AUSTRALIAN & NEW ZEALAND ASSOCIATION OF NEUROLOGISTS

RACP Specialists. Together
EDUCATE ADVOCATE INNOVATE

TOP 5 Low-value practices and interventions

The **Australian and New Zealand Association of Neurologists** (ANZAN) has reviewed the evidence and consulted with its expert members to develop the following recommendations to support best patient care and reduce the use of unnecessary or ineffective practices within a given clinical context.

1. **Don't perform imaging of the carotid arteries to investigate simple faints**

2. **Don't perform imaging of the brain to investigate non-acute primary headache disorders**

3. **Don't perform epidural steroid injections to treat patients with low back pain who do not have radicular symptoms in the legs originating from the nerve roots**

4. **Don't use opioids for the treatment of migraine, except in rare circumstances**

5. **Don't routinely recommend surgery for a narrowing carotid artery (>50% stenosis) that has not caused symptoms**

EVOLVE is a physician-led initiative to ensure the highest quality patient care through the identification and reduction of low-value practices and interventions.

EVOLVE is patient-centred and evidence-based, with rigorous and transparent processes. Its focus is to stimulate clinical conversations – between colleagues, across specialties, and with patients – to ensure the care that's delivered is the best for each patient.

EVOLVE is part of a worldwide movement to analyse medical practices and reduce unnecessary interventions. It is an initiative in partnership between the RACP and the Specialty Societies, Divisions, Faculties and Chapters.

For more information email EVOLVE@racp.edu.au
www.evolve.edu.au

#racpEVOLVE

evolve
evaluating evidence. enhancing efficiencies.

AUSTRALIAN & NEW ZEALAND
ASSOCIATION OF NEUROLOGISTS

RACP
Specialists. Together
EDUCATE ADVOCATE INNOVATE

1 Don't perform imaging of the carotid arteries to investigate simple faints

Syncope is common, with a lifetime prevalence of 40%. Carotid imaging studies such as carotid duplex are commonly performed in patients presenting with syncope. When symptomatic, occlusive carotid artery disease causes focal neurologic symptoms such as weakness, altered sensation or speech, and not syncope. In addition, studies demonstrate that even elderly patients with syncope are unlikely to have carotid occlusive disease. Therefore, performing carotid imaging studies in patients with syncope increases cost without adding benefit. Furthermore, carotid imaging may identify incidental asymptomatic occlusive carotid artery disease that may be inappropriately assumed to be the cause of the syncope. This can delay the identification of the true cause of syncope and may subject the patient to additional risk-associated procedures such as catheter angiography, carotid endarterectomy (CEA), or carotid stenting.

2 Don't perform imaging of the brain to investigate non-acute primary headache disorders

Headache is a common disorder with many potential causes. The primary headache disorders, which include migraine and tension headaches, account for the majority of headaches. Secondary headaches, which are those with underlying pathology (e.g., tumour, aneurysm, or giant cell arteritis) are far less common. Most patients presenting with headache will not have a serious underlying condition. Neuroimaging is not usually warranted for patients with recurrent migraine or tension headaches and a normal neurological examination. The likelihood of significant intracranial lesions on CT or MRI in this group is less than 1% and can be as low as 0.2%. Headache worsened by Valsalva manoeuvre, headache causing awakening from sleep, new headache in the older population, or progressively worsening headache may indicate a higher likelihood of finding significant abnormalities on CT or MRI as does the presence of abnormal neurological signs on examination.

3 Don't perform epidural steroid injections to treat patients with low back pain who do not have radicular symptoms in the legs originating from the nerve roots

While there is low-quality evidence that lumbar epidural steroid injections may provide limited short term benefit (less than 3-6 months) for patients with an acute lumbar radiculopathy causing back pain and symptoms in the legs, when there is low back pain alone, the outcomes of epidural steroid injections are poor. Although serious adverse events are rare, catastrophic events can occur and any symptom relief from the injection is typically brief. The inconsequential benefits of epidural steroid injections for low back pain without radicular symptoms do not outweigh its risks, no matter how small they may be.

For more information email EVOLVE@racp.edu.au
www.evolve.edu.au

#racpEVOLVE

evolve
evaluating evidence. enhancing efficiencies.

AUSTRALIAN & NEW ZEALAND
ASSOCIATION OF NEUROLOGISTS

RACP
Specialists. Together
EDUCATE ADVOCATE INNOVATE

4 Don't use opioids for the treatment of migraine, except in rare circumstances

Migraine is the most frequent cause of headache seen in the medical office, urgent care, or emergency department. Almost all patients should receive migraine-specific medications or non-opioid analgesics because these medications are the most effective migraine treatments. However, many patients continue to receive opioids for migraine treatment. Use of opioids increases the risk of headache and chronic migraine arising from medication overuse. The per capita cost of headache and chronic migraine arising from medication overuse can be 3 times that of episodic migraine according to a European study (Diener et al. 2005). When medical conditions such as cardiovascular disease or pregnancy preclude use of migraine-specific treatments, or when migraine-specific treatments fail, opioids are sometimes considered for rescue therapy. In these circumstances, use should be limited to 9 days per month or less to avoid medication overuse headache, and doctors should continue to focus on preventive and behavioural aspects of migraine care. In addition, long-term follow-up is needed to prevent treatment complications.

5 Don't routinely recommend surgery for a narrowing carotid artery (>50% stenosis) that has not caused symptoms

Best medical therapy is generally the appropriate management of patients with asymptomatic carotid stenosis. Medical treatment has improved since trials comparing carotid endarterectomy (CEA) plus best medical treatment with best medical treatment in asymptomatic carotid stenosis were conducted. There is evidence that the annual stroke rate in patients with asymptomatic carotid stenosis receiving best medical treatment has fallen to ≤1% annually. The effectiveness of CEA compared with current best medical therapy is not established. Additionally, randomised trials suggested equivocal benefit in women and patients aged >75. It may be reasonable to consider CEA for highly selected patient aged <75 years with >70% stenosis of the internal carotid artery. Where the perioperative risk of stroke, death and myocardial infarction is <3% and the patient is estimated to have a life expectancy of more than 3 to 5 years, consultation with a physician with expertise in stroke care is recommended prior to surgery.

How this list was developed….

The ANZAN Council considered 12 clinical practices in neurology which may be overused, inappropriate or of limited effectiveness in a given clinical context. After choosing the top 5 items to prioritise, these were passed on to the appropriate subspecialty committees within ANZAN for comment and additional suggestions. The final list of the top 5 items chosen was compiled following a review of the evidence and the formulation of suitable recommendations and endorsed by the Council on 7th January 2016.

AUSTRALIAN & NEW ZEALAND
ASSOCIATION OF NEUROLOGISTS

RACP
Specialists. Together
EDUCATE ADVOCATE INNOVATE

Australian and New Zealand Association of Neurologists – Top 5 recommendations

EVIDENCE SUPPORTING RECOMMENDATION 1

Kadian-Dodov D. Diagnostic utility of carotid artery duplex ultrasonography in the evaluation of syncope: A good test ordered for the wrong reason. ***Eur Heart J Cardiovasc Imaging*** 2015; 16(6): 621-5

Maung AA. Routine or protocol evaluation of trauma patients with suspected syncope is unnecessary. ***J Trauma*** 2011; 70(2): 428-32

Salomeh K, Cheng EM, Naseri A, et al. Common Reasons That Asymptomatic Patients Who Are 65 Years and Older Receive Carotid Imaging. JAMA Internal Medicine, 2016; DOI: 10.1001/jamainternmed.2016.0678

Strickberger SA. AHA/ACCF Scientific Statement on the Evaluation of Syncope 2006; 113: 316-327

EVIDENCE SUPPORTING RECOMMENDATION 2

Health Quality Ontario. Neuroimaging for the Evaluation of Chronic Headaches: An Evidence-Based Analysis. ***Ont Health Technol Assess Ser*** 2010; 10 (26): 1–57

Frishberg BM, Rosenberg JH, Matchar DB, et al. Evidence based guidelines in the primary care setting: neuroimaging in patients with non-acute headache

EVIDENCE SUPPORTING RECOMMENDATION 3

Choi HJ. Epidural steroid injection therapy for low back pain: A meta-analysis. ***Int J Technol Assess Health Care*** 2013; 29(3): 244-53

Quaraishi NA. Transforaminal injection of corticosteroids for lumbar radiculopathy: Systematic review and meta-analysis. ***Eur Spine J*** 2012; 21(2): 214-9

Staal JB. Injection therapy for subacute and chronic low-back pain. Cochrane Database Syst Rev 2008; 16:(3)

EVIDENCE SUPPORTING RECOMMENDATION 4

Bigal ME. Acute migraine medications and evolution from episodic to chronic migraine: A longitudinal population-based study. ***Headache*** 2008; 48(8): 1157-1168

Diener H, Limmroth V. Medication-overuse headache: a worldwide problem The Lancet Neurology, 2005;4: 11-12

Evers S. European Federation of Neurological Societies. EFNS guideline on the drug treatment of migraine – revised report of an EFNS task force. ***Eur J Neurol*** [Online] 2009; 16(9): 968-81

Linde M, Gustavsson A, Stovner LJ, et al. The cost of headache disorders in Europe: the Eurolight project. Eur J Neurol. 2012 May;19(5):703-11. doi: 10.1111/j.1468-1331.2011.03612.x. Epub 2011 Dec 5.

Tepper SJ. Opioids should not be used in migraine. ***Headache*** 2012; 52 Suppl 1:30-4

Worthington I, Pringsheim T, Gawel MJ, et al. Canadian Headache Society Guideline: acute drug therapy for migraine headache. Can J Neurol Sci. 2013 Sep;40(5 Suppl 3):S1-S80

EVIDENCE SUPPORTING RECOMMENDATION 5

Halliday A. Prevention of disabling and fatal strokes by successful carotid endarterectomy in patients without recent neurological symptoms: Randomised controlled trial. ***Lancet*** 2004; 363(9420): 1491-502

Lanzino G. Treatment of Carotid Artery Stenosis: Medical Therapy, Surgery, or Stenting? ***Mayo Clin Proc***. 2009; 84(4): 362–368

Marquardt L. Low risk of ipsilateral stroke in patients with asymptomatic carotid stenosis on best medical treatment: A prospective, population-based study. ***Stroke*** 2010; 41(1): e11-7

evolve
evaluating evidence. enhancing efficiencies.