| Citation | Author | Title | Country | Publication type | Results |
|----------|--------|-------|---------|-----------------|---------|
| N Engl J Med 1998,339:1957–63. | Berlowitz | Inadequate management of blood pressure in a hypertensive population. | USA | Cross-sectional study: Examination of a database | "Despite two years of care, with many opportunities to increase antihypertensive medications, blood pressure continued to be poorly controlled in many patients. Thus, although physicians may have been closely monitoring patients’ blood pressure, they repeatedly delayed making changes in the regimen."
| | | | | | "Inadequate control of blood pressure can no longer be ascribed solely to the lack of access to medical care and noncompliance with therapy; physicians themselves must accept some responsibility for the problem.” |
| Am J Monag Care 1998,4(Suppl 12):741–744. | Cabana | Barriers to guideline adherence. Based on a presentation by Michael Cabana, MD | USA | Expert opinion: Report of a presentation and roundtable of experts | Discusses possible reasons for poor implementation of guidelines, on a deductive basis: lack of awareness, lack of agreement, lack of self-efficacy, lack of outcome expectancy, lack of cueing mechanism. |
| JAMA 1999,282:1458–1465. | Cabana | Why don’t physicians follow clinical practice guidelines? A framework for improvement. | USA | Review of the literature: barriers to physician adherence to clinical practice guidelines | Proposes a model of the barriers to adherence in relation to behavior change, regarding knowledge, attitudes, and behavior. "Inertia of previous practice” is identified as an attitude. “A theoretical approach can help explain these barriers and possibly help target interventions to specific barriers.” |
| Fam Pract 2001,18:359–363. | Cranney | Why do GPs not implement evidence-based guidelines? A descriptive study. | UK | Qualitative study: Content analysis of focus groups of GPs | The concept of inertia as such is not discussed. Nevertheless, all possible causes for inertia are found in the verbatim, including: “I’m sure that at 6 o’clock on Friday, I’m not that fussed whether it’s 160 or 164-I just want to go home!” |
| Ann Intern Med 2001,135:825–834. | Phillips | Clinical inertia. | USA | Expert opinion: Initial definition and description of a new concept, on a deductive basis. | "Strong evidence now indicates that therapy for hypertension, dyslipidemia, and diabetes can prevent or delay complications. The goals for management are well defined, effective therapies are widely available, and practice guidelines for each of these diseases have been disseminated extensively. Despite such advances, health care providers often do not initiate or intensify therapy appropriately during visits of patients with these problems. We define such behavior as clinical inertia—recognition of the problem, but failure to act.” "Experienced clinicians will recognize that exceptions always occur and rigid insistence on the uniform application of guidelines for patient management could result in overtreatment or inappropriate actions.” |
| Arch Intern Med 2003,163:2677–2678. | O’Connor | Overcome clinical inertia to control systolic blood pressure. | USA | Editorial | “The most common mistake in chronic disease care is not prescribing the wrong drug or forgetting to check a creatinine or potassium level when indicated, it is failure to initiate or titrate medications until important evidence-based clinical goals are reached. One of the major obstacles to better BP control is clinical inertia. Clinical inertia may be simply defined as an office visit at which no therapeutic move was made to lower the BP of a patient with uncontrolled hypertension.” "We fail to recommend intensified treatment for a variety of reasons, only some of which are legitimate.” "We physicians are tempted to lay the blame for clinical inertia at the feet of our patients. Yet, there is accumulating evidence to suggest that approximately 75% of the time, physician inertia is the reason for the problem, and approximately 25% of the time, failure to intensify treatment is due to patient refusal or resistance.” |
| Am J Health-Syst Pharm 2004,61:401–404. | Kennedy | Clinical inertia: Errors of omission in drug therapy. | USA | Commentary: How to increase pharmacist awareness regarding clinical inertia. | “We believe the manifestation of clinical inertia is a pattern of repeated errors of omission. An error of omission is ‘a failure to carry out the necessary steps in the performance of a task’.” |
| Am Heart J 2005,149:785–794. | Borzekski | Barriers to hypertension control. | USA | Narrative review: Factors associated with impaired control of BP | "The term clinical inertia describes the phenomenon whereby clinicians do not initiate or intensify therapy appropriately for patients with chronic medical conditions such as hypertension, diabetes, and dyslipidemia." "Another important provider-related barriers to adherence to best practice include clinical inertia and lack of provider agreement with guidelines.” |
| Am Heart J 2005,149:795–803. | Bosworth | Improving blood pressure control by tailored feedback to patients and clinicians. | USA | Narrative review | "Research has attributed these findings to a tendency for clinicians to use a higher threshold of clinic-based blood pressure to initiate regimen changes ("clinical inertia")." "Other physician-related factors are not included in clinical inertia.” |
| In Advances in Patient Safety: From Research to Implementation (Volume 2: Concepts and Methodology). | O’Connor | Clinical inertia and outpatient medical errors. | USA | Position paper: Propositions for a conceptual model, an operative definition, and future research | “Clinical inertia is defined as lack of treatment intensification in a patient not at evidence-based goals for care. In instances of clinical inertia, both of the following must occur: (a) The patient fails to achieve major evidence-based clinical goals, and (b) the patient fails to receive appropriate intensification of pharmacotherapy in a defined period of time.” "To operationally define clinical inertia, several decisions must be made. First, the clinical goals of care must be selected. Second, the therapy of the disease must be defined in such a way that it can be measured. Finally, one must define a time window from the date of a visit, test, or other clinical event within which intensification of therapy is designated as timely. (...) Flexibility in how clinical inertia is defined could be seen by some as a limitation. However, from the point of view of care improvement, this sort of flexibility may often be an advantage because it allows local tailoring of initiative and interventions.” |
| J Clin Hypertens 2006,8:481–486. | Carter | Relationship between physician knowledge of hypertension and blood pressure | USA | Cross-sectional study | “This study demonstrates that there is no evidence that high knowledge of hypertension guidelines will improve BP control rates and that higher knowledge may actually be associated with lower BP control” |
| Journal | Year | Title | Setting | Study Type | Country | Important Findings |
|---------|------|-------|---------|------------|---------|--------------------|
| Curr Med Res Opin | 2006,22:1545–1553. | Düsing | Germany | Literature review: Non-systematic Medline review | Does not use the word “inertia”, but states that: “Modifiable factors under the control of the physician include: (1) insufficient identification of hypertensive patients (e.g. by not strictly applying 140/90 mmHg as the age-independent cut-off blood pressure between normotension and hypertension); (2) failure to select the therapeutic options most appropriate for each patient; (3) uncertainty regarding when and how to implement lifestyle changes and when to initiate drug treatment; (4) providing insufficient information and failing to motivate patients to accept the need for lifestyle changes or drug treatment; (5) insufficient emphasis on the importance of lowering systolic BP levels to < 140 mmHg; (6) reluctance to modify therapy appropriately when BP goals are not achieved and (7) failure to follow up patients regularly with sufficient rigour to ensure that they are adhering to lifestyle advice (e.g. in achieving body weight control and reducing excessive alcohol or NaCl intake) and to the prescribed drug regimen.” |
| Diabetes Care | 2006,22:2580-2585. | Hicks | Literature review: Non-systematic Medline review | Does not use the word “inertia”, but states that: “Modifiable factors under the control of the physician include: (1) insufficient identification of hypertensive patients (e.g. by not strictly applying 140/90 mmHg as the age-independent cut-off blood pressure between normotension and hypertension); (2) failure to select the therapeutic options most appropriate for each patient; (3) uncertainty regarding when and how to implement lifestyle changes and when to initiate drug treatment; (4) providing insufficient information and failing to motivate patients to accept the need for lifestyle changes or drug treatment; (5) insufficient emphasis on the importance of lowering systolic BP levels to < 140 mmHg; (6) reluctance to modify therapy appropriately when BP goals are not achieved and (7) failure to follow up patients regularly with sufficient rigour to ensure that they are adhering to lifestyle advice (e.g. in achieving body weight control and reducing excessive alcohol or NaCl intake) and to the prescribed drug regimen.” |
| Diabetes Care | 2006,22:2580-2585. | Hicks | Literature review: Non-systematic Medline review | Does not use the word “inertia”, but states that: “Modifiable factors under the control of the physician include: (1) insufficient identification of hypertensive patients (e.g. by not strictly applying 140/90 mmHg as the age-independent cut-off blood pressure between normotension and hypertension); (2) failure to select the therapeutic options most appropriate for each patient; (3) uncertainty regarding when and how to implement lifestyle changes and when to initiate drug treatment; (4) providing insufficient information and failing to motivate patients to accept the need for lifestyle changes or drug treatment; (5) insufficient emphasis on the importance of lowering systolic BP levels to < 140 mmHg; (6) reluctance to modify therapy appropriately when BP goals are not achieved and (7) failure to follow up patients regularly with sufficient rigour to ensure that they are adhering to lifestyle advice (e.g. in achieving body weight control and reducing excessive alcohol or NaCl intake) and to the prescribed drug regimen.” |
| Diabetes Care | 2006,22:2580-2585. | Hicks | Literature review: Non-systematic Medline review | Does not use the word “inertia”, but states that: “Modifiable factors under the control of the physician include: (1) insufficient identification of hypertensive patients (e.g. by not strictly applying 140/90 mmHg as the age-independent cut-off blood pressure between normotension and hypertension); (2) failure to select the therapeutic options most appropriate for each patient; (3) uncertainty regarding when and how to implement lifestyle changes and when to initiate drug treatment; (4) providing insufficient information and failing to motivate patients to accept the need for lifestyle changes or drug treatment; (5) insufficient emphasis on the importance of lowering systolic BP levels to < 140 mmHg; (6) reluctance to modify therapy appropriately when BP goals are not achieved and (7) failure to follow up patients regularly with sufficient rigour to ensure that they are adhering to lifestyle advice (e.g. in achieving body weight control and reducing excessive alcohol or NaCl intake) and to the prescribed drug regimen.” |

---

- **Curr Med Res Opin** 2006,22:1545–1553.
- **Diabetes Care** 2006,22:2580-2585.
- **AAIA Annu Symp Proc** 2006:494–498.
- **Hypertension** 2006;3:345-351.
- **J Clin Hypertens** 2006,8:667–670.
- **Hypertens Rep** 2006;8:324–329.
- **Arch Intern Med** 2006,166:507–513.
- **Curr Hypertens Rep** 2006,8:324–329.
- **J Clin Hypertens** 2007,9:113–119.
- **J Clin Hypertens** 2007,9:636–645.
- **Fam Pract** 2007,24:547–554.
| Study Title | Authors | Study Type | Language | Country | Summary |
|-------------|---------|------------|----------|---------|---------|
| Br J Gen Pract | Heneghan | Descriptive survey study | UK | Hypertension guideline recommendations in general practice: awareness, agreement, adoption, and adherence. | "Non-implementation of guidelines may be due to several factors: lack of awareness, lack of agreement, lack of belief that one can actually perform a behaviour, lack of expectation that a given behaviour will lead to a particular consequence, the inertia of previous practice, and external barriers." |
| Sang Thrombose | Mourad | Cross-sectional study | France | Blood pressure control and therapeutic inertia in the HTA (arterial hypertension). French, European and North American | "Therapeutic inertia (defined as lack of treatment intensification or modification during the consultation in a patient not at goal)..." |
| Ann Fam Med | Parchman | Cross-sectional study: Analyzes the link between prescriptions of glucose-lowering agents, HbA1C, and symptoms or complaints expressed by the patient | USA | Competing demands or clinical inertia: the case of elevated glycosylated hemoglobin. | "The phenomenon of clinical inertia has been difficult to study because of the paucity of data on the content of the patient-physician encounter. (...) An alternative explanation for failure to intensify therapy despite poor glucose control is the presence of competing demands." |
| Jt Comm J Qual Patient Saf | Roumie | Cross-sectional study | USA | Clinical inertia: a common barrier to changing provider prescribing behavior. | "Providers often have competing interests, including lack of time, more urgent requests made by the patient, and practice habits that can prohibit the escalation of care when such a modification is clinically indicated. This behavior (or lack thereof) is known as "clinical inertia." (...) the failure to initiate or titrate medications as needed to reach important goals." |
| J Gen Intern Med | Safford | Nominal group consensus | USA | Reasons for not intensifying medications: differentiating "clinical inertia" from appropriate care. | "Clinical inertia is a recently described phenomenon of physicians failing to intensify medication regimens at encounters with patients who have uncontrolled risk factors. Our findings suggest that many such apparent "failures" to intensify medication regimens reflect potentially appropriate decisions in many cases. These findings suggest that part of the explanation for previously reported low intensification rates is appropriate inaction. (...) Distinguishing potential clinical inertia from appropriate inaction is an important initial step for interventionists seeking to identify strategies to improve care and for policy makers seeking to measure quality of health care." |
| Nat Clin Pract Endocrinol Metab | Turchin | Commentary | USA | Is clinical inertia a common barrier to patient care in type 2 diabetes mellitus? | "Lack of treatment intensification—sometimes referred to as 'clinical inertia'." |
| Hypertension | Vinyoles | Editorial | Spain | Not only clinical inertia... | "Clinical inertia, that is our reluctance to make changes in the treatment..." |
| Health Aff (Millwood) | Wexler | Letter | USA | Clinical inertia and organizational change. | "Clinical inertia", which they describe as 'recognition of the problem but failure to act';" |
| Rev Clin Exp | Alonso-Moreno | Cross-sectional study | Spain | Primary care physicians behaviour on hypertensive patients with poor blood pressure control. The PRESCAP 2006 study. | "The passive behaviour of a practitioner facing a situation that would require treatment modification according to evidence and guidelines is called clinical inertia." |
| J Hum Hypertens | Bakris | Expert opinion | USA | Achieving blood pressure goals globally: five core actions for health-care professionals. A worldwide call to action. | "Clinician inertia, whereby physicians and other clinicians treating hypertension are unwilling to increase the intensity of drug treatment even though they see patients regularly and are aware that blood pressure goals have not been achieved." |
| Adv Ther | Ferri | Literature review | Italy | Role of combination therapy in the treatment of hypertension: focus on valsartan plus amlodipine. | "Therapeutic inertia deriving from poorly prescribed Lifestyle changes, excess monotherapy use, and scarce on-treatment modifications." |
| Circulation | Heisler | Retrospective cohort study: Relationship between patient adherence and provider treatment | USA | When faced with elevated BP, providers often do not appropriately increase medication dose or number of medications. (...) Such failures to intensify medications, often labeled "clinical inertia," are associated with poor BP control. | "Patients' prior medication adherence had little impact on providers' decisions about intensifying medications, even at very high levels of poor adherence." |
| Dis Manag 2008,11:71–77. | Holland | Identifying barriers to hypertension care: implications for quality improvement initiatives. | USA | Cross-sectional study | "The failure of health care providers to intensify medication regimens despite patients not achieving treatment goals is often referred to as ‘clinical inertia’ or ‘therapeutic inertia’." |
|---|---|---|---|---|---|
| Ann Intern Med 2008,148:717–727. | Kerr | The role of clinical uncertainty in treatment decisions for diabetic patients with uncontrolled blood pressure. | USA | Prospective cohort study | "Clinical inertia—the failure by providers to initiate or intensify therapy (medication intensification) in the face of apparent need to do so—is a main contributor to poor control of hypertension."
"Clinical uncertainty about the true blood pressure value was a prominent reason that providers did not intensify therapy." |
| Hypertension 2008,25:187–193. | Marquez Contreras | Clinical and professional inertia and drug non-compliance. How do they influence control of hypertension? The CUMAMPA study. | Spain | Longitudinal study | [Translated from spanish] "Clinical therapeutic inertia is defined as failure of the practitioner to diagnose, or to initiate or increase therapy when indicated." |
| Scand J Prim Health Care 2008,26:154–159. | Midlov | Barriers to adherence to hypertension guidelines among GPs in southern Sweden: a survey. | Sweden | Descriptive survey study | "Clinical inertia is defined as recognition of the problem but failure to act, which is possibly related to overestimation of care provided, use of "soft" reasons to avoid intensification of therapy, or lack of training."
"Sometimes the inertia may be appropriate. There might be a difference between effects in controlled trials and effectiveness in primary care patients. The GP has to take into account all circumstances for each patient, e.g. other risk factors, concurrent disease, medications, and function of different organs." |
| J Clin Hypertens 2008,10:822–829. | Nwachuku | Management of high blood pressure in clinical practice: Perceptible qualitative differences in approaches utilized by clinicians. | USA | Qualitative study | Physicians are not as aggressive as they should be in their willingness to intensify medical therapy for the elderly—so-called clinical inertia." |
| J Clin Hypertens 2008,10:644–646. | Ogbedegbe | Barriers to optimal hypertension control. | USA | Narrative review | "Clinical inertia, which is defined as the failure of health care providers to initiate or intensify drug therapy appropriately in a patient with uncontrolled BP." |
| Ann Intern Med 2008,148:783–785. | Phillips | It’s time to overcome clinical inertia. | USA | Editorial | "Blood pressure levels remain above goal because providers do not initiate or intensify therapy when clinically indicated. We have characterized this problem as "clinical inertia"." "Competing demands contribute less consistently to clinical inertia than clinical uncertainty. (...) Clinical inertia is not linked to patient sex or race." |
| Diabetes Metab 2008,34:382–385. | Reach | Patient non-adherence and healthcare-provider inertia are clinical myopia. | France | Theoretical model based on concepts of analytical phyllosophy of mind | "Lack of adherence of the healthcare provider to current guidelines, a relatively new concept referred to as ‘clinical inertia’." |
| J Hypertens Suppl 2008,26:51–514. | Redon | Practical solutions to the challenges of uncontrolled hypertension: a white paper. | Spain, switzerland, Italy, Germany, Netherland | Expert opinion | "The profession may be paralysed by the bewildering amount of information and therapeutic inertia is setting in."
"A therapeutic inertia score was determined by calculating the difference between expected and observed medication rates."
"The working group identified six challenges that stand in the way of achieving goal blood pressure for all patients; an urgent need of simplicity; therapeutic inertia; lack of empowerment and responsibility; and unsupportive healthcare structures and policy." |
| J Gen intern Med 2008,23:180–183. | Rose | The accuracy of clinician perceptions of "usual" blood pressure control. | USA | Cohort study | "The term "clinical inertia" is used to describe the failure to manage a chronic condition aggressively enough to bring it under control.
"Clinicians may not be aware of or agree with consensus guidelines regarding BP targets. (...) Clinicians may have access to data not available from the vital signs module of the EMR ( electronic medical record)."
"Defining clinical inertia as a failure is perjorative. On the one hand, it may be that physicians are not treating an important problem as effectively as possible. Alternatively, physicians may be providing patient-centered care, accounting for patients' individual situations and multimorbidity." |
| Ann Intern Med 2008,149:838–841. | Letters, comments and responses [various authors] | Will running the numbers first violate the principles of patient-centered care? | USA | Letter: Comments on Phillips et al.: It’s time to overcome clinical inertia | "Clinical complexity, as reflected by unrelated comorbid conditions, should be considered when evaluating quality of care." |
| Ann Intern Med 2008,148:578–586. | Turner | Effect of unrelated comorbid conditions on hypertension management. | USA | Retrospective cross-sectional study | "Defining clinical inertia as a failure is perjorative. On the one hand, it may be that physicians are not treating an important problem as effectively as possible. Alternatively, physicians may be providing patient-centered care, accounting for patients' individual situations and multimorbidity." "Phillips and Twombly recommend that every time blood pressure is elevated, clinicians should intensify therapy. This approach promotes potentially harmful polypharmacy, given that most patients with diabetes require at least 2 to 3 blood pressure medications, and it also increases the risk for nonadherence due to side effects and cost." "Rather than suffering from clinical inertia, clinicians may be simply following the guidelines. (...) Our understanding of the basis for clinical inertia has been advanced by the demonstration of contributions from "clinical uncertainty" and "competing demands"." "Clinical inertia is defined as recognition of the problem but failure to act, which is possibly related to overestimation of care provided, use of "soft" reasons to avoid intensification of therapy, or lack of training."
"Sometimes the inertia may be appropriate. There might be a difference between effects in controlled trials and effectiveness in primary care patients. The GP has to take into account all circumstances for each patient, e.g. other risk factors, concurrent disease, medications, and function of different organs." |
"Clinical inertia" and "therapeutic inertia" have been used recently by authors, primarily to attribute to physicians the apparent failure of patients to attain therapeutic blood pressure goals.

"Clinical inertia is an important theoretical construct that encompasses the underuse of therapy that is efficacious and effective in preventing serious endpoint clinical outcomes such as death, nonfatal myocardial infarction (MI), and stroke.

"Clinical inertia occurs when health care providers recognize the problem (failure to attain therapeutic targets in patients with hypertension, dyslipidemia, or diabetes) but fail to act (to initiate or intensify therapy). Clinical inertia must also be evaluated in the context that evidence-based practice is a moving target.

"Realistic expectations about the results of adherence to clinical practice guidelines are also called for when considering the subject of possible clinical inertia. (…) We suggest that when this term is used that authors be specific and not attribute failure of patients to meet therapeutic goals solely to clinicians failure to intensify treatment in a timely manner."

"Most clinicians generally do not take an aggressive enough approach in their treatment of hypertension. In essence, they are guilty of therapeutic inertia."

"Therapeutic inertia was defined as systolic BP >140 mm Hg and/or diastolic BP >90 mm Hg, with no change in antihypertensive therapy."

"Physicians may be reticent to increase the intensity of pharmacologic management of patients when BP approaches target values (ie, "clinical inertia"). Although the root causes of this are not known, log summaries from clinicians using the system provide insight into the barriers perceived by the clinicians, including the clinic BP not representative of the patient’s typical BP, hypertension not the clinical priority for that visit, and patient nonadherence to medication."

"Clinical inertia (CI) is defined as the inappropriate management of at least one medical condition for a given patient because of minimal or lack of appropriate therapeutic intervention. (…) Failure to act despite recognition of a problem with a known solution."

"Theoretically, the existence of CI is inversely related to therapeutic modifications."

"Failure of physicians to follow guidelines is apparently dependent on the belief that baseline BP dictates the target, that a clear improvement in BP might be sufficient and that the full drug effect may take up to 4 months or more to be attained."

"Issues on the compliance of the patients accounted for approximately 10% of the reasons for not intensifying antihypertensive treatment throughout the study, whereas modification of other risk factors (smoking, lipid disorders, overweight, etc.) was used as an argument in 5% of cases."

"It must be remembered that guidelines have to be interpreted for each individual patient. In this respect, it is rather reassuring that the general health status is taken into account and antihypertensive treatment adapted accordingly. Longterm preventive treatment is indeed only conceivable if there is no other rapidly lethal disease."

"Therapeutic inertia (TI) is defined as the failure of the doctor or nurse in the initiation or maintenance treatment of a disease or risk factor when they are actually given, and despite knowing that following the protocols and practice guidelines is necessary do so. TI is a conservative attitude of professionals to the therapeutic decisions in managing different clinical situations that arise daily patients. It is a difficult concept to explain and justify. The reasons adduced are diverse, and among them include a lack of training, lack of confidence in the consensus, the lack of time in consultations and the complicated structure and health organization."

"Physician inertia is defined as the failure to initiate therapy or to intensify or change therapy in patients with BP values >140/90 mm Hg, or >130/80 mm Hg in hypertensive patients with diabetes, renal, or coronary heart disease. The term clinical or physician inertia has been used to describe situations in which patients return for visits having taken their medication but have not had therapy changed despite BP levels that are higher than levels established by guidelines. It has also been applied with regard to the large number of patients (usually older than 60 years) with systolic hypertension for whom physicians are reluctant to provide any specific treatment."

"Some inertia is also the result of confusion as to which BP measure to use. Data suggest that some physicians are confused: should clinic or home BP readings be used for treatment decisions? Should ambulatory BP monitoring be performed to get the "true" BP?"

"Mistaken physician perceptions about BP control for their patients dramatically increased (OR: 108.1) the probability of not making changes in the antihypertensive treatment of patients with uncontrolled BP. (…) an incorrect perception of BP control may be one of the most important factors for therapeutic inertia."

"This attitude is known as therapeutic inertia, defined as the failure of the practitioner to initiate or intensify therapy when indicated."

"This failure to initiate or intensify therapy when indicated has been called clinical inertia."

"According to the GPs, prescribing could be influenced by patients’ reluctance to start or continue pharmacotherapy."

"Control objective” study: therapeutic inertia in arterial hypertension. Design and methodology."

"Mistaken physician perceptions about BP control for their patients dramatically increased (OR: 108.1) the probability of not making changes in the antihypertensive treatment of patients with uncontrolled BP. (…) an incorrect perception of BP control may be one of the most important factors for therapeutic inertia."

"This attitude is known as therapeutic inertia, defined as the failure of the practitioner to initiate or intensify therapy when indicated."

"According to the GPs, prescribing could be influenced by patients’ reluctance to start or continue pharmacotherapy."

"Control objective” study: therapeutic inertia in arterial hypertension. Design and methodology."

"Mistaken physician perceptions about BP control for their patients dramatically increased (OR: 108.1) the probability of not making changes in the antihypertensive treatment of patients with uncontrolled BP. (…) an incorrect perception of BP control may be one of the most important factors for therapeutic inertia."

"This attitude is known as therapeutic inertia, defined as the failure of the practitioner to initiate or intensify therapy when indicated."

"According to the GPs, prescribing could be influenced by patients’ reluctance to start or continue pharmacotherapy."

"This failure to initiate or intensify therapy when indicated has been called clinical inertia."

"According to the GPs, prescribing could be influenced by patients’ reluctance to start or continue pharmacotherapy."
| Author(s) | Title | Methodology | Country | Summary |
|-----------|--------|-------------|---------|---------|
| Zikmund-Fisher | USA Cross-sectional study | Clinical inertia, often defined as the failure by providers to initiate or intensify medication therapy when otherwise appropriate. However, patients could contribute to clinical inertia by signaling an unwillingness to consider medication intensification. |
| Basile | USA Literature review | Clinical or therapeutic inertia is defined as the providers’ failure to begin new medications or increase dosages of existing medications when treatment goals remain unmet. Clinical inertia can occur even when patients have demonstrated compliance with their therapy. It has also been defined as a failure to act despite recognition of the problem. “Untreatment and clinical inertia can also be mistaken for treatment-resistant hypertension.” |
| Basile | USA Expert opinion | A practitioner’s failure to intensify treatment despite evidence of poor BP control is known as therapeutic inertia.” |
| Düsing | Germany Literature review | “Doctors are often hesitant to expand therapy in treated patients whose blood pressure is not lowered to goal (therapeutic inertia)” |
| Zikmund-Fisher | USA Expert opinion | “Clinical inertia, often defined as the failure by providers to initiate or intensify medication therapy when otherwise appropriate. However, patients could contribute to clinical inertia by signaling an unwillingness to consider medication intensification.” |
| Basile | USA Literature review | “Clinical inertia is the recognition of a problem and the failure to act and it has been described as an issue in the treatment of hypertension.” Practitioners agreed that the negative impact on patient quality of life may outweigh the benefits of treatment.” |
| Hoepfner | Germany Literature review | “Inertia was defined if a patient showed high BP according to clinical guidelines and the physician failed to act upon it. Diagnostic inertia was defined as a failure to consider the diagnosis of HTN in a subject in the absence of diagnosis of HTN and elevated BP. On the other hand, therapeutic inertia was defined in an uncontrolled hypertensive if therapeutic action was not taken.” |
| Basile | USA Literature review | “Clinical inertia is the recognition of a problem and the failure to act and it has been described as an issue in the management of patients with asymptomatic chronic illnesses such as hypertension, dyslipidaemia and diabetes.” |
| Arc bras Cardiol | Brazil Cohort study | “Therapeutic inertia, i.e., the failure of health professionals to initiate or intensify a therapy when this is indicated.” |
| Howes | Australia Qualitative study | “Numerous causes lead to therapeutic inertia, i.e. lack of initiation or intensification of therapy when indicated” |
| Suárez | Belgium Narrative review | “There is a strong link between therapeutic inertia and awareness of cardiovascular risk, poor blood pressure control, and goals depending on the patient’s cardiovascular risk and adherence to treatment.” |
| Scheen | Belgium Expert opinion | “Therapeutic inertia is one of the components of clinical inertia. It mainly concerns the management of chronic diseases. It may be defined as the attitude of health care providers who do not initiate or intensify therapy appropriately despite recognition of the problem.” |
| Sutton | USA Retrospective cohort study | “Many of these reasons seem to indicate typical patterns of ‘clinical inertia’ or failure to act when the BP is not controlled which contributes to overall poor BP control.” |
| Van Der Niepen | Belgium Survey (poster) | “The failure of clinicians to initiate or intensify antihypertensive therapy despite elevated BP levels has been termed clinical inertia. One hypertension clinical action model conceptualizes clinical inertia as stemming from four domains of organizational factors (e.g., sufficient support staff, access to follow-up), competing demands and prioritization (e.g., patients with several comorbidities or multiple complaints), medication related factors (e.g., number of medications, side effects), and Clinical uncertainty.” |
| Viera | USA Cohort study | “Clinical inertia, often defined as the failure by providers to initiate or intensify medication therapy when otherwise appropriate. However, patients could contribute to clinical inertia by signaling an unwillingness to consider medication intensification.” |
| Author(s) | Title | Country | Study Design | Key Points |
|----------|-------|---------|--------------|------------|
| Attali | "Please don’t shoot the pianist! The General practitioner’s point of view on clinical (or therapeutic) inertia." | France | Expert opinion | "Therapeutic inertia is in the heart of this debate and as far as we lack, at present, relevant qualitative tools to understand the deep reasons of the said inertia, it is necessary to be particularly suspicious with regard to the reasons sometimes too simplistic mentioned to explain this observation and with the solutions that often not take into account sick patients to offer them, under any circumstances, a better quality of care. It is a concrete situation analysis that allows us to differentiate the true inertia from the pen names inertia." |
| Banegas | Physician perception of blood pressure control and treatment behavior in high-risk hypertensive patients: A cross-sectional study. | Spain | Cross-sectional study | "Failure of the physician to begin or intensify treatment when the therapeutic goals are not met is a current challenge for research and action." |
| Byrnes | Why haven’t I changed that? Therapeutic inertia in general practice. | Australia | Expert opinion | "For the purposes of this article, therapeutic inertia equals clinical inertia, and is defined by Phillips et al. as the ‘failure of healthcare providers to initiate or intensify therapy when indicated’ and ‘recognition of the problem, but failure to act’. " |
| Crowley | Treatment intensification in a hypertension telemanagement trial: clinical inertia or good clinical judgment? | USA | Randomized clinical trial | "Clinical inertia, or provider failure to initiate or intensify hypertension therapy when indicated based on clinical guidelines. " |
| Banegas | Why haven’t I changed that? Therapeutic inertia in general practice. | Spain | Cross-sectional study | "Failure of the physician to begin or intensify treatment when the therapeutic goals are not met is a current challenge for research and action." |
| Byrnes | Why haven’t I changed that? Therapeutic inertia in general practice. | Australia | Expert opinion | "For the purposes of this article, therapeutic inertia equals clinical inertia, and is defined by Phillips et al. as the ‘failure of healthcare providers to initiate or intensify therapy when indicated’ and ‘recognition of the problem, but failure to act’. " |
| Halimi | Therapeutic inertia in type 2 diabetic patients: understanding without trivializing.] | France | Expert opinion | "It often happens that this absence of modification is justified in some situations. It represents an "apparent inertia", the result of a well- analyzed situation and a pertinent decision by the GP." |
| Klein | Clinical inertia remains a problem. | USA | Editorial | "Clinical inertia refers to the failure of healthcare providers to intervene when indicated [...] Some contend that clinical inertia does not adequately represent the complexity fo the patient-physician encounter. [...]Reducing this interaction to a checklist fo intervention indicated by clinical guidelines minimizes the multifaceted interplay that is the primary care visit." |
| Krakoff | Guidelines, inertia, and judgment. | USA | Editorial | "...the concept of "physician inertia" in treatment of hypertension, defined as a failure to begin or intensify treatment when the guideline says "Do it"." |
| Nelson | Barriers to blood pressure control: a STITCH substudy. | Canada | Post-hoc analysis | "Poor BP control linked to health care professional behavior has been most extensively studied in the context of so-called therapeutic (or clinical) inertia." |
| Halimi | Therapeutic inertia in type 2 diabetic patients: understanding without trivializing.] | France | Expert opinion | "It often happens that this absence of modification is justified in some situations. It represents an "apparent inertia", the result of a well- analyzed situation and a pertinent decision by the GP." |
| Klein | Clinical inertia remains a problem. | USA | Editorial | "Clinical inertia refers to the failure of healthcare providers to intervene when indicated [...] Some contend that clinical inertia does not adequately represent the complexity fo the patient-physician encounter. [...]Reducing this interaction to a checklist fo intervention indicated by clinical guidelines minimizes the multifaceted interplay that is the primary care visit." |
| Krakoff | Guidelines, inertia, and judgment. | USA | Editorial | "...the concept of "physician inertia" in treatment of hypertension, defined as a failure to begin or intensify treatment when the guideline says "Do it"." |
| Nelson | Barriers to blood pressure control: a STITCH substudy. | Canada | Post-hoc analysis | "Poor BP control linked to health care professional behavior has been most extensively studied in the context of so-called therapeutic (or clinical) inertia." |
| Source | Location | Study Type | Title | Abstract |
|--------|----------|------------|-------|----------|
| Médecine des maladies métaboliques 2011,5(2):s57–s61. | Reach | Expert opinion | “Strict clinical inertia: always questionable.” | “The practitioner’s behaviour is clinical inertia if and only if: (1) implicit or explicit guidelines exist; (2) the doctor is aware of the guidelines; (3) the doctor considers that the guidelines apply to the patient; (4) the doctor has the resources required to follow the guidelines; (5) the doctor does not follow the guidelines.” |
| Diabetes Metab 2012,38(Suppl 3):S53–58. | Avignon | Clinical inertia: viewpoints of general practitioners and diabetologists. | France | Expert opinion | “Without a doubt, it is the result of a culture focused on figures and evaluations. Based only on the concept of absence of drug treatment intensification, clinical inertia will most likely serve as a sound box to the pharmaceutical industry to promote drug prescription.” |
| Diabetes Metab 2012,38(Suppl 3):S27–28. | Halimi | Better analyze the determinants of therapeutic inertia to overcome it. | France | Expert opinion | “Clinical inertia can be described as insufficient surveillance and treatment, despite the fact that recommendations have been widely disseminated, are well known and can easily be put into practice.” |
| J Clin Hypertens 2013,15:375–379. | Desai | Prevalence of true therapeutic inertia in blood pressure control in an academic chronic kidney disease clinic. | USA | Editorial | “Therapeutic inertia (TI) in blood pressure (BP) control has been traditionally defined as failure to initiate or intensify therapy when treatment goals are not met. The fallacy with this definition is that TI may be overestimated because it includes hypertensive patients deliberately uncontrolled.” |
| J Clin Hypertens 2013,15:365–366. | Germino | Therapeutic inertia and measurement inertia in hypertension: a call to action. | USA | Editorial: Comments on Desai et al. results and conclusions. | “The authors then more narrowly define true therapeutic inertia as excluding several key populations.” |
| Int J Clin Pract 2013,67:97–98. | Rodrigo | Therapeutic momentum: a concept opposite to therapeutic inertia. | Sri Lanka | Letter: Based on a study of the prescription patterns for antiplatelet drugs as secondary prophylaxis | “The reluctance to step down or withdraw therapy when further prescription is not needed or not supported by evidence. We have termed it ‘therapeutic momentum.’” |