ADVISORY REPORT

TİTCK Institutional Restructuring

Findings and Recommendations

Submitted to the Presidency of the Turkish Medicines and Medical Devices Agency (TİTCK)

PREPARED BY

Prof. Dr. F. Cankat Tulunay

Clinical Pharmacologist · Honorary President, European Association for Clinical Pharmacology and Therapeutics (EACPT)

November 2026

This report is based on publicly available sources and on the author's articles published at klinikfarmakoloji.com.

Contents

01 Executive summary

02 Current situation and gaps

03 Main theme: alignment with the EMA remains on paper

04 Section 1. Licences for medicines whose bioequivalence has not been demonstrated

05 Section 2. Acceptance as generics of formulations and combinations that have no counterpart anywhere in the world

06 Section 3. Pharmacoeconomics and health technology assessment are not used

07 Section 4. Lack of control over herbal products and food supplements

08 Section 5. Quality control left to the post-authorisation phase

09 Section 6. Clinical research and volunteer safety

10 Section 7. Patents, data protection and their relationship to licensing

11 Section 8. Pricing, confidential agreements and TİTCK–SGK coordination

12 Section 9. Promotion, conflicts of interest and the fight against corruption

13 Section 10. Orphan medicines and rare disease exemptions

14 Section 11. Rational drug use, over-the-counter medicines and public information

15 Section 12. Licensing commissions: how should they be established and how should they work?

16 Section 13. Why are pharmacovigilance data not published?

17 Section 14. Subcontracting in clinical research: is Türkiye a partner or a source of patients?

18 Reform recommendations

19 Prioritisation and roadmap

20 Indicators of success

21 References

Executive summary

TİTCK's most fundamental problem is that alignment with the EU and the EMA has remained on paper: the regulatory texts have been adopted, but the independent verification, inspection and transparency architecture that makes those texts work has not been built. The Agency has been a member of PIC/S since 2018 and of ICH since 2020; yet it has had 8 presidents since 2012, it has not achieved WHO Listed Authority status, and of the 167 new medicines approved in the EU in 2019–2022 only 4% have entered public access for Turkish patients.

This note addresses different faces of the same problem in four areas. **At the licensing stage:** generics whose bioequivalence has not been demonstrated (including the Allpharma case, in which 137 falsified dossiers went unsanctioned), acceptance as generics of combinations that have no counterpart anywhere in the world, and licensing commissions whose membership, interests and procedures are unknown. **After licensing:** quality control left to the company's declaration, pharmacovigilance data that never returns to Turkish physicians, and suspension decisions abroad that are not followed up. **In pricing and reimbursement:** pharmacoeconomics that exists only on paper, pricing rules whose rationale is not disclosed, and a reimbursement list shaped by court rulings. **In the market and in research:** an uncontrolled supplement market, invisible industry payments, and the use of Türkiye in multicentre trials not as a scientific partner but as a source of patients for foreign companies.

The recommendations share a single criterion: not asserted trust, but demonstrable trust. Most of them can be launched without waiting for legislative change, by decision of the Presidency and within the first six months; only structural items such as the president's term of office, a separate personnel regime for experts, an independent HTA body, the transfer of health-related foods to the Agency and the change of the Agency's name require a law or a Presidential Decree.

12 priority recommendations

1. **Put EMA alignment into practice:** a public assessment report similar to the EPAR for every new marketing authorisation; re-evaluation in Türkiye, within 90 days, of EMA/FDA suspension decisions. (Main theme)
2. **Return bioequivalence to binding law** and build independent bioanalytical verification capacity. (Section 1)
3. **Require full or hybrid applications for combinations and formulations without a reference product;** re-evaluate within 24 months the products licensed only in Türkiye. (Section 2)
4. **Re-establish the licensing commissions:** a regulatory basis, selection by open call, 3-year terms, published declarations of interest, assessment by two rapporteurs, and reasoned opinions with dissenting votes recorded. (Section 12)
5. **Verify quality instead of assuming it:** risk-based pre-authorisation testing, an annual market sampling programme, batch verification of raw materials. (Section 5)
6. **Publish pharmacovigilance data:** an annual TÜFAM (Turkish Pharmacovigilance Centre) report and a public Turkish-language portal by active substance. (Section 13)
7. **Independent health technology assessment (HTA)** and an explicit cost-effectiveness threshold. (Section 3)

8. **The EU "rule of doubt" for supplements:** a product that is in substance a medicine should be regulated as a medicine; health-related foods should be brought under the TİTCK umbrella and the Agency's name changed accordingly. (Section 4)
9. **Make Türkiye a partner in clinical research:** a binding KAP (Turkish clinical trials portal) registration, contractual guarantees of authorship for Turkish investigators, reporting of Turkish patient data to TİTCK. (Sections 6, 14)
10. **Binding transparency of industry payments:** a Sunshine-type payments database and disclosure of funding by patient associations. (Section 9)
11. **Count the licensing clock from submission** and publish actual timelines every quarter. (Reform recommendations, 3)
12. **A fixed term for the president, a separate personnel regime for expert staff** and a WHO WLA roadmap. (Reform recommendations, 1, 8, 10)

Current situation and gaps

The Agency has built a strong regulatory and inspection infrastructure; the gaps lie mainly in continuity, transparency and accountability. This table is based on public sources and on articles I have previously published.

Area	Current situation	Main gap	Source
Governance and continuity	Established in 2011 by Decree Law No. 663; 8 presidents between 2012 and 2026	No defined term of office, appointment criteria or end-of-term performance review for the president; no guarantee that the strategic plan survives a change of president	TİTCK Başkanları Neden Değişiyor?
Independence	An agency attached to the Ministry; pricing, reimbursement and localisation policies are set outside the Agency	The boundary between scientific decisions and policy choices is not written down; the president's real remit is unclear; heavy industry steering; political pressure	TİTCK Başkanları Neden Değişiyor?
Scientific commissions	Advisory boards play a role in licensing decisions	Selection criteria, declarations of interest, terms and conditions of dismissal of members are not public; there is a perception that members expressing dissenting views are replaced. Merit?	FDA ve TİTCK Bağımsız mı?
Licensing timelines	Statutory limit of 210 days; but the clock starts only when the application leaves the scheduling list, and starts are limited to 4 months a year	The waiting list falls outside the clock and is unpredictable; 655 days and more reported for oncology medicines	Hukukçular Evi, The Pharma Letter
Patient access to new medicines	4% of the 167 medicines approved in the EU in 2019–2022 are publicly accessible in Türkiye (EU average 43%, Germany 88%)	Licensing, GMP and reimbursement processes wait for one another; TİTCK does not measure or publish its own share of the delay	EFPIA W.A.I.T. 2024
Bioequivalence and copy licences	High application volume for generic and combination products	Formulation-specific bioequivalence and the rationale for combinations are not shown in any public document (melatonin, naproxen + codeine examples); bioequivalence questionable?	Copy Paste Ruhsatlar, TİTCK Nasıl Ruhsat Veriyor?
GMP inspections	Active foreign programme (2025: India 16, USA 13, Germany, France, Ireland, China 8 sites each)	Inspection findings, summaries of non-compliance and prioritisation criteria are not published; GMP certification further delays licensing	Yurt Dışı GMP Denetimleri
Market surveillance and recalls	1,244 staff at the end of 2024	Licence renewal dates are not monitored systematically; recalls are tracked manually without using the ITS (Drug Tracking System); one notice in 2023 was 38 days late; no mechanism for monitoring recalls abroad	Court of Accounts (Sayıştay) 2024 Audit Report
Human resources	General civil service personnel regime	No separate pay and career structure for expert assessors and inspectors; frequent management changes weaken institutional memory. Severe staff shortage	TİTCK Başkanları Neden Değişiyor?, Sayıştay 2024

Area	Current situation	Main gap	Source
Medical devices	Regulations issued in 2021 on the basis of EU MDR/IVDR, updated in 2024	Legislative alignment complete; implementation capacity (clinical evaluation, market surveillance, use of ÜTS (Product Tracking System) data for safety signals) lags behind the legislation	Legal 500
International alignment	PIC/S (2018), ICH regulatory member (2020)	The WHO WLA list reached 41 authorities from 39 countries in December 2025; Türkiye is not on it, although it was announced as a goal in 2022	WHO, Medikal Akademi

The table summarises the sources' own statements; the assessment of implementation capacity for medical devices is based on field observation, not on a public measurement.

Main theme: alignment with the EMA remains on paper

Türkiye adopted the EMA's texts, but not the inspection and verification architecture that makes those texts work. The bioequivalence guideline (İRD-KLVZ-11) largely follows the EMA guideline CPMP/EWP/QWP/1401/98 Rev.1; the medical device regulations are the counterpart of the MDR/IVDR, and the GMP guides of PIC/S. What was imported, in the end, was not the standard itself but the claim that the standard is applied (Türkiye'de Biyoeşdeğerlik).

All the other findings of this report are different faces of this central problem. The table below shows the mechanism that stands behind the text in the EMA system and its counterpart in Türkiye.

Area	Mechanism behind the text at the EMA	Türkiye today	Detail
Binding force	Bioequivalence principles defined by Directive 2001/83/EC and CHMP guidelines, open to judicial review	Since 2021, mainly an administrative guideline (İRD-KLVZ-11) instead of the 1994 regulation; can be changed quietly by the administration. The shift from regulation to guideline came under industry pressure.	Section 1
Public rationale	An EPAR for every authorisation: evidence, discussion, reasons for the decision	No equivalent report; freedom-of-information requests may go unanswered on grounds of "trade secrets"	Sections 1, 2
Independent verification	Network of Official Medicines Control Laboratories (OMCL), conditional sample testing, GCP and raw-data inspections	The Agency has no laboratory for verifying bioequivalence or pharmaceutical performance; quality control is in practice left to the company's declaration and to the post-authorisation phase	Sections 1, 5
Follow-up of decisions abroad	Through Article 31 referrals, authorisations relying on data from GVK Biosciences (2015, ~700 products), Semler (2016) and Micro Therapeutic (2017) were suspended	No public information on whether Turkish authorisations relying on the same studies have been re-evaluated	Section 1
Combinations	EMA/CHMP/158268/2017 guideline on fixed-dose combinations; a combination without a reference requires a full application	For combinations licensed in Türkiye first in the world (Apranax Plus, Codefen), single-tablet pharmacokinetics are not public	Section 2
Pricing and reimbursement	Independent health technology assessment (HTA) bodies in Member States; EU joint clinical assessment since 2025 (HTA Regulation 2021/2282)	Pharmacoeconomics on paper; part of reimbursement decisions are formed through the courts. Separate pharmacoeconomic analyses are needed for pricing and for reimbursement.	Section 3
Borderline products	Directive 2001/83/EC Article 2(2): in case of doubt, medicinal product rules apply	Products that are in substance medicines remain outside medicines regulation as "food supplements"	Section 4
Clinical trial transparency	CTIS: legally binding, public disclosure of results	KAP is for information only; bioequivalence studies are excluded; publication of results is unclear	Section 6

The first priority of reform, therefore, is not to write new legislation but to make the existing EU-aligned legislation enforceable, verifiable and auditable. The criterion is clear: not asserted trust, but demonstrable trust.

Section 1. Licences for medicines whose bioequivalence has not been demonstrated

In Türkiye the statement “is bioequivalent” is often not a demonstrated scientific fact but an unverified administrative declaration. At the level of text the system resembles the EMA’s; in practice it has lost all four of its pillars: binding force, independent verification, transparency and the follow-up of decisions taken abroad.

Problem

- **Binding law was abandoned.** The 1994 Regulation on Bioavailability and Bioequivalence was largely replaced, through the 2021 Licensing Regulation, by a guideline (İRD-KLVZ-11). The guideline can be changed quietly by the administration, and its violation carries no clear sanction.
- **Bioequivalence is substituted for therapeutic equivalence.** AUC and Cmax falling within the acceptance range does not guarantee the same clinical outcome, or safe switching from patient to patient, for narrow therapeutic index, modified-release and variably absorbed medicines.
- **Dissolution is made to carry a load it cannot bear.** The dissolution profile is a quality test; it does not replace bioequivalence for poorly soluble or pH-dependent formulations, or those in which excipient effects are decisive.
- **The reference chain is contaminated.** Whether the chosen reference is the true originator is often not transparent; drift accumulates as generics are compared with generics.
- **Statistics are reduced to box-ticking.** Outliers, period and carry-over effects, protocol deviations and re-analysis decisions remain invisible; the only question left is “did it fall within 80–125?”
- **Biowaivers become a gateway to licensing.** The reasoning “it is effervescent, so bioequivalence is not needed” is scientifically wrong; the EMA requires a study if excipients may affect absorption. For an effervescent product combining an NSAID with an opioid prodrug, such as diclofenac + codeine, granting a waiver on an in vitro dossier alone is inadequate.
- **The Agency has no independent capacity to verify bioequivalence.** Decisions are taken by relying on the applicant’s dossier; there is no independent capacity to re-measure bioanalytical samples. The Agency’s laboratory holds TÜRKAK accreditation (AB-0983-T) and has been a full member of the EDQM GEON since August 2024; however, the scope of the accreditation is not public and it is not known whether it covers bioequivalence verification.
- **Population differences are ignored.** Polymorphisms such as CYP2D6, CYP2C19 and CYP3A5 limit the generalisability of foreign data to the Turkish population for codeine, clopidogrel, omeprazole, tacrolimus, phenytoin and warfarin.

Evidence and examples

- **The Allpharma case:** the system was deceived by 137 falsified bioequivalence dossiers prepared by the Swiss CRO Allpharma, and the affair did not end in any meaningful sanction; there is no

public evidence that this gap has been structurally closed.

- **The CRO cases in India:** an inspection by the French ANSM revealed that ECG data at GVK Biosciences had been manipulated for at least five years; on 16 July 2015 the European Commission suspended the authorisations of about 700 products. In the Semler (2016) and Micro Therapeutic Research Labs (2017) cases, data were also declared invalid. None of these cases was caught by dossier review; all were caught by on-site inspection.
- **No follow-up:** the question raised in 2017, "Are these products suspended in the EU being sold in Türkiye?", received no public answer (Avrupa ve ABD'de Kullandırılmayan Hint İlaçları).
- **Double standard:** TİTCK does not require bioequivalence for some oral medicines, while the FDA requires it even for topical products such as testosterone gel (2014 news item).

International practice

- EMA: a binding guideline, an EPAR for every product, GCP inspections by Member States, raw-data review, and collective suspension through Article 31.
- FDA: product-specific bioequivalence guidances, inspections of bioanalytical sites and publication of Warning Letters.
- WHO prequalification programme: public "Notices of Concern" for problematic sites.

Recommendations

1. Regulate the principles of bioavailability and bioequivalence again by a binding regulation; the guideline should remain for technical detail only.
2. A public bioequivalence summary for every generic authorisation: reference product, study site, design, 90% confidence intervals, any waiver granted and its rationale.
3. Internal recording of failed and repeated studies, with annual aggregate statistics.
4. A unit that monitors sites declared invalid by the EMA, FDA and WHO; re-evaluation within 90 days of Turkish authorisations relying on the same data, and publication of the outcome.
5. A risk-based programme of on-site GCP and bioanalytical inspections of bioequivalence sites abroad.
6. An independent bioanalytical verification laboratory, within the Agency or jointly with universities.
7. Narrowed acceptance ranges for narrow therapeutic index and genetically sensitive medicines, studies in the Turkish population where needed, and a physician alert when substituting equivalent products.
8. Biowaivers granted only under BCS and EMA criteria, with the rationale published.

Source: Türkiye'de Biyoeşdeğerlik: Bilimsel Güvence mi, İdari Formalite mi? and its English version, Bioequivalence in Türkiye, July 2026.

Section 2. Acceptance as generics of formulations and combinations that have no counterpart anywhere in the world

A product with no reference and no originator cannot, by definition, be a generic; it requires a full or at least a hybrid application. In Türkiye, however, combinations and formulations licensed here first in the world can reach the market on the basis of their components' separate data, under the logic of "well-established medicinal use" or of generics.

Problem

- Pharmacological, toxicological and clinical data valid for each component of a combination cannot be taken as valid for the combination itself. For example, codeine delays gastric emptying and therefore alters the pharmacokinetics of naproxen.
- Data obtained for a standard tablet cannot be transferred to an effervescent, modified-release or different-salt formulation.
- When the SmPC (KÜB) and patient leaflet are copied from the original single-component product, the information given to physicians and patients was never generated for that product.
- These products are later regarded as "equivalent" on the market; equivalent-medicine substitution and reimbursement groups are built on this acceptance.

Evidence and examples

- **Apranax Plus (naproxen sodium + codeine phosphate):** licensed in 2011; as far as can be established, this combination was first marketed anywhere in the world in Türkiye. No study measuring its pharmacokinetics within a single tablet was found in the public literature; all publications assess pharmacodynamic endpoints.
- **Codefen effervescent (diclofenac sodium + codeine phosphate):** this combination, too, was licensed in effervescent form first in the world in Türkiye.
- **Freedom-of-information process:** when the pharmacokinetics and application category of these products were requested in 2014, the reason given for confidentiality was Turkish Penal Code No. 765, which had been repealed ten years earlier (TİTCK Olmayan Kanuna Dayanarak). In 2026 an eight-question CİMER (Presidential Communication Centre) request on melatonin licences was also rejected in full, citing Article 40 of the Licensing Regulation; this pattern of refusal over more than a decade shows why recommendation 6 below is needed.
- **SmPC changes:** the indications and SmPC of Apranax Plus were changed, but the date and basis of the change were not disclosed; sales with the old leaflet continued in pharmacies (KÜB Değişiklikleri Saklanıyor, Kodeinli NSAİİ'lerin Ruhsatlarının İptali İstendi).
- **Open letter (6 July 2026):** six questions were put to the previous President: the application category, PK data for the single formulation, whether well-established use was applied to the combination or to its components, EPAR-like reports, a binding combination guideline, and the GMP reliance arrangement with China/NMPA (Sabit Doz Kombinasyonlarda Ruhsatlandırma). At the time this report was prepared, no published response from the Agency had been found.

- **Melatonin and other "copy-paste" licences:** no public document shows that formulation-specific bioavailability verification was performed; the pharmacokinetic text in the melatonin SmPCs of at least six companies is almost identical, and two lead directly to products licensed in the United Kingdom. While the EMA's product-specific bioequivalence guidance of February 2026 requires formulation-specific pharmacokinetic data, the Turkish SmPCs do not show such data (Copy Paste Ruhsatlar).
- **Irrational combinations:** products of disputed rationale such as zinc sulphate + vitamin C + iron + folic acid (Bu Nasıl Bir İlaç?).

International practice

- The EMA guideline on fixed-dose combinations (EMA/CHMP/158268/2017) requires proof of the rationale for the combination, the contribution of each component and the pharmacokinetic interactions specific to the combination.
- In the EU a product without a reference product cannot apply by the generic route; new formulations are subject to the hybrid application of Article 10(3) of Directive 2001/83/EC and new combinations to Article 10b. In the US a similar product, the acetaminophen + naproxen sodium combination (NDA 219962, July 2026), was approved through a separate new drug application; its clinical pharmacology and biopharmaceutics review records have been requested by me under freedom of information (FDA-FOIA-2026-7392).
- The WHO Model List of Essential Medicines accepts fixed-dose combinations only where a proven clinical advantage exists.

Recommendations

1. Every combination and formulation without an international reference to be placed in the full or hybrid application category.
2. A binding national guideline on fixed-dose combinations at the level of EMA/CHMP/158268/2017.
3. Mandatory combination-specific pharmacokinetic interaction studies; in vivo data for effervescent and modified-release forms.
4. A list of combinations licensed only in Türkiye, and their scientific re-evaluation within 24 months; suspension of the licences of those without evidence.
5. Publication of SmPC and indication changes with dates, reasons and version history; a defined transition period for stocks with old leaflets.
6. A written policy defining the boundary between trade secrets and public health information in freedom-of-information requests.

Section 3. Pharmacoeconomics and health technology assessment are not used

In Türkiye pharmacoeconomics is a decision tool neither at TİTCK nor at the SGK (Social Security Institution); it exists on paper. As a result, part of the reimbursement decisions are shaped not by scientific assessment but by court rulings.

Problem

- **There is no official cost-effectiveness threshold.** How much payment per QALY is acceptable has not been defined. Since 2008, within the ISPOR Turkey framework, 1–3 times GDP per capita has been proposed; this corresponds to a band of roughly TRY 0.43–1.3 million per QALY.
- **There is no independent HTA unit.** No body independently recalculates the company dossier, questions the choice of comparator and publishes the result.
- **Pricing is based not on value but on reference prices and a fixed euro rate.** That an originator can be cheaper than its generic is a consequence of this system. How prices are set is not transparently disclosed to the public. The pricing guideline that entered into force on 31 August 2026 (EDİT-KLVZ-11) also left "value-based pricing" undefined, deferring it to future regulation, and left the Price Evaluation Commission budget-oriented without an independent scientific structure (Sanayiyi Koruyan, Eczacıyı Görmeyen Kararname).
- **"Me-too" medicines and those licensed on secondary endpoints are not distinguished.** For example, erenumab (Aimovig) provided a difference of about 1 day versus placebo in patients with 8 migraine attacks a month (Reçeteli/Ruhsatlı Etkisiz İlaçlar).
- **Reimbursement through pressure.** Companies can organise patient groups to bring lawsuits; the SGK pays for the expensive medicine of the company exerting pressure while increasing co-payments for pensioners and workers (SGK Her İlacı Ödemeli mi?).

Evidence and examples

- In its nivolumab (Opdivo) ruling, the 10th Civil Chamber of the Court of Cassation (Yargıtay) stated that, for treatments financed from public resources, the physician's opinion alone is not sufficient, and that scientific evidence and the SGK's legal limits must be considered together. This ruling shows that what is missing is precisely a systematic assessment mechanism.
- No country in the world reimburses all medicines; a system in which the reimbursement list is formed by court rulings is not sustainable.
- The OECD (2019) has also emphasised that R&D costs are often exaggerated, that a significant part of real innovation stems from publicly funded research, and that independent HTA capacity is essential for any discourse on "value-based prices" (İlaç Fiyatları: AR-GE ve Değere Dayalı Fiyatlandırma).

International practice

- England, NICE: an explicit threshold, independent evidence review groups, public technology appraisal reports.
- Germany, IQWiG and G-BA (AMNOG): assessment of added benefit; the price is negotiated according to the added benefit.
- France, HAS: rating of clinical benefit (SMR) and added clinical benefit (ASMR).
- EU HTA Regulation (2021/2282): joint clinical assessment for oncology and advanced therapy products from January 2025.
- In oncology, grading of benefit with the ESMO Magnitude of Clinical Benefit Scale (ESMO-MCBS).

Recommendations

1. A Health Technology Assessment Agency established by law and independent of TİTCK and the SGK, or at least an independent HTA unit within TİTCK.
2. An explicit cost-effectiveness threshold (for example 1–3 times GDP per capita) and mandatory budget impact analysis.
3. Independent re-analysis of company dossiers; publication of assessment reports and of the reasons for reimbursement decisions.
4. Use of the ESMO-MCBS score in reimbursement and pricing decisions for oncology medicines; conditional, time-limited reimbursement for medicines approved on secondary endpoints.
5. Publication, with reasons, of pricing rules and of the decisions of the price evaluation commission; correction of originator–generic price inversions.
6. Reimbursement of me-too medicines limited to a therapeutic reference price.

Source: Farmakoekonomi 101, October 2025.

Section 4. Lack of control over herbal products and food supplements

In Türkiye, whether a product is regarded as a medicine or a food is decided not by the product's true nature but by the label on its package and a plant sprinkled into it. As a result, the intermediate product group that most needs control remains entirely outside it.

Problem

- **An inverted ladder of control.** The state sets the prices of prescription and over-the-counter medicines; but the content of a supplement that is in substance a medicine and is recommended by physicians is not verified, its manufacture is not inspected as a medicine's is, and its price is free.
- **Same molecule, two regimes.** Folic acid is sold both as a licensed medicine (price set by the state) and as a food supplement (price free). A pure B-complex requires a licence and GMP, whereas the same product with a plant added can become a food with the approval of the Ministry of Agriculture and Forestry.
- **Divided competence.** Product approval lies with the Ministry of Agriculture and Forestry and control of health claims has been with TİTCK since 2023; a draft law of May 2026 provides for the transfer of products in pharmaceutical form to TİTCK but is not yet in force.
- **Herbal products are not safe by nature.** Risk has three sources: the plant's own pharmacology, the product itself (wrong species, contamination, undeclared active pharmaceutical ingredients) and drug–herb interactions.
- **Illegal promotion cannot be stopped.** Despite recall decisions and criminal complaints, sales of products promoted as medicines have been able to continue for years (Panax'ı Durdurmaya Güçleri Yetmiyor).

Evidence and examples

- In data from the US Drug-Induced Liver Injury Network (DILIN), the share of herbal and dietary supplements rose from 7% in 2004–2005 to about 20% in 2010–2014 (Navarro et al., Hepatology 2014).
- In the US, adverse events attributed to dietary supplements lead to tens of thousands of emergency department visits a year (Geller et al., NEJM 2015).
- Cases of liquorice-induced hypertension and hypokalaemia, and of mad honey and jimsonweed poisoning, have been reported from Türkiye; giving fennel and anise tea to infants falls within the group for which the EU recommends minimising exposure (Bitkisel Ürünler Güvenli mi?).
- For the same box of a folic acid + omega-3 supplement used in pregnancy and medicinal in nature (Vifolic), prices between TRY 701 and TRY 1,328 are found among sellers (Gıda Takviyeleri Deva mı, Soygun mu?).

International practice

- EU: the "rule of doubt" of Article 2(2) of Directive 2001/83/EC: where a product falls within the definitions of both a food and a medicine, the medicines rules apply. For traditional herbal medicinal products, simplified registration under Directive 2004/24/EC, EMA HMPC monographs and mandatory quality requirements.
- US: because of DSHEA (1994), supplements are not subject to pre-market approval; as a result, in 88% of 25 chewable melatonin products tested, the labelled and measured amounts did not match (JAMA). This is the model Türkiye should not follow.
- Third-party verification schemes (USP Verified, NSF) provide minimum assurance during a transition period.

Recommendations

1. The EU rule of doubt should be added to legislation: every product falling within the definition of a medicine should be treated as a medicine, closing the door to escaping control "by throwing a plant into it".
2. Supplements should be divided into two groups. Those that are in substance medicines (vitamins, minerals, standardised omega-3, pregnancy products): TİTCK registration, GMP, content verification, a single state-set price. Herbal and botanical products: species verification, screening for heavy metals, pesticides and adulteration, strict control of health claims.
3. A simplified registration route for traditional herbal medicinal products based on EMA HMPC monographs.
4. Regular market sampling and screening for undeclared active pharmaceutical ingredients (sibutramine, sildenafil, corticosteroids, etc.); publication of results with product names.
5. Pharmacovigilance for herbal products: easier adverse reaction reporting for physicians, pharmacists and consumers.
6. A joint, rapid enforcement protocol with RTÜK (Radio and Television Supreme Council), the Ministry of Trade and access-blocking units against illegal health claims and internet sales.
7. **Health-related foods should be brought under a single roof.** Approval, registration and control of products sold with health claims, such as food supplements, foods for special medical purposes, infant formulae and sports foods, should be transferred from the Ministry of Agriculture and Forestry to TİTCK; the intended use of the product, rather than the "pharmaceutical form" criterion of the May 2026 draft, should be decisive. General food safety (production, hygiene, veterinary control) should remain with the Ministry of Agriculture and Forestry; in the EU, too, food safety rests with EFSA and national food authorities and medicines with the EMA. The transfer should be planned together with additional expert staff and laboratory capacity; otherwise a new burden is added to a staff that is already insufficient.
8. **The Agency's name should be changed.** Since, with the transfer of health-related foods, the Agency's remit will extend beyond medicines and medical devices, its name and mandate should be updated to reflect this expansion; for example, "Turkish Medicines, Medical Devices and Food Agency" (Türkiye İlaç, Tıbbi Cihaz ve Gıda Kurumu). The change of name is not an end in itself but an open signal of the transfer of competence to the public and to industry.

Section 5. Quality control left to the post-authorisation phase

Advanced regulatory systems do not assume quality; they verify it. In Türkiye, pre-authorisation quality assessment largely stops at reviewing dossiers and certificates; independent analysis of the product and of its raw materials is in practice left to post-marketing control, or even to the moment a problem emerges. This is incompatible with patient safety and with the principles of ethical regulation (İlaçta Kalite Nedir?).

Problem

- **A chain of trust based on declarations.** An imported active substance is accepted on three documents: a certificate of suitability (CEP/DMF), a GMP certificate and a batch certificate of analysis (COA). All three are declarations by the manufacturer or a third party; if a document does not represent the real product, there is no routine state analysis to catch it.
- **Batch release lies with the company itself.** Analytical control of each batch is performed not by a central state laboratory but by the quality unit of the company that manufactures the medicine.
- **Quality tiers and price pressure.** The same active substance can be sold at pharmacopoeial quality to regulated markets and 35–60% cheaper, at lower purity, to weakly regulated markets. The tablet still says "500 mg"; what changes is the impurity profile. A low-price policy magnifies this risk.
- **Falsified certificates are not the exception.** The FDA has flagged manufacturers in India and China in warning letters for directly issuing falsified COAs; concealment of the source of starting materials and "parallel production" of different quality for different markets in the same facility have been documented.
- **Dissolution and disintegration tests are used as if they were proof of quality.** These tests are supportive; they do not replace clinical bioavailability.
- **Market surveillance is invisible.** How many samples are taken each year, which products are found out of specification and what action is taken are not published regularly. The 2024 Court of Accounts report found that recalls are tracked manually and that one notice was 38 days late.

Evidence and examples

- **The nitrosamine crisis:** carcinogenic impurities were detected in valsartan in 2018, then in irbesartan, and in ranitidine products in 2019–2020. The findings emerged from data generated in Europe and the US, not in Türkiye, and Türkiye carried out recalls by following those decisions (Valsartan, Ranitidin).
- **Historical quality crises:** the digoxin, phenytoin, levothyroxine and heparin (2008) crises showed the cost of trusting declarations for narrow therapeutic index medicines and biological raw materials (Türkiye'de İlaçta Kalite).
- **Global scale:** according to WHO estimates, about one in ten medicines in low- and middle-income countries is falsified or substandard.

- **Raw material control:** independent physical or analytical control of active substance batches entering Türkiye is not routine (Türkiye Hangi Kalitede İlaç Kullanıyor?).
- **The Agency laboratory's error:** a falsified cancer medicine (Iclusig/ponatinib) was found compliant in the TİTCK laboratory; the Swiss authority, the manufacturer and a university laboratory found that the product contained only paracetamol. Accreditation alone does not guarantee verification.

International practice

- The EU OMCL network (coordinated by the EDQM): an annual sampling and testing programme for centrally authorised products; joint market surveillance studies for nationally authorised products. Results are reported.
- FDA: sample analysis at import, Import Alerts and publication of Warning Letters; a public recall database for product quality problems.
- The CEP system (EDQM): suspension or withdrawal of a certificate is published in a public list.

Recommendations

1. Independent pre-authorisation analysis: for new active substances, narrow therapeutic index medicines, sterile products and generics from high-risk sources, analysis before authorisation in the Agency laboratory or an accredited university laboratory.
2. A risk-based annual sampling programme: market samples of raw materials and finished products, including screening for nitrosamines and genotoxic impurities. The programme, its results and the actions taken should be published in an annual report.
3. Random batch verification of raw materials: samples taken on behalf of the state at customs or at the manufacturer's site; blacklisting and publication of suppliers found to have issued falsified COAs.
4. Automatic monitoring of the EDQM CEP suspension/withdrawal list, FDA Import Alerts and EMA decisions; immediate investigation of Turkish authorisations using the same supplier.
5. Expansion of the TİTCK laboratory's work in the EDQM GEON (OMCL) network, of which it has been a full member since August 2024, and publication of the scope of its TÜRKAK accreditation (AB-0983-T); planning of laboratory capacity against an annual sampling target.
6. A recall system integrated with the ITS: the decision should reach pharmacies and hospitals within 24 hours, and the public notice should not take more than 2 days.
7. Quality must not be the victim of pricing policy: pricing decisions should take into account the real cost of pharmacopoeial-quality raw materials.

Section 6. Clinical research and volunteer safety

In CRO promotional materials, Türkiye is marketed with features such as low cost, fast patient recruitment, a pool of treatment-naive patients and "easy ethics committee approval". This indicates that volunteer protection and transparency are weakest exactly where they should be strongest.

Problem and evidence

- **Cost-driven growth.** Some CRO analyses show clinical trial operating costs in Türkiye at 40–60% of Western Europe's; Phase 1 studies are therefore growing rapidly (Faz 1 Çalışmaları ve Türkiye).
- **KAP is not the equivalent of CTIS.** TİTCK's Clinical Trials Portal is for information only and is not legally binding; bioavailability and bioequivalence studies are excluded; public availability of result summaries is unclear (Klinik Araştırmalarda Şeffaflık: Türkiye Nerede?).
- **Comparison:** in the EU, of 234 trials past their deadline on CTIS only 116 had reported on time; the EMA then set up an automatic alert and monitoring system in 2026. In Türkiye even such a measurement cannot be made.
- **Children.** Informed consent rests on an adult assumption; a child is not a small adult. The provision of TCK (Turkish Penal Code) 90/3 of 2004, which absolutely prohibited scientific experiments on children, was amended in 2005, before it entered into force, following the case made by the Turkish Society of Clinical Pharmacology before a commission of the Grand National Assembly (TBMM). The Oviedo Convention, ratified by Türkiye by Law No. 5013, limits research without direct benefit to minimal risk and minimal burden (Tıbbi Araştırmalarda Çocuklar).
- **Training left to industry.** A large part of investigator training is organised by the companies sponsoring the research (İlaç Firmaları-Doktor İlişkileri).

International practice

- EU Clinical Trials Regulation 536/2014 and CTIS: binding registration, mandatory results summary and lay summary within 12 months.
- US: publication of results on ClinicalTrials.gov is a legal requirement; results undergo quality review.
- The WHO International Clinical Trials Registry Platform (ICTRP) and the joint statement on results reporting.
- The EU Paediatric Regulation (1901/2006) and the Paediatric Committee (PDCO).

Recommendations

1. Make KAP a legally binding registry; cover all studies, including bioequivalence studies, and transfer data to the WHO ICTRP.
2. Public release of the results summary and lay summary within 12 months; publication of a list of non-compliant sponsors and sanctions on their new applications.

3. Annual, risk-based GCP inspections of Phase 1 and bioequivalence centres, with publication of summaries of inspection results.
4. Independence of ethics committees: declarations of interest by members, sponsor payments made to the institution rather than to the committee, oversight of committee decisions.
5. In paediatric research, a mandatory paediatric expert opinion, the child's refusal treated as binding, and explicit application of the Oviedo criteria in studies without direct benefit.
6. GCP and investigator training provided by TİTCK and universities, independently of industry.
7. Publication of annual aggregate statistics on volunteer compensation, insurance and serious adverse event reports.

Section 7. Patents, data protection and their relationship to licensing

When the rules governing the relationship between licensing and patents are unclear, harm arises in two directions: a product infringing a patent may be licensed and later recalled by court order, or generic entry may be delayed by invalid patents.

Problem and evidence

- In 2013, for an esomeprazole generic subject to patent litigation, a court halted production, import and sales as an interim measure and ordered its removal from the SGK list (Patent İhlali Yapan Firmaya TİTCK Ruhsat Veriyor). A licence later voided by the courts is costly for both patients and the public.
- The Turkish Competition Authority's preliminary report on the pharmaceutical sector of August 2026 identified about 250 patent cases in the last ten years but anonymised the Turkish examples; whether equivalent products entering the market were in fact bioequivalent remained outside the scope of the inquiry (Rekabet Kurulu Raporu).
- Patent clustering, divisional applications and "pay-for-delay" agreements are known in the EU from named and fined cases (Lundbeck, AstraZeneca); although in Türkiye the Competition Authority has decided cases in the pharmaceutical sector (Roche/Novartis Altuzan-Lucentis, 2021; Bilim İlaç/Drogsan), there is no public mechanism systematically monitoring patent clustering and pay-for-delay agreements (Suçun Bedeli mi, Suç İşleme Ruhsatının Ücreti mi?; İlaç Tekeli Nasıl Uzatılıyor?).

International practice

- US: the Orange Book patent listing and the Hatch-Waxman "Paragraph IV" process; patent disputes are resolved before approval.
- EU: licensing authorities do not consider patent status (patent linkage is prohibited); on the other hand, data protection (8+2+1 years) and the Bolar exemption are explicit, and competition infringements are fined by the European Commission.

Recommendations

1. A public licence–patent information list (Orange Book-like, non-binding and for information only) showing data protection periods, authorisation dates and relevant patent information.
2. Recording of products recalled or delisted because of patent disputes, and reporting of the impact on patients.
3. Joint work with the Competition Authority: notification and monitoring of pay-for-delay agreements.
4. Patent and competition reviews addressed together with, not separately from, the question of the product's scientific equivalence.

Section 8. Pricing, confidential agreements and TİTCK–SGK coordination

When the price of a medicine paid for with public money is set by rules and agreements closed to the public, oversight becomes impossible. In Türkiye TİTCK sets the price and the SGK sets reimbursement; disagreement between the two institutions has at times gone as far as the courts (TİTCK, SGK'nın Yönergesinin İptali İçin Mahkemeye Başvurdu).

Problem and evidence

- **Pricing rules and their results are not transparent.** Reference pricing and the fixed euro value kept low (TRY 29.1164 as of 1 April 2026; Decision No. 11031) make Türkiye one of the lowest links in the international price chain. This increases the risk that medicines are never brought to Türkiye, and the risk of shortages.
- **Confidential discount and payment agreements.** "Most Favoured Nation" agreements in the US can encourage companies to raise prices outside the US; in Switzerland, no reimbursement application was filed for about one third of new innovative medicines between January 2025 and June 2026 (Gizli İlaç Sözleşmeleri).
- **The patient's pocket.** Co-payments of 10% for pensioners and 20% for employees, prescription fees and price-difference payments are being increased at the same time as expensive medicines enter the list under pressure (AIFD'nin "Yenilikçi İlaçlara Erişemiyoruz" Söylemi).
- **The gap between the "domestic production" discourse and reality.** The target of serial production of nusinersen "in the first half of 2026" has passed, and in the June 2026 SUT (Health Implementation Communiqué) update the product still has imported status; according to TÜSEB's strategic report of October 2025, the core patents run until 2030–2034 in the US and, with the SPC, until about 2032 in the EU ("Yerli İlaç Üretimi" Söylemi). The goal of localisation must not be a justification for relaxing the scientific standard of licensing.

International practice

- World Health Assembly resolution WHA72.8 (2019): transparency of medicine prices and net prices.
- The EU Transparency Directive (89/105/EEC): pricing and reimbursement decisions must be reasoned and time-bound.
- In countries such as Italy (AIFA), Germany (G-BA) and England (NICE), the reasons for pricing and reimbursement decisions are published.

Recommendations

1. Publication, with reasons, of pricing rules, reference country prices and the decisions of the Price Evaluation Commission.
2. For confidential discounts and conditional payment agreements, public disclosure of at least the total budget impact and the type of agreement; full access for the Court of Accounts.

3. A joint TİTCK–SGK board: licensing, pricing and reimbursement timelines conducted in a single file and in parallel; inter-institutional disputes referred to this board rather than to the courts.
4. Monitoring and publication of products that are licensed but never marketed or are withdrawn, and of shortages.
5. A written commitment that licensing and quality criteria in localisation projects remain the same as for imported products.

Section 9. Promotion, conflicts of interest and the fight against corruption

The scientific decisions of a regulator cannot be considered trustworthy unless the financial relationships that industry builds with physicians, patient associations and public officials are visible. In Türkiye these relationships are largely invisible.

Problem and evidence

- Payments to physicians, congress and speaker fees are not disclosed; in the US these payments exceed 2 billion dollars and can be tracked by patients through Open Payments (İlaç Firmaları-Doktor İlişkileri).
- A large proportion of patient associations are supported by industry and can be used as instruments in reimbursement lawsuits. I have documented, from direct knowledge, that a senior TİTCK executive sat on the board of a rare disease association during the same period (Nadir Hastalık Kılıfı Altında).
- When an official of the public body that negotiates prices with a trade association speaks at that association's event, it creates the appearance of an institutional conflict of interest.
- International examples (Johnson & Johnson, Soliris) show that bribery and improper payments can be systematic (J&J Dosyası, Bir Rüşvet Hikayesi: Soliris).
- In Türkiye, too, the Actavis/Fako, Roche (two cases) and Bilim İlaç bribery cases have been reported in the press. In 21 investigations compiled by Kohler et al., 19 companies paid a total of 12.6 million dollars in bribes and faced sanctions exceeding 1.1 billion dollars (Vurdum Duymazlar; Yenilikçi İlaç Endüstrisinin Hesap Verebilirliği).

International practice

- US Sunshine Act / Open Payments: every payment from industry to a physician in a named database.
- France (Transparence Santé), Portugal, Belgium: legally mandatory disclosure.
- EFPIA Disclosure Code: self-regulation; not as strong as a legal obligation.
- EMA: public declarations of interest for committee members and experts, and restrictions on participation according to risk level.

Recommendations

1. A legally mandatory transparency database: named, searchable publication of all payments from industry to physicians, pharmacists, academics, patient associations and healthcare institutions.
2. Annual disclosure of industry funding by patient associations; mandatory declarations from associations giving opinions in reimbursement and licensing processes.
3. A cooling-off period for Agency staff moving to industry, and rules on participation in industry events.

4. Disclosure of the industry fees received by speakers at investigator and promotional meetings approved by TİTCK.
5. Publication, with company names, of violations of the medicines promotion regulation and of the penalties imposed.

Section 10. Orphan medicines and rare disease exemptions

The term “orphan drug” entered Turkish for the first time on 4 December 1982, in an article published in Milliyet, one month before the US Orphan Drug Act. Today the problem has been reversed: rare disease status has turned from a regulatory incentive into a billion-dollar exemption mechanism in the US (Nadir Hastalık Kılıfı Altında).

Problem and evidence

- Orphan status can open the door to less evidence, accelerated approval and high prices. A molecule can obtain this status repeatedly through successive rare indications (“salami slicing”).
- In Türkiye there is no separate designation system for orphan medicines operating on public criteria, and no follow-up of benefit after authorisation.
- In Phase 1 and early-phase studies, patients with rare diseases and those who have exhausted standard treatment form the most vulnerable group, for whom the boundary between research and treatment becomes blurred.
- A large proportion of cancer medicines are licensed on secondary endpoints; when medicines approved by the EMA for solid tumours in 2009–2020 were assessed with the ESMO-MCBS, those showing high clinical benefit were found to be in the minority (Grössmann et al., ESMO Open 2021).

International practice

- EU: Orphan Regulation 141/2000; designation is granted with a prevalence threshold of 5 in 10,000 and a “significant benefit” requirement, and market exclusivity is reassessed at the time of authorisation. Annual renewal of conditional authorisations.
- US: the requirement for confirmatory trials in FDA accelerated approval was strengthened by the 2022 reform.

Recommendations

1. An orphan designation system operating on public criteria; a reliance route for products designated in the EU.
2. For conditional and accelerated authorisations, a timetable for confirmatory studies, annual renewal, and suspension of the authorisation if results do not arrive on time.
3. A national patient registry for rare disease medicines and follow-up of benefit with real-world data; reimbursement linked to these data.
4. Publication of the reasons for designations and authorisations; separate scrutiny of successive orphan indications of the same molecule.

Section 11. Rational drug use, over-the-counter medicines and public information

Rational drug use is achieved not through policing measures but through education and evidence-based practice. In a system where every medicine is licensed, where even OTC medicines can be placed on the reimbursement list and where promotion is not controlled, rational drug use remains a dream (Akılcı İlaç Kullanımı ve Türkiye, 20 Senede Akılcı İlaç Kullanımında Ne Değişti?).

Problem and evidence

- Risk information on medicines such as codeine-containing combinations does not reach physicians and patients adequately; SmPC changes are not visible. With metamizole the problem is the reverse: an exaggerated interpretation of agranulocytosis risk based on errors in early studies shows that risk communication can be not only incomplete but also wrong (Benzeri Olmayan Analjezik: Metamizol).
- Production of independent drug information is weak; a large share of physicians' knowledge comes from industry promotion.
- There are no public utilisation data or targets in areas such as opioids for non-cancer pain and the overuse of antibiotics and PPIs.
- Education in rational drug use and clinical pharmacology in faculties of medicine and pharmacy is insufficient.

International practice

- The WHO framework for rational use of medicines and the Model List of Essential Medicines; the WHO AWaRe antibiotic classification.
- Independent drug bulletins (Prescrire, Drug and Therapeutics Bulletin) and the ISDB network.
- Regular publication of Direct Healthcare Professional Communications and safety updates by the EMA and MHRA.

Recommendations

1. A national drug bulletin, independent of industry, within TİTCK or jointly with faculties.
2. Publication of SmPC and patient leaflet changes with version history, and direct notification of physicians of important safety changes.
3. Annual publication of medicine utilisation data (DDD/1000 inhabitants/day) and national targets for antibiotics, opioids and PPIs.
4. Encouragement of prescribing by active substance name (Jenerik İsimle Reçete Yazmak); its precondition, however, is that equivalence is genuinely assured (Section 1).
5. Explicit application of rational drug use criteria in decisions on switching to non-prescription status and on reimbursement.

Section 12. Licensing commissions: how should they be established and how should they work?

The scientific quality of a licensing decision depends on who sits on the commission that assesses the dossier and how it works. In Türkiye these two questions are not answered by written, public and auditable rules; at the EMA, FDA and MHRA, both are regulated in detail and published.

Current situation

- **Structure:** according to 2018 press information, there were 19 commissions within TİTCK, each with between 5 and 25 members; together with the medical device commissions, the number of members approached 300 (Yeni Şafak / Memurlar.net, February 2018).
- **Term limits were not applied:** despite a statutory term of 3 years, it emerged that some had remained as members and chairs for 18.5 years; subsequently all members who had served longer than 2 years were dismissed en bloc. The mass change did not solve the problem: selection criteria, declarations of interest and reasoned opinions are still not public today.
- **The weight of the opinion is unclear:** the commission's opinion directly affects whether a licence is granted or refused; but agendas, minutes, vote distributions and dissenting opinions are not published. Where the Agency departs from the commission's opinion, the reason is not known either.
- **No weight given to clinical pharmacology:** there is no written rule requiring a clinical pharmacologist, a biostatistician and a pharmacoepidemiologist on commissions assessing bioequivalence and combination dossiers (Sections 1 and 2).

Brief comparison with other countries

	EMA, CHMP	FDA, advisory committees	United Kingdom, MHRA CHM	TİTCK, licensing commissions
Legal basis	Regulation 726/2004	Federal advisory committee legislation	Human Medicines Regulations 2012	Internal arrangement; no detail in regulations
Membership	One member and one alternate from each Member State, up to 5 co-opted experts; chair elected by the members	Chair, scientists, consumer representative, patient representative where needed; industry representative cannot vote	Permanent Expert Advisory Groups by commission and field	Criteria not published
Selection and term	3 years, renewable; members' CVs published	Special government employee status, fixed term	Application by open advertisement	3 years in legislation; up to 18.5 years in practice
Conflict of interest	Declarations published; participation restricted by risk level; a member with an interest cannot be rapporteur	Screening before each meeting; waivers only where the need for expertise outweighs the conflict, and waivers are published	Members' interests published in the report submitted annually to Parliament	Declarations not published

	EMA, CHMP	FDA, advisory committees	United Kingdom, MHRA CHM	TİTCK, licensing commissions
Working procedure	Rapporteur, co-rapporteur and peer reviewer for each dossier; divergent opinions recorded where there is no consensus	Meetings open to the public, open voting; advice not binding but usually followed	Monthly meetings; expert groups carry out preliminary assessment	Written procedure not public
Transparency	Agenda, minutes and public assessment report (EPAR)	Meeting documents, votes and waivers published	Summary minutes and annual report published	Not published

Sources: EMA, CHMP members; EMA, procedure for appointing rapporteurs; FDA, guidance on conflicts of interest in advisory committees; MHRA, CHM membership and minutes; CHM Annual Report 2024.

What the three models have in common is this: members whose identity is known, whose interests are declared and whose terms are limited; a written assessment procedure; and public disclosure of the reasons for the decision. In Türkiye none of these three elements exists.

Proposed model

1. **Legal basis.** The establishment, remit, number of members, selection criteria and working procedure of the commissions should be set by regulation, not by approval of the President, so that they cannot be quietly changed when the president changes.
2. **A two-tier structure.** As in the CHMP and CHM, a single Scientific Assessment Board for Human Medicines with 11 to 15 members and permanent expert groups attached to it: oncology and haematology, infections and vaccines, cardiovascular and metabolism, neurology and psychiatry, paediatrics, clinical pharmacology and bioequivalence, quality and pharmaceutical technology, pharmacovigilance. The expert groups prepare the dossier; the board decides.
3. **Composition.** The board should include at least one clinical pharmacologist, one biostatistician and one pharmacoepidemiologist. It should include a patient or consumer representative who declares that they receive no industry funding. Industry representatives should either not be present at all or, as at the FDA, participate without voting rights.
4. **Selection and term.** An open call, published scoring criteria and publication of members' CVs. A term of 3 years, renewable at most once; for institutional memory, one third of the members should be renewed each year on a staggered basis. Dismissal only with written reasons.
5. **Conflicts of interest.** An annual declaration covering the last 3 years and a separate declaration before each meeting according to the agenda; declarations should be published. A member with a direct interest should not take part in the discussion of that item, a member with an indirect interest should not vote, and no member with an interest should be rapporteur. Exceptions granted should be recorded with reasons and published.
6. **Assessment procedure.** For each new active substance, new combination and formulation without a reference, two independent rapporteurs should be appointed, one an Agency assessor and one an external member. Rapporteurs' reports should reach members at least

two weeks before the meeting. The applicant should be able to give an oral explanation where needed. The opinion should be reasoned, and dissenting votes should be minuted with names and reasons.

7. **Relationship between the Agency and the commission.** The commission's opinion may remain advisory; but if the Agency departs from it, it must explain its reasons in writing. Regulations should guarantee that a member expressing a dissenting view cannot be dismissed for that reason.
8. **Transparency.** The agenda should be published before the meeting; summary minutes, vote distribution and dissenting opinions within 30 days, with trade secrets redacted. Like the CHM, the board should publish an annual report including the list of members, declarations of interest and a breakdown of the opinions it has given.
9. **Capacity and remuneration.** Members should be paid an attendance fee covering the burden of reading and preparation; at the MHRA, commission members are paid a daily attendance fee. Protocols with universities should make it easier for faculty members to set aside time for this duty.
10. **External evaluation.** The functioning of the commission system should undergo an independent external evaluation every 3 years, and the result should be published.

Most of this model, items 4, 5, 6 and 8 in particular, can be implemented immediately by an internal directive, without waiting for legislative change.

Section 13. Why are pharmacovigilance data not published?

Adverse reaction reports made to TÜFAM by Turkish physicians and patients are sent to the global database (VigiBase) of the WHO Uppsala Monitoring Centre; in other words, Türkiye's data are opened to the world but do not return regularly, in Turkish, to Turkish physicians, pharmacists and patients (TİTCK Farmakovijilans Sistemi Kılavuzu). In a system where those who report never see the outcome, a reporting habit cannot develop.

Current situation

- How many reports are received each year, their distribution among physicians, pharmacists, patients and marketing authorisation holders, which active substances stand out and which signals have been assessed are not published as a regular, searchable public report.
- A large part of the safety measures taken in Türkiye are taken by following data generated in Europe or the US (Section 5, the nitrosamine example). There is no public example of a signal arising from national data and a decision based on it.
- The Turkish part of the periodic safety reports (PSUR/PBRER) submitted by marketing authorisation holders, and its assessment, are not disclosed.
- The invisibility of SmPC safety changes (Sections 2 and 11) is part of the same problem: information that changes as a result of a signal does not reach the physician.

Possible reasons

- **No legal obligation:** the legislation makes reporting mandatory but does not oblige the Agency to publish the data.
- **Concern that a low reporting rate will become visible:** published figures would show how little reporting takes place in Türkiye. Yet the first step to solving a problem is to measure and show it.
- **Company data treated as "trade secrets":** the approach seen in the freedom-of-information refusals in Sections 1 and 2 also applies to safety data. Publishing aggregated data while protecting personal data is not a trade secret; the EU and the US have been doing it for years.
- **Capacity:** the number of pharmacoepidemiologists and biostatisticians able to perform signal analysis is limited (Reform recommendations, item 8).

In other countries

- **EU:** since 2012 the EMA has published suspected adverse reaction reports received by EudraVigilance on the adrreports.eu portal, openly and by active substance; under the access policy adopted in 2015, line listings were made available to the public and extended data access to academia (EMA).
- **US:** the FDA publishes data from its adverse event reporting system (FAERS) on a public dashboard.
- **United Kingdom:** the MHRA publishes Yellow Card reports by active substance with interactive drug analysis profiles.

- All three systems state explicitly that the data are not proof of causality; publication does not eliminate the risk of misinterpretation, but it makes oversight possible.

Recommendations

1. An annual TÜFAM report: number of reports, source of reports, the most frequently reported active substances and reactions, signals assessed and measures taken.
2. A public portal, similar to adrreports.eu, presenting aggregated data by active substance in Turkish while protecting personal data.
3. Feedback of the outcome of the assessment to the reporting physician and pharmacist; monitoring of reporting rates by hospital and province.
4. Publication of a summary of the Turkish data in PSURs/PBRERs and of the Agency's assessment.
5. Announcement in Turkish, with dates, of EMA PRAC decisions and the related SmPC changes, stating the date of implementation in Türkiye.
6. Access to anonymised data for universities under a research protocol.

Section 14. Subcontracting in clinical research: is Türkiye a partner or a source of patients?

In a large proportion of the multicentre trials conducted in Türkiye, Türkiye is used not as a scientific country that is a partner in the design, data and publication of the research, but as a subcontractor recruiting patients for foreign pharmaceutical companies. In the cases I know of, Turkish investigators were not even aware that studies including their own patients had been published. The name for this is clear: it is selling patients to pharmaceutical companies.

Problem

- **What is marketed is the patient.** Türkiye is marketed in CRO promotional material with low cost, fast patient recruitment and a pool of treatment-naive patients (Section 6). What is sold is not scientific contribution but access to patients.
- **No rights to data or publication.** The protocol is written abroad, the data go to the sponsor's central database, and analysis and publication are in the sponsor's hands. The Turkish centre becomes an implementation site paid per patient.
- **Invisible contribution.** The absence of authors from Türkiye in many publications also means that the contribution of Turkish patients, and the safety findings seen in Turkish patients, remain invisible.
- **Türkiye-specific data do not come back.** Efficacy and safety subgroup results for Turkish patients are not regularly reported to TİTCK and to investigators; when the same medicine later seeks licensing and reimbursement in Türkiye, these data are not relied upon.

Evidence

- Of 302 publications arising from 173 industry-sponsored trials in breast, lung and colon cancer that included middle-income countries, 37% had no author from the middle-income countries that had recruited patients; two trials conducted only in middle-income countries are also in this group. First authorship was 14% and last authorship 13% (Payedimarri et al., Globalization and Health, 2025). Türkiye is one of the upper-middle-income countries in this group.
- In one third of phase 3 oncology trials published in 2014–2017 that were led by high-income countries and recruited patients from middle-income countries, there was no author at all from those countries; more than half of the trials did not even report patient numbers by country (Cancer, 2014–2017 cohort).
- The accepted principle for research partnerships is that local investigators take part in every stage of the process, from design to data ownership and authorship (TRUST Code of Conduct, Article 4).

International practice

- ICMJE authorship criteria and contribution statements; non-author contributions acknowledged by name.

- EU Clinical Trials Regulation 536/2014: publication of the results summary and lay summary in CTIS; results are accessible to all Member States in which the trial was conducted.
- When authorising a multinational trial, a national authority can make the reporting to it of the country's data and the publication plan a condition of authorisation; in Türkiye this can be achieved by an amendment to the Regulation on Clinical Trials.

Recommendations

1. A publication plan should be mandatory in clinical trial applications: the authorship rights under ICMJE criteria of the coordinating investigator in Türkiye, and access to the draft publication, should be guaranteed in writing in the contract.
2. The sponsor should notify TİTCK and Turkish centres when a publication is made; a publication made without the Turkish investigator's knowledge should be recorded in KAP and taken into account in the sponsor's subsequent applications.
3. For each multicentre trial, the number of patients recruited from Türkiye, the centres and a summary of safety and efficacy for Turkish patients should be reported to TİTCK and published in KAP.
4. Serious adverse events in Turkish patients should be reported separately and combined with TÜFAM data (Section 13).
5. Per-patient payments and the main provisions of site contracts should be visible to the ethics committee and TİTCK; payment should be made to the institution, not to the investigator (Section 6).
6. A company applying for licensing and reimbursement with data obtained by recruiting patients in Türkiye should be required to include the Turkish subgroup data in its dossier.

Reform recommendations

This section summarises the institutional framework on which the topic-specific recommendations of Sections 1–14 are to be built. Most recommendations can be launched from within the Agency with the approval of the Presidency; only a few items, such as the term of office, the personnel regime and institutional status, require change at the level of a law or a Presidential Decree. This distinction is indicated at the end of each item.

1. Governance and independence

- A fixed 5-year term for the president; written appointment criteria (regulatory experience, scientific standing, management, international experience) and written grounds for dismissal. (legislation)
- A "principles of regulatory independence" document defining the boundary between scientific decisions and health policy (pricing, reimbursement, localisation): licensing, GMP and safety decisions are taken solely on scientific evidence and are reasoned. (internal, with the agreement of the Ministry)
- A 5-year strategic plan unaffected by changes of president; an annual public progress report and presentation to an independent external advisory board. (internal)
- Application fee revenue may be directed to capacity; but since the FDA's PDUFA experience created a financial link between the regulator and industry, this revenue should not become the decisive item of the budget (FDA ve TİTCK Bağımsız mı?). (legislation)
- Transfer to TİTCK of the authority to approve and control health-related foods (food supplements, foods for special medical purposes, infant formulae, sports foods); general food safety remains with the Ministry of Agriculture and Forestry (Section 4). (legislation)
- Change of the Agency's name and mandate to reflect this transfer; for example, "Turkish Medicines, Medical Devices and Food Agency" (Türkiye İlaç, Tıbbi Cihaz ve Gıda Kurumu) (Section 4). (legislation)

2. Scientific commissions and conflicts of interest

- Commission members should be selected by open call and published scoring criteria; a fixed term (for example 3 years, renewable once) and conditions of dismissal should be defined. (internal)
- An annual declaration of interests similar to the EMA model: declarations published, a recusal rule applied for the relevant agenda item, exceptions recorded with reasons. (internal)
- Meeting agendas and reasoned summaries of decisions, including dissenting votes, should be published with trade secrets redacted. (internal)

3. Licensing timelines and patient access

- The 210 days should be counted from acceptance of the application; the scheduling list should be abolished or brought within the clock. (regulation)

- Median and 90th-percentile licensing times should be published quarterly by product group. (internal)
- A reliance-based abridged assessment for innovative products approved by the FDA, EMA, MHRA, PMDA or Health Canada; conditions specific to Türkiye to be examined separately. (regulation)
- A defined priority route for oncology, rare diseases and unmet need; but with explicit criteria against abuse of the "rare disease" exemption as has happened in the US (Nadir Hastalık Kılıfı Altında). (regulation)
- The shares of TİTCK and the SGK in the time patients wait for medicines should be measured separately so that the location of the bottleneck is beyond dispute. (inter-institutional)

4. Scientific quality and transparency of licensing

- A Public Assessment Report (similar to the EMA EPAR) for every new active substance, new combination and new formulation: evidence, bioequivalence data, dissenting views and reasons for the decision. (internal)
- Mandatory additional clinical and pharmacokinetic evidence for fixed-dose combinations and formulations licensed in Türkiye first in the world (TİTCK Nasıl Ruhsat Veriyor?). (regulation)
- The list of biowaivers and their reasons should be published (Copy Paste Ruhsatlar). (internal)

5. GMP and quality

- Annual GMP inspection statistics and anonymised summaries of non-compliance; publication of risk-based prioritisation criteria (Yurt Dışı GMP Denetimleri). (internal)
- GMP certificates may be issued on the basis of current inspection reports of PIC/S member authorities; inspector capacity should be directed to high-risk sites (especially API and sterile manufacturing in India and China). (regulation)
- Completion of the data integrity guideline to the level of PIC/S PI 041. (internal)

6. Pharmacovigilance, market surveillance and recalls

- In line with the 2024 Court of Accounts findings, a licence renewal alert system and a time-stamped recall tracking database integrated with the ITS (Sayıştay). (internal)
- Automatic monitoring of FDA, EMA and MHRA recall and safety announcements; a preliminary assessment for the same product in Türkiye within 72 hours. (internal)
- An annual report on adverse reaction reports and signal assessments; feedback to physicians and pharmacists. (internal)

7. Medical devices

- Separate expert staff in clinical evaluation and market surveillance units for implementing the MDR/IVDR-aligned legislation. (internal)
- Use of ÜTS data not only for registration but for analysis of adverse incidents and safety signals; a registry for high-risk implants. (internal)

- Publication of the audit results and suspension decisions concerning notified bodies. (internal)

8. Human resources

- A separate “regulatory science expert” cadre for assessors, inspectors and statisticians: competitive pay, a merit-based career ladder, a cooling-off period on moving to industry. (legislation)
- Joint appointments with universities and master’s-level training programmes in clinical pharmacology, biostatistics and pharmacoepidemiology. (internal)
- Regular participation in EMA, FDA and PIC/S training; written standard operating procedures and handover rules for institutional memory. (internal)

9. Digitalisation and data

- A single database covering the entire lifecycle of an authorisation (application, variation, renewal, suspension, revocation); digitisation of old authorisations. (internal)
- A searchable, machine-readable public database of licensed products, SmPCs/patient leaflets, authorisation dates and assessment reports. (internal)
- Guidance documents aligned with ICH and EMA guidelines on artificial intelligence, real-world data, and cell and gene therapies. (internal)

10. International alignment

- A dated roadmap for self-assessment with the WHO GBT and for a WLA application; public disclosure of the maturity level (ML). (internal)
- As required by ICH membership, publication of the timetable and status of implementation of ICH guidelines. (internal)
- Reliance and information-sharing agreements (confidentiality commitments) with the EMA and MHRA; participation in joint assessment initiatives such as the ACCESS Consortium. (internal)

11. Rational drug use and public information

- Rational drug use is achieved not through policing measures but through education and evidence-based practice; TİTCK should produce independent drug information together with faculties (Akılcı İlaç Kullanımı ve Türkiye). (internal)
- Reasoned, understandable public announcements for products whose authorisation has been suspended or revoked. (internal)

Prioritisation and roadmap

The steps of the first six months require no legislative change and focus on transparency; if trust is earned at this stage, it becomes easier to find support for the subsequent structural changes.

0–6 months: transparency and measurement (internal)

1. A first quarterly report on licensing timelines (including the waiting list) and GMP inspection statistics.
2. Screening of Turkish authorisations relying on bioequivalence sites declared invalid by the EMA, FDA and WHO in the last ten years (GVK, Semler, Micro Therapeutic, Synchron), and announcement of the result.
3. Compilation of the list of combinations and formulations licensed only in Türkiye.
4. Start of publication of scientific commission membership lists, declarations of interest and summaries of decisions; publication of SmPC changes with version history.
5. An action plan for the 2024 Court of Accounts findings: renewal alert system, recall tracking integrated with the ITS.
6. Launch of a risk-based market sampling programme (including screening for nitrosamines and undeclared active substances).
7. WHO GBT self-assessment and establishment of an external scientific advisory board (academia, physicians, pharmacists, patient representatives; industry without voting rights).
8. Issuance of an internal directive regulating the selection, term, declarations of interest and working procedure of the licensing commissions (Section 12).
9. Publication of TÜFAM's first annual pharmacovigilance report (Section 13).
10. Start of administrative requirement of a publication plan and of reporting of Turkish patient data in multicentre trial applications (Section 14).

6–18 months: process reform (regulation level)

1. Bioavailability and bioequivalence regulated again by a binding regulation; public bioequivalence summaries for generics.
2. A binding guideline on fixed-dose combinations; products without a reference placed under full/hybrid applications.
3. Public Assessment Reports made mandatory for new active substances and combinations.
4. The 210 days counted from submission; reliance-based licensing and GMP routes.
5. Establishment of an HTA unit within TİTCK and announcement of a cost-effectiveness threshold.
6. The rule of doubt for food supplements and registration with TİTCK of products that are in substance medicines.
7. KAP made a binding registry; bioequivalence studies brought within its scope.
8. An authorisation lifecycle database and a machine-readable public list of authorisations; a unit for medical device market surveillance and ÜTS signal analysis.

9. The commission structure regulated by regulation (Section 12).
10. A public pharmacovigilance portal by active substance (Section 13).
11. Mandatory publication plan, authorship guarantee and reporting of country data in the Regulation on Clinical Trials (Section 14).

18–36 months: institutional status (law / Presidential Decree level)

1. A fixed term for the president and written criteria for appointment and dismissal.
2. A separate personnel and pay regime for expert staff.
3. Establishment by law of an independent Health Technology Assessment Agency.
4. A statutory transparency database for industry payments (Sunshine Act-like).
5. The independent bioanalytical and quality verification laboratory reaching full capacity.
6. WHO WLA application; independent external evaluation and update of the strategic plan.
7. Transfer of health-related foods to TİTCK; additional staff and laboratory capacity together with the transfer.
8. Change of the Agency's name and mandate (for example, Turkish Medicines, Medical Devices and Food Agency).

Indicators of success

For most indicators there is no public value today; the first goal is to measure and publish them. The targets are proposals and should be finalised by the Agency after the first measurement.

Indicator	Today	36-month target
Share of new active substances and combinations with a Public Assessment Report, %	No such report is published	100
Share of new generics with a public bioequivalence summary, %	Not published	100
Time to re-evaluate authorisations relying on studies invalidated abroad, days	Not monitored	≤ 90
Share of combinations licensed only in Türkiye that have undergone scientific re-evaluation, %	No list	100
Annual market samples and number of products found out of specification	Not published	Annual report
Share of new reimbursement decisions with a published HTA report, %	No independent HTA report is published	100
Median licensing time from submission to decision (innovative products), days	Not published; 655+ reported in oncology	≤ 210
Share of new medicines approved in the EU that are publicly accessible in Türkiye, %	4 (EFPIA 2024)	Approaching the EU average (43)
Share of clinical trials with results summary published within 12 months, %	Not measured	≥ 90
Share of commission members with published declarations of interest, %	Not published	100
TÜFAM annual report and public pharmacovigilance portal	None	Annual report and portal
Share of multicentre trials reporting Turkish patient data to TİTCK, %	Not measured	100
Time from recall decision to public announcement, days	Up to 38 days in 2023	≤ 2
Presidential term of office, years	2012–2026 average under 2	Fixed 5-year term
WHO WLA status	None	Application submitted

References

The author's previous articles (klinikfarmakoloji.com; titles in Turkish, with English translations)

- Türkiye'de Biyoeşdeğerlik: Bilimsel Güvence mi, İdari Formalite mi? [Bioequivalence in Türkiye: Scientific Assurance or Administrative Formality?], July 2026 (English version available)
- Açık Mektup: Sabit Doz Kombinasyonlarda Ruhsatlandırma [Open Letter: Licensing of Fixed-Dose Combinations], July 2026
- Türkiye'de İlaçta Kalite [Medicine Quality in Türkiye], July 2026
- Türkiye Hangi Kalitede İlaç Kullanıyor? [What Quality of Medicines Does Türkiye Use?], July 2026
- İlaçta Kalite Nedir? Dünyada ve Türkiye'de Durum [What Is Medicine Quality? The Situation Worldwide and in Türkiye], January 2026
- TİTCK'de Başkanlar Değişiyor... Peki Kurum Nereye Gidiyor? [Presidents Change at TİTCK... But Where Is the Agency Going?], July 2026
- FDA ve TİTCK Gerçekten Bağımsız mı? [Are the FDA and TİTCK Really Independent?], April 2026
- Türkiye'de İthal İlaçlara Yönelik Yurt Dışı GMP Denetimleri [Foreign GMP Inspections for Imported Medicines in Türkiye], August 2026
- Copy Paste Ruhsatlar ve TİTCK [Copy-Paste Licences and TİTCK], August 2026
- Farmakoekonomi 101 [Pharmacoeconomics 101], October 2025
- SGK Her İlacı Ödemeli mi? [Should the SGK Pay for Every Medicine?], August 2025
- İlaç Fiyatları: AR-GE ve Değere Dayalı Fiyatlandırma [Drug Prices: R&D and Value-Based Pricing], November 2025
- Gıda Takviyeleri Deva mı, Soygun mu? [Food Supplements: Remedy or Robbery?], July 2026
- Bitkisel Ürünler Güvenli mi? [Are Herbal Products Safe?], November 2026
- Klinik Araştırmalarda Şeffaflık: Türkiye Nerede? [Transparency in Clinical Trials: Where Does Türkiye Stand?], July 2026
- Kanser ve Nadir Hastalıklarda Faz 1 Çalışmaları [Phase 1 Studies in Cancer and Rare Diseases], May 2026
- Tıbbi Araştırmalarda Çocuklar [Children in Medical Research], November 2026
- İlaç Araştırmalarında Kişiler Gönüllü mü, Denek mi? [Are People in Drug Research Volunteers or Subjects?], November 2026
- Benzeri Olmayan Analjezik: Metamizol (Novalgin) [An Analgesic Without Equal: Metamizole (Novalgin)], October 2026
- İlaç Tekeli Nasıl Uzatılıyor? Keytruda Örneği [How Drug Monopolies Are Extended: The Keytruda Example], August 2026
- Suçun Bedeli mi, Suç İşleme Ruhsatının Ücreti mi? [The Price of the Crime, or the Fee for a Licence to Commit It?], September 2026

- Sanayiyi Koruyan, Eczacıyı Görmeyen Kararname [A Decree That Protects Industry and Ignores Pharmacists], September 2026
- Vurdum Duymazlar [The Thick-Skinned], 2008 (2026 update)
- Yenilikçi İlaç Endüstrisinin Hesap Verebilirliği [Accountability of the Innovative Pharmaceutical Industry], 2026
- Nadir Hastalık Kılıfı Altında: Orphan Drug İstisnasının İstismarı [Under the Cover of Rare Disease: Abuse of the Orphan Drug Exemption], August 2026
- Gizli İlaç Sözleşmeleri [Confidential Drug Agreements], September 2026
- Rekabet Kurulu Raporu: Bağımsız Bir İnceleme mi? [The Competition Board Report: An Independent Review?], August 2026
- AIFD'nin "Yenilikçi İlaçlara Erişemiyoruz" Söylemi [AIFD's "We Cannot Access Innovative Medicines" Narrative], August 2026
- "Yerli İlaç Üretimi" Söylemi: Beyanatlar ve Gerçekler [The "Domestic Drug Production" Narrative: Statements and Facts], August 2026
- Reçeteli/Ruhsatlı Etkisiz İlaçlar [Prescribed/Licensed Ineffective Medicines], September 2024
- TİTCK Nasıl Ruhsat Veriyor? [How Does TİTCK Grant Licences?], September 2014; Kodeinli NSAİİ'lerin Ruhsatlarının İptali İstendi [Revocation of Licences of Codeine-Containing NSAIDs Requested], October 2014; KÜB Değişiklikleri Saklanıyor [SmPC Changes Are Being Concealed], October 2014
- İlaç Firmaları-Doktor İlişkileri [Pharmaceutical Company–Physician Relations], March 2013; Akılcı İlaç Kullanımı ve Türkiye [Rational Drug Use and Türkiye], December 2013
- All articles on TİTCK (120 results): klinikfarmakoloji.com search

Official and international sources

- Court of Accounts (Sayıştay), TİTCK 2024 Audit Report, September 2025
- TİTCK Scheduling Guideline, 2024
- EFPIA Patients W.A.I.T. Indicator 2024
- WHO: Australia and Indonesia achieve WLA status, December 2025
- WHO: New WLA designations, August 2025
- GAO-26-107877, FDA advisory committees and conflicts of interest, 2026
- EMA, CHMP members and procedure for appointing rapporteurs; FDA, guidance on conflicts of interest in advisory committees; MHRA, CHM membership, minutes and Annual Report 2024
- TİTCK Pharmacovigilance System Guideline; EMA, adrreports.eu and EudraVigilance access policy
- Payedimarri et al., Globalization and Health, 2025 (doi:10.1186/s12992-025-01167-8)

Legal, industry and press sources

- Hukukçular Evi: 210 days, clock stops and scheduling
- The Pharma Letter: Turkish cancer patients unable to access new drugs on time

- Esin Avukatlık: Turkey becomes PIC/S member, October 2017
- Daily Sabah: Turkey's drug agency becomes ICH regulatory member, June 2020
- Legal 500: TİTCK medical device regulations aligned with the EU, 2024
- Medikal Akademi: AIFD, access to innovative products 15%, December 2022
- Yeni Şafak / Memurlar.net: İlaca neşter geliyor [The scalpel comes to medicines], February 2018