

RCPE Neurology

3 November 2021

My most instructive mistake – Davenport, Leach & Vaughan

Q. Davenport - Do you think we need to be doing more in training about recognising our individual profile of errors that we are most likely to make? How do we have an open culture where this can be done without fear of retribution?

A. Yes I think medical students should be introduced to error and how to avoid it, although aware that their curriculum is jam packed already – but given that every doctor will make errors, seems relevant. It's also important to equip them as to how to deal/react to error (this might include, perhaps in PG training, dealing with complaints, which can be traumatic for everyone, especially junior docs). An open culture is a different question and much harder to address; doctors and patients don't like the notion of "failure", especially in specialties where error can have immediate and serious consequences (i.e. surgical specialties and emergency/acute medicine) and the threat of medicolegal consequences makes "open culture" a challenge. M&M meetings are one such opportunity. We are taught that honesty and openness with patients and families when things go wrong is always the ideal option and most of us agree with that, although errors are not always immediately obvious, and there may be disagreement as to whether error has even occurred. The best we can do is keep talking about it and ensure that all doctors recognise error/mistakes are part of our jobs, however good we like to think we might be. Surgeons have led the way in some areas with outcome measures - cardiac surgeons in particular started this many years ago, CEPOD, MMBRACE etc are all good examples, but lend themselves to single issues (eg pregnancy) with hard outcomes, much harder to specialities like mine, but not impossible.

Q. (anyone) how do we help build a better coping strategy for ourselves and more importantly in Jnrs?

A. Not sure I am the ideal person to answer this massive culture question. As above, I think openness amongst doctors needs encouragement, M&M meetings where juniors can watch seniors discussing situations where things might have been handled differently/better are important and it should also feature in annual assessment/review. The challenge is that like all humans, doctors have multiple different ways of coping (or not), so it's hard to be proscriptive. I think the days when docs were regarded as infallible are happily behind us, although personally I have been frequently wincing at the very confident assertions that scientists and doctors have been making throughout pandemic – perhaps they were misquoted, but I am not sure we have always shown ourselves in the best light at times, a little more honesty about the uncertainties would have been welcome at times.

Q. (anyone) Do you think that sub- specialist hats makes us more vulnerable to availability errors based on knowledge base?

A Perhaps, but I don't think error/mistake is any more likely in one group of doctors than others. Our (generalists) job is to make sure we feed super specialists the right material, there is certainly no more dangerous a place for a patient than a super specialist clinic with the "wrong" disease!

How I approach the diagnosis of transient neurological attacks - Professor Graeme Hankey

Q. Can TIA present with scotomas as well?

A. Yes, ischaemia of part of the optic nerve, lateral geniculate body, optic tract or radiation, could cause an incomplete monocular or incongruous binocular visual field defect

- Pula JH, Yuen CA. Eyes and stroke: the visual aspects of cerebrovascular disease. *Stroke Vasc Neurol.* 2017 Jul 6;2(4):210-220.

Q. Acute presentation of what sounds to be TGA still not resolved, would you treat as TIA until MRI head?

A. Yes, if a patient presents with sudden onset of memory loss (inability to form new memories), this indicates a disturbance in function of the hippocampus and/or its connections/associated memory circuitry (e.g. mammillothalamic tract),

that could have several causes – e.g. focal ischaemia (arterial, venous), migraine, epileptic, haemorrhage, that need to be excluded (e.g. with urgent CT brain scan etc)

- Bartsch T, Deuschl G. Transient global amnesia: functional anatomy and clinical implications. *Lancet Neurol.* 2010 Feb;9(2):205-14
- Hankey GJ, Stewart-Wynne EG. Amnesia following thalamic hemorrhage. Another stroke syndrome. *Stroke.* 1988 Jun;19(6):776-8

Q. Given all the many symptoms that can occur during TNAs; what of many diagnoses the right one is; how to predict what will happen in the next few minutes, hours, days, months and years; and what any treatment should be — is this not ideal territory for AI and making neurologists redundant?

A. Agree; as Yogi Berra said: "It's tough to make predictions, especially about the future."

AI, if based on valid and reliable data and analysed and interpreted appropriately, could be a useful adjunct/supplement to aid clinicians. Whether it could/will make neurologists/clinicians redundant, I don't know.

Q. My question is not topic of your presentation but I know you expert in this matter. Could guess effectiveness of aspirin in preventing a fatal stroke in 48 hours. I am aware of prof Rothwell paper *Lancet* 2016, on effect of aspirin vs control in 0-6 weeks.

A. As you state, Peter Rothwell's analysis in *Lancet* 2016 indicated that randomisation to aspirin vs placebo within 48 hours of onset of acute presumed ischaemic stroke reduced fatal stroke at 6 weeks from

by two thirds from 42/7326 (0.57%; control) to 16/8452 (0.19%; aspirin): Hazard ratio 0.36 (95%CI: 0.20–0.63); absolute risk reduction 0.37% (treat 1000 saves 4 fatal strokes)

I don't think we have much more reliable data than the Rothwell analysis, as there have not been trials of aspirin vs control in acute ischaemic stroke since IST and CAST (only trials of aspirin plus one or more other antiplatelets vs aspirin [or another antiplatelet])

- Trifan G, Gorelick PB, Testai FD. Efficacy and Safety of Using Dual Versus Monotherapy Antiplatelet Agents in Secondary Stroke Prevention: Systematic Review and Meta-Analysis of Randomized Controlled Clinical Trials. *Circulation*. 2021 Jun 22;143(25):2441-2453.
- Huang WY, Ovbiagele B, Lee M. P2Y12 receptor inhibitor plus aspirin versus aspirin treated within 24 hours of acute noncardioembolic ischemic stroke or TIA: Meta-analysis. *J Formos Med Assoc*. 2021 Aug 20:S0929-6646(21)00364-8. doi: 10.1016/j.jfma.2021.08.006.

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