WHAT IS NEUROPATHIC PAIN?

It is different from nociceptive/inflammatory pain and hence why it responds poorly to traditional analgesics. Neuropathic pain is due to abnormal stimuli of nerves. Pain does not always arise from the local area but from the nerves supplying that area somewhere along the course of the nerve.

It is common – 2 to 4% population which means the average GP has between 35 to 70 patients with this problem.

CAUSES

- Metabolic – diabetes, renal failure, thyroid disease
- Infective – Herpes Zoster, HIV
- Trauma – surgery leading to painful scars, Complex Regional Pain Syndromes, phantom limb pain
- Toxic - alcohol, cytotoxic drugs, drugs such as statins
- Inflammatory/autoimmune – demyelination, rheumatoid arthritis
- Vascular – trigeminal neuralgia, central post stroke pain
- Malignancy – tumour infiltration
- Musculoskeletal – myofascial pain squeezing a nerve, radiculopathy

SIGNS AND SYMPTOMS

- Can be spontaneous, continuous, intermittent, superficial or evoked
- Pain will often be described as burning, sharp, shooting, lanciating, itching, pins and needles, indescribable in terms of normal reference (patients often get distressed as they are not voice their pain in a way that they think is normal and are therefore worried they will not be believed).
- Can be made worse by temperature, or touch

USE OF LANSS SCORING TOOL TO ASSIST DIAGNOSIS

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you have pins and needles / numbness / tingling?</td>
<td>Yes (5) No (0)</td>
</tr>
<tr>
<td>2. Does painful area change colour?</td>
<td>Yes (5) No (0)</td>
</tr>
<tr>
<td>3. Does skin in painful area feel sensitive to touch?</td>
<td>Yes (3) No (0)</td>
</tr>
<tr>
<td>4. Do you get feelings like an electric shock?</td>
<td>Yes (2) No (0)</td>
</tr>
<tr>
<td>5. Do you get a feeling of burning where the pain is?</td>
<td>Yes (1) No (0)</td>
</tr>
<tr>
<td>1. Test with cotton wool for allodynia</td>
<td>Yes (5) No (0)</td>
</tr>
<tr>
<td>2. Is there an altered sensation to a needle prick?</td>
<td>Yes (3) No (0)</td>
</tr>
</tbody>
</table>

Total score

Less than 12 = neuropathic pain unlikely.
Greater than 12 = likely neuropathic pain.
INVESTIGATIONS

- If there is doubt as to the underlying disease process the following investigations should be considered.
- Urine – glucose and protein
- ESR/c-reactive protein
- Folate
- Fasting glucose
- U & E
- FBC
- B12
- LFT
- TFT
- HbA1c
- Radiology

TREATMENT OF NEUROPATHIC PAIN

- Ensure basic medications are being taken regularly as per the WHO ladder

<table>
<thead>
<tr>
<th>MILD PAIN</th>
<th>MODERATE PAIN</th>
<th>SEVERE PAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARACETAMOL 1g QDS</td>
<td>STOP weak opioid</td>
<td>ADD STRONG OPIOID as per GPMTC guidance</td>
</tr>
<tr>
<td>+/- NSAID if no contra-indication</td>
<td>+/- NSAID if no contra-indication</td>
<td></td>
</tr>
<tr>
<td>PARACETAMOL 1g QDS</td>
<td>WEAK OPIATE – codeine/tramadol</td>
<td></td>
</tr>
<tr>
<td>+/- NSAID if no contra-indication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Ensure general pain advice is given – planning and pacing activities, self management skills
- Ensure that gentle exercise is continued including formal physiotherapy where appropriate
- Consider non-pharmalogical treatment modalities – TENs, acupuncture, relaxation techniques
- See flow chart below for specific treatment – patients are unlikely to get 100% pain relief so they need to be realistic in their expectations
- Expert Patient Programmes may be useful to provide these patients with better coping strategies

POSSIBLE REASONS FOR REFERRAL TO PAIN SERVICE

- Unable to tolerate medication
- Inadequate coping strategies BUT the patient will be expected to learn self management techniques and so needs to be willing to be a partner in their treatment
- Diagnosis is unclear (referral may not always be to pain clinic – neurology/general medicine may need to be considered depending on potential diagnosis)
- Patients have tolerated medications but not achieved any pain relief
**NON-FOCAL NEUROPATHIC PAIN**

**AMITRIPTYLINE** — start at 10mg and titrate by 10mg a week until 75mg daily (in divided doses or as a single dose at bedtime) is reached. Maximum tolerated dose should be used for 4 weeks before benefits can be judged.
- Care with drug interactions and use in the elderly
- If satisfactory improvement – continue the treatment; improvement sustained – consider reducing dose
- If amitriptyline* gives satisfactory pain reduction but adverse effects not tolerated – consider oral imipramine*

**STOP IF NO BENEFIT** *slowly over 4 weeks*

**GABAPENTIN capsules†** — start at 300mg nocte (100mg if patient very frail or very susceptible to sedative medications). Titrate up according to side-effects to a maximum of 1800mg per day. Once on maximum tolerated dose wait for 2 weeks to assess effect; 30 to 40% pain relief would be considered as a significant decrease.

**IF NO BENEFIT or NOT TOLERATED** *(due to adverse effects or difficulty adhering to dosage schedule)*

▼ **PREGABALIN** — start at 75mg nocte. If tolerated increase to 75mg BD. This can then be titrated according to side effects to a maximum of 600mg daily in two divided doses.
- Once on maximum tolerated dose wait for 2 to 4 weeks to assess effect – 30 to 40% pain relief would be considered significant.

**IF NO BENEFIT REFER FOR PAIN CLINIC REVIEW**
Topical lidocaine (Versatis®) may play a role as a rescue analgesic (while waiting for a referral to a specialist pain service) in a very small subgroup of people with localised pain who are unable to take oral medication because of medical conditions and/or

**FOCAL NEUROPATHIC PAIN**

**CAPSAICIN cream 0.075% (Axsain)**

**LIDOCAINE PLASTER (Versatis®)**
licensed for post herpetic neuralgia
- used 12 hours on and 12 hours off
- Can be cut to cover area (possibly allowing more economic use)
- No more than 3 patches should be applied at any one time
- Do not use on broken skin
- One month trial required before assessing efficacy

**IF NO BENEFIT**

NB: Consider **CARBAMAZEPINE** for trigeminal neuralgia

---

*In these recommendations, drug names are marked with an asterisk if they do not have UK marketing authorisation for the indication in question. Informed consent should be obtained and documented
† Sept 2010 Drug Tariff costs: 100 x gabapentin 300mg capsules = £4.99, 100 x gabapentin 600mg tablets = £29.08