Postural hypotension is a fall in blood pressure that typically occurs when a person suddenly changes positions, such as from sitting to standing. This can lead to symptoms such as dizziness, lightheadedness, and even fainting. The flow chart for postural hypotension is shown in Figure 1. It outlines the assessment and management of postural hypotension.

## Assessment

### Symptoms
- Weakness or buckling of the legs
- Neck pain (often the only symptom present)
- Headache
- Extrapyramidal effects

### Hypotension
- Systolic BP less than 90 mmHg
- Diastolic BP less than 60 mmHg

### Interventions
- Bedside monitoring
- Anterior tibial pulse
- Palpate carotid pulse
- Palpate radial pulse

## Management

### Pharmacological Management
- Adrenergic agents
- Intravenous fluids

### Non-Pharmacological Management
- Increase in fluid intake
- Avoiding sudden changes in position

## Prevention

- Regular exercise
- Avoiding dehydration
- Medication management

## Close Monitoring

- Monitor for signs of hypotension
- Educate the patient and caregiver

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pharmacologic treatments. The goal of treatment is improvement of functional capacity (see 1.1 above) rather than reaching a specific BP measurement. Changes can be evaluated objectively by measured increases in BP and subjectively by reports of increase in length of standing time and/or a general feeling of improvement.

Pharmacologic therapy alone is often inadequate and other measures, including patient education, are necessary to the overall treatment plan.

1.4 Careful dietary instruction is important in the non-pharmacologic management of the patient with postural hypotension:

I Most periods of activity should be planned before meals.

I Meals should be larger at night when BP is usually higher.

I Hypotension after eating can be minimised by

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Figure 1. Flow chart for postural hypotension

1.1 Patient is experiencing one (or more) symptom(s) of postural hypotension. Blood pressure measurements clearly confirm that the patient is experiencing hypotension

1.2 Attend to other potential contributory factors, for example, polypharmacy and excess loss of bodily fluid:

I If improvement is noted then continue with medication

I If no improvement is noted then a switch to a low association atypical antipsychotic may be considered

I If no improvement is noted but the patient continues to take the same atypical, then...

1.3 Set therapeutic goals and targets with reference to 1.1 above

1.4 Dietary instructions should be made available to the patient

1.5 Advice and guidance on situations to be avoided should be given to the patient

1.6 Advice and instruction on a range of activities which may be beneficial should be given

1.8 Institute pharmacological interventions while continuing with non-pharmacological approaches (1.4-1.7 above)

1.9 If the therapeutic goals referred to in 1.3 above remain unachieved, then switch to an atypical antipsychotic with a low association

1.7 Advice and instruction on postural strategies which may be beneficial should be given:

I If no real improvement is noted following 1.4-1.7, then a switch to a low association atypical antipsychotic may be considered

I If no improvement is noted but the patient continues to take the same atypical, then...

REFERENCES


Patients can also be advised to increase activity verbally and in writing, to patients who require it. Advice and guidance on situations to be avoided should be made readily available, including dietary advice, increasing the level of physical activity, and the use of counterpressure methods. Patients should be advised to rise slowly on waking, and to sit up on rising, with the head of the bed raised as the hydrostatic pressure of the water opposes a fall.

Some cautionary factors that may contribute to a fall on rising include heavy meals, alcohol, caffeine, and hot water. Patients may also be advised to consume two or three cups of coffee (240mg caffeine) with breakfast and lunch (Onrot et al 1981a). Patients should decrease the level of pharmacotherapy. Used in combination with these strategies, postural positioning is a simple but often overlooked method for preventing postural hypotension. Counterpressure methods include the use of leg crossing, squatting, and leg support. Patients can be advised to rise slowly on waking, to sit up on rising, with the head of the bed raised to a 5º to 20º angle which will decrease both nociceptive and sympathetic nervous activity. This effect can be particularly helpful in patients with congestive heart failure; diuretics may be administered early in the morning to avoid consuming caffeine with dinner, as this is a time when tolerance to its effects is most likely (Robertson 1992, Robertson and Davis 1995).

Drinking water significantly and rapidly increases blood pressure, particularly in patients with a history of orthostatic hypotension (Jordan 1996, Van Lieshout et al 2000). The pressor response to water drinking in man is not due to the osmotic effect of drinking water per se but is a result of a sympathetic reflex originating in the chemosensitive areas of the hypothalamus (Kane J 1996, Circulation 101, 5, 504-509; Jordan J 1996, Annals of Internal Medicine 115, 2162-2167; Kane J 1996, Neurology 334, 1, 34-41). This response is due to a baroreceptor reflex in which the osmoreceptors in the hypothalamus and chemoreceptors in the carotid sinus and aortic arch are activated (Robertson D 1992, Lancet). Neurotransmitters such as noradrenaline and adrenaline are released at the sympathtic nerve endings, increasing sympathetic output and thereby blood pressure. The pressor response to water drinking in hypotensive individuals may be greater than in normotensive individuals. It is due to an increased sensitivity to the osmoreceptors in the hypothalamus and chemoreceptors in the carotid sinus and aortic arch, particularly in patients with autonomic failure. Therapeutic implications for postprandial alterations in blood pressure change and orthostatic hypotension are discussed in more detail elsewhere (Robertson D 1992, Annals of Internal Medicine 112, 11, 850-863; Robertson D 1992, American Journal of Cardiology 67, 4, 1,111-1,117; Robertson D 1992, American Journal of Cardiology 769-774, 277, 16, 1299-1304; MacLean A, Allen B (1940) The South England Journal of Medicine. 277, 16, 1299-1304; MacLean A, Allen B (1940) The South England Journal of Medicine. 277, 16, 1299-1304). A smaller pressor response is observed in patients with a history of orthostatic hypotension, who may have a lower reference point for the pressor response to water drinking.