

Letters to the editor

Grappling with responsibility, dementia and death: notes of a junior doctor

A few years ago I went to see 'The Father', a play exploring the devastating impact advanced dementia has on a father–daughter relationship. As I waited for a friend in the atrium, idly watching the predominantly elderly crowd shuffle silently out the theatre, I witnessed a mundane case of mistaken identity, followed, jarringly, by howls of laughter. As the place erupted, one lady amongst the throng caught my eye – 'you're too young to understand, son'.

Despite being a final year, my training to date had been remarkably dementia light, perhaps because these patients are difficult to learn the art of history taking from. ('When did you develop dementia?' I remember asking a gentleman in general practice – 'I can't remember' he dutifully replied.) Yet, only a few months on, as a junior doctor in geriatrics, dementia became a primary concern; as a doctor, affinity with the decaying mind, familiarity with dying embers of life and a certain cognizance with death were now expected of me, however young.

My early experiences of death fell within the realm of the already dead. Sometimes they were my own patients, whom I knew well, though out of hours they were more often someone I had never met. The death confirmation ritual quickly became part of the rhythm of working life. Over time, horror at a wide-eyed corpse soon gave way to a sense of soothing reprieve from the bustling wards beyond. I found it striking how recent signs of life – a smattering of personal belongings, get-well cards, mourning relatives – in some patients' rooms, contrast with the bare emptiness of others. Working in the east end of Glasgow, the spiritual home of Michael Marmot's work on social determinants of health,¹ it quickly became apparent that inequalities pervade not only life, but death too.

One evening, whilst attending a patient with severe sepsis there was simultaneously a cardiac arrest on the other side of the hospital, drawing away my senior help. With bloods off to the laboratory, antibiotics up and catheter in, I left the familiar hiss of the oxygen mask for the daunting silence of the relatives' room. I paused before chapping the door. In that moment I remember thinking it felt remarkably like an exam; although a testament to our examination system, this time there was no clipboard, no examiner and the relatives were 'real'.

The patient's wife and daughter greeted me more warmly than I had expected, clearly happy to see a doctor (deference towards the doctor is not dead, and certainly not in extremis) – they understood his condition was precarious, listened closely and expressed their own wishes. Whilst he was admitted from home, his advanced dementia and extensive comorbidities meant that the rapid deterioration tonight was not a surprise. The wife and daughter were unequivocal: no CPR, no escalation

to high dependency, no 'heroics'. The medical registrar soon arrived back and we were all in agreement. He died later that night, hand in hand with the people who loved him most.

All clinicians will be familiar with such a patient – as well as the challenge often faced in navigating such a simple, compassionate outcome. I have learned that opting for hospitalisation to 'try just one more course of IVs', or arranging invasive investigations and interventions in order to try and prolong life, are all undertaken at a cost. This includes the ability to benefit from palliation, including hospice care, symptom control and spiritual support, such as chaplaincy services. In spite of this, patients often fall to over investigation, over treatment and a general over medicalisation of ill health.² Doctors increasingly find it hard not to offer interventions, which patients and relatives in turn find it hard to refuse, whilst not opting for the same care themselves, particularly at the end of life.³

The implications of end-of-life decisions are powerfully described in *A Very Easy Death*,⁴ Simone de Beauvoir's account of the drawn out demise of her mother with incurable metastatic cancer, where one can also hear her wail: "It's stupid," said Maman [Mother]. 'It's so stupid.' I could no longer understand the doctors, nor my sister nor myself. Nothing on earth could possibly justify these moments of pointless torment". De Beauvoir's mother was operated on twice, 'shielded' from her diagnosis of metastatic cancer throughout her dying days. Whilst this medical classic derives from a bygone era of dogmatic medical paternalism and physician-centred care,⁵ the underlying theme of a family member coming to terms with death, including the introspective challenge of doing the right thing (avoiding 'pointless torment') is strikingly familiar.

Whilst medical school increasingly teaches students how to break bad news and approach difficult conversations with patients, postgraduate medicine can often leave doctors adrift to deal with the emotional repercussions, with little time or support to process their experiences. I recall a 20-min long CPR in which, during my early months as a doctor, the gravity of heaving the chest, working together to will the heart back into rhythm, was antithetical to the lonely walk back to the ward afterwards, following a failed attempt we neither discussed then or ever again.

The cognitive dissonance of dealing simultaneously with life and death may dissipate with passing years, yet is this developing doctors in a way that the public and profession desire? I sense this is part of an enduring culture within medicine that still often regards 100-hour weeks as the 'making of a man', blinded to the intensity of what modern medicine really is: the 'breaking of a (wo)man'. Against this backdrop, can we really expect empathy, enthusiasm and compassion to thrive? I feel it is worth us all remembering there was a time when illness and death were unfamiliar terrain as we proactively seek to help juniors grapple

with the challenges and responsibilities bestowed upon them – ultimately, this could vindicate the sense of purpose that brought so many of us into medicine to begin with.

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Cognitive bias in laparoscopic cholecystectomy

Notably absent from the catalogue of examples of cognitive bias by O'Sullivan and Schofield¹ is the entity of visual perceptual illusion associated with the performance of laparoscopic cholecystectomy (LC).² This was evaluated from a cognitive psychology perspective in an analysis of 252 cases who had experienced major bile duct injuries during LC.² In an analysis of the surgeon's performances, misperception attributable to perceptual illusion was deemed to have occurred in the following instances:

- Where the surgeon had seen and deliberately cut a duct that he or she thought, at that moment, was a different duct (e.g. common bile duct vs cystic duct, or vice versa).
- Where the surgeon injured an unseen duct while performing a dissection that he or she perceived to be a safe distance from the duct.

Visual perceptual illusion was deemed to be the primary cause of error in 97% of the 252 cases. The resulting 'misperception of the anatomy' generated a subconscious belief that what the surgeon was doing was correct.³ This 'heuristic process' undermines the so-called learning curve, and mandates inculcation of 'methods of error reduction' in laparoscopic training.³

Although the cognitive bias I have described has no parallels in internal medicine, physicians need to be aware of its ramifications when they refer their patients for laparoscopic procedures.

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Author's reply

While our examples were by no means exhaustive, they were primarily focused on bias that can occur during clinical decision-making and nonvisual data interpretation. In contrast, Dr Jolobe provides an important example of a related phenomenon, visual heuristics, wherein the visual system introduces implicit assumptions and simplifications of reality. Importantly, the discussed bile duct injuries were due to misperception of the anatomy and object form rather than an error of judgement or decision-making.

The distinction is meaningful as interventions designed to support decision-making, clinical data processing and cognition are perhaps unlikely to help a surgeon who is making the optimal decisions based on false input data as their 'eyes have deceived them'.

Perceptual bias is also relevant to physicians, for example it is the most common source of diagnostic error when interpreting radiological images. In contrast to some other cognitive biases, given the highly preserved and 'hard-wired' nature of our visual system, this has proven to be difficult to ameliorate thus far.^{1,2}

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Leadless pacemakers

In your recently published paper 'An update on cardiac implantable electronic devices for the general physician',¹ Peal et al. state that leadless pacemakers typically have a 'battery life of 3–5 years'. This is a significant underestimation, which may concern device recipients and their physicians. Real world data, at 6 months postimplantation, estimates that the Micra leadless pacemaker (Medtronic, MN, USA) actually has a median battery longevity of 13.6 years (interquartile range: 11.9–15.4; n = 451).² Contrary to the paper it should also be noted that the Micra leadless pacemaker can deliver

rate responsive ventricular pacing and that programming functionality is not 'limited', but extremely similar to current transvenous single chamber pacemakers.

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Notalgia paraesthetica

I read with interest the paper by Abbas and Etti on notalgia paraesthetica (NP).¹ NP was first described by Professor Michail Iwanowicz Astwazaturow of Leningrad in 1934.² A possible cause of NP is herpes zoster of one or more of the second to the sixth thoracic roots. Postherpetic neuralgia (PHN) can be missed if the rash was not noticed by the patient or the pain may emerge in the absence of any skin eruption, as occurs in 'zoster sine herpette'.³ Both NP and PHN occur more commonly in older people, and are associated with prolonged neuropathic pain, chronic itch and localised pigmentation.

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Author's reply

We thank Professor Jawad for the interest in our paper and for raising an important point. Of course a prior history of characteristic rash facilitates the diagnosis of postherpetic neuralgia, but we agree that in its absence 'zoster sine herpette' can remain an important consideration. Zoster sine herpette is a difficult diagnosis requiring a high index of suspicion.¹ It is particularly important to consider in the presence of relevant risk factors, such as an immunosuppressed state, and perhaps also if the area of neuropathic pain is broader than what is typically described in 'idiopathic' notalgia paraesthetica, for example extending more laterally beyond the scapula.

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