box 4.

[265] For example: ischemic heart disease, vasculitis, sickle cell disease (see Appendix on page 41 for a list of examples).

[266] For example: angiogram, blood or serum sampling.

[267] Continue on page 35. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

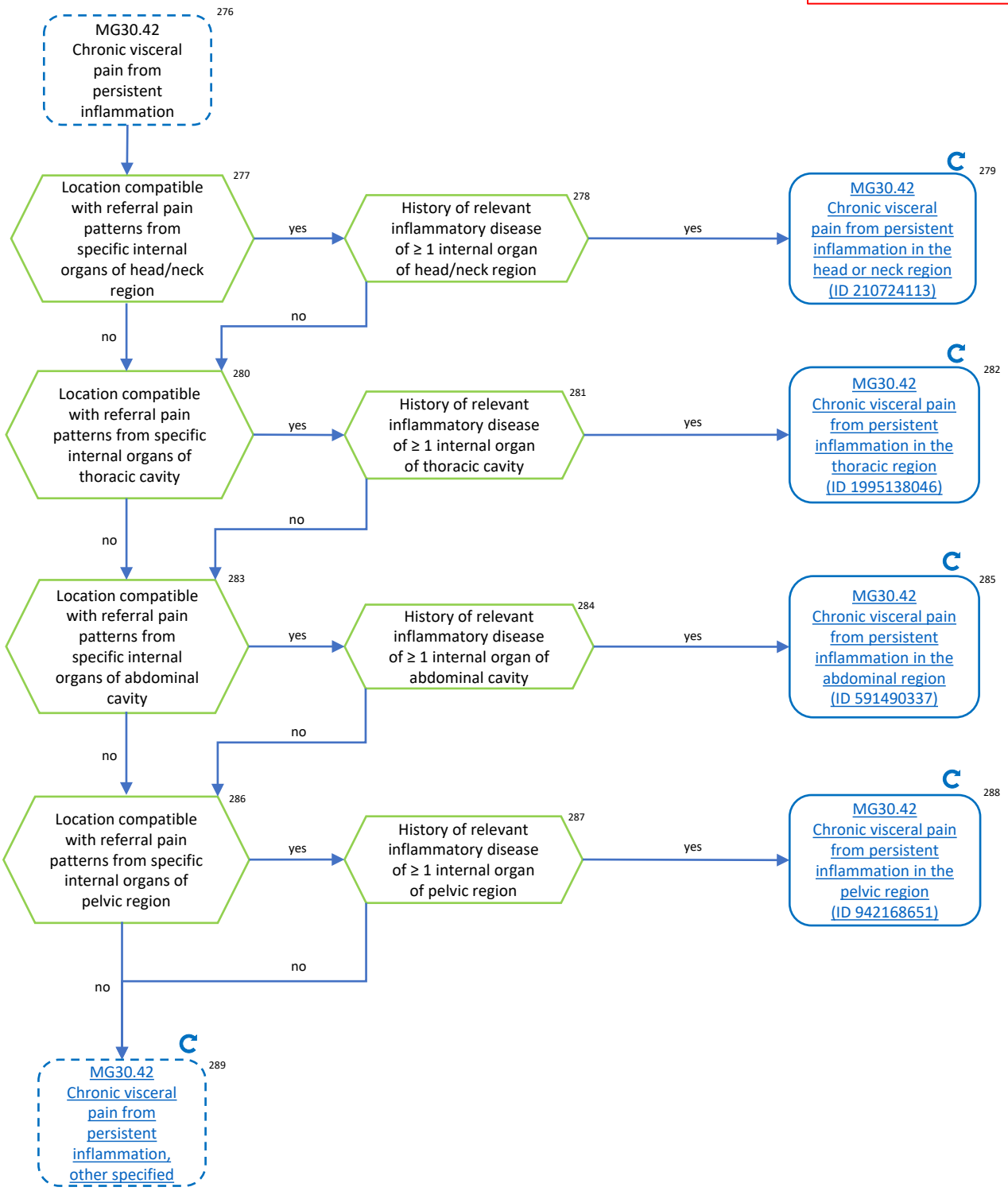
[269] For example: obstruction/distension of hollow internal organs or traction/compression of ligaments and vessels to internal organs, for example: stones obstructing the biliary or renal tracts, ureteric kinking (see Appendix on page 41 for a list of examples).

[270] For example: ultrasound.

[271] Continue on page 36. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

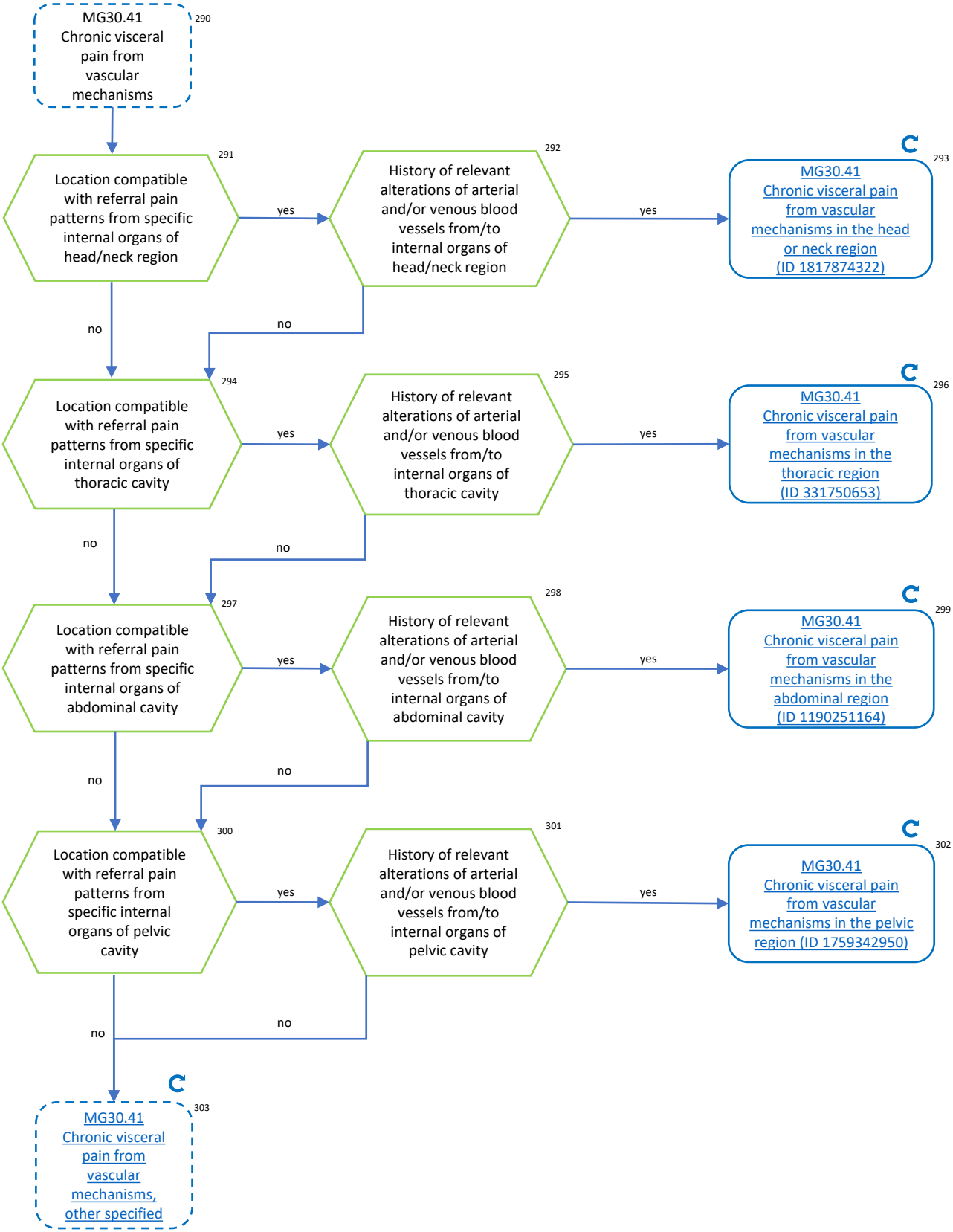
[273] For example: degenerative neuropathies (identified recently in gastrointestinal tract).

[274, 275] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



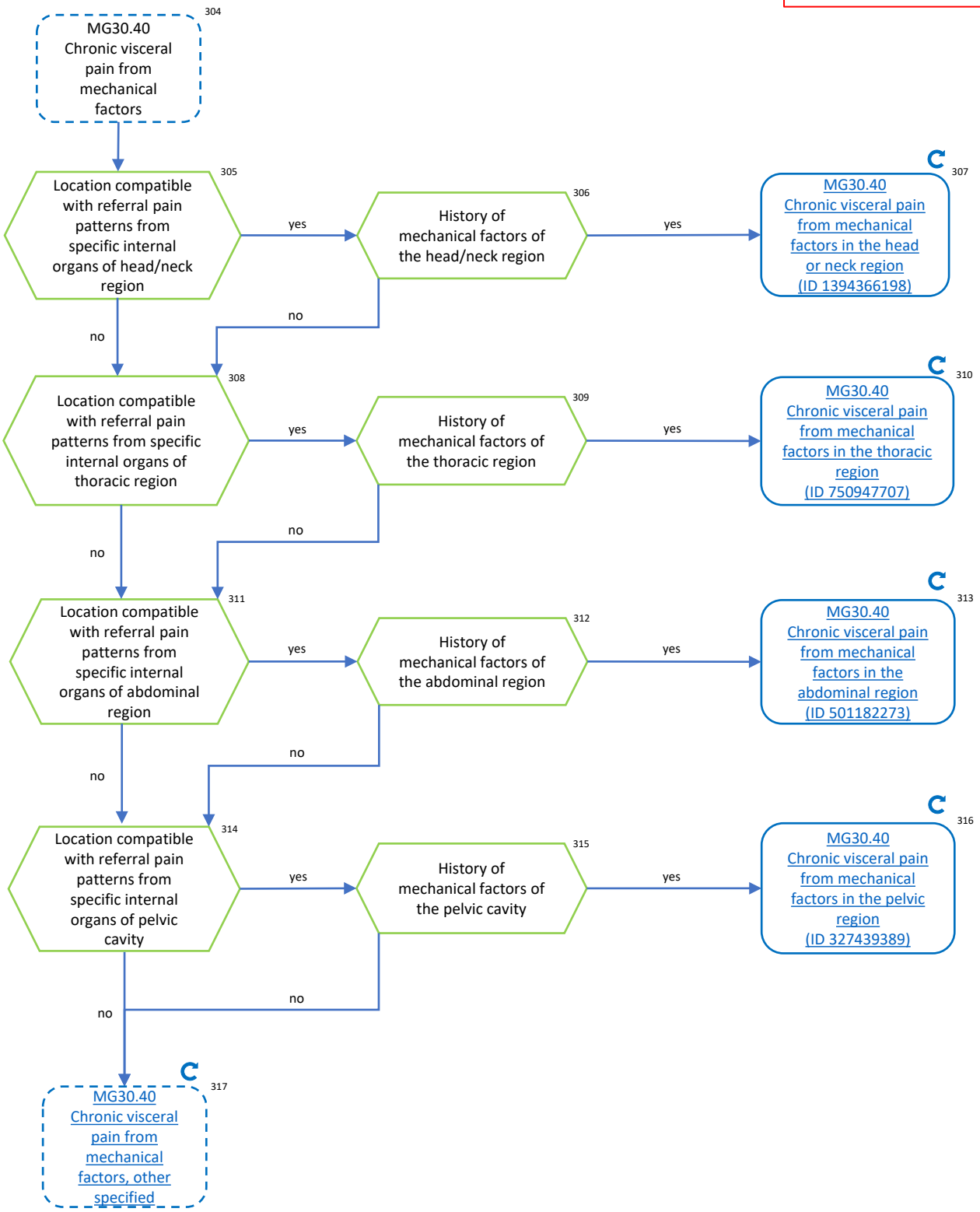
278, 281, 284, 287 See Appendix (page 41) for a list of examples

279, 282, 285, 288, 289 Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



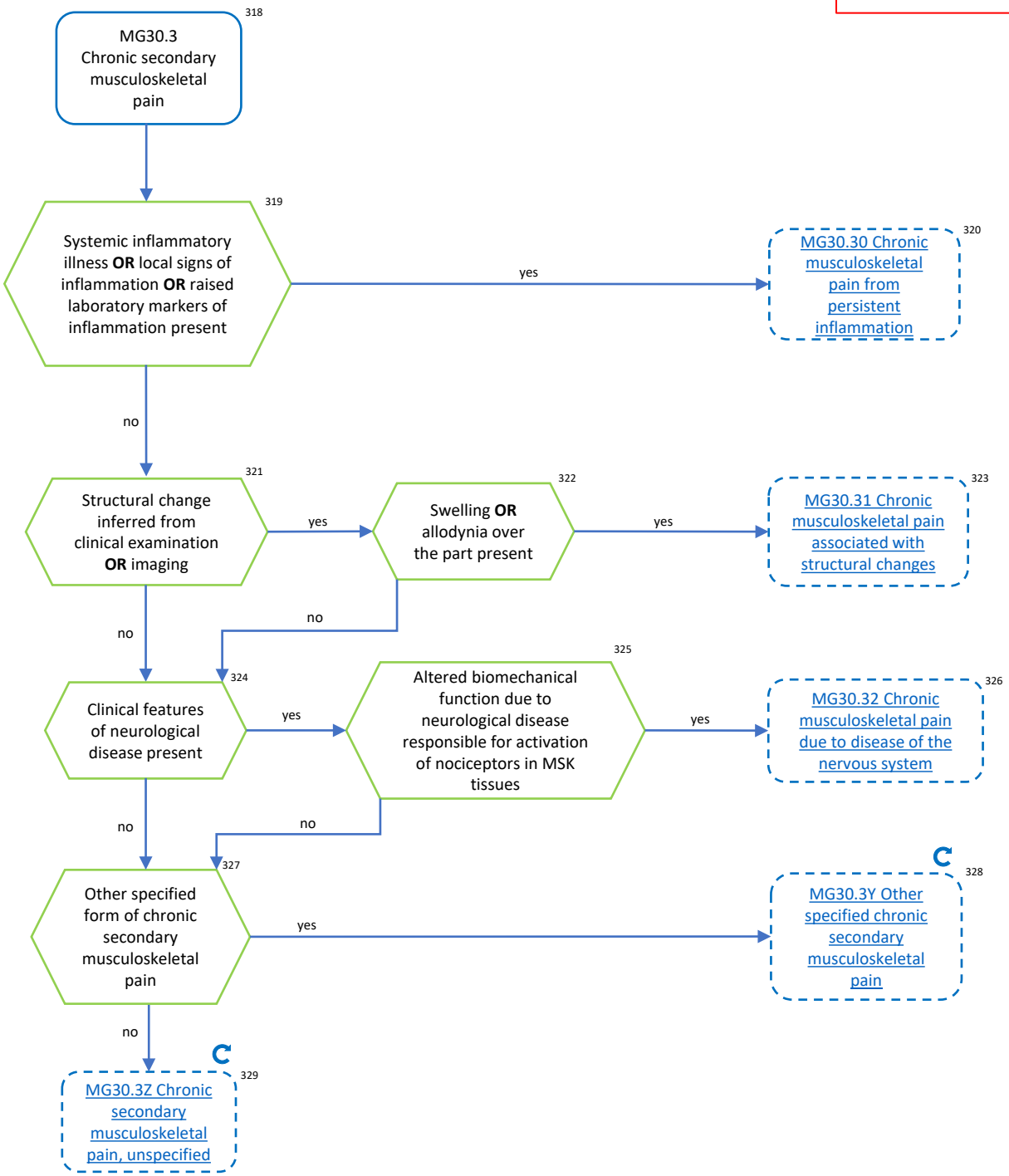
292, 295, 298, 301 See Appendix (page 41) for a list of examples.

293, 296, 299, 302, 303 Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



[306, 309, 312, 315] See Appendix (page 41) for examples.

[307, 310, 313, 316, 317] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.



[319] For example: Lyme disease, gout, rheumatoid arthritis (see Appendix on page 41 for a list of examples).

[320] Continue on page 38. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[321] For example: osteoarthritis, spondylosis (see Appendix on page 41 for a list of examples).

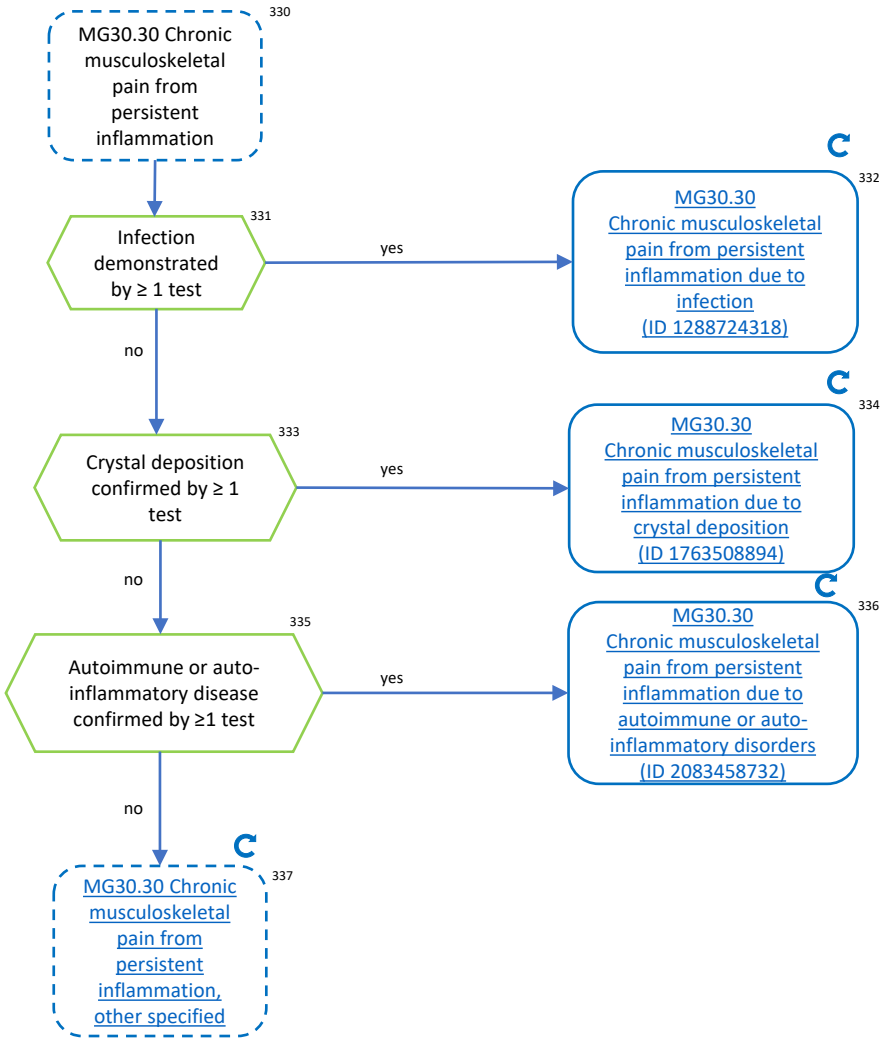
[323] Continue on page 39. This is the second diagnostic level. Continue to find the correct diagnosis on level 3. If you do not wish to continue, and the pain is associated with structural changes due to a musculoskeletal injury, go to the initial decision trunk on page 8, box 11, to check whether the criteria for chronic postsurgical or post traumatic pain are met, and to find the correct diagnosis on the second diagnostic level

[324] For example: motor neuron disease, Morbus Parkinson (see Appendix on page 41 for a list of examples).

[326] Continue on page 40. This is the second diagnostic level. Continue to find the correct diagnosis on level 3.

[327] For example: chronic pain from overuse.

[328, 329] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

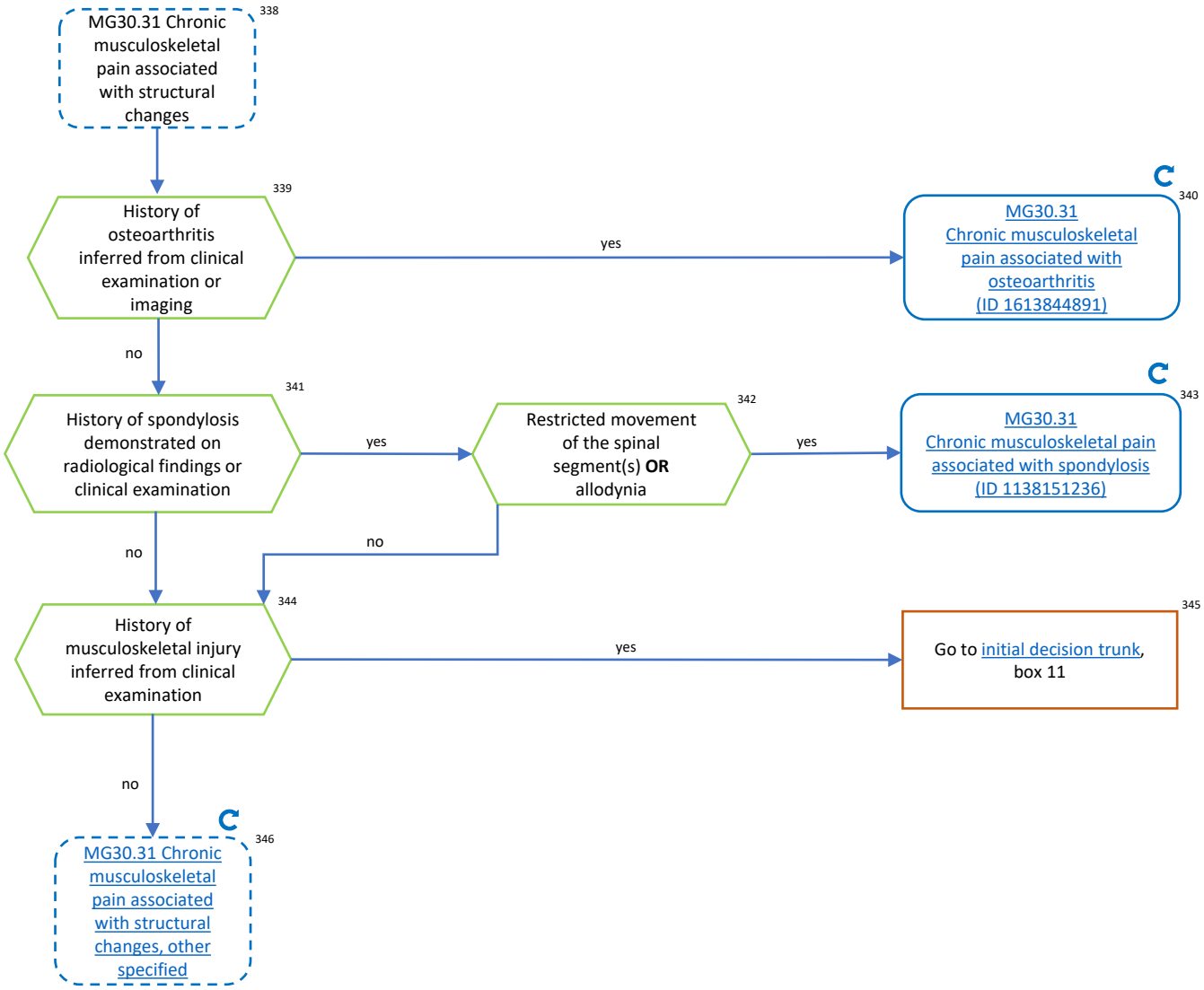


[331] For example: blood sampling.

[332, 334, 336, 337] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[333] For example: uric acid.

[335] For example: blood sampling.

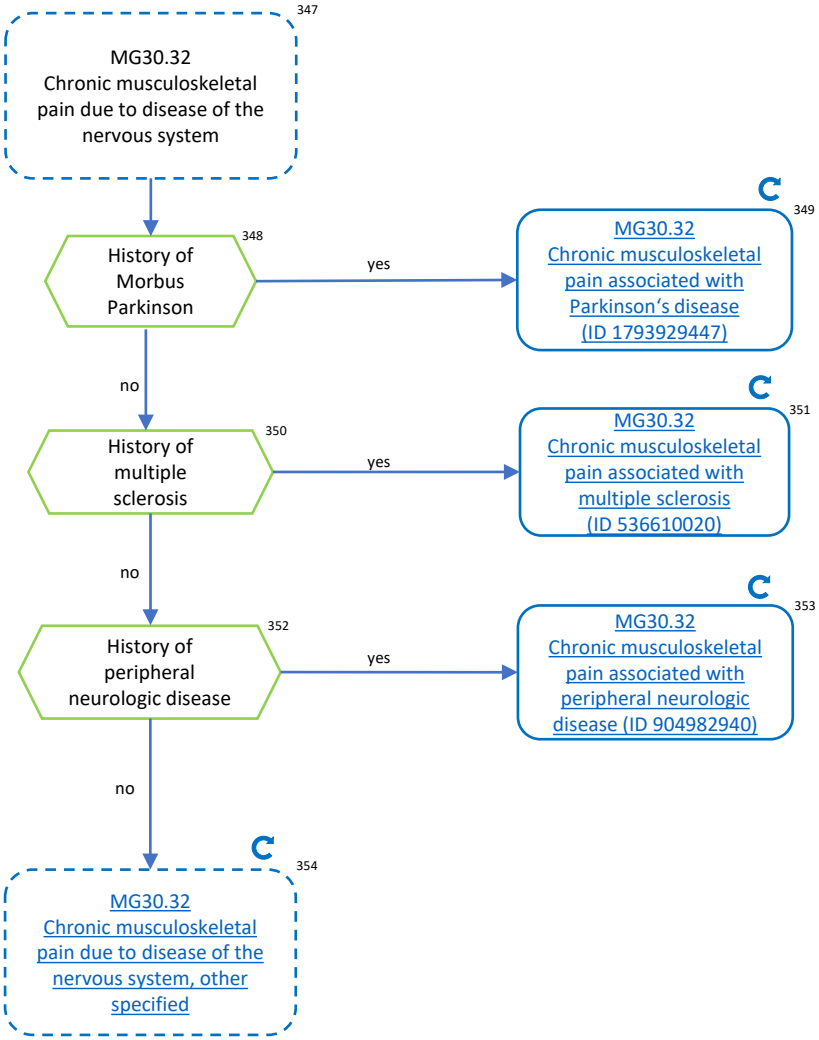


[341] Radiological findings demonstrate changes to intervertebral disc ± osteoarthritis of zygapophyseal joints.

[340, 343, 346] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

[345] Go to the initial decision trunk on page 8, box 11.

[346] This also includes, for example: chronic pain associated with rotator-cuff syndrome, plantar fasciitis, tendinopathy.



[348, 350, 352] As classified elsewhere.

[352] For example: Charcot joint disease in peripheral neuropathy.

[349, 351, 353, 354] Check the pain location chart on page 7 whether all chronic pain has been explained. If additional chronic pain syndromes are present, refer to the initial decision trunk on page 8 to check where to continue.

Appendix: List of exemplary diseases that may be associated with chronic secondary pain

This list gives examples of diseases, injuries, and medical procedures that may be associated with chronic pain. Please note that the chronic pain diagnosis cannot be assigned solely based on the presence of one of these examples. In all cases where an underlying potential cause of chronic secondary pain is present, you need to ensure that all chronic pain diagnostic criteria are met. This list is not exhaustive.

MG30.10 Chronic cancer pain & MG30.11 Chronic post cancer treatment pain

Most tumors and metastases, as well as most cancer treatments, may be associated with chronic pain.

MG30.21 Chronic postsurgical pain

Surgeries that may be associated with chronic postsurgical pain include:

- Abdominal surgery (bowel, colorectal)
- Amputation
- Breast surgery
- Caesarian delivery
- Cholecystectomy
- Cosmetic surgery
- Craniotomy
- Dental surgery
- Herniotomy
- Hip arthroplasty
- Hysterectomy
- Inguinal herniotomy
- Knee arthroplasty
- Mastectomy
- Melanoma resection
- Rectum amputation
- Spinal fusion
- Spinal surgery
- Sternotomy
- Thoracotomy
- Vasectomy

MG30.20 Chronic post-traumatic pain

Injuries that may be associated with chronic post-traumatic pain include:

- Bone fractures
- Brachial plexus injury
- Brain injury
- Burns injury
- Contusion
- Joint injuries
- Ligament injuries
- Muscle injuries
- Peripheral nerve injury
- Spinal cord injury
- Traumatic amputation
- Whiplash injury

MG30.51 Chronic peripheral neuropathic pain
Diseases or lesions of the peripheral nervous system that may be associated with chronic neuropathic pain include:

- Entrapment
    - Carpal tunnel syndrome
    - Morton's neuroma
    - Pudendal syndrome
- Herpes zoster (shingles)
- Nerve injury
- Polyneuropathy, for example due to (the list is not exhaustive):
    - Diabetic polyneuropathy
    - Other metabolic polyneuropathy
    - Polyneuropathy associated with a disease of the immune system
    - Polyneuropathy associated with genetic conditions
    - Polyneuropathy associated with vitamin insufficiency (e.g., vitamin B1 or B12)
    - Polyneuropathy in alcohol abuse
    - Polyneuropathy in human immunodeficiency virus disease (HIV)
    - Polyneuropathy in leprosy
    - Toxic polyneuropathy
- Radiculopathy
- Trigeminal neuralgia

Other factors that may be associated with chronic peripheral neuropathic pain include:

- Alcohol abuse or addiction
- Degenerative changes in nerves
- Exposure to environmental or occupational toxins
- Treatment with neurotoxic drugs

MG30.50 Chronic central neuropathic pain
Diseases or lesions of the central nervous system that may be associated with chronic neuropathic pain include:

- Brain injury
- HIV / AIDS
- Multiple sclerosis
- Spinal cord injury
- Stroke

MG30.42 Chronic secondary visceral pain from persistent inflammation
Inflammatory diseases of internal organs that may be associated with chronic secondary visceral pain include:

- Behçet's disease
- Bronchiectasis
- Chronic appendicitis
- Chronic duodenitis
- Chronic Eosinophilic esophagitis
- Chronic gastritis
- Chronic infectious esophagitis
- Chronic laryngitis
- Chronic oophoritis
- Chronic pancreatitis
- Chronic pericarditis
- Chronic pharyngitis
- Chronic pleurisy
- Chronic prostatitis
- Chronic salpingitis
- Chronic tonsillitis
- Chronic vaginitis
- Crohn's disease
- Cystitis
- Endometriosis
- Gastro-esophageal reflux disease
- Recurrent diverticulitis
- Systemic lupus erythematosus
- Ulcer of esophagus
- Ulcerative colitis
- Urethritis
- Wegner's Granulomatosis

MG30.41 Chronic secondary visceral pain from vascular mechanisms
Alterations of arterial and/or venous blood vessels from/to internal organs that may be associated with chronic secondary visceral pain include:

- Aneurysms (e.g., carotid artery, thoracic aorta)
- Aortic dissection
- Iliac artery aneurysms
- Ischemic colitis
- Ischemic heart disease
- Mesenteric angina
- Pelvic congestion syndrome
- Polyarteritis nodosa
- Sickle cell disease
- Vascular entrapment syndromes
    - Nutcracker syndrome
    - May-Thurner syndrome
    - Median arcuate ligament syndrome
    - Superior mesenteric artery syndrome
- Vasculitis

MG30.40 Chronic secondary visceral pain from mechanical factors

Mechanical factors affecting one or more internal organs that may be associated with chronic secondary visceral pain include:

- Chronic intestinal pseudo-obstruction
- Lithiasis of lower urinary tract
- Obstruction or distension of hollow internal organs
- Recurrent urinary colic
- Sclerosing cholangitis or luminal obstructions of the gastrointestinal tract
- Stenosis
- Stones obstructing the biliary or renal tracts
- Traction or compression of ligaments and vessels to internal organs
- Ureteric kinking

MG30.30 Chronic secondary musculoskeletal pain from persistent inflammation
Infections that may be associated with chronic secondary musculoskeletal pain include:

- Borrelia burgdorferi / Lyme disease
- Brucella
- Chikungunya
- Epstein-Barr virus
- Hepatitis B
- Hepatitis C
- Herpes virus
- HIV
- Human T-lymphotropic virus 1 (HTLV-1)
- Infection of prosthetic joints
- Mycobacteria
- Parvoviruses
- Rickettsia

Crystal depositions that may be associated with chronic secondary musculoskeletal pain include:

- Calcium pyrophosphates
- Hydroxyapatite
- Uric acid / gout

Autoimmune and auto-inflammatory diseases that may be associated with chronic secondary musculoskeletal pain include:

- Psoriatic arthritis
- Rheumatoid arthritis
- Sjögren's syndrome
- Spondyloarthritis
- Systemic lupus erythematosus

MG30.31 Chronic secondary musculoskeletal pain associated with structural changes
Structural changes of the musculoskeletal system that may be associated with chronic secondary musculoskeletal pain include:

- Anatomical changes after bone fracture
- Anatomical changes in entheses
- Anatomical changes in tendons
- Osteoarthritis
- Spondylosis

MG30.32 Chronic secondary musculoskeletal pain associated with a disease of the nervous system
Neurological diseases that may be associated with chronic secondary musculoskeletal pain include:

- Charcot joint disease in peripheral neuropathy
- Extrapyramidal disorders
- Motor neuron disease
- Multiple sclerosis
- Parkinson disease