Patients receiving peritoneal dialysis (PD) are at increased risk of developing a chronic cough.1-3 A literature review was performed using the search terms “dialysis” and “cough” on PubMed for articles published between 1983 and 2004. In one study,2 a persistent cough for at least 4 weeks was reported in 22% of PD patients and was significantly more frequent than among hemodialysis patients (7% in the same study). Many causes of cough would be expected to be more frequent in PD patients. Gastroesophageal reflux disease (GERD) may be initiated or exacerbated because there are increased intraperitoneal pressures during PD,4 and a history of heartburn was significantly more commonly reported by PD patients with cough (67%) compared to PD patients without cough (29%),2 although the use of GERD medications was not significantly different (80% vs 68%, respectively).2 Symptoms consistent with asthma (wheezing) were also significantly more frequent in PD patients with cough compared with PD patients without cough (40% vs 16%, respectively), as was a self-reported “allergy history” (44% vs 16%, respectively; p = 0.04).2

Other potential causes of cough with increased prevalence in this population include the frequent use of medications that increase the risk of cough such as angiotensin-converting enzyme (ACE) inhibitors, which compete for ACE binding sites in the lungs, and β-adrenergic blocking medications, which may exacerbate asthma by triggering bronchoconstriction. PD patients are also at increased risk of pulmonary edema as an additional cause of cough. In addition, as with other patients with immunosuppression, there is increased risk of infectious causes of cough such as tuberculosis.5 A rare reported cause of cough is the leakage of PD fluid into the mediastinum.6 Trials of therapy for dialysis patients with cough of different suspected causes would add further evidence for management recommendations in this group of patients.

Summary of Recommendation

1. In patients receiving long-term peritoneal dialysis with cough evaluate the patient for the potential causes with increased prevalence in this population such as GERD, ACE inhibitors, pulmonary edema, asthma

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that may be exacerbated by β-adrenergic-blocking medications, and infection. Level of evidence, expert opinion; benefit, substantial; grade of recommendation, E/A

References
1 Tarlo SM. Peritoneal dialysis and cough. Perit Dial Int 2003; 23:424–426