This article was first published in Dutch and has subsequently been translated into English by the authors. The English translation has not been edited or reviewed by the editors of MeJudice. The original Dutch version is available **here**.

Triple market failure: why the Dutch government structurally pays too much for psychopharmaceuticals

Many users of psychopharmaceuticals remain dependent on these medications for life. Guided, gradual tapering would not only yield health gains for users, but also substantial financial benefits for society. Yet this gradual and safe tapering is not reimbursed, and possibly hundreds of thousands of patients continue using these drugs unnecessarily for prolonged periods. This is not only unfortunate for patients, but also for society. Several market failures hinder a socially desirable outcome.

Tapering of psychopharmaceuticals: the problematic standard and the better alternative

In Psycho, Alfred Hitchcock's classic, the Bates Motel is a place where checking in is easy, but checking out turns out to be surprisingly difficult. This image is a fitting metaphor for the current state of psychopharmacology. In the Netherlands, approximately 1.2 million people are prescribed antidepressants and 350,000 people antipsychotics each year (SFK, 2022). About 30% of them, at least 400,000 people in total, use these medications for longer than 2 years, some even for life.

In many cases, the original indication no longer applies: antidepressant use is often continued after sustained remission, even when the guideline advises discontinuation (Bosman et al., BJGP, 2016). The problem is not so much starting medication—which can be crucial—but the absence of an 'exit strategy'. In current practice, continuation is the unspoken norm and tapering the risky exception.

Many people continue taking medication not because it is clinically necessary, but because stopping is difficult. If patients want to taper, this is currently only possible in large steps because the medication is supplied by the pharmaceutical company only in certain dosages. With such stepwise reduction, many patients experience withdrawal symptoms, which are difficult to distinguish from a relapse of the underlying disorder, the so-called 'relapse vs. withdrawal' paradox (Horowitz & Taylor, 2019). As a result, many attempts to stop fail (or patients do not even start).

An alternative, more gradual method of tapering exists: tapering strips, customized tapering medication in which the dosage is reduced in small steps, thereby reducing the risk of withdrawal symptoms (Groot & Van Os, 2020). This method originates not from the pharmaceutical industry or science, but from practice based on experiential knowledge.

The required precise dosages are prepared by the pharmacy, but are labor-intensive and therefore more expensive than the standard method of stepwise tapering using dosages regularly produced by the pharmaceutical company. The costs of tapering strips (a one-time extra of approximately €750 per patient) are not reimbursed.

Reimbursement of medication and the stubborn reality

In the Netherlands, reimbursement of new medications proceeds through a number of fixed steps, in which The Dutch Healthcare Institute (Zorginstituut Nederland, ZIN) plays a central role. ZIN assesses these medications, among other things, on effectiveness (the effect compared to standard treatment) and cost-effectiveness (costs in relation to health gains). According to the guideline for conducting economic evaluations in healthcare (Zorginstituut Nederland, 2024), these must be carried out from a societal perspective. All relevant costs and effects, regardless of who bears them, must be included in the analysis.

In practice, however, this proves to be difficult. The obligation for an extensive pharmacoeconomic evaluation only applies if the total annual costs of a drug exceed €10 million, or if the costs per patient per year exceed €50,000. Tapering strips fall well below both thresholds. As a result, there is no moment at which the societal benefits are systematically mapped out.

Without a broad societal cost-benefit analysis, tapering strips are left to a market that does not function well for various reasons. There are multiple forms of market failure. In mental healthcare, there is also a diagnostic 'black box', which reinforces this market failure. In contrast to somatic care, where an infection or fracture can be objectively determined via scans or blood tests, psychiatric diagnosis is based on subjective symptom reporting according to the internationally used manual of mental disorders (DSM, American Psychiatric Association, 2022). This invisibility makes it difficult to determine when recovery has occurred. This creates path dependency: because the medication suppresses symptoms, neither the doctor nor the patient dares to break the status quo. The absence of symptoms is attributed to the medication, which removes the incentive to stop.

We describe in three steps (first only the direct effects, then the indirect effects, and finally also the societal effects) the economic evaluation from a societal perspective, which does not take place for tapering strips. For tapering strips, this results in a limited cost-benefit assessment considering only the direct costs and benefits within the healthcare domain. This does not yield an unambiguously positive outcome, but in a broader assessment, in which indirect and societal costs and benefits are also included, the balance shifts so strongly that from a societal perspective it is difficult to explain that the strips, the first of which became available in 2013 (Groot 2013), are still not fully established in 2026.

At each step, we find a form of market failure that explains the status quo and suggest directions for solutions. These are of great importance for patients and for society. There are also clear parallels with other medications that are taken long-term or even lifelong.

Direct costs and benefits: a positive balance only in the longer term

Those who look only at the direct costs and benefits within the healthcare domain do not find an unambiguous outcome. The most obvious benefit is the discontinuation of repeat prescriptions: those who successfully stop no longer need antidepressants in the future. The additional costs of tapering strips compared to the standard tapering method amount to approximately €750 per patient (Regenboog Apotheek, 2024).

The benefits depend on the increased probability of successful tapering, the average price of the antidepressant or antipsychotic (approximately €200–300 per year including pharmacy costs and repeat consultations; SFK, 2024), and the average number of years of use that is avoided. The success rate of gradual tapering is estimated in the literature to be between 55 and 80% (Horowitz & Taylor, 2019; Van Os & Groot, 2023). With such success rates, a positive balance only arises with a sufficiently long time horizon in the order of magnitude of 5 years or more. And that is precisely where the first problem lies. Benefits that only occur after a longer period are, at best, discounted, but more often ignored.

There is a market failure here due to short-sightedness and a principal-agent problem. The pharmaceutical company that produces medication has an interest in long-term use. The prescribing physician (the agent) has no direct incentive to optimize for long-term healthcare costs. The patient who continues medication (the principal) experiences the costs of not stopping as diffuse and non-monetary. No one in the chain has both the incentive and the overview to capture the long-term savings.

A possible solution to this market failure is to establish an explicit minimum time horizon in evaluations—preferably lifelong, in accordance with ZIN's own guideline—so that the long-term savings on repeat prescriptions are actually included in the balance.

Indirect costs and benefits: a positive balance that is systematically underestimated

Those who look somewhat further within the healthcare domain already find a clearer story. Long-term use of antipsychotics and some antidepressants is associated with metabolic side effects, such as weight gain, dyslipidemia, type 2 diabetes, and cardiovascular disease. Successful tapering stops this progression.

Based on EMA data (2019), roughly 20% of chronic users develop related physical conditions. If this comorbidity can be prevented, an average of approximately €3,000 per person per year in costs for diabetes care and cardiovascular disease is avoided, borne by the same health insurer that would have to reimburse the tapering strip. The benefits here are thus internal to the healthcare domain, yet remain unused. This is remarkable. The benefits for the insurer are, within a reasonable time horizon, clearly greater than the costs. And yet it does not happen.

There is an additional market failure here due to information asymmetry. The link between long-term antipsychotic use and metabolic comorbidity is well documented in the clinical literature, but insufficiently permeates prescribing practice and reimbursement policy. The pharmaceutical industry has no incentive to investigate or communicate this link: it leads to less use of their product. The insurer has no such incentive either, as it operates with annual contracts within a system of risk equalization. Result: even the internal benefits of tapering are systematically underestimated.

A possible solution to this market failure could be to require long-term comorbidity effects to be included in dossiers for the Healthcare Institute and to adapt the general practitioner guideline for long-term medication use accordingly.

Societal costs and benefits: a positive balance that ends up elsewhere and is therefore ignored

The greatest benefits of gradual tapering via tapering strips, however, lie outside the healthcare domain. Chronic use of psychopharmaceuticals affects executive functions, emotional regulation, and cognitive capacity—effects that become visible in, among other things, labor productivity, debt problems, and dependence on social benefits.

Apart from the value of improved health itself, significant benefits can be expected in at least three areas: less absenteeism and higher labor productivity among those who stop (presenteeism disappears), less dependence on benefits, and fewer debt problems.

These relationships are well documented empirically: people with problematic debts, for example, have significantly higher mental healthcare expenditures than people without debts—and conversely, chronic medication use increases the likelihood of debt through reduced executive functioning (Roos et al., 2022). It is also known that long-term use of benzodiazepines, as a result of variation in prescribing behavior by general practitioners, leads to worse labor market outcomes, greater dependence on benefits, and significant income declines in the long term (Albertini et al., 2025).

The benefits in the social domain are large and plausible. We estimate that an average saving of €5,000 per successfully discontinued user is achievable, as a result of higher productivity (for workers, 10% higher productivity at an average salary of €50,000, and for benefit recipients, 20% less benefit use at an average benefit of €25,000). But the benefits accrue to municipalities (social assistance), employers, and the Employee Insurance Agency (UWV, for disability and unemployment benefits)—not to the health insurer that would have to make the investment. From the insurer's perspective, not reimbursing is rational. From the perspective of the government as a whole, it is irrational.

There is a third market failure here due to externalities. The costs are borne by the health insurer, the benefits accrue to other government domains (and thus indirectly to employers and taxpayers), and fall outside the Health Insurance Act. If only the Health Insurance Act perspective is applied, not reimbursing is the logical strategy for each individual insurer. The discussion note "Mental healthcare landscape" (VWS, 2021) already explicitly described this mechanism.

A possible solution to this market failure is to introduce an evaluation obligation for inexpensive chronic medication with a large user population and demonstrable benefits outside the healthcare domain—a

category that currently structurally falls below existing thresholds. This evaluation should explicitly adopt a cross-domain perspective, so that benefits for municipalities, employers, and the UWV are included. Additionally, a co-financing model could be considered, in which beneficiaries outside the healthcare domain contribute to the reimbursement of the intervention, for example through a system of public pre-financing (Rotteveel et al., 2024).

From micro to macro: what is the societal damage?

To arrive at an estimate of macro financial effects, a crucial question is for how many of the chronic users stopping would be a medically logical path. Of the approximately 400,000 long-term users of antidepressants and antipsychotics, a substantial proportion has a chronic condition for which continuation is clinically necessary. Based on research on hyperbolic tapering with tapering strips (Van Os & Groot, 2023), we estimate the stopping potential at at least 100,000 people: people for whom tapering is clinically justifiable but who do not currently attempt it because the preconditions (guidance, appropriate tapering medication) are lacking. A conservative lower bound is around 50,000, these are the people for whom there is a medical indication to stop.

Assuming between 50,000 and 100,000 people stopping, a success rate of 70%, and savings of an average of €600 per person in the healthcare domain and €5,000 per person in the societal domain, this results in a structural saving in the order of magnitude of €2–4 billion. The upper bound then has an order of magnitude approximately equal to what halving the Dutch annual deductiblede would have cost or half of the total cost of youth care.

Conclusion: three market failures require three solutions

The non-reimbursement of tapering strips is not a single policy problem. It is the sum of three consecutive forms of market failure: too short a time horizon in reimbursement decisions (short-sightedness), an underestimated scope of internal healthcare benefits due to information asymmetry, and a structural compartmentalization between the healthcare domain and the social domain (externalities).

All three are reinforced by the way the evaluation threshold of the Healthcare Institute is designed, such that tapering strips structurally fall outside it: the threshold applies to expensive medicines, not to inexpensive interventions with large populations. As a result, a formal cost-benefit analysis never takes place.

Each of the three forms of market failure has its own solution. Together they point in the same direction. First, lower the evaluation threshold for chronic medication with a large user population and substantial potential benefits outside the healthcare domain. Second, establish a minimum time horizon in reimbursement assessments. Third, introduce a cross-domain perspective that includes benefits for municipalities, employers, and the UWV.

The estimates in this article are indicative, but the basic conclusion is solid: the societal costs of not reimbursing are many times greater than the costs of reimbursing. In times of increasing mental health problems, rising healthcare costs, and impending cuts to healthcare, this is a missed opportunity, both for people’s health and financially. Addressing the underlying causes should therefore be considered quickly. The current situation is, from a societal perspective, highly undesirable: costly for the public treasury and harmful to the patient.