

Costing statement

**Neuropathic pain –  
pharmacological management:  
the pharmacological management  
of neuropathic pain in adults in  
non-specialist settings**

Published: November 2013

<http://guidance.nice.org.uk/CG173>

# 1 Introduction

- 1.1 This costing statement considers the cost implications of implementing the recommendations made in [‘Neuropathic pain – pharmacological management’ \(NICE clinical guideline 173\)](#).
- 1.2 A costing statement has been produced for this guideline because it is considered that implementation of the recommendations needs to be considered at a local level.
- 1.3 A number of pharmacological treatments can be used to manage neuropathic pain outside of specialist pain management services. However, there is considerable variation in how treatment is initiated, the dosages used and the order in which drugs are introduced, whether therapeutic doses are achieved and whether there is correct sequencing of therapeutic classes. Therefore, we encourage organisations to evaluate their own practices against the recommendations in the NICE guideline and assess resource impact locally.

# 2 Background

- 2.1 Pain is an unpleasant sensory and emotional experience that can have a significant impact on a person’s quality of life, general health, psychological health, and social and economic wellbeing. The International Association for the Study of Pain ([IASP 2011](#)) defines neuropathic pain as ‘pain caused by a lesion or disease of the somatosensory nervous system’. Central neuropathic pain is defined as ‘pain caused by a lesion or disease of the central somatosensory nervous system’, and peripheral neuropathic pain is defined as ‘pain caused by a lesion or disease of the peripheral somatosensory nervous system’.
- 2.2 A review of the epidemiology of chronic pain found that there is no accurate estimate available for the population prevalence of neuropathic pain (Smith et al. 2012). This is likely to be partly because of differences

in the definitions of neuropathic pain and methods of assessment (Smith and Torrance 2010, Smith et al. 2012).

### 3 Recommendations with potential resource impact

3.1 Table 1 below lists the specific recommendations that may have a resource impact at a local level, depending on current services. These are discussed in more detail in below.

**Table 1 Recommendations with potential resource impact**

Details	Recommendation number
Offer a choice of amitriptyline, duloxetine, gabapentin or pregabalin as initial treatment for neuropathic pain (except trigeminal neuralgia) <sup>1</sup> .	1.1.8
If the initial treatment is not effective or is not tolerated, offer one of the remaining 3 drugs, and consider switching again if the second and third drugs tried are also not effective or not tolerated.	1.1.9

3.2 The costs of the recommended drugs for neuropathic pain are shown in Appendix A.

3.3 Recommendation 1.1.8 recommends two further first-line options for the treatment of neuropathic pain, duloxetine, which was previously recommended only for painful diabetic neuropathy, and gabapentin.

3.4 Implementation of the guideline is not anticipated to have a significant impact on NHS resources as the costs of the further options for treatment are similar to existing practice. Organisations are advised to check local prescribing practice to ascertain the resource impact of any changes in prescribing practice at a local level.

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<sup>1</sup> At the time of publication (November 2013), amitriptyline did not have a UK marketing authorisation for this indication, duloxetine is licensed for diabetic peripheral neuropathic pain only, and gabapentin is licensed for peripheral neuropathic pain only, so use for other conditions would be off-label. In addition, the Lyrica (Pfizer) brand of pregabalin has patent protection until July 2017 for its licensed indication of treatment of peripheral and central neuropathic pain; until such time as this patent expires generic pregabalin products will not be licensed for specific indications and their use may be off-label and may infringe the patent, see summaries of product characteristics of pregabalin products for details. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's [Good practice in prescribing and managing medicines and devices](#) for further information.

3.5 The introduction of gabapentin creates a further option for the treatment of neuropathic pain. Expert opinion suggests that this may reduce the use of the more expensive treatment options, but organisations are advised to check local prescribing practice.

## **4 Other considerations**

4.1 Recommendation 1.1.1 about the key principles of care reinforces good clinical practice and so is not expected to have a significant resource impact.

4.2 Expert clinical opinion suggested that recommendation 1.1.2 on referral to a specialist pain service or condition-specific service is unlikely to lead to an increase in referrals to specialist pain services. Some experts have suggested that there may even be a slight decrease in referrals if the guideline is implemented, because of more effective pain control.

4.3 Recommendations 1.1.3 to 1.1.7 concerning monitoring treatment, assessing effectiveness and starting or changing treatments are not anticipated to have a significant resource impact because they reiterate good clinical management. However, expert opinion has suggested that more regular reviews than are undertaken at present may be necessary, and that the titration of newly initiated medications to obtain the optimal dose for pain relief may need additional time. As these reviews are likely to take place in primary care, this may have an impact on GP time.

4.4 In the previous guideline, tramadol was recommended as a third-line treatment instead of or in combination with the second-line treatment or as monotherapy. It is now recommended only if acute rescue therapy is needed (recommendation 1.1.10). This change in recommendation is expected to have a minimal impact on cost.

4.5 Expert opinion suggests that the future use of capsaicin cream (recommendation 1.1.11) is difficult to estimate, but difficulty with toleration may limit its use, so any resource impact is anticipated to be negligible.

- 4.6 Recommendation 1.1.12 about treatments that should not be started in a non-specialist setting is unlikely to have a significant impact on resources, as it is uncommon for these treatments to be initiated in a non-specialist setting.
- 4.7 The GDG recognised that carbamazepine (recommendation 1.1.13) is the only drug currently licensed for trigeminal neuralgia, and is widely used in current practice. Therefore, implementation of the guideline is not expected to have a significant resource impact.

## **5 Conclusion**

, Implementation of the guideline is not anticipated to have a significant impact on NHS resources as the costs of the further options for treatment are similar to existing practice.

The resource impact of implementing this guideline will be dependent on local prescribing practice. Organisations are advised to check local prescribing practice to ascertain the resource impact of any changes in prescribing practice at a local level.

## **6 References**

International Association for the Study of Pain (IASP 2011) -  
<http://www.iasp-pain.org/Content/NavigationMenu/GeneralResourceLinks/PainDefinitions/default.htm#Neuropathicpain>

## Appendix A. Daily dosages and cost of recommended drugs

Drug	Daily dosage <sup>1</sup>	Cost per Electronic Drug Tariff <sup>2</sup>	Cost per day	Annual Cost <sup>4</sup>
Amitriptyline	50 mg <sup>3</sup> once daily	50-mg tablets – £0.99 for 28 40-mg tablets - 4 x 10-mg - £0.87 for 28	£0.03 £0.12	£ 10.95 £43.80
Gabapentin	1800 mg (600 mg three times daily)	600-mg capsules – £11.50 for 100 300-mg capsules – £3.54 for 100 400-mg capsules x 4 + 2 x– 100-mg capsules - £4.53 and £2.56 for 100 respectively	£0.35 £0.21 £0.23	£127.75 £76.65 £83.95
Duloxetine	60 mg once daily	60-mg capsules – £27.72 for 28	£0.99	£361.35
Pregabalin	300 mg (150 mg twice daily)	150-mg capsules – £64.40 for 56	£2.30	£839.50
Tramadol	400 mg (100 mg four times daily)	50-mg capsules – £3.73 for 100	£0.30	£109.50
Capsaicin cream (0.075%)	4 g (1 g four times daily)	45-g tube – £14.58	£1.32	£481.80
Carbamazepine <sup>5</sup>	800 mg (200 mg four times daily)	200-mg tablets – £5.78 for 28	£0.80	£292.00
<p>1 The Guideline Development Group (GDG) provided estimates of the most common doses for each drug. The GDG pharmacist checked and confirmed drug prices and formulations (table F15 of Appendix F of the <a href="#">full guideline</a>).</p> <p>2 The drug costs are taken from the NHS Electronic Drug Tariff, September 2013.</p> <p>3 The mean daily dose for amitriptyline is 37.5 mg. This has been rounded up to 50 mg for the purpose of calculating the cost per dose, as this is the nearest whole-tablet dosage.</p> <p>4 The GDG advised that the administration costs of the drugs would be equal in a primary care setting, so these have excluded from the costs above.</p> <p>5 Carbamazepine is currently the only drug licensed for the treatment of trigeminal neuralgia.</p>				

## About this costing statement

This costing statement accompanies the clinical guideline: [Neuropathic pain – pharmacological management: the pharmacological management of neuropathic pain in adults in non-specialist settings](#) (NICE clinical guideline 173).

**Issue date:** November 2013

### This statement is written in the following context

This statement represents the view of NICE, which was arrived at after careful consideration of the available data and through consulting healthcare professionals. It should be read in conjunction with the NICE guideline. The statement is an implementation tool and focuses on those areas that were considered to have potential impact on resource utilisation.

The cost and activity assessments in the statement are estimates based on a number of assumptions. They provide an indication of the potential impact of the principal recommendations and are not absolute figures.

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