Pre-operative measurement of adult blood pressure and management of hypertension – Summary highlights

Association of Anaesthetists of Great Britain and Ireland
British Hypertension Society

All AAGBI guidelines are reviewed to ensure relevance/accuracy and are updated or archived when necessary. Date of review: 2020.
This is a consensus document produced by expert members of a Joint Working Party of the Association of Anaesthetists of Great Britain and Ireland, and the British Hypertension Society. It has been seen and approved by the elected Board and Executive Committee of both organisations.

Summary

The diagnosis of hypertension is made in primary care. The measurement of blood pressure before planned surgery to determine the absence or presence of hypertension occurs in primary care. Hospitals should aim not to measure blood pressure before planned surgery. Primary care should provide blood pressure readings and document any appropriate action in non-urgent surgical referrals. The decision by a patient to accept or decline treatment for hypertensive readings should be documented by primary care. Anaesthetists cannot insist that a patient receives treatment for high blood pressure if the patient does not want treatment.
This guideline aims to prevent the diagnosis of hypertension being the reason that planned surgery is cancelled or delayed. This guideline serves, therefore, not to advise on treatment of hypertension, but rather to produce a common terminology in diagnosis and referral, explaining the impact of anaesthesia on blood pressure and vice versa to the wider, non-anaesthetic community.
The guidance takes into account not just the best clinical evidence, but the particular pattern of referral for treatment within the NHS in all four countries of the UK.

References

1. Hypertension: Clinical management of primary hypertension in adults. 2011 NICE Clinical Guideline CG127. http://www.nice.org.uk/guidance/cg127 (accessed 15/01/2015).
2. Cook TM, Woodall N, Frerk C. Fourth National Audit Project. Major complications of airway management in the UK: results of the Fourth National Audit Project of the Royal College of Anaesthetists and the Difficult Airway Society. Part 1: anaesthesia. British Journal of Anaesthesia 2011; 106: 617-31.
3. Cook TM, Andrade J, Bogod DG et al. The 5th National Audit Project (NAP5) on accidental awareness during general anaesthesia: patient experiences, human factors, sedation, consent and medicolegal issues. Anaesthesia 2014; 69: 1102-16.

Recommendations (and suggestions for care)

1. A blood pressure measurement taken within the preceding twelve months should be detailed in the referral letter from primary care.
2. Only in cases where a blood pressure taken in primary care within the last twelve months is not available should the blood pressure be taken in a hospital outpatient department.
3. A patient with a blood pressure greater than or equal to 180/110 should not proceed to non-urgent surgery.
4. A reduction in blood pressure to less than 160/100 mmHg should precede non-urgent surgical referral.
5. The decision by a patient to accept or decline treatment for hypertensive readings should be documented by primary care.

Link to paper Evidence:

https://www.aagbi.org/sites/default/files/Pre-operative%20hypertension%20guideline%2020150429.pdf

Considerations for General Practice:

General practitioners should refer patients for elective surgery with mean blood pressures in primary care in the past 12 months less than 160 mmHg systolic and less than 100 mmHg diastolic.

Secondary care should accept referrals that document blood pressures below 160 mmHg systolic and below 100 mmHg diastolic in the past 12 months.

Pre-operative assessment clinics need not measure the blood pressure of patients being prepared for elective surgery whose systolic and diastolic blood pressures are documented below 160/100 mmHg in the referral letter from primary care.

General practitioners should refer hypertensive patients for elective surgery after the blood pressure readings are ideally less than 160 mmHg systolic and less than 100 mmHg diastolic. Patients may be referred for elective surgery if they remain hypertensive despite optimal antihypertensive treatment or if they decline antihypertensive treatment.

Surgeons should ask general practitioners to supply primary care blood pressure readings from the last 12 months if they are undocumented in the referral letter.

Pre-operative assessment staff should measure the blood pressure of patients who attend clinic without evidence of blood pressures less than 160 mmHg systolic and 100 mmHg diastolic being documented by primary care in the preceding 12 months. (We detail the recommended method for measuring non-invasive blood pressure accurately, although the diagnosis of hypertension is made in primary care.)

Elective surgery should proceed for patients who attend the pre-operative assessment clinic without documentation of normo-tension in primary care if their blood pressure is less than 180 mmHg systolic and 110 mmHg diastolic when measured in clinic.

The disparity between the blood pressure thresholds for primary care (160/100 mmHg) and secondary care (180/110 mmHg) allows for a number of factors. Blood pressure reduction in primary care is based on good evidence that the rates of cardiovascular morbidity, in particular stroke, are reduced over years and decades. There is no evidence that peri-operative blood pressure reduction affects rates of cardiovascular events beyond that expected in a month in primary care. Blood pressure measurements might be more accurate in primary care than secondary care, due to a less stressful environment and a more practised technique.