



**MONITORING VS RESTORING DISCONTINUED ANTIHYPERTENSIVE  
THERAPY: A RANDOMIZED TRIAL OF CONTINUATION OR CESSATION IN 200  
PATIENTS FROM PATNA**

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**Abstract**

Hypertension remains one of the most important modifiable risk factors for cardiovascular disease, stroke, renal dysfunction and premature mortality. In many clinical settings, patients either continue antihypertensive therapy for long periods without systematic review, or stop medicines irregularly because of cost, side effects, poor adherence or lack of follow-up. This proposed randomized clinical trial examines whether a structured monitoring strategy can maintain safe blood-pressure control compared with a restoration strategy in adults with previously prescribed antihypertensive therapy in Patna. The study is designed to enrol 200 patients and randomly allocate them into two groups: continuation with structured monitoring and cessation or dose reduction with protocol-based restoration when blood pressure becomes uncontrolled or symptoms occur. The paper presents the rationale, objectives, methodology, outcome measures, analytical plan, ethical safeguards and expected contribution of the study. The central argument is that antihypertensive management should not be understood only as medicine continuation or discontinuation; rather, it should be evaluated through patient safety, blood pressure control, adherence, quality of life, clinical supervision and context-specific feasibility. The proposed study may help clinicians understand how carefully monitored treatment review can be implemented in urban Indian outpatient settings while protecting patients from uncontrolled blood pressure and drug-related adverse effects.

**Keywords:** hypertension, antihypertensive therapy, discontinuation, continuation, randomized clinical trial, blood pressure control, Patna, medication review, deprescribing, patient safety

**1. Introduction**

Hypertension is a chronic clinical condition requiring long-term monitoring, lifestyle modification and pharmacological treatment when indicated. It is strongly associated with cardiovascular morbidity, stroke, chronic kidney disease and premature mortality. Although antihypertensive medicines are effective, treatment success depends on regular follow-up, proper drug selection, patient adherence, affordability and clinical supervision. In routine practice, patients may continue the same prescriptions for years without structured review, while others discontinue medicines suddenly after temporary symptom relief or because of side effects, economic constraints or misinformation.

The proposed topic, monitoring versus restoring discontinued antihypertensive therapy, addresses this important clinical dilemma. A monitoring approach emphasises close observation of blood pressure, symptoms, adherence and risk factors while continuing or cautiously adjusting therapy. A restoration approach focuses on reintroducing or intensifying therapy when blood pressure becomes uncontrolled after cessation or dose reduction. Both approaches need scientific assessment because uncontrolled hypertension can produce serious complications, while unnecessary polypharmacy may increase the risk of dizziness, hypotension, falls, electrolyte imbalance and reduced quality of life in selected patients.

The Patna context is important because urban and semi-urban outpatient populations often include patients with variable access to regular care, irregular follow-up, mixed public-private treatment pathways and differences in health literacy. A randomized trial design can provide a structured method for comparing two treatment strategies under supervised clinical conditions. However, because antihypertensive cessation can be unsafe in high-risk individuals, the study must include strict eligibility criteria, physician oversight and predefined rescue treatment rules.

Current hypertension guidance available before January 2021 emphasised accurate diagnosis, continued risk assessment and evidence-based pharmacological treatment in adults. International guidance such as the 2017 ACC/AHA guideline and the 2018 ESC/ESH guideline highlighted structured evaluation, appropriate treatment thresholds, follow-up and cardiovascular risk reduction. Indian guidance published in 2020 also stressed diagnosis, combination therapy where appropriate and context-sensitive management. These recommendations support the need for careful, monitored medication decisions rather than unsupervised cessation.

**1.1 Research Problem**

The research problem is that many hypertensive patients either continue antihypertensive medicines without periodic clinical review or stop treatment without structured monitoring. In both situations, the patient may be exposed to avoidable risk. Continued therapy without review may contribute to adverse effects and poor adherence, while unsupervised cessation may lead to uncontrolled blood pressure and cardiovascular complications. There is limited context-specific evidence from Patna on how a supervised continuation or cessation strategy should be monitored and when treatment should be restored.

**1.2 Objectives of the Study**

- To compare blood pressure control among patients assigned to structured monitoring/continuation and protocol-based cessation/restoration strategies.
- To assess the proportion of patients requiring restoration or intensification of antihypertensive therapy during follow-up.
- To evaluate safety outcomes such as symptomatic hypotension, dizziness, uncontrolled blood pressure, emergency visits and adverse drug-related symptoms.
- To examine treatment adherence, patient understanding and acceptability of supervised antihypertensive review.
- To develop a context-specific clinical monitoring framework for antihypertensive medicine review in Patna.

**Table 1. Research objectives, analytical focus and supporting literature**

Objective area	Analytical focus	Main supporting sources
Blood pressure control	Mean systolic/diastolic BP and proportion controlled at follow-up	Whelton et al. (2018); Williams et al. (2018)
Treatment restoration	Need for re-starting, dose escalation or additional drug	Sheppard et al. (2020); Reeve et al. (2017)
Safety	Symptoms, adverse events and urgent care visits	SPRINT Research Group (2015); Williamson et al. (2016)
Adherence and acceptability	Medication-taking behaviour and patient-reported barriers	Burnier & Egan (2019); Vrijens et al. (2017)
Local relevance	Feasibility of structured monitoring in Patna outpatient settings	Shah et al. (2020)

**2. Conceptual Background**

**2.1 Hypertension and Long-Term Treatment Review**

Hypertension management usually requires long-term treatment because blood pressure often rises again when medication is withdrawn. At the same time, patient characteristics change over time. Age, weight, diet, kidney function, comorbid disease, drug interactions and adverse effects may alter the risk-benefit balance of a prescription. Therefore, treatment review is a necessary part of chronic disease management. Review does not mean automatic withdrawal; rather, it means evaluating whether the present treatment remains safe, effective, affordable and acceptable to the patient.

In the Indian context, treatment review is particularly relevant because patients often move between doctors, pharmacies and informal advice systems. Some patients may take medicines intermittently based on

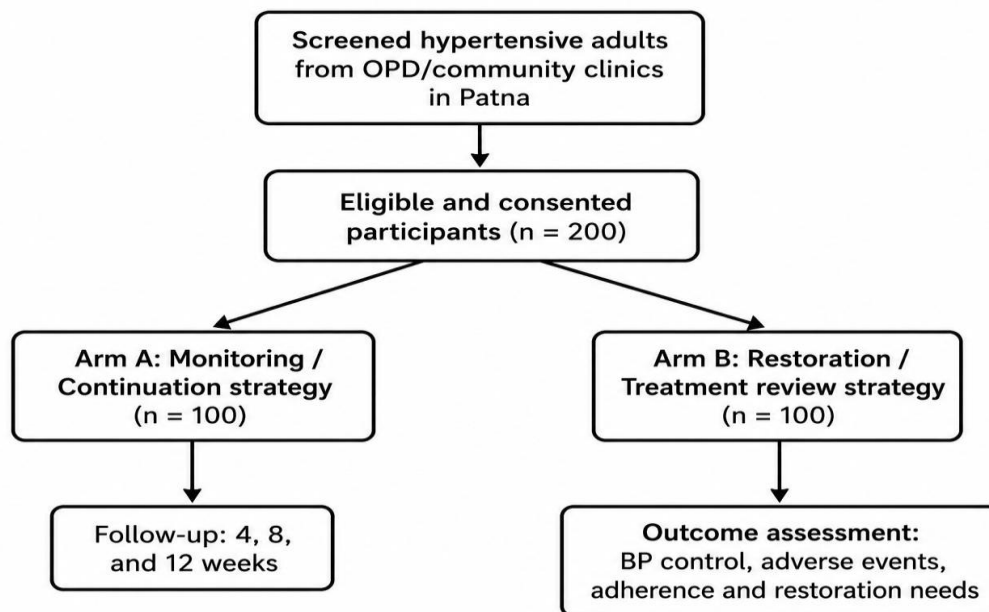
symptoms, even though hypertension is frequently asymptomatic. Others may continue medicines but not monitor blood pressure regularly. Both patterns can create clinical uncertainty. A randomized study can test whether structured monitoring and protocol-driven restoration improve safety and control compared with less systematic decision-making.

## 2.2 Continuation, Cessation and Restoration

Continuation refers to maintaining the prescribed antihypertensive regimen while monitoring blood pressure, adherence and side effects. Cessation refers to stopping or reducing therapy under defined clinical conditions and supervision. Restoration refers to reintroducing or intensifying therapy when predefined clinical thresholds are crossed. The key issue is not whether medicines should always be continued or always stopped, but whether treatment decisions are made in a structured, evidence-informed and patient-safe manner.

A well-designed trial should therefore include rescue criteria. For example, if a patient in a cessation or dose-reduction arm develops persistently elevated blood pressure, symptoms, or clinical risk signals, therapy should be restored according to protocol. This ensures that the study evaluates supervised treatment review rather than unsafe drug withdrawal. Such a framework can be useful for clinicians who need practical guidance on balancing under-treatment and over-treatment risks.

*Figure 1. Proposed participant flow for the randomized trial*



## 3. Review of Literature

The literature on hypertension consistently shows that blood pressure reduction is associated with lower cardiovascular risk when treatment is appropriately prescribed and monitored. Large randomized trials such as SPRINT demonstrated that intensive blood pressure control can reduce major cardiovascular outcomes in selected high-risk adults, although intensive strategies also require careful monitoring for adverse events. This evidence highlights the importance of treatment intensity, clinical supervision and patient selection.

At the same time, recent literature has examined antihypertensive medication reduction and deprescribing in older or multimorbid patients. The OPTIMISE randomized clinical trial evaluated antihypertensive medication reduction versus usual care among adults aged 80 years and older with controlled systolic blood pressure. It showed that medication reduction could be feasible in carefully selected patients over short-term follow-up, but the findings should not be generalized to all hypertensive patients or to unsupervised cessation. Systematic reviews have also noted that evidence for withdrawal remains limited and should be interpreted cautiously.



Guideline literature available up to 2020 supports individualized care, structured follow-up and careful risk assessment. The 2017 ACC/AHA guideline addressed diagnosis, treatment thresholds and follow-up of high blood pressure in adults, while the 2018 ESC/ESH guideline provided European recommendations for evaluation and management of hypertension. Indian guidance added local relevance by recognizing treatment thresholds, combination treatment and practical management concerns in Indian clinical settings. Taken together, these studies support the need for a trial that evaluates supervised treatment strategies rather than simplistic continuation or stoppage.

**Table 2. Thematic synthesis of selected literature**

Theme	Representative insight	Relevance to proposed study	Key sources
Hypertension control	Pharmacological therapy reduces risk when properly indicated and monitored.	Supports BP control as the main outcome.	Whelton et al. (2018); Williams et al. (2018)
Treatment intensity	Intensive targets may benefit selected high-risk adults but require safety monitoring.	Supports strict adverse-event monitoring.	SPRINT Research Group (2015); Williamson et al. (2016)
Medication reduction	Reduction may be feasible in carefully selected older patients.	Supports testing supervised restoration criteria.	Sheppard et al. (2020)
Deprescribing evidence	Withdrawal evidence is limited and requires caution.	Justifies local RCT and ethical safeguards.	van der Wardt et al. (2017); Reeve et al. (2017)
Adherence	Non-adherence is common and affects BP control.	Supports adherence as secondary outcome.	Burnier & Egan (2019); Vrijens et al. (2017)

### 3.1 Research Gap

Existing evidence provides guidance on hypertension treatment and some evidence on medication reduction in selected older patients, but there is a need for localized research that evaluates structured continuation, cessation and restoration pathways in Indian outpatient settings. There is also limited evidence from Patna on patient adherence, acceptability of supervised treatment review and the practical feasibility of protocol-based restoration. This proposed study addresses the gap by developing a randomized design with predefined blood pressure thresholds, safety monitoring and treatment restoration rules.

### 4. Research Methodology

#### 4.1 Research Design

The study is designed as a randomized, controlled, open-label clinical trial with two parallel arms. A total of 200 eligible adult hypertensive patients from Patna will be enrolled after informed consent and randomized in a 1:1 ratio to either a structured monitoring/continuation group or a supervised cessation/restoration group. The follow-up period will be 12 weeks, with assessments at baseline, 4 weeks, 8 weeks and 12 weeks. The study will be conducted only after ethics approval and clinical trial registration.

#### 4.2 Study Setting and Population

The proposed setting includes outpatient clinics, community health camps and collaborating primary care units in Patna. The target population includes adult patients previously diagnosed with essential hypertension and currently prescribed antihypertensive medication. The study will focus on clinically stable patients because stopping or reducing therapy in high-risk uncontrolled cases may be unsafe. Participants will be selected through screening, medical history, baseline blood pressure readings and physician assessment.

#### 4.3 Inclusion and Exclusion Criteria

**Table 3. Eligibility criteria for participant selection**

Inclusion criteria	Exclusion criteria
Adults aged 30 years and above with diagnosed essential hypertension.	Pregnancy, secondary hypertension or hypertensive emergency.
Currently on at least one antihypertensive medicine for three months or more.	Recent myocardial infarction, stroke, heart failure decompensation or unstable angina.
Able to attend follow-up visits and provide informed consent.	Severe chronic kidney disease or clinically unstable comorbidity.
Baseline BP within protocol-defined safe range after repeated measurements.	Current SBP/DBP above safety threshold at screening.
Resident of Patna or nearby accessible area during follow-up.	Inability to understand study instructions or absence of reliable contact.

#### 4.4 Randomization and Study Groups

Participants will be randomly allocated into two groups using a computer-generated randomization sequence. Allocation concealment may be maintained using sealed opaque envelopes or a secure randomization list managed by a study coordinator. Because treatment adjustment is visible to both physician and patient, blinding is not feasible; however, outcome assessment can be standardized through predefined measurement procedures.

Group A will receive continuation of current antihypertensive therapy with structured monitoring. Group B will undergo supervised treatment reduction or cessation only if clinically eligible, with clear restoration criteria. Restoration will occur if blood pressure exceeds predefined limits, symptoms develop, or the treating physician determines that resumption is clinically necessary.

#### 4.5 Outcome Measures

**Table 4. Primary and secondary outcome measures**

Outcome type	Measure	Assessment method
Primary outcome	Proportion of participants maintaining protocol-defined BP control at 12 weeks.	Average of repeated seated BP readings.
Secondary outcome	Mean change in systolic and diastolic BP from baseline.	Standardized BP measurement at each visit.
Secondary outcome	Proportion requiring restoration or intensification of therapy.	Medication review form and physician decision record.
Safety outcome	Symptomatic hypotension, dizziness, severe uncontrolled BP and urgent visits.	Adverse-event checklist and clinical notes.
Adherence outcome	Self-reported adherence and missed doses.	Structured adherence questionnaire.
Acceptability outcome	Patient satisfaction and confidence in treatment plan.	Short patient-reported response form.

#### 4.6 Data Collection Procedure

Baseline data will include age, sex, duration of hypertension, current medicines, comorbidities, smoking status, body mass index, blood pressure readings and relevant clinical history. Blood pressure will be measured using a validated device after the participant rests in a seated position. Two readings will be taken, and the average will be recorded. Follow-up visits will collect blood pressure readings, symptoms, medicine changes, adherence information and adverse events.

#### 4.7 Statistical Analysis Plan

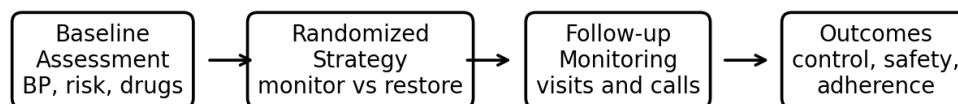
Data will be analysed using intention-to-treat principles. Descriptive statistics will summarize baseline characteristics. Continuous variables such as systolic and diastolic blood pressure will be reported as mean and standard deviation or median and interquartile range depending on distribution. Categorical variables

such as BP control, restoration requirement and adverse events will be reported as frequencies and percentages. Between-group comparisons will use t-tests or Mann-Whitney U tests for continuous variables and chi-square or Fisher exact tests for categorical variables. Logistic regression may be used to adjust for baseline predictors such as age, sex, baseline BP, number of medicines and comorbidity status.

#### 4.8 Ethical Considerations

The study must be conducted according to ethical principles for human participant research. Written informed consent will be obtained from all participants. Patients with uncontrolled blood pressure or high-risk cardiovascular conditions will not be enrolled in cessation protocols. Safety thresholds will be clearly defined, and participants will be allowed to withdraw at any time. Clinical supervision and rescue treatment are essential components of the design. No participant should be denied clinically necessary treatment.

**Figure 2. Analytical framework for monitored antihypertensive treatment review**



Safety oversight: symptomatic hypotension, uncontrolled BP, adverse events and physician judgement

### 5. Intervention Protocol

The intervention protocol will ensure that both study arms receive structured clinical attention. In the continuation arm, patients will remain on their prescribed antihypertensive regimen unless clinical review indicates a need for change. They will receive counselling regarding adherence, lifestyle modification and warning symptoms. In the supervised cessation/restoration arm, treatment reduction will be considered only for eligible participants with stable blood pressure and no exclusionary risk. These participants will be monitored closely, and medicines will be restored if protocol thresholds are reached.

**Table 5. Strategic protocol for continuation and restoration arms**

Protocol element	Continuation/Monitoring arm	Cessation/Restoration arm	Safety control
Baseline review	Confirm current drugs, BP and adherence.	Confirm eligibility for supervised reduction.	Exclude high-risk/uncontrolled cases.
Medication decision	Continue current therapy unless clinically indicated.	Reduce/stop selected drug only under physician order.	No unsupervised stoppage permitted.
Monitoring	BP at each visit and interim contact if symptoms occur.	More frequent BP review after change.	Emergency contact and rescue rules.
Restoration rule	Adjust therapy if BP remains uncontrolled.	Restore therapy if BP crosses threshold or symptoms occur.	Physician judgement overrides protocol.



Patient education	Adherence, salt restriction, exercise and warning signs.	Same education plus clear instructions on restoration.	Written instruction sheet.
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### 6. Analytical Indicators for Trial Assessment

Although clinical outcomes will be based on collected data, the following indicators can help organize trial analysis and interpretation. They are intended as planning tools and should be calculated only from real collected data after trial completion.

BP Control Maintenance Rate (%) = (Number of participants with controlled BP at 12 weeks / Total participants analysed) x 100

Treatment Restoration Rate (%) = (Number of participants requiring medicine restoration or intensification / Total participants in the arm) x 100

Safety Event Rate (%) = (Number of participants reporting predefined adverse or safety events / Total participants analysed) x 100

Adherence Rate (%) = (Number of prescribed doses reportedly taken / Number of prescribed doses expected) x 100

**Table 6. Formula-based interpretation for clinical assessment**

Indicator	Question answered	Clinical implication
BP control maintenance rate	How many patients maintained safe BP control?	Higher rate suggests better clinical stability.
Treatment restoration rate	How often was medicine reintroduced or intensified?	Higher rate suggests cessation may not be suitable for many participants.
Safety event rate	Did the strategy create symptoms or clinical risk?	Any increase requires careful interpretation and protocol review.
Adherence rate	Did patients follow the assigned treatment plan?	Low adherence can weaken trial conclusions.
Follow-up completion rate	Were patients retained until 12 weeks?	Low retention affects feasibility and validity.

### 7. Expected Findings and Interpretation Plan

As this document is a sample manuscript/protocol, no real findings are reported. After actual data collection, the expected analysis would compare whether structured monitoring/continuation maintains blood pressure control more reliably than supervised cessation/restoration, or whether selected patients can safely undergo treatment reduction with careful restoration rules. Interpretation must consider clinical significance as well as statistical significance.

If the restoration arm shows similar BP control with fewer drug-related symptoms, the findings may support cautious treatment review in carefully selected patients. If the restoration arm shows higher uncontrolled BP or more urgent treatment needs, the findings would support stronger continuation and adherence-focused strategies. If both groups show challenges related to follow-up, the study may highlight system-level barriers in chronic hypertension care in Patna.

The study may also reveal that patient education and follow-up are as important as the medication decision itself. Patients who understand hypertension, warning signs and monitoring schedules may be less likely to stop medicines unsafely. Therefore, findings should be interpreted within the larger framework of chronic disease management, patient counselling and primary care strengthening.

### 8. Discussion

The proposed randomized design is important because it addresses a common real-world problem: whether antihypertensive therapy should be continued without change, stopped, reduced, or restored after clinical review. The answer cannot be universal. Some patients may require strict continuation because their



cardiovascular risk is high or their blood pressure rises quickly. Other selected patients may benefit from medication review if they experience side effects, low blood pressure or polypharmacy. A structured trial offers a safer way to examine this balance.

The main strength of the proposed study is its practical clinical relevance. It is designed around outpatient decision-making, not only theoretical pharmacology. It includes eligibility screening, randomized allocation, repeated blood pressure measurement, adverse-event monitoring, adherence assessment and predefined restoration criteria. These features can improve patient safety and make the findings useful for clinicians working in similar urban Indian settings.

The study also has limitations. The 12-week follow-up period can evaluate short-term blood pressure control and safety but cannot fully assess long-term cardiovascular outcomes such as stroke, myocardial infarction or kidney failure. The open-label design may influence patient behaviour and physician decisions. The single-city setting may limit generalizability to rural areas or other states. Despite these limitations, the study can provide a useful foundation for larger and longer trials.

#### **9. Findings / Expected Contributions**

- The study will clarify whether structured continuation or supervised cessation/restoration is more feasible in selected hypertensive patients in Patna.
- It will identify the proportion of patients who require restoration or intensification after treatment review.
- It will generate practical evidence on short-term BP control, adherence and patient acceptability.
- It will help distinguish unsafe unsupervised discontinuation from supervised, protocol-based medication review.
- It will support development of local clinical monitoring frameworks for hypertension management.

#### **10. Recommendations**

- Antihypertensive medicines should not be stopped without medical supervision and blood pressure monitoring.
- Patients selected for medication review should be clinically stable and should receive written follow-up instructions.
- Restoration thresholds must be clearly defined before any cessation or dose reduction is attempted.
- Physicians should assess adherence, side effects, comorbidities and patient understanding at every follow-up visit.
- Community-level hypertension programmes in Patna should strengthen BP monitoring, patient education and continuity of care.
- Future research should include longer follow-up, larger sample size and subgroup analysis by age, sex, baseline BP and comorbidity status.

#### **11. Conclusion**

Monitoring versus restoring discontinued antihypertensive therapy is a clinically significant issue because both overtreatment and undertreatment may harm patients. The proposed randomized trial in 200 patients from Patna provides a structured method for evaluating continuation, cessation and restoration under supervised conditions. The study emphasizes that antihypertensive treatment decisions should be guided by blood pressure control, patient safety, adherence, symptoms and physician judgement rather than by routine continuation or sudden stoppage alone.

The proposed framework may contribute to safer hypertension care by combining clinical monitoring with clear restoration rules. If implemented ethically with proper approval and real data collection, the study can help generate local evidence for chronic hypertension management in Patna and similar Indian settings. Ultimately, the goal is not only to compare two strategies, but also to promote patient-centred, evidence-informed and safe management of antihypertensive therapy.

#### **References**

1. Burnier, M., & Egan, B. M. (2019). Adherence in hypertension. *Circulation Research*, 124(7), 1124-1140. <https://doi.org/10.1161/CIRCRESAHA.118.313220>
2. Ettehad, D., Emdin, C. A., Kiran, A., Anderson, S. G., Callender, T., Emberson, J., Chalmers, J., Rodgers, A., &



- Rahimi, K. (2016). Blood pressure lowering for prevention of cardiovascular disease and death: A systematic review and meta-analysis. *The Lancet*, 387(10022), 957-967. [https://doi.org/10.1016/S0140-6736\(15\)01225-8](https://doi.org/10.1016/S0140-6736(15)01225-8)
3. James, P. A., Oparil, S., Carter, B. L., Cushman, W. C., Dennison-Himmelfarb, C., Handler, J., Lackland, D. T., LeFevre, M. L., MacKenzie, T. D., Ogedegbe, O., Smith, S. C., Svetkey, L. P., Taler, S. J., Townsend, R. R., Wright, J. T., Narva, A. S., & Ortiz, E. (2014). 2014 evidence-based guideline for the management of high blood pressure in adults. *JAMA*, 311(5), 507-520. <https://doi.org/10.1001/jama.2013.284427>
  4. Reeve, E., Shakib, S., Hendrix, I., Roberts, M. S., & Wiese, M. D. (2017). Review of deprescribing processes and development of an evidence-based, patient-centred deprescribing process. *British Journal of Clinical Pharmacology*, 83(4), 906-918. <https://doi.org/10.1111/bcp.13127>
  5. Shah, S. N., Munjal, Y. P., Kamath, S. A., Wander, G. S., Mehta, N., Mukherjee, S., Kirpalani, A., Gupta, P., Shah, H., Rohatgi, R., Billimoria, A. R., Maiya, M., Das, M. K., Goswami, K. C., Sharma, R., Rajapurkar, M. M., Chawla, R., Saboo, B., & Jha, V. (2020). Indian guidelines on hypertension-IV (2019). *Journal of Human Hypertension*, 34, 745-758. <https://doi.org/10.1038/s41371-020-0349-x>
  6. Sheppard, J. P., Burt, J., Lown, M., Temple, E., Lowe, R., Fraser, R., Allen, J., Ford, G. A., Heneghan, C., Hobbs, F. D. R., Jowett, S., Kodabuckus, S., Little, P., Mant, J., Mollison, J., Payne, R. A., Williams, M., Yu, L.-M., & McManus, R. J. (2020). Effect of antihypertensive medication reduction vs usual care on short-term blood pressure control in patients with hypertension aged 80 years and older: The OPTIMISE randomized clinical trial. *JAMA*, 323(20), 2039-2051. <https://doi.org/10.1001/jama.2020.4871>
  7. SPRINT Research Group. (2015). A randomized trial of intensive versus standard blood-pressure control. *New England Journal of Medicine*, 373(22), 2103-2116. <https://doi.org/10.1056/NEJMoa1511939>
  8. van der Wardt, V., Harrison, J. K., Welsh, T., Conroy, S., & Gladman, J. (2017). Withdrawal of antihypertensive medication: A systematic review. *Journal of Hypertension*, 35(9), 1742-1749. <https://doi.org/10.1097/HJH.0000000000001405>
  9. Vrijens, B., Antoniou, S., Burnier, M., de la Sierra, A., & Volpe, M. (2017). Current situation of medication adherence in hypertension. *Frontiers in Pharmacology*, 8, 100. <https://doi.org/10.3389/fphar.2017.00100>
  10. Williamson, J. D., Supiano, M. A., Applegate, W. B., Berlowitz, D. R., Campbell, R. C., Chertow, G. M., Fine, L. J., Haley, W. E., Hawfield, A. T., Ix, J. H., Kitzman, D. W., Kostis, J. B., Krousel-Wood, M. A., Launer, L. J., Oparil, S., Rodriguez, C. J., Roumie, C. L., Shorr, R. I., Sink, K. M., ... SPRINT Research Group. (2016). Intensive vs standard blood pressure control and cardiovascular disease outcomes in adults aged 75 years or older: A randomized clinical trial. *JAMA*, 315(24), 2673-2682. <https://doi.org/10.1001/jama.2016.7050>
  11. Whelton, P. K., Carey, R. M., Aronow, W. S., Casey, D. E., Collins, K. J., Dennison Himmelfarb, C., DePalma, S. M., Gidding, S., Jamerson, K. A., Jones, D. W., MacLaughlin, E. J., Muntner, P., Ovbiagele, B., Smith, S. C., Spencer, C. C., Stafford, R. S., Taler, S. J., Thomas, R. J., Williams, K. A., ... Wright, J. T. (2018). 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults. *Hypertension*, 71(6), e13-e115. <https://doi.org/10.1161/HYP.0000000000000065>
  12. Williams, B., Mancia, G., Spiering, W., Agabiti Rosei, E., Azizi, M., Burnier, M., Clement, D. L., Coca, A., De Simone, G., Dominiczak, A., Kahan, T., Mahfoud, F., Redon, J., Ruilope, L., Zanchetti, A., Kerins, M., Kjeldsen, S. E., Kreutz, R., Laurent, S., ... Desormais, I. (2018). 2018 ESC/ESH guidelines for the management of arterial hypertension. *European Heart Journal*, 39(33), 3021-3104. <https://doi.org/10.1093/eurheartj/ehy339>

