

CME Endocrinology SAQs

Answers to the CME SAQs published in
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Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
(b)	(c)	(d)	(a)	(a)	(c)	(c)	(d)	(c)	(b)

lesson of the month

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Medication adherence in heart failure

Barriers to successful medication adherence exist and poor adherence is common. Recurrent admission with chronic conditions should prompt a detailed enquiry into medication adherence.

Lesson

An 86-year-old Latvian gentleman presented with worsening heart failure two months after a previous hospital admission. Admission medication included diuretics, angiotensin converting enzyme inhibitor and spironolactone. It was felt that the diuretic dose was suboptimal and the diuretic load was increased. Symptoms settled and he was discharged with a four-week supply of medications. Clinic follow up was booked one month post discharge. At the clinic appointment he was hypotensive and renal function had deteriorated. Discussion with the patient and relatives suggested that a number of communication problems had conspired to create a situation in which adherence to the medication regimen was impossible, precipitating the most recent hospital admission.

The patient did not have a telephone installed at his house which meant that he was unable to speak directly to his general practitioner (GP) or local pharmacy to obtain a repeat prescription. As English

was not his first language he found it difficult to explain the problem without help from his relatives. His ongoing symptoms prevented him visiting the practice to address the situation. The lack of a repeat prescription, as opposed to suboptimal diuretic dose, had precipitated the admission. As this had not been appreciated, the diuretic dose had been escalated unnecessarily, causing hypotension and a deterioration in renal function. Explanation of the situation to the GP and local pharmacy enabled a weekly delivery of a dosette box to the patient's house and symptom control was achieved.

Comment

Around 25% of all patients do not adhere well to prescribed medication.¹ Prescription of three or more medications, medications prescribed by more than one doctor, living alone, and cognitive decline are risk factors for non-adherence to medication in elderly patients. In the elderly population the medications most likely to be associated with non-adherence are hypnotics, analgesics, diuretics and bronchodilators.²

A meta-analysis of medication adherence published in 2006 suggested the mortality of patients with good adherence to be approximately half that of patients with poor adherence.³ The definition of 'good' adherence varied between studies, ranging from >66% to >95%. A caveat to the association of adherence and reduced mortality is the possibility of the 'healthy adherer' effect, whereby adherence may act as a surrogate marker for overall healthy behaviour.

Diuretic therapy is an essential part of the medication regimen of the majority of patients with heart failure. Diuretics reduce morbidity and hospitalisation