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Incentive-Misaligned Medicine: Medical Authority, Patient Autonomy, and the Structural Economics of Disease Management

Elias Rubenstein

Independent Researcher
Fort Lauderdale, FL, USA
ORCID: 0009-0007-1956-653X

Abstract:
Modern medicine remains indispensable in emergency care, surgery, diagnostics, infectious disease, trauma care, intensive care, and pharmacological disease management. Yet routine healthcare is often organized around disease identification, diagnostic coding, reimbursable procedures, prescription pathways, payer authorization, chronic monitoring, and institutional throughput. This article introduces the concept of incentive-misaligned medicine to describe a structural condition in which the declared goal of patient health is not consistently matched by the operational incentives of clinical practice, reimbursement, pharmaceutical knowledge transfer, payer control, prescription regulation, liability pressure, and medical authority. Drawing on evidence from low-value care, diagnostic overuse, healthspan medicine, pharmaceutical influence, physician payment incentives, utilization management, insurance churn, prescription gatekeeping, defensive medicine, informed consent, second opinions, dentistry, surgery, mental health, and healthspan access barriers, the article identifies four recurring distortions: overuse, underuse, misprioritization, and selective disclosure. The model also applies to cash-pay longevity medicine, direct-to-consumer testing, aggressive supplement markets, unvalidated biomarker panels, and other healthspan-oriented commercial sectors when authority, uncertainty, financial incentives, and patient vulnerability converge without transparent evidence standards. The article proposes a shift from disease-centered care toward autonomy-based and healthspan-oriented medicine grounded in stronger physician education, transparent incentives, alternative disclosure, evidence-based justification of therapeutic access and refusal, independent verification, proportional autonomy, resource realism, and reimbursement models that reward prevention, conservative care, deprescribing, palliative care, and biological resilience.

Keywords: Incentive-misaligned medicine, low-value care, medical authority, patient autonomy, proportional autonomy, healthspan medicine, prescription gatekeeping, informed consent, pharmaceutical influence, reimbursement bias, defensive medicine, overuse, underuse, disease management, geroscience, preventive medicine

1. Introduction

Modern medicine has achieved major success in acute and life-threatening situations. Emergency care, trauma medicine, surgery, infectious disease control, intensive care, diagnostic imaging, laboratory medicine, and pharmacological treatment have saved lives and transformed clinical outcomes. This achievement does not eliminate a structural problem in routine healthcare: many systems are better organized to classify, monitor, and treat disease than to preserve health before disease becomes clinically visible.

The literature on medical overuse shows that unnecessary or low-benefit services are present across healthcare systems and can harm patients physically, psychologically, and economically while wasting resources [1]. Low-value care (LVC) describes care that provides little or no benefit relative to cost, risk, or patient preference [2]. Diagnostic overuse is one visible expression of this problem; a systematic review found substantial variation across settings and identified preoperative testing and imaging for nonspecific low back pain among commonly studied forms of low-value diagnostic testing [3].

This article argues that overuse is only one expression of a wider structural pattern. Healthcare systems can also produce underuse, misprioritization, and selective disclosure. Prevention may be neglected, conservative care may be under-rewarded, palliative care may be delayed, low-cost interventions may remain marginal, and reasonable alternatives may not be meaningfully presented to patients. These distortions arise from the interaction of medical authority, incomplete knowledge, financial incentives, pharmaceutical influence, payer control, prescription regulation, liability pressure, institutional economics, and patient vulnerability.

The central contribution of this article is the concept of incentive-misaligned medicine. It explains how healthcare can formally aim at patient health while operationally rewarding disease classification, chronic monitoring, prescriptions, procedures, institutional throughput, and reimbursable interventions more reliably than prevention, biological resilience, healthspan preservation, and patient autonomy.

2. Scope and Method

This article is an integrative conceptual review. It synthesizes evidence from medical overuse, low-value care, diagnostic testing, health economics, pharmaceutical influence, financial conflicts of interest, healthspan medicine, geroscience, lifestyle medicine, deprescribing, healthcare complexity, physician-patient relations, shared decision-making, prescription regulation, off-label prescribing, defensive medicine, informed consent, second opinions, dentistry, surgery, palliative care, psychiatry, and medical ethics.

The article does not claim systematic completeness. Its purpose is conceptual integration across evidence domains. Sources were selected when they were peer-reviewed reviews, clinical practice guidelines, major trials, widely cited conceptual papers, or directly relevant empirical studies. The selection was designed to identify recurring mechanisms by which healthcare systems can distort therapeutic visibility, access, prioritization, and consent across different clinical domains.

Effective acute care, successful prevention programs, guideline-based quality improvement, appropriate utilization management, and evidence-based clinical restraint are not exceptions to the model; they define conditions under which medical authority and institutional incentives are better aligned with patient welfare. The article therefore does not argue that healthcare systems fail uniformly. It examines why

specific structural settings repeatedly make disease management more operationally visible than prevention, resilience, transparent choice, and long-term patient autonomy.

3. Core Definitions

Table 1. Core definitions used in the article.

Term	Definition
Incentive-misaligned medicine	A structural condition in which the declared aim of patient health is not consistently matched by the operational incentives of medical practice, reimbursement, pharmaceutical knowledge transfer, payer control, institutional economics, prescription regulation, liability pressure, and medical authority.
Therapeutic visibility	The process by which some therapies become visible, credible, reimbursable, prescribed, and institutionally preferred, while others remain marginal, delayed, denied, or undisclosed.
Overuse	Use of tests, drugs, procedures, operations, monitoring, or interventions beyond proportional patient benefit.
Underuse	Failure to use appropriate prevention, conservative care, deprescribing, palliative care, lifestyle medicine, or individualized therapy when clinically relevant.
Misprioritization	Selection of interventions because they are reimbursable, familiar, billable, legally defensible, commercially promoted, or institutionally convenient rather than most aligned with long-term patient health.
Selective disclosure	Incomplete communication of risks, side effects, uncertainty, non-treatment options, conservative alternatives, cheaper options, or comparable evidence-supported therapies.
Proportional autonomy	A model of patient autonomy based on transparent, evidence-graded, conflict-aware explanation of options, risks, uncertainties, alternatives, access criteria, and denial criteria. It rejects passive obedience, opaque gatekeeping, and uninformed consumption.

4. Incentive-Misaligned Medicine

Incentive-misaligned medicine describes a structural condition in which the declared aim of patient health is not consistently matched by the operational incentives of clinical practice, reimbursement systems, pharmaceutical knowledge transfer, payer control, institutional economics, prescription regulation, liability pressure, and medical authority.

The core mechanism is direct: patient health is the formal goal, while disease management is often the more reliably rewarded activity. This model does not depend on harmful intent by individual physicians, hospitals, insurers, or pharmaceutical companies. It identifies structural pressures that influence which interventions become visible, credible, reimbursable, prescribed, denied, repeated, or excluded from patient choice.

Four distortions follow from this model. Overuse concerns the quantity or intensity of intervention. Underuse concerns the absence or delay of appropriate care. Misprioritization concerns the ranking of

options according to institutional, financial, legal, or commercial convenience. Selective disclosure concerns the informational conditions under which patients make decisions. These distortions are analytically distinct but practically interacting: selective disclosure can enable overuse, underuse, or misprioritization, but it remains conceptually distinct because it operates at the level of patient knowledge, consent, and autonomy.

Incentive-misaligned medicine therefore does not merely produce overtreatment. It distorts therapeutic visibility itself.

5. Disease-Centered Care and the Healthspan Competence Gap

Routine medical training remains primarily oriented toward the diagnosis and treatment of established disease. Healthspan-oriented care requires additional competence in prevention, biological aging, metabolic function, lifestyle medicine, biomarker interpretation, supplement-drug interactions, deprescribing, hormone interpretation, exercise physiology, sleep biology, and long-term functional monitoring.

Recent work on longevity physician education argues that physicians require structured upskilling in geroscience, digital diagnostics, prevention, and healthspan-oriented practice as longevity medicine moves from research into clinical application [4]. A precision-healthspan pharmacology model has argued that anti-aging and healthspan interventions require separation into evidence domains, monitoring requirements, and practical boundaries rather than being treated as an undifferentiated mixture of supplements, medications, hormones, peptides, and lifestyle interventions [5]. This educational challenge is reinforced by geroscience literature linking aging biology to chronic disease pathways [6]. Lifestyle medicine has been framed as a required physician competence [7], and deprescribing literature identifies medication reduction as an emerging clinical competence with direct relevance to safer long-term care [8].

Clinical reference ranges are essential diagnostic tools, but they are not the same as individualized biological optimization. They are designed primarily to support diagnosis, exclusion of pathology, and risk stratification, not to define optimal metabolic resilience, functional reserve, or long-term healthspan trajectories. Healthspan-oriented care therefore does not reject clinical reference ranges; it asks whether additional markers, longitudinal interpretation, and functional outcomes are required before conventional disease thresholds are crossed.

Healthspan-oriented care must operationalize resilience rather than invoke it as an undefined ideal. Relevant domains include longitudinal metabolic markers, inflammatory markers, lipid and cardiovascular risk profiles, body composition, muscle strength, cardiorespiratory fitness, sleep quality, functional capacity, and validated aging-related biomarkers where evidence is sufficient. Cardiorespiratory fitness has been proposed as a clinical vital sign because low fitness is strongly associated with cardiovascular risk [9]. Sarcopenia consensus definitions emphasize muscle strength, muscle quantity or quality, and physical performance as clinically relevant dimensions of age-related decline [10]. Epigenetic aging biomarkers have been investigated in relation to lifespan and healthspan, although clinical interpretation requires caution before routine therapeutic decision-making [11]. These markers do not replace diagnosis. They extend clinical interpretation from cross-sectional pathology detection toward longitudinal risk, function, and resilience.

6. Healthspan Medicine and Parallel Incentive Distortion

Healthspan medicine is not automatically immune to the incentive distortions identified in this article. Cash-pay longevity clinics, aggressive supplement markets, unvalidated biomarker panels, whole-body imaging packages, hormone optimization programs, peptide protocols, and direct-to-consumer testing can reproduce the same structural problems as conventional disease-centered care. They can generate overuse, selective disclosure, misprioritization, and patient dependency under a different commercial language.

The problem is not conventional medicine alone. The problem is any medical or quasi-medical system in which authority, uncertainty, financial incentives, patient vulnerability, and restricted knowledge converge without transparent evidence standards. A healthspan-oriented model must therefore be evidence-disciplined, monitoring-based, and explicit about uncertainty [5]. Otherwise, it becomes another market for therapeutic visibility rather than a corrective to disease-centered medicine.

7. Epistemic Limits in Complex Biological Systems

The human body is a complex adaptive system involving metabolism, immune signaling, endocrine regulation, nervous-system function, microbiome interactions, psychological state, environmental exposure, aging processes, and social context. Complexity science in healthcare has emphasized the limits of linear models and reductionist assumptions in clinical and organizational decision-making [12].

Medical practice necessarily operates with partial knowledge. Population-level evidence, clinical guidelines, diagnostic categories, and laboratory reference ranges are essential tools, but they do not fully capture individual biological trajectories. Epistemic humility is not a rejection of clinical authority; it is a requirement for responsible clinical authority. Medicine becomes ethically unstable when limited knowledge is combined with institutional authority, financial incentives, patient dependency, and the appearance of certainty.

8. Medical Authority, Shared Decision-Making, and Patient Vulnerability

Medical authority operates under conditions of asymmetry. Physicians possess diagnostic language, prescription power, institutional legitimacy, access to medical records, and the ability to activate or withhold clinical pathways. Patients are often ill, anxious, dependent, less informed, and under time pressure. This asymmetry can be clinically necessary, especially in acute care. It becomes ethically unstable when authority is combined with incomplete disclosure, economic incentives, payer control, prescription restrictions, or liability-driven refusal.

The physician-patient relationship has long been analyzed through models that differ in how they distribute knowledge, decision-making authority, values, and patient autonomy [13]. Shared decision-making (SDM) has been proposed as a practical model in which clinicians introduce choice, describe options, and help patients deliberate according to their values and preferences [14].

The moral authority of medicine requires transparency because patients are vulnerable. Trust is not a substitute for understanding. Patients cannot exercise meaningful autonomy if they are expected to accept recommendations without visibility of risks, alternatives, costs, uncertainty, and the structural incentives surrounding treatment options.

9. Pharmaceutical Influence and Prescription-Ready Knowledge

Pharmaceutical medicine is essential. Many drugs are life-saving, disease-modifying, or symptom-relieving. The problem is not pharmacology itself. The problem is unequal knowledge translation. Commercially organized, patentable, and prescription-ready interventions often enter clinical awareness more efficiently than low-cost, non-patentable, preventive, lifestyle-based, nutritional, or supplement-based interventions.

Receipt of industry-sponsored meals has been associated with increased prescribing of promoted brand-name medications among Medicare beneficiaries [15]. Financial conflicts of interest (FCOIs) in clinical practice guidelines (CPGs) are also documented; a systematic review found that financial relationships among guideline authors were common and disclosure practices varied across guidelines [16].

These findings support the concept of prescription-ready knowledge bias. Knowledge that can be converted into a drug, product, prescription pathway, or reimbursable intervention travels more efficiently through healthcare systems than low-margin prevention. This does not mean that prescription-ready knowledge is false. It means that medical knowledge is not translated equally.

10. Reimbursement, Payer Control, and Disease Management Economics

Reimbursement structures shape clinical reality. Physician payment, payer rules, hospital economics, coded diagnoses, procedure-based revenue, and insurance restrictions influence what is offered, delayed, denied, repeated, or normalized.

Evidence from healthcare economics shows that physician financial incentives can influence treatment intensity and care supply. Clemens and Gottlieb analyzed Medicare payment changes and found that areas with higher payment shocks experienced increased care provision, with discretionary services responding more strongly than less discretionary services [17]. Reimbursement therefore does not merely pay for medicine; it helps define which medicine becomes operationally available.

Utilization management (UM), including prior authorization, concurrent review, and retrospective review, is a recognized component of healthcare cost management and service review [18]. Utilization management can function both as a quality-control mechanism and as an access-control mechanism; its ethical relevance lies in how transparently and proportionately it is applied. Insurance design and cost-sharing can also influence healthcare utilization, as demonstrated by the RAND Health Insurance Experiment literature [19].

Payers and insurers may enable access, pool risk, and fund care, but they also manage costs, eligibility, utilization, and administrative rules. What is reimbursed becomes visible and operational. What is not reimbursed becomes marginal, delayed, or inaccessible. Reimbursable care is not identical with optimal care.

11. Split Incentives and the Underfunding of Prevention

Prevention is structurally disadvantaged by time. Many preventive interventions require upfront cost, while benefits appear years or decades later through reduced chronic disease, delayed disability, lower future utilization, and preserved productivity. In fragmented insurance markets, the actor paying for prevention may not capture the later savings.

Commercial insurance churn demonstrates this mechanism. A longitudinal cohort study of more than three million members found substantial annual disenrollment in commercial insurance plans, even though some

members later reenrolled with the same insurer [20]. Economic work on preventive healthcare has also described suboptimal prevention under private insurance when expected enrollee turnover prevents insurers from fully internalizing future benefits [21].

Underfunding prevention is therefore not irrational inside the current structure. It is rational behavior inside a misaligned system. Disease-centered care is reproduced not only because treatment is profitable, but because prevention has delayed, distributed, and uncertain financial returns, while diagnosis, procedures, prescriptions, and monitoring generate immediate operational value. A health system that discounts future health gains will systematically underinvest in biological resilience.

The reform implication is incentive redesign across time. Prevention, deprescribing, metabolic improvement, functional preservation, and healthspan monitoring require payment models that reward long-term risk reduction rather than short-term throughput.

12. Prescription Gatekeeping and Therapeutic Access

Prescription authority is not only a clinical function. It is a state-delegated gatekeeping power over access to regulated substances and therapies. Prescription-only medicine (POM) can protect patients from unsafe use, inappropriate self-treatment, drug interactions, and misuse. It can also restrict bodily autonomy when access depends on one practitioner's knowledge, caution, stigma, liability exposure, or willingness to prescribe.

Ethical literature has questioned whether prescription requirements always sufficiently respect patient autonomy and has argued for reconsidering prescription-only defaults in selected contexts [22]. This autonomy problem is consistent with legal-philosophical work on conditionalized sovereignty, which describes how formally recognized freedom can become practically dependent on institutional, administrative, medical, or professional permission [23]. Off-label prescribing further illustrates the tension between regulation, evidence, clinician judgment, and patient access; ethical analysis emphasizes credible evidence, patient interest, risk-benefit assessment, and disclosure [24].

Prescription gatekeeping becomes problematic when the authority to restrict access exceeds the competence to evaluate the therapy. This is relevant for individualized or monitored therapies such as testosterone replacement therapy (TRT) in confirmed hypogonadism, modafinil in guideline-relevant sleep-wake disorders, low-dose naltrexone (LDN) as an off-label therapy with emerging but limited evidence, repurposed drugs, and other healthspan-related interventions.

The Endocrine Society clinical practice guideline supports testosterone therapy for men with confirmed hypogonadism under appropriate diagnosis, individualized assessment, and monitoring [25]. The American Academy of Sleep Medicine (AASM) guideline includes modafinil among treatment options for specific central disorders of hypersomnolence [26]. Evidence for low-dose naltrexone remains more limited; a chronic pain case series describes increasing use and potential benefit while making clear that stronger evidence is needed [27].

Therapeutic denial must also be understood in relation to defensive medicine, malpractice exposure, guideline conformity, professional discipline, and documentation burden. A systematic review and meta-analysis of defensive medicine found a high pooled prevalence among physicians and identified both assurance behaviors and avoidance behaviors, including additional testing, increased follow-up, and avoidance of higher-risk protocols or procedures [28]. When physicians avoid individualized therapies

because the legal and institutional risk of action exceeds the risk of inaction, liability itself becomes an incentive structure.

The system therefore pushes clinicians toward legally safer non-action even when individualized evaluation may be clinically reasonable. Standard pathways are protected. Deviation is exposed. This asymmetry favors guideline conformity, short documentation, and conservative refusal over monitored experimentation, individualized off-label reasoning, or healthspan-oriented therapeutic access. A denial of therapy should be as transparent and evidence-based as a prescription.

13. Informed Consent and Alternative Disclosure

Informed consent (IC) is not a legal signature. It is a process requiring meaningful understanding of the intervention, risks, benefits, reasonable alternatives, risks and benefits of alternatives, and consequences of non-treatment. Standard accounts of informed consent emphasize that patients must receive relevant information and must be able to understand and voluntarily authorize treatment [29].

Weak consent processes convert patient autonomy into administrative formality. When patients are not clearly informed about side effects, conservative options, cheaper alternatives, comparable therapies, non-treatment, uncertainty, and financial or institutional incentives, consent becomes incomplete.

Surgical informed consent research supports the need to improve comprehension. A systematic review of digital technology in informed consent for surgery found that digital approaches improved early comprehension in many included studies without increasing anxiety or reducing satisfaction; the same review also found that only a minority of studies assessed all four elements of informed consent: general information, risks, benefits, and alternatives [30].

A signed consent form is not informed consent. Patient autonomy is hollow when consent is obtained without meaningful disclosure of reasonable alternatives.

14. Independent Verification and Second Opinions

Serious non-emergency diagnoses and major treatment recommendations should not become single-authority verdicts. Second opinions can change diagnosis, treatment, or prognosis in a meaningful proportion of cases. A systematic review of patient-initiated second opinions found that second opinions may produce changes in diagnosis, treatment, or prognosis, with variation across studies [31]. A national patient-initiated second-opinion program found recommended changes in diagnosis for about 15% and treatment for about 37% of participants [32].

Independent verification is especially relevant when decisions are invasive, irreversible, expensive, long-term, or life-changing. It is not distrust of medicine. It is a safeguard against diagnostic monoculture and therapeutic overcommitment. This principle does not apply to acute emergencies where delay may be dangerous. It applies to serious but non-emergency decisions in which patients have time to compare interpretations, evaluate alternatives, and understand long-term consequences.

15. Case Applications and Evidence Status

Table 2. Case applications and evidence status.

Case area	Main distortion	Evidence status	Key references
Dentistry	Preservation versus replacement; diagnostic variation; payment-model sensitivity; procedure-oriented incentives	Moderate conceptual and empirical evidence; used as an illustrative application rather than as a primary empirical pillar	[33–37]
Surgery	Low-value procedures; procedural escalation; end-of-life intervention	Strong guideline and ethics literature for selected examples	[38,39]
Mental health	Pharmacological containment; transformation deficit; deprescribing needs	Strong evidence for medication efficacy in some contexts, strong caution literature for benzodiazepine receptor agonists, emerging psychedelic-assisted therapy evidence	[40–44]
Healthspan access	Underuse, restricted access, off-label barriers, monitoring competence	Emerging and guideline-dependent	[4,5,25–27]

16. Dentistry: Preservation Versus Replacement

Dentistry provides a useful field for examining how diagnostic thresholds, clinical workflow, payment models, and procedure reimbursement may influence the balance between preservation and replacement. Its relevance lies not in proving a universal dental incentive pattern, but in showing how therapeutic visibility can shift when preservation and replacement are differently rewarded, documented, or normalized.

Minimum intervention dentistry (MID) emphasizes preservation of tooth structure, caries risk assessment, prevention, remineralization, and conservative intervention where appropriate [33]. Evidence on dental overdiagnosis, fee-for-service incentives, payment models, provider remuneration, dental radiography, and overtreatment ethics supports the relevance of dentistry as a case of diagnostic variation and procedure-oriented decision-making [34–37]. The evidentiary status of this case is moderate rather than definitive; it therefore functions as an illustrative application rather than as the article's strongest empirical pillar.

The ethical question is not whether implants, crowns, root canals, prosthetics, or reconstruction are sometimes necessary. They often are. The question is whether patients are given meaningful access to early conservative options, risk modification, preservation strategies, and transparent comparison before irreversible replacement is chosen.

17. Surgery: Low-Value Procedures and End-of-Life Escalation

Surgery is often necessary, restorative, and life-saving. The structural problem emerges when procedures continue despite limited expected benefit, when conservative treatment is underused, or when end-of-life intervention prolongs dying rather than restoring function.

Degenerative knee arthroscopy is an example of a procedure area where guidelines have strongly recommended against arthroscopy for most patients with degenerative knee arthritis or meniscal tears [38]. This does not mean all surgery is low-value. It shows that surgical intervention can become normalized even when evidence supports restraint.

End-of-life care raises a deeper ethical issue. Surgical palliative-care literature emphasizes patient-centered outcomes, communication, decision-making, and quality of life for patients with serious illness [39]. When intervention no longer restores meaningful function or quality of life, the ethical distinction between life-saving care and prolongation of dying becomes central.

18. Mental Health: Pharmacological Containment and Transformation Deficit

Psychiatric medications can be clinically useful and sometimes necessary. Antidepressants have evidence of efficacy for acute major depressive disorder (MDD), although treatment response varies and individualization remains essential [40]. The structural problem is not the existence of psychopharmacology. It is chronic pharmacological containment when deeper psychological, social, biological, and existential drivers of distress remain insufficiently addressed.

Benzodiazepines and benzodiazepine receptor agonists (BZRAs) illustrate the need for caution in long-term pharmacological management. An international scoping review of prescribing and deprescribing guidance emphasizes concerns regarding dependence, withdrawal, and deprescribing in adults with depression, anxiety, and insomnia [41].

Psychedelic-assisted therapy should be discussed as an emerging transformation-oriented model, not as a universal substitute. A randomized clinical trial found that single-dose psilocybin administered with psychological support was associated with clinically significant sustained reductions in depressive symptoms and functional disability in major depressive disorder [42]. A phase 3 trial of 3,4-methylenedioxymethamphetamine-assisted therapy (MDMA-AT) for moderate to severe post-traumatic stress disorder (PTSD) reported reductions in PTSD symptoms and functional impairment [43]. However, regulatory caution remains necessary: the United States Food and Drug Administration (FDA) issued a Complete Response Letter for midomafetamine capsules for PTSD, meaning the application could not be approved in its submitted form and required further response to identified deficiencies [44].

Mental distress should not be reduced to a pharmacological target when it may also reflect biography, nervous-system regulation, trauma, sleep, social environment, inflammation, lifestyle, and meaning. The central issue is not medication versus non-medication. The central issue is whether treatment produces suppression, stabilization, dependence, transformation, or restored autonomy.

19. Healthspan Access Barriers

Healthspan-oriented care exposes the other side of incentive-misaligned medicine: not only excessive intervention, but restricted access. Selected therapies may be clinically relevant under proper diagnosis and monitoring, yet remain inaccessible because they are unfamiliar, off-label, stigmatized, low-margin, liability-exposed, or outside ordinary physician competence.

This applies especially to therapies requiring individualized assessment rather than standardized prescription habits. Testosterone replacement therapy requires clear diagnosis and monitoring, not casual use [25]. Modafinil is relevant in specific sleep-wake disorders, not as a general productivity agent [26]. Low-dose naltrexone remains evidence-limited and off-label in many contexts, but it illustrates how low-cost therapies can remain marginal when stronger trials, reimbursement pathways, liability protection, and clinician familiarity are lacking [27].

The central access problem is opaque therapeutic denial without individualized assessment. Where a therapy is refused, the refusal should be grounded in evidence, risk assessment, monitoring concerns, contraindications, liability constraints, or referral to a more competent clinician. Denial should not function as an unexamined extension of one practitioner's limited competence horizon.

20. Integrated Model

Incentive-misaligned medicine operates through four interacting layers: epistemic limits, medical authority, economic incentives, and autonomy conditions. The epistemic layer reflects partial knowledge of complex biological systems [12]. The authority layer reflects diagnostic, institutional, and prescription power within the physician-patient relationship [13,14]. The economic layer reflects pharmaceutical promotion, payer control, reimbursement, insurance design, health insurance churn, split incentives, institutional incentives, and healthspan-market commercialization [15–21]. The autonomy layer reflects the institutional conditions under which patients gain or lose meaningful agency, including prescription access, off-label disclosure, informed consent, second opinions, and evidence-based justification for access or denial [22–32].

Together, these layers shape therapeutic visibility. Some interventions are overused, some are underused, some are misprioritized, some are undisclosed, and some are denied without transparent justification. The model is conceptual rather than mathematical; it identifies recurring incentive relations rather than estimating formal payoff functions. Its economic logic is nevertheless explicit: actors respond to differences in immediacy, liability, reimbursement, institutional convenience, patient turnover, and evidentiary risk. Procedures, prescriptions, diagnostic coding, and utilization review often produce immediate operational consequences; prevention, deprescribing, resilience-building, and long-term healthspan preservation produce delayed and distributed returns.

Incentive-misaligned medicine emerges when incomplete knowledge, medical authority, financial incentives, payer control, prescription regulation, liability pressure, and patient vulnerability converge in ways that distort therapeutic visibility, access, priority, and consent.

21. Reform Principles

The solution is not paternalistic gatekeeping, opaque therapeutic refusal, or weaker evidence standards. It is better alignment between evidence, incentives, physician competence, patient autonomy, liability structure, and resource reality.

First, proportional autonomy must replace paternalistic gatekeeping and opaque therapeutic denial. Patients should not be reduced to passive recipients of medical authority. Autonomy requires informed agency, transparent evidence, and accountable justification whenever access is granted or denied. Proportional autonomy requires clear explanation of risks and alternatives, explicit disclosure of uncertainty, and justified criteria for both access and denial.

Second, medical education must include healthspan competence. Physicians require stronger training in prevention, geroscience, lifestyle medicine, metabolic health, biomarker interpretation, sleep, exercise physiology, supplement-drug interactions, hormone interpretation, deprescribing, and long-term monitoring [4–11].

Third, incentives must be transparent. Conflicts of interest, payer restrictions, reimbursement constraints, utilization management processes, liability incentives, and institutional pressures should be disclosed when they shape treatment availability or recommendation strength [15–21,29,30].

Fourth, alternative disclosure must become a core part of consent. Reasonable conservative, cheaper, safer, non-interventional, or equally evidence-supported alternatives should be presented when relevant [29,30].

Fifth, therapy denial should have standards. A refusal to prescribe or provide therapy should include evidence, risk assessment, monitoring rationale, contraindication analysis, liability constraints, and referral options where appropriate [22–28].

Sixth, independent verification should be normalized for serious non-emergency diagnoses, major surgeries, irreversible interventions, and long-term therapies [31,32].

Seventh, reimbursement should reward prevention, long consultations, conservative care, deprescribing, palliative care, and healthspan-oriented monitoring. A system that pays better for late intervention than early preservation will continue to generate disease-centered care [1–11,17–21,39].

Eighth, healthspan medicine itself must remain evidence-disciplined. It must not become a new commercial field repeating the same distortions it criticizes. It requires evidence grading, transparent uncertainty, individualized risk-benefit assessment, and appropriate monitoring [5].

These reforms require resource realism. Long consultations, prevention, deprescribing, shared decision-making, and healthspan-oriented monitoring require time, staffing, reimbursement redesign, administrative simplification, and clinical education. Without these conditions, autonomy-based medicine can degenerate into another documentation requirement rather than a real improvement in care. Resource scarcity is therefore not separate from incentive misalignment; it is one of its operating conditions.

22. Limitations

This model identifies recurring structural patterns rather than a single national mechanism or a universal failure of medical practice. It does not claim that all physicians are poorly trained, all interventions are excessive, all prescription restrictions are unjustified, or all healthspan interventions are established. Its target is incentive structure, not individual morality.

The model defends strong patient autonomy as a central condition of legitimate medical authority. Autonomy does not mean uninformed consumption or reckless access to every requested intervention. It means that patients must receive transparent, evidence-graded, conflict-aware information about available options, risks, uncertainties, alternatives, denial criteria, monitoring requirements, and the institutional constraints shaping access. Freedom in medicine is not created by passive obedience to professional authority, but by informed agency under conditions of transparency.

Healthcare systems differ by country, reimbursement model, public-private structure, legal framework, insurance design, and professional culture. Healthspan medicine itself can also be commercialized and distorted by the same incentives described in this article. Reform therefore requires stronger evidence standards, transparent uncertainty, and better alignment between authority, incentives, resources, and long-term patient welfare. It must not reduce patient autonomy to institutional permission.

23. Conclusion

Modern medicine remains indispensable, but its ethical legitimacy depends on more than technical capability. It requires epistemic humility, transparent incentives, meaningful informed consent, proportional prescription authority, independent verification, liability-aware clinical judgment, and reimbursement structures aligned with prevention and long-term health.

The central problem is not medicine's lack of power, but the misalignment between its declared purpose and its operational incentives. A system that rewards disease classification, chronic monitoring, prescriptions, procedures, payer authorization, utilization control, liability avoidance, and institutional throughput more reliably than prevention, autonomy, and biological resilience will continue to reproduce disease-centered care.

The same logic applies to cash-pay longevity markets, supplement economies, private testing models, and healthspan interventions when they reproduce overuse, selective disclosure, misprioritization, and dependency under the language of optimization. The task is therefore not to replace one distorted system with another, but to align evidence, incentives, authority, autonomy, liability, and resources around long-term patient welfare.

Medicine must move from disease management to health cultivation, from authority to transparency, from chronic dependency to proportional autonomy, and from reactive intervention to healthspan-oriented care.

24. Conflict of Interest

The author declares no conflict of interest.

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