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Editors' view

Compliance, concordance, adherence

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The referral letter was brief and to the point: 'This 81-year-old lady's heart failure is getting worse, with increasing peripheral oedema, despite maximal doses of a wide range of medications, listed below. Please advise.' The problem turned out to be very simple, as her daughter explained when she brought her to the clinic. 'She won't take the water tablets, doctor,' she told me. Her mother liked to take a stroll outside in the mornings and stay indoors in the afternoons to watch her favourite television programmes. The morning diuresis made that impossible. And since her heart failure had become worse the daily strolls had become more difficult as well. I suggested that she take the furosemide in the afternoons instead.

The word 'compliance' comes from the Latin word complire, meaning to fill up and hence to complete an action, transaction, or process and to fulfil a promise. In the *Oxford English Dictionary* the relevant definition is 'The acting in accordance with, or the yielding to a desire, request, condition, direction, etc.; a consenting to act in conformity *with*; an acceding *to*; practical assent.' I have also understood it to mean acting in accordance with advice, in this context advice given by the prescriber, but the modern attitude to the word is that it betrays a paternalistic attitude towards the patient on the prescriber's part and that it should not be used.

For this reason, the idea of concordance was introduced, implying that the prescriber and patient should come to an agreement about the regimen that the patient will take. It is not clear, however, whether this seemingly laudable aim is actually beneficial to the patient, and although it is generally assumed to be, the true benefit to harm balance of this strategy has not been determined. Nor is it clear how one can identify patients who desire participation of this type and for whom it would be beneficial and those for whom it would not be beneficial or might even be harmful. Concordance also carries the Illichian implication that patients should take greater responsibility for their management, even though not all are willing to do that. Furthermore, there are philosophical reasons for the current imbalance between the responsibilities of the prescriber and those of the patient [1]. The relevant meaning of concordance in the OED is 'The fact of agreeing or being concordant; agreement, harmony' But another meaning of compliance in the OED is 'Accord, concord, agreement; amicable relations (*between* parties)', which seems to me to mean exactly the same as concordance.

So, although 'compliance' and 'concordance' are sometimes useful, I generally prefer the term 'adherence', which is being increasingly used. It comes from the Latin word adhaerere, which means to cling to, keep close, or remain constant. In the OED it is defined as 'Persistence in a practice or tenet; steady observance or maintenance', a definition that appropriately conjures up the tenacity that patients need to achieve in sticking to a therapeutic regimen.

The traditional barriers to adherence to therapy include the complexity of the regimen (the number of medicines and the frequency of administration) and failure on the patient's part to understand the importance of adherence, which may in turn arise from poor communication by the doctor. And as George and Shalansky point out in their study of patients with heart failure, published in this issue of the *Journal*, adherence to therapy may also be affected by the patient's perception of barriers to adherence and the need to make lifestyle changes to accommodate a recommended regimen of

treatment [2]. If the habits of a lifetime militate against this, adherence will suffer.

Good adherence is important. Adherence to beneficial drug therapy is associated with lower mortality than poor adherence, and good adherence to harmful drug therapy is associated with increased mortality [3]. In a meta-analysis of 21 studies (46 847 participants), including eight studies with placebo arms (19 633 participants), the odds ratio for mortality associated with good adherence to beneficial therapy was 0.56 (95% confidence interval 0.50, 0.63). Good adherence to placebo was also beneficial (odds ratio = 0.56; CI = 0.43, 0.74), while good adherence to harmful drug therapy was harmful (odds ratio = 2.90; CI = 1.04, 8.11). These results suggest that there is a 'healthy adherer' effect, and that adherence is a surrogate marker of healthy behaviour. This view is consistent with one of the results presented by George and Shalansky, that smokers were poor adherers, although they interpreted this as suggesting that poor adherers to non-pharmacological methods of treatment are poor adherers to drug therapy.

However, it is not clear that the standard recommended methods of improving adherence to therapy actually work – evidence supporting any one method is lacking. The authors of a major systematic review screened 1553 citations and abstracts and reviewed 252 full text articles in detail [4]. Only 13 randomized controlled trials met all their inclusion criteria. The studies were too disparate to warrant meta-analysis and even the most effective interventions did not lead to substantial improvements in adherence.

However, this has not stopped individuals from coming up with suggestions. On the day that I sat down to write this article a letter appeared in *The Times* newspaper. 'GPs [in the UK] issued approximately one billion prescriptions, costing about £12 billion, in 2005. Studies suggest that only 20 per cent of patients take their medicines properly and derive full benefit from them, while £5 billion is wasted by patients who do not take their medicines properly.' [5]. The writer went on to suggest that the UK should emulate Germany in printing the price of the medication on the label as a means of improving adherence to therapy, although evidence of the efficacy of such a measure is lacking.

A knowledge of the factors that impair adherence has also led to the development of the so-called AIDES method (Table 1) [6]. This approach has been based on the conclusions of a meta-analysis of 153 studies of interventions intended to improve adherence – that no single strategy had any clear advantage over another and that combined cognitive, behavioral, and affective interventions were more effective than single interventions [7]. However, although none of the components of this system seems unreasonable, as a whole the method is complicated and evidence of its efficacy is lacking.

Table 1
The AIDES method for improving adherence to medications

A: Assessment	Assess all medications
I: Individualization	Individualize the regimen
D: Documentation	Provide written communication
E: Education	Provide accurate and continuing education tailored to the needs of the individual
S: Supervision	Provide continuing supervision of the regimen

Perhaps, in the light of the results of George and Shalansky, the solution, at least in part, may be even simpler – tailor the treatment to the patient's lifestyle, not the other way round.

References

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