

Neurology and current knowledge

Glenn Duns

As we near the end of another quality improvement (QI) and continuing professional development (CPD) triennium, the issue of keeping up with new developments in medicine comes to mind. The concept of a 'half-life' of medical knowledge is well recognised,¹ with the implication that much of what was learned in medical school will become obsolete over time. Committing to CPD helps maintain best practice in the face of this gradual erosion of what might previously have been considered bedrock knowledge.

One issue can be deciding where to focus CPD efforts. The scope of general practice is vast, as reflected by the Royal Australian College of General Practitioners' (RACGP's) curriculum. In the face of such an expanse of knowledge, it makes sense to focus on common clinical concerns that are of immediate relevance to patient care in general practice, and this is certainly an important consideration in commissioning articles for publication in *Australian Family Physician (AFP)*.

However, advances in medicine that may not be immediately applicable to clinical practice in the general practice setting are also of great interest. Some advances are first applied at the subspecialty level, and patients may present with questions prior to undergoing a particular procedure or investigation. Additionally, in the information age new research findings can be disseminated globally to all individuals, medically trained or not. Thus, it is important on a practical level to keep abreast of significant developments in order to provide appropriate counselling when needed.

In this issue of *AFP*, on neurology, we present a mix of articles that provide both immediately relevant clinical information and recent advances in neurology that are just being translated into clinical practice. In their article, Phan, Panizza and Wallwork present an overview of Bell's palsy and associated practical management considerations.² Tamangani describes the use and interpretation of common imaging modalities for investigating neurological conditions,³ most typically magnetic resonance imaging (MRI) and computed tomography (CT). Henderson et al, from the Bettering the Evaluation and Care of Health (BEACH) team, provide an update on chronic pain and the use of pregabalin.⁴

Finally, Barras et al present a detailed description of functional MRI (fMRI),⁵ an investigation that is seeing increased clinical use at the subspecialty level and is generating new understanding about the structure and function of the human brain.⁶ Apart from the interest generated by the remarkable physiology and technology underlying this imaging technique, readers will also find this article useful in counselling the increasing number of patients who will undergo this investigation.

As discussed in Tamangani's article, in recent years we have seen the extension of Medicare's requesting rights for diagnostic imaging by general practitioners (GPs). A request for MRI of the brain by a GP is now subsidised by Medicare in the setting of unexplained seizure(s) and unexplained chronic headache.⁷ It is easy to imagine how fMRI may be incorporated into clinical general practice. For example, in the near future we could see GPs ordering fMRI as part of the diagnostic workup of dementia,⁸ depression and anxiety disorders.⁹

Ongoing advances in medical knowledge can both challenge and inspire us to continue to learn and develop throughout our professional careers. As advances in medicine illuminate the biological underpinnings of the human condition, general practice will continue to play a crucial role in helping to translate these advances into a practical and meaningful context for our patients,¹⁰ and this can be a source of lifelong interest, inspiration and engagement.

Author

Glenn Duns MDCM, FRACGP, MPH is a medical editor at *AFP* and a general practitioner in Mill Park, Victoria.

References

1. Shojania KG, Sampson M, Ansari MT, Ji J, Doucette S, Moher D. How quickly do systematic reviews go out of date? A survival analysis. *Ann Intern Med* 2007;147(4):224–33.
2. Phan NT, Panizza B, Wallwork B. A general practice approach to Bell's palsy. *Aust Fam Physician* 2016;45(11):794–97.
3. Tamangani J. Neuroimaging. *Aust Fam Physician* 2016;45(11):788–92.
4. Henderson J, Pollack AJ, Pan Y, Miller GC. Neuropathic and non-neuropathic chronic pain at GP encounters: Prevalence, patient characteristics, suffering and pregabalin use. *Aust Fam Physician* 2016;45(11):783–86.
5. Barras CD, Asadi H, Baldeweg T, Mancini L, Yousry TA, Bisdas S. Functional magnetic resonance imaging in clinical practice: State of the art and science. *Aust Fam Physician* 2016;45(11):798–803.
6. Glasser MF, Coalson TS, Robinson EC, et al. A multi-modal parcellation of human cerebral cortex. *Nature* 2016;536(7615):171–78.
7. The Royal Australian College of General Practitioners. Clinical guidelines for MRI referral. Melbourne: RACGP, 2013. Available at www.racgp.org.au/your-practice/guidelines/mri-referral [Accessed 5 October 2016].
8. Stoessl AJ. Neuroimaging in the early diagnosis of neurodegenerative disease. *Transl Neurodegener* 2012;1(1):5.
9. Etkin A, Wager TD. Functional neuroimaging of anxiety: A meta-analysis of emotional processing in PTSD, social anxiety disorder, and specific phobia. *Am J Psychiatry* 2007;164(10):1476–88.
10. Gunn J, Palmer V. Visions of generalism – What does the future hold? *Aust Fam Physician* 2014;43(9):649–51.