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A is for aphorism

'Good judgment comes from experience; experience comes from bad judgment'

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'Good judgment comes from experience; experience comes from bad judgment'. This aphorism was attributed to Dr Kerr L White.¹ It makes sense. The physician who exercises bad judgement and makes poor decisions is likely to experience more disease, more complications and, through those experiences, hopefully develop better judgement.¹ Unfortunately, when it comes to the practice of medicine, that experience can come at a high cost. So is there any truth to Dr White's comment?

There is a wide held belief that there may be some truth in this aphorism. While all organisations experience turnover when employees leave and are replaced, this is rarely seen on the scale that occurs each year, if not more regularly, in our teaching hospitals and general practices. At the beginning of each year, new interns fresh from medical school join our workforce. At the same time, senior trainees move to more independent and sometimes supervisory roles. It's the time when everyone is most inexperienced and the concern is that this inexperience could lead to bad judgement and mistakes.^{2,3}

This 'cohort turnover', when experienced trainees depart at the same time that a new group of trainees enter, has been called the 'August killing season' in the United Kingdom and the 'July phenomenon' or 'July effect' in the United States, such is the concern that this transition may result in a deleterious affect on patients.³

Studies exploring the July phenomenon in the US have been inconclusive. A systematic review published in 2011 indicated that mortality did

increase, while efficiency decreased in hospitals because of year-end changeovers.³ More recently, a study looking at patients undergoing surgery for metastatic spinal disease in teaching hospitals around the time of this cohort turnover found that higher rates of in-hospital mortality and intra-operative complications were experienced.⁴ However, a study examining 10 years of data in neurosurgical patients across multiple hospitals found no July phenomenon for neurosurgical mortality or complications.⁵ Similarly, a study published earlier this year looking at the outcomes of more than 1 million spinal surgery patients over 8 years at hospitals across the US found that the influx of trainees in July had a negligible effect on procedural outcomes following spinal surgery.⁶

Certainly experience is helpful in many ways: it can help us to recognise more subtle symptoms earlier in a disease process; to determine when the right treatment may fall outside what we have been taught in textbooks; and when it comes to performing technical procedures, there is certainly evidence that experience is helpful.^{7,8} But does experience always lead to good judgement?

Our medical literature is filled with cases where an individual's experience may lead them to the wrong conclusions. One example is the use of antibiotics for patients with symptoms of acute upper respiratory tract infections.⁹ Here the experience of many doctors, and indeed their patients, would be that antibiotics lead to an improvement in symptoms. Most patients present when they are at their sickest and, upon commencing antibiotics, seem to improve. However, the natural course of their illness would be to resolve with or without antibiotics.⁹ Because of the temporal relationship, it is easy to falsely attribute this improvement to antibiotics. In this case, what seemed to make sense for many years turned out to be wrong, and experienced doctors have had to rethink their treatment decisions.

There are clearly many benefits to experience. However, for many decisions it is important that experience is not the only reason to choose a certain course of investigation or management. There may actually be some benefits to having less experience: more up-to-date education, the energy, enthusiasm and openness that is unique to the beginning of your career, and perhaps less susceptibility to cognitive biases developed by years of thinking and practicing the same way.²

Perhaps the key to optimising care is recognising the strengths and weaknesses we all have, as both experienced and inexperienced clinicians. We need to learn from those moments of both good and bad judgement that we will all continue to experience throughout our careers, and work together to optimise care for both our patients and our profession.

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References

1. Taylor R. White coat tales: Medicine's heroes, heritage and misadventures. New York: Springer, 2008.
2. Meisel ZF, Pines JM. 'July effect' revisited: why experienced docs may not deliver the best care. *Time Magazine*. July 17, 2012.
3. Young JQ, Ranji SR, Wachter RM, Lee CM, Niehaus B, Auerbach AD. 'July effect': impact of the academic year-end changeover on patient outcomes: a systematic review. *Ann Intern Med* 2011;155:309–15.
4. Dasenbrock HH, Clarke MJ, Thompson RE, Gokaslan ZL, Bydon A. The impact of July hospital admission on outcome after surgery for spinal metastases at academic medical centers in the United States, 2005 to 2008. *Cancer* 2012;118:1429–38.
5. Weaver KJ, Neal D, Hoh DJ, Mocco J, Barker FG 2nd, Hoh BL. The 'July phenomenon' for neurosurgical mortality and complications in teaching hospitals: an analysis of more than 850 000 neurosurgical patients in the nationwide inpatient sample database, 1998 to 2008. *Neurosurgery* 2012;71:562–71.
6. McDonald JS, Clarke MJ, Helm GA, Kallmes DF. The effect of July admission on inpatient outcomes following spinal surgery. *J Neurosurg Spine* 2013;18:280–88.
7. Lapar DJ, Mercy CM, Kozower BD, et al. The effect of surgeon volume on mortality for off-pump

coronary artery bypass grafting. *Thorac Cardiovasc Surg* 2012;143:854–63.

8. Janakiraman V, Lazar J, Joynt KE, Jha AK. Hospital volume, provider volume, and complications after childbirth in U.S. hospitals. *Obstet Gynecol* 2011;118:521–27.
9. Arroll B, Kenealy T. Antibiotics for the common cold and acute purulent rhinitis. *Cochrane Database Syst Rev* 2005;3:CD000247.