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Editorial

Adherence to treatment

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As clinicians, we are aware that prescribing a treatment is one thing, patients taking the treatment as prescribed is quite another. Adherence, which describes "the extent to which a patient correctly follows medical instructions" [1] is generally poor for long-term therapy for chronic illnesses. A systematic review of 37 studies in patients with COPD found that nonadherence to treatment ranged from 22 to 93% [2]. In young adults aged 15–30 years with asthma a meta-analysis of 16 studies demonstrated a pooled adherence to inhaled corticosteroid treatment of only 28% (95% CI 20–38%; p<0.001), with rates ranging from 6 to 58% [3].

While (non-)adherence in a medical context can also apply to areas other than medication, for example making lifestyle changes (such as stopping smoking or adhering to dietary instructions) or using medical devices (for example, continuous positive pressure ventilation or oxygen therapy at home), the term is most commonly applied to medication use. The issues surrounding the use of medication are often distinct from issues causing non-adherence in other areas [4]. There are several different types of medication non-adherence. The first type is primary non-adherence, also called nonfulfillment, in which a medication is prescribed but the prescription is never filled or the patient fills a prescription for a new medication but never takes it. In secondary non-adherence, also called non-persistence, the patient stops taking the medication after starting it, without being advised by a health professional to do so. Non-persistence can be intentional or unintentional. Intentional non-adherence is associated with a patient's beliefs, attitudes, expectations and values, whereas unintentional non-adherence is the consequence of capacity and resource limitations (*e.g.* problems around access to prescriptions or a pharmacy for script renewal, prohibitive medication costs, patients being overwhelmed due to impaired cognitive function, lack of social support) [5]. A third type of nonadherence is nonconforming, in which the patient does not take medications as prescribed, for example taking medications at incorrect times or at incorrect doses, or they are skipping doses [4].

In clinical practice, the term compliance is often used interchangeably with adherence. However, compliance implies a paternalistic decision-making process in which the health professional tells the patient what to do, and the patient is expected to follow orders, whereas adherence puts more emphasis on a therapeutic alliance that takes into account the patient's values and preferences [5]. Whichever term is used, patients being labelled as "non-compliant" or "non-adherent" can be stigmatising as these labels might imply that a patient is uncooperative [6]. As clinicians we therefore have to be careful when using these terms.

In this issue of *Breathe* the topic of "treatment adherence" is explored in a number of articles [7–9]. Non-adherence to prescribed treatments results in worse clinical outcomes and increased use of health services, as well as excessive use of β-agonists and oral corticosteroids, as outlined in the article on the clinical impact of (non-)adherence

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to therapy in airways disease in this issue [7]. Measuring and identifying non-adherence can happen through patient self-report, prescription records, canister weighing, dose counting, drug levels and electronic dose counting [8]. Identifying the barriers to adherence can help clinicians to provide tailored support to patients, for example by sending reminders to patients who tend to forget to take their medication, or changing to an alternative brand, formulation or delivery device when patients dislike the taste of an inhaled medication [9].

I would like to thank Dr Brian Kent who has chosen the topic for this issue of *Breathe* and commissioned the thematic papers. Brian will be the next Chief Editor of *Breathe* when my 3-year tenure comes to an end in September this year, and I am looking forward to many more issue topics with broad appeal from him in the future.

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Conflict of interest

None declared.

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