People at risk of COPD exacerbations should be given self-management plans to encourage them to respond to increased symptoms - but do patients use them?

Using COPD action plans to manage exacerbations

In this article...

- The impact of exacerbations in COPD
- Research evidence on using written action plans
- Carrying out an audit to measure patient use of the plans

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Abstract Dhami J (2012) Using COPD action plans to manage exacerbations. Nursing Times; 108: 17, 16-18. Patients with COPD often experience exacerbations, and evidence suggests that if they follow written action plans advising them on self-management this can reduce the time to recovery. We carried out an audit to establish whether patients were using and following their action plans.

By 2020 it has been estimated that chronic obstructive pulmonary disease (COPD) will be the third leading cause of death and fifth leading cause of disability in the world (Murray and Lopez, 1996). The National Institute for Health and Clinical Excellence (2010) defined COPD as airflow obstruction that is not fully reversible; this obstruction is progressive and does not change over time.

People with COPD have periods of acute worsening referred to as “exacerbations”, defined as “a sustained worsening of respiratory symptoms that is acute in onset and usually requires a patient to seek medical help or alter treatment” (Currie et al, 2006). The condition is a slowly progressive disease and as its severity increases so do the number and severity of exacerbations (Donaldson et al, 2002).

Such exacerbations are a high cause of morbidity and mortality. The national COPD audit in 2008 reported that 13.9% of patients admitted to hospital died within 90 days of an acute exacerbation (Royal College of Physicians et al, 2008), and exacerbations have been found to account for 10% of all hospital admissions (Kendrick, 1995).

NICE (2010) recommended that all patients (or home carers) should be given appropriate information about COPD to enable them to fully understand the correct use of medications and better understand the condition. It also advised that patients at risk of exacerbations should be given self-management plans to encourage them to respond quickly to increased symptoms.

A Cochrane review looked at the use of action plans for people with COPD exacerbations and concluded that they do help patients to recognise and respond appropriately to them via the self-initiation of antibiotics or steroids (Walters et al, 2010). However, the review said further research should be carried out to establish whether action plans significantly decrease morbidity and/or mortality. Bischoff et al (2011) explored the effects of adhering to written action plans and concluded that if patients follow them the time to recovery following an exacerbation is reduced.

Objectives

In line with NICE (2010) guidance, the community respiratory nurses in Central Surrey have been using a simple one-page exacerbation action plan for the past few years for patients on their caseload with COPD. A recent retrospective audit of 20 patients’ notes found that 95% had been given an action plan; one patient was unable to understand the written word so he was not given one, although he was encouraged to telephone the team if he developed problems.

The retrospective audit confirmed the team had been following recommendations to give patients at risk of exacerbations an action plan. However, we needed to...
Establish whether patients who had been given action plans actually used them when they experienced exacerbations.

Method
From April to August 2010 a total of 64 patients known to the team had a COPD exacerbation; we completed an individual form for each patient when visiting them. Twenty patients were then randomly selected for a retrospective audit and their notes were examined to see what action they had taken when experiencing an exacerbation. The team’s administrative member carried out the randomisation by selecting five patients from each of the four respiratory nurses with the aim of comparing with 78.2 years for those who needed to be admitted to hospital to manage exacerbations; one had used the action plan (but not followed it as suggested); the other had not used it.

Results
Table 1 shows the baseline profiles of the selected patients. Ages ranged from 63–94 years and the degree of COPD severity ranged from moderate to very severe. Most were housebound and most had experienced an exacerbation in the past 12 months.

All patients had been given similar yet individualised action plans highlighting the signs and symptoms of worsening COPD and what to do in the event of an exacerbation. Fifteen used their action plan and five did not. Of the five who did not use their plan:

- Three telephoned the respiratory nursing team first and then started standby therapy (their recovery was good at six weeks);
- One called the GP as well as the respiratory nurse team and needed to go into hospital (this patient’s recovery was very slow but did not relapse);
- One called the palliative nurse and went to A&E for a few hours but was not kept in overnight (this patient’s recovery was good at six weeks).

Of those who did not use their action plans, three were men and two were women; their average age was 82.4 years compared with 78.2 years for those who did use their plan.

Of those who used action plans, 12 initiated treatment according to the guidance in their plan and three did not use them as recommended. One of these omitted to take antibiotics and oral prednisolone but did increase bronchodilator use, while two did not take oral prednisolone. The patient who only increased their bronchodilator was admitted to hospital. Two patients needed to be admitted to hospital to manage exacerbations; one had used the action plan (but not followed it as suggested); the other had not used it.

In the six-week recovery period the team made a total of 40 home visits and 29 telephone consultations to monitor patients’ recovery and ensure they were not relapsing, while also checking optimisation of therapy and reinforcing educational messages. Fig 1 shows the pathway to recovery.

Conclusion
In this retrospective audit 60% of patients who were given an exacerbation action plan followed it as agreed, 15% were selective about which parts of the plan they followed, 15% called us for advice, and 10% did not follow their plans but called us and/or another department for advice. However, as the action plan’s wording recommends that patients should call their GP or the respiratory nurse team when they have an exacerbation, if we consider that the three patients who called our department were in fact using their plans as stated then this brings the total who used them as advised to 80%.

As a result of this audit, we have decided to change the wording on the action plan to advise patients to start treatment and then tell us they have done so, which will ensure treatment is started as early as possible. We intend to carry out a further audit to ensure patients continue to follow their action plans and to explore the reasons why some appeared to be selective about which therapies they use.

This audit found that the majority of patients who were given written exacerbation action plans did use them when they experienced an exacerbation.

References

FIG 1. PATHWAY OF PATIENTS TO RECOVERY

Twenty patients given exacerbation action plan

Three patients did not use their plans as agreed

Two patients used antibiotics and increased bronchodilators but no oral prednisolone

One patient increased bronchodilator but did not initiate any other treatment, admitted to hospital

Patients recovered at six-week visit

Five patients did not use their action plans

Twelve patients used their action plans as agreed

Two patients rang GP and department and was admitted to hospital for one week

One patient rang GP and department then started their action plan

Patients still not recovered at six-week visit

Three patients did not use their plans as agreed

Two patients used their action plans as agreed

Three patients rang our department and then started their action plan

One patient rang palliative team and went to A&E for a few hours

Patients passed away during recovery period at home and 10 had recovered at six weeks