Primary care pathway: Suspected diabetic peripheral neuropathy

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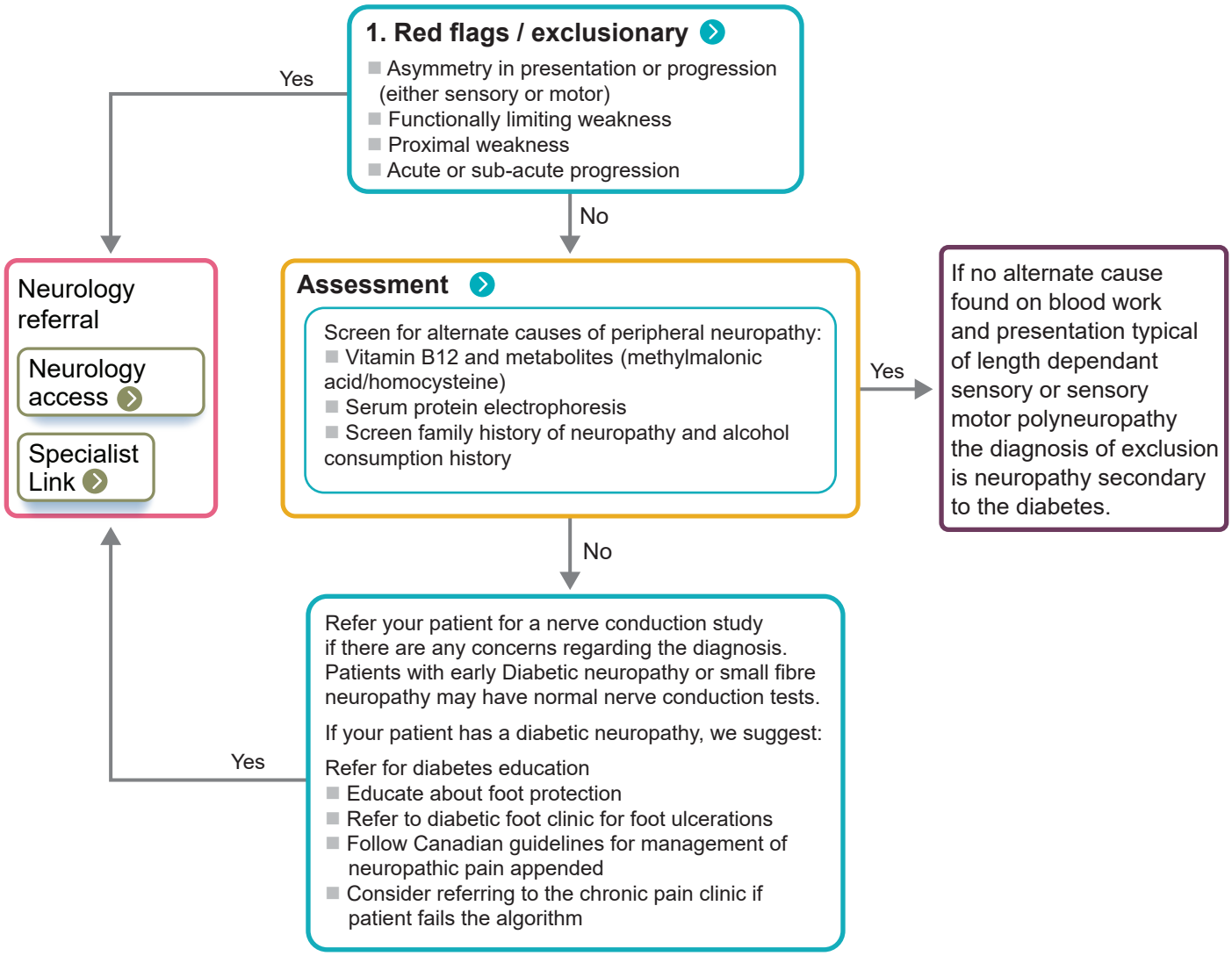

EXPANDED DETAILS

1. Focused summary of DPN relevant to primary care

Based on the information provided in your referral, it is likely that your patient has diabetic peripheral neuropathy. Diabetic neuropathy is common and present in up to 50% of diabetic patients. It is typically a symmetric length dependent neuropathy (stocking glove) with sensory more than motor features. As such, patients will present with complaints of distal numbness/tingling/pain in the feet first. This may slowly ascend and once numbness and tingling is at the level of the knees the hands may be affected. Mild distal predominant weakness may develop slowly over years. Typical progression is gradual over years and may cause balance difficulty due to proprioceptive difficulties as opposed to weakness. Gait dysfunction can occur as the result of loss of sensation but not generally from weakness. Patients with accelerating progression or prominent weakness or weakness resulting in functional limitation such as foot drop should be referred for a nerve conduction study.

Neuropathic pain is pain caused by a lesion or disease of the peripheral somatosensory nervous system. It may be associated with abnormal sensations called dysesthesia or pain from normally non-painful stimuli (allodynia). Common qualities include burning or coldness, "pins and needles" sensations, numbness and itching. It may have continuous and/or episodic (paroxysmal) components. The latter resemble stabbings or electric shocks.

TREATMENT GUIDELINES FOR MANAGEMENT OF DIABETIC PERIPHERAL NEUROPATHY

Suggested management of pain from peripheral neuropathy:

First line treatments are outlined below and are considered equivalent in efficacy. Treatment choice should be based on side effect profile in combination with patient preference. An adequate trial is considered 6 weeks at target dosage. Slow titration over the course of 2-4 weeks to reach target dosage should be used for all medications listed.

Medication	Starting Dose	Target Dose	Maximum Dose
Gabapentin	100mg qhs	600mg TID	1200mg TID
Pregabalin	25mg qhs	150mg BID	300mg BID
SSRI - Duloxetine	30mg qdaily	60mg qdaily	No additional analgesic benefit above 60mg qdaily
SSRI -Venlafaxine	37.5mg qdaily	150mg qdaily	225mg qdaily
Amitriptyline	10mg qhs	30-50mg qhs or divided doses	100mg qhs or divided doses
Nortriptyline	10mg qhs	30-50mg qhs or divided doses	100mg qhs or divided doses

Pharmacotherapy for neuropathic pain in adults: a systematic review and meta-analysis Finnerup, Nanna B et al. The Lancet Neurology, Volume 14, Issue 2, 162 – 173. Also consider topical treatments based on their low chance of seriously adverse side effects. Consider one of the following:

Recommendations based on:

- Amitriptyline 5% topically bid or tid
- Lidocaine 5% topically bid or tid
- Ketamine 10% topically bid or tid
- Prescription tips:
  - Start with single ingredients to identify which ingredients are effective. If more than one agent is helpful, they can be combined in one preparation.
  - Most pharmacies will carry PLO gel and can make simple compounds, e.g. diclofenac in PLO gel. If they do not have compounding facilities, the majority of pharmacies will subcontract to a pharmacy that does so.
  - Patients complaining of stickiness from PLO gel may benefit from a vanishing penetrating cream (Trans-Pen, VanishingPen, or VanPen). A simple prescription for a topical agent will leave the pharmacist free to use whichever base is appropriate for your patient.

If your patient fails 2 first line treatment trials please call Specialist Link to arrange a telephone consultation with a pain specialist.

BACKGROUND

About this pathway

- The pathway is intended to provide evidence-based guidance to support primary care and specialty care providers with suspected diabetic neuropathy. Neuropathic tele-advice is available via Specialist Link (see advice section under Provider Resources).

Authors and conflict of interest declaration

- This pathway was developed by leveraging the collective knowledge, experience and expertise of many individuals. For more information, please email info@calgaryareapcns.ca.

Pathway review process, timelines

- Primary care pathways undergo scheduled review every three years, or earlier if there is a clinically significant change in knowledge or practice. This pathway was developed in April 2017 and was most recently updated in November 2024. The next scheduled review is November 2026. However, we welcome feedback at any time. Please email comments to info@calgaryareapcns.ca with “Diabetic Neuropathy Pathway” in the subject line.

Copyright information

DISCLAIMER

This pathway represents evidence-based best practice but does not override the individual responsibility of health care professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified health care professional. It is expected that all users will seek advice of other appropriately qualified and regulated health care providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.

PROVIDER RESOURCES

Advice options

- Non-urgent telephone advice connects family physicians, nurse practitioners and specialists in real time via a tele-advice line. Family physicians, nurse practitioners and specialists can request non-urgent advice from a neurologist, at specialistlink.ca or by calling 403-910-2551. This service is available from 8 a.m. to 5 p.m. Monday to Friday (excluding statutory holidays). Calls are returned within two (2) hours.
- Non-urgent neurology advice is available across the province via Alberta Netcare eReferral eConsult (responses are received within five calendar days). Visit https://www.albertanetcare.ca/learningcentre/eReferral.htm for more information.

www.iasp-pain.org/Education/Content.aspx?ItemNumber=6530 (International Association For the Study of Pain – Neuropathic Pain Publications and Guidelines)
www.nice.org.uk/guidance/cg173 (National Institute for Health and Care Excellence – Neuropathic pain in adults: pharmacological management in non-specialist settings)
www.cfp.ca/content/63/11/844 (Canadian Family Physician: Pharmacologic management of chronic neuropathic pain)
www.albertahealthservices.ca/scns/Page13331.aspx (Diabetes Foot Care Clinical Pathway Tools and Resources)

PATIENT RESOURCES

www.chronicpaincanada.com (Chronic Pain Association of Canada)
www.canadianpainsociety.ca (Canadian Pain Society)
www.painbc.ca (Pain BC)
www.cirpd.org (Canadian Institute for the Relief of Pain and Disability)
Understanding pain: What to do about it in less than 5 minutes Hunter Integrated Pain Service or go to Google YouTube and type in "*understanding chronic pain five minutes*"
/www.paintoolkit.org (Pete Moore, UK, person with pain; skills covered include acceptance, pacing, setting goals, relaxation, self-monitoring, flare-up)
Better Choices Better Health: Self-Management Workshops: Contact Alberta Healthy Living Program – Calgary Zone for information and to register: 403-9-Health (403-943-2584) or go to: www.albertahealthservices.ca/services/bcbh.aspx