

The Review

Scent of a patient:

an underestimated role in clinical practice?

We work with it but don't realise the efficiency of the tool. It can detect infection before the patient sits down and can distinguish between sick or healthy babies — our sense of smell. We see, we listen, we touch, we even taste (remember the discovery of diabetes?) but rarely in medical literature is smell given much attention. Yet, on a daily basis smell influences the decisions we make.

Adopting the traditional biopsychosocial approach of general practice, let's start with the familiar. Biological problems.

When trying to recall a physical sign involving smell from my basic medical training, I remember lots of bad breath — be it liver failure or the uremic fetor of kidney failure. The more commonplace halitosis rarely got a mention. What about the 'classic' presentation of diabetic ketosis? Associated with the nail varnish smell of diabetic emergency, perhaps I'm nowadays more likely to encounter it in a young woman on a low carbohydrate diet. But that's rare in my practice. Unfortunately the smell of alcohol is not. This smell in its acute and chronic form influences how I speak to the intoxicated patient, probe the covert presentation of a middle-aged woman, and informs my physical examination for additional signs of chronic use, before reverting to stealth laboratory tests of mean cell volume and estimation of triglycerides.

Infection — I wrinkle my nose at the thought of the fetid smell of anaerobic infection on a wound or due to a retained foreign body (that lost tampon or a bead up a child's nose). As a 'lady' doctor, I see lots of vaginas and would have thought myself competent to make the diagnosis of bacterial vaginosis, but recent evidence suggests that the diagnostic fishy smell is absent in many women¹ who subsequently test positive. Similarly, patients may rely on 'smelly urine' as a means of identifying a urinary tract infection. Unfortunately, the whiff of nitrates is not sufficiently frequent to make a reliable contribution to the

diagnosis.² However, the patient's perception of an unpleasant smell and the impact this has on their quality of life stimulates investigation and sometimes, when no obvious cause is found, some challenging consultations.

Psychological. Can one smell fear? It looks possible. Long believed to be the remit of the animal kingdom alone, recent studies suggest that humans can distinguish fear based on smell.^{3,4} Can I smell death? Well, that might be a step too far but 'the smell' certainly is tangible. Strange — I can't predict how long someone has to live, but all my senses tingle, when death is imminent.

Social. Here smell assumes a new significance — apart from the familiar theme of smoking (including the sweet smell of cannabis). The smell of a well taken care of healthy new born baby is identifiable by all. But what about the acrid smell of undigested milk and a nappy left on for too long? The unmistakable odour of urine that accompanies the older woman who sits alone in the waiting room. A common smell in my community is boiling ham and cabbage evidenced by the dribble of dried mashed potato on the cardigan. I can smell deprivation and it influences my decision-making in terms of my threshold to prescribe or admit.

Yet smell is rarely described as a key clinical skill.⁵ We generally describe smell in the context of its absence.⁶ The exception to this rule are our colleagues in A&E who have identified a means of improving diagnostic skills for poisoning⁷ by means of a 10-tube 'sniffing bar' emphasising sensory recognition of common toxins. Of even more interest is the development of a diagnostic 'electronic nose', capable of diagnosing peptic ulceration, TB, and perhaps even the continuous dynamic monitoring of disease stages.⁸

Yet, I contend that on a daily basis, smells are influential in general practice. I suggest this is an under-researched area of our

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expertise — before technology assumes advantage, let's wake up and smell the coffee.

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“On a daily basis smell influences the decisions we make.”