Worcestershire Acute Hospitals NHS Trust

Identification of Orthostatic Hypotension

This guidance does not override the individual responsibility of health professionals to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and/or carer. Healthcare professionals must be prepared to justify any deviation from this guidance.

Introduction

Orthostatic (postural) hypotension is defined as a person's inability to maintain blood pressure on assuming an upright position, usually from supine. It is identified by recording blood pressure in a lying and standing position.

All Adult patients are covered by this guideline.

This Guideline is for use by the following staff groups:
Registered nurses.

Lead Clinician(s)

Dr R Dutta	Elderly Care Physician
Dr C Jackson	Elderly Care SpR
Guidelines approved by Accountable Director on:	14th March 2014
Extension approved on:	22nd July 2015
Adjustments made on:	October 2017
Review Date:	October 2019

This is the most up to document and should be used until a revised version is available

Key Amendments to this Guideline

Date:	Amendment	By:
01/04/2010	Approved by senior Nurses Operational Forum	
04/2012	Agreed to extend Guidelines for 2 years without amendment	R Dutta
02/2014	Amended location of Royal Marsden Hospital Manual of Clinical Nursing Procedures	G Edmonds
25/04/2016	Document extended for 12 months as per TMC paper approved on 22nd July 2015	TMC
10/2017	RCP guidance slightly changed procedure to perform measurements	C Jackson

Identification of Orthostatic Hypotension

Introduction

Orthostatic (postural) hypotension is defined as the inability to maintain blood pressure on assuming an upright position from supine, leading to a drop of at least 20 mmHg in systolic pressure or a reduction in diastolic pressure of at least 10 mmHg.

Orthostatic hypotension can be present at any age, but prevalence goes up with age. Up to 50% of older people have orthostatic hypotension due to a combination of age-related physiological changes including increased baroreceptor sensitivity, side-effects of polypharmacy, especially those with vasoactive potential, and a higher incidence of chronic disease which could impact of blood pressure in general. (*Maurer 2000*) (*Bonema and Maddens 1992*).

Orthostatic hypotension can cause dizziness, nausea, blurred vision, sweating, lethargy, falls and syncope.

The diagnosis of orthostatic hypotension can be made following recording of lying and standing blood pressure measurements. Demonstration of a postural fall in blood pressure with symptom reproduction is necessary for the diagnosis of orthostatic hypotension (*Reeve 2000*).

Guideline

In order to diagnose orthostatic hypotension it is essential that blood pressure measurement is undertaken accurately using standardised guidelines and equipment (*Vloet et al 2002*).

How to record lying and standing blood pressure

Patient must lie supine (flat on back) for at least 5 minutes or until at least two consecutive blood pressure measurements are the same. If patient is unable to lie flat – lie them as far down as possible but note any change of position from supine. Sitting upright is not appropriate.

Of measuring brachial artery blood pressure, ensure that the arm is supported at heart level, the correct sized cuff is used (the cuff must cover 80% of the patient's arm), the cuff is placed over the brachial artery and if measured manually that the result is recorded to nearest 2 mm Hg.

Then measure again in the standing position as per the regime below. If unable to stand use whatever support, standing aids or equipment is necessary. If still unable to stand, or if intolerant of standing, a sitting BP can be used as a rough surrogate provided legs dangling and body as close to vertical as possible and that this position this is documented.

The blood pressure is recorded with the arm supported at heart level:

- Within the first minute of standing/upright
- After 3 minutes standing/upright (would continue to record if BP still dropping and patient able)

Document the lowest blood pressure measurement; a clinically significant drop in blood pressure is classified as 20mmHg systolic or 10mmHg diastolic.
Record the time of the day that the recordings were taken with reference to recent meals and caffeine consumption and record any symptoms that the patient complains of: dizziness, lightheadedness, loss of balance, weakness, syncope or fainting.

If the patient has severe symptoms then stop the measurement and lie the patient back down until the symptoms ease.

Equipment
Blood pressure may be recorded using a manual, aneroid sphygmomanometer or by a non – invasive automated device.

As with all medical devices, use should be in accordance with procedures recommended by the manufacturer. All automated medical devices should be properly serviced and maintained and the manual aneroid sphygmomanometer should be checked and calibrated every 6-12 months.

For further information on blood pressure recording please refer to the Royal Marsden Hospital Manual of Clinical Nursing Procedures can be found on the front page of the Trust intranet Nursing and Midwifery link under policies and guidance.

Monitoring Tool
The nurse in charge will regularly observe staff undertaking lying and standing blood pressure measurement to ensure that protocols are adhered to.

Standards	%	Clinical expectations
Lying and Standing blood pressure will be recorded according to protocol	100%	None

References

- Bonema J, Maddens M (1992) Syncope in elderly patients: why their risk is higher. Postgraduate Medicine 91, 1, 129-132,135-136, 142-144.
- Maurer M (2000) Upright posture and postprandial hypotension in elderly persons, Annals of Internal Medicine, 133, 7, 533-536
- Reeve P (2000) Assessing orthostatic hypotension in older people Nursing Older People October Vol 12, No 7 27-28

- Vloet L, Smits R, Frederiks C , Hoefnagals W, Jansen R (2002) Evaluation of skills and knowledge on orthostatic blood pressure measurements in older people, Age and Ageing, 31: 211-216
- RCP Guidance of measure lying and standing blood pressure. https://www.rcplondon.ac.uk/projects/outputs/measurement-lying-and-standing-blood-pressure-brief-guide-clinical-staff. Updated 13/01/2017

Worcestershire Acute Hospitals NHS Trust

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

		Yes/No	Comments
1.	**Does the policy/guidance affect one group less or more favourably than another on the basis of:**		
	Race	No	
	Ethnic origins (including gypsies and travellers)	No	
	Nationality	No	
	Gender	No	
	Culture	No	
	Religion or belief	No	
	Sexual orientation including lesbian, gay and bisexual people	No	
	Age	No	
2.	**Is there any evidence that some groups are affected differently?**	No	
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**		
4.	**Is the impact of the policy/guidance likely to be negative?**	No	
5.	**If so can the impact be avoided?**		
6.	**What alternatives are there to achieving the policy/guidance without the impact?**		
7.	**Can we reduce the impact by taking different action?**		

If you have identified a potential discriminatory impact of this key document, please refer it to Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact Human Resources.

Worcestershire Acute Hospitals NHS Trust

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval