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Action plans for COPD self-management. Integrated care is more than the sum of its parts

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The past few years have seen significant changes in attitude in many countries towards the care of people with chronic obstructive pulmonary disease (COPD). These changes have been driven by a greater understanding of the disease and the nature of its impact. Although there have been no new therapies that can modify the course of airway obstruction, there have been considerable advances in the way that we can lessen the impact of the disease on both the patient and the health community. There has clearly been a desire to improve the lives of individual people with COPD, but the major catalyst for change has probably been the desire of

commissioners to reduce the cost of unnecessary hospital admissions resulting from exacerbation. To this end, the development of admission avoidance schemes has stimulated integrated community care programmes and importantly the involvement of the patient through a process known as self-management. The constituents of published self-management programmes vary quite widely, but most contain an action plan in the form of a set of instructions to inform the patient how to recognise an exacerbation and act accordingly. This is usually presented in a written format but can be pictorial if there are language difficulties or literacy issues.¹ If they are also armed with treatment in the form of steroids and antibiotics, then it would be hoped that prompt action by the patient would then attenuate the serious exacerbation that would otherwise result in a hospital

admission. The article by Trappenburg² in this month’s journal sheds further light on the individual effectiveness of the action plan on the outcome of acute exacerbations of COPD.

In spite of the fact that early treatment may improve the outcome of exacerbations, the introduction of stand-alone action plans and access to medication for patient-initiated use has been largely disappointing.³ The data from the most recent systematic review covering five trials indicate that although they increase recognition and steroid/antibiotic use, they have no impact on the use of healthcare resources. In particular, no reduction in hospital admissions, emergency department visits or GP attendances was evident.⁴ It seems that people with action plans recognise exacerbations and take more therapy without affecting the outcome. This does not seem to make a lot of sense when you appreciate that they will get essentially the same treatment when they do end up in the hospital. This year, two papers in *Thorax* have shed some light on this puzzle. In the first paper, Bischoff *et al*⁵ explored the effect of adherence to written action plans on the recovery from exacerbation in 143 patients who had 288 exacerbations. The written plan was only followed in 40% of the exacerbations, but where patients

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complied with the instructions, the rate of recovery was faster but still had no impact on healthcare use. The other study in this month's issue by Trappenburg and others from Canada and the Netherlands examined the impact of written action plans on exacerbation duration and the recovery of health status reflected by the Clinical COPD Questionnaire. In this case, the inspection of a more subtle outcome such as health status seems to demonstrate a benefit. Nevertheless, even in this substantial randomised study, there was no reduction in exacerbation frequency or healthcare use. Furthermore, this trial is slightly compromised by the addition of ongoing telephone support from a case manager in the active group that may have added some benefit. So what are we to learn? It is tempting to conclude that simply giving patients a written action plan for exacerbations offers no useful advantage. This conclusion may be true but actually misses the point because the successful management of COPD is more than the sum of its parts.

The recent shift in attitude surrounding chronic disease management in recent years has followed the recognition that in the absence of disease-modifying therapy, the old reactive response to disease progression has proved unsuccessful. A more progressive response is to follow the lead of other chronic diseases and apply the principles of the chronic care model (CCM) to COPD.⁶ The guiding principle of the CCM is a collaborative interaction between an informed patient and knowledgeable healthcare professionals who have a series of supportive components to assist them. These components include self-management education for the patient, delivery system design, decision support guidelines and a clinical information system that will facilitate a registration and review process. Ideally, these components are delivered at a practical level by an integrated service that crosses the boundaries of primary and secondary care and includes the elements of diagnosis and review, self-management education and rehabilitation, oxygen assessment and a community system for dealing with exacerbations. We know that when at least two components of the CCM are included, then they do have a beneficial effect on healthcare use in terms of a reduction in hospital admissions and shorter lengths of stay.⁷ Recent local or even national programmed

management along these lines has shown large reductions in hospital admissions of up to 40%.^{8,9}

If we acknowledge that the whole system of integrated care that adheres to the CCM is capable of producing reductions in hospital admissions, then why are action plans alone relatively ineffective? Well, the answer seems to lie in how the action plan is delivered to the patient. The self-treatment of exacerbations is a responsibility for the patient who is already well versed in self-management education. Patients have to learn how to recognise an exacerbation before taking action, and that experience may have specific features for each individual.¹⁰ So, you may imagine that an action plan will only work or be adhered to if it is delivered in the context of more extensive, individualised, self-management education. That seems to be the case in a recent study by Effing *et al*¹¹ who investigated what happens if self-treatment advice is excluded from self-management education programmes. They discovered that patients who received self-management and self-treatment advice had fewer exacerbation days and a reduction in healthcare contacts resulting in a positive cost-benefit saving. So, if action plans for self-treatment are only effective if they are delivered within a programme of self-management education, then we should be clear about what constitutes self-management. Can we simply give patients a few leaflets and an action plan and expect them to get on with it? Well, this approach, although it might appeal to cash-strapped commissioners, does not follow the principles of collaborative self-management envisaged in the CCM. The intention of the process is that it changes behaviour and instils the confidence to recognise exacerbations and take responsibility.¹² This is a much broader ambition than simply avoiding hospital admission, although it may do so as a consequence. The other important principle of continuing effective self-management is that it receives ongoing support by the health professional. The economically successful disease management programmes have all had ongoing case manager support available to a patient if they feel that they need it. This potential for contact with a member of the expert team will bolster the patient's confidence to self-manage and self-treat.

Action plans for exacerbations are probably a vital part of collaborative and supported self-management. Using them in isolation, however, is unlikely to be effective. The arguments for following the principles of the CCM and integrated care are now very strong, but they may be less effective if the individual components are not joined up. We should be pressing commissioners to look at the whole pathway of care for COPD and not be tempted to purchase individual services where they do not combine to a synthesis that is more than the sum of its parts.

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