

Turing Pharmaceuticals: Daraprim pricing and the exclusion of generic competition

Research checked: 9 September 2026. Publication date: 9 September 2026. New research edition.

1. Executive assessment and corporate identity

Turing Pharmaceuticals, later known as Vyera Pharmaceuticals, is a documented pharmaceutical competition case. The most important finding is not simply that a medicine became expensive. A federal district court determined after trial that Martin Shkreli orchestrated unlawful conduct to protect Daraprim from generic competition. Its January 2022 opinion imposed a lifetime pharmaceutical-industry ban and \$64.6 million in disgorgement. The judgment survived appeal, and the Supreme Court declined review in October 2024.^{1,4}

The company and its former executive must be distinguished. Vyera and parent Phoenixus resolved the government case separately, while Shkreli proceeded to trial. The state attorney general describes their settlement as requiring the company to pay up to \$40 million and restricting former executive Kevin Mulleady's industry participation for seven years.⁴ A settlement obligation, a litigated judgment, and money actually distributed are different facts. This report does not add these headline sums together as though they were independent, fully collected recoveries.

Daraprim is the brand name for pyrimethamine. The dispute concerned U.S. rights to a longstanding medicine, rather than a newly invented active ingredient whose launch price reflected a newly completed development program. The district court found that the U.S. acquisition closed in August 2015 for \$55 million and that the wholesale acquisition cost rose from \$17.60 to \$750 per tablet days later.¹ These are historical U.S. list prices, not every patient's expense and not September 2026 pharmacy quotations.

The corporate name also needs historical labeling. Bankruptcy records establish that Vyera and Phoenixus filed Chapter 11 petitions in May 2023.⁵ It would be misleading to present “Turing” as an unchanged, currently expanding operating company under Shkreli's management. This report follows the historical conduct, subsequent remedies, and later corporate proceedings. Current product materials identify Tilde Sciences as the distributor, while the full intervening asset-transfer chain remains outside this review.^{8,9}

The assessment is supported by a detailed judicial opinion, FDA approval records, official appellate-status reporting, and bankruptcy and settlement filings. Together they demonstrate how restrictions on distribution and ingredient supply can delay competition even for an older medicine. They also show why strong criticism should remain precise: Shkreli's separate criminal securities-fraud conviction involved hedge funds and Retrophin, not a criminal verdict that setting Daraprim's price at \$750 was itself the charged offense.³ Maintaining that distinction improves the explanation of what antitrust enforcement actually established.

2. Historical sequence and the regulatory pathway

Daraprim passed through earlier owners before Vyera acquired its U.S. rights. The court recounts prior price increases and identifies the August 11, 2015 effective date of Vyera's \$750 wholesale acquisition cost. The transaction preceded the price increase by only days.¹ The sequence matters because the case concerns the preservation of an acquired product's monopoly position, rather than patent protection newly awarded for an invention by Turing.

Generic entry required more than the expiration of patent barriers. Developers needed suitable active pharmaceutical ingredient, sufficient samples of the reference medicine for required testing, and regulatory approval. The court describes the role of bioequivalence testing and retention of samples from appropriate manufacturing lots. Controlling access to these inputs could therefore interrupt a competitor's development timetable before FDA could assess a completed application.¹

The government sued in January 2020. The company's settlement and Shkreli's trial followed in 2021, with the trial opinion issued in January 2022. The later appellate record is important: the court of appeals affirmed the judgment in January 2024, and the Supreme Court's refusal to hear the appeal in October left it in place.⁴ A current report should not continue describing the antitrust claims as wholly untested allegations, or conversely imply that Supreme Court denial of review was a new trial on the facts.

Date	Event	Evidentiary significance
August 2015	U.S. rights acquired; list price increased	Acquisition and pricing chronology
February 26, 2020	FDA approved first generic pyrimethamine tablets	Approval date, distinct from launch
January 2022	Trial opinion against Shkreli	Findings, ban, disgorgement
May 9, 2023	Vyera and Phoenixus bankruptcy petitions	Later corporate proceedings
October 7, 2024	Supreme Court declined review	Judgment remained in force

FDA's first-generic list identifies Cerovene's 25 mg pyrimethamine tablets and the February 26 approval date.² The district court describes market entry in March 2020.¹ These are compatible events: regulatory approval and commercial launch do not have to occur on the same day.

The timing also prevents a mistaken causal narrative. Generic entry preceded the 2022 judgment, so the judgment did not itself create the first generic competitor. The lawsuit addressed earlier exclusion and sought remedies to prevent recurrence and recover unlawful gains. An enforcement action can be valuable after competition begins, but its contribution must be described according to the sequence that actually occurred.

3. The exclusionary conduct and the court's findings

The judicial record identifies two connected restrictions. First, Vyera tightly controlled distribution of the finished drug. Limits on eligible customers and bottle quantities, monitoring of distributors, and attempts to prevent supplies from reaching generic developers impeded access to reference samples. Second, exclusive arrangements restricted access to important suppliers of pyrimethamine, the active ingredient.¹ These were complementary barriers: obtaining one necessary input did not solve the problem if the other remained unavailable.

The court examined actual efforts by generic developers rather than relying only on a theoretical concern. It described difficulties encountered by Cerovene, Dr. Reddy's, Fera, and others when trying to procure ingredient or reference product. The evidence included contracts, communications, testimony, and development timelines. The opinion concluded that the challenged arrangements delayed entry and rejected asserted competitive justifications.¹

Shkreli argued that specialty distribution could assist patients and that exclusive ingredient arrangements could protect supply. The court found that the evidence did not justify the restrictions in this case. In particular, it contrasted provisions that genuinely manage supply risk with contracts focused on excluding rivals.¹ This does not establish that every specialty-pharmacy arrangement or exclusive supply agreement is unlawful. The conclusion depends on the design, purpose, effect, and evidence surrounding these particular arrangements.

The distinction is valuable for readers unfamiliar with pharmaceutical markets. A medicine can remain technically available to some patients while competitors cannot buy the quantities required for testing. A manufacturer can describe a distribution policy as an access service while that policy also limits entry. Evaluating such a policy requires examining its practical operation, including whether the claimed patient service actually explains the restrictions.

The monetary remedy likewise had a specific basis. The court adopted an economic model estimating excess profits from delayed competition, using actual revenues, counterfactual entry assumptions, and avoided costs. The resulting \$64.6 million was an estimate adopted for disgorgement, not a census of patient injuries or the entire revenue from Daraprim. The opinion provided for a reduction in Shkreli's obligation for amounts paid by settling defendants.¹

These are findings after trial against Shkreli, unlike the separate corporate settlement. The report therefore uses “the court found” for the conduct established in the opinion and “agreed” for settlement terms. It does not treat a settlement as an admission unless the underlying source establishes one. This approach permits a clear finding of unlawful exclusion while preserving the legal differences among the company, its parent, and the individuals involved.

4. Price, volume, and access: what the numbers measure

The district court provides a reproducible historical price comparison. Its figures show wholesale acquisition cost increasing from \$17.60 to \$750 for one tablet in August 2015. Dividing the new figure by the old produces approximately 42.61 times the original price; subtracting one and multiplying by 100 gives an increase of approximately 4,161%.¹ This report uses the trial opinion's baseline. Some government summaries use \$17.50, and widely repeated accounts use other baselines. Mixing these values would generate inconsistent percentages.

Measure	Historical value	Interpretation
Pre-increase WAC	\$17.60 per tablet	U.S. list-price baseline in opinion
New WAC, August 2015	\$750 per tablet	U.S. list price, not universal copay
Calculated increase	About 4,161%	$(750 / 17.60 - 1) \times 100$
Average net price, roughly 2016-2019	\$228-\$305 per tablet	After specified discounts and rebates
Court-adopted excess profits	\$64.6 million	Disgorgement model, not injury count

All source values are from the court opinion; the percentage is this report's calculation. A separate supporting data file records the inputs and formula. The net-price range demonstrates that the manufacturer did not realize \$750 on every tablet. It does not negate the price increase or the exclusionary conduct. List prices and net receipts answer different questions, and neither alone establishes the amount an individual patient paid.

The court also reported a 66% decline in sales volume when comparing the nine-month periods before and after the increase.¹ This is a serious access signal, but it is not equivalent to saying that 66% of patients went untreated. Unit sales can be affected by inventory, distribution, alternative treatment, and other factors. The opinion's clinical testimony and evidence of distribution difficulties add context; this report does not infer a count of avoidable deaths from sales data.

A full access evaluation would examine time to obtain treatment, rejected or abandoned prescriptions, hospital acquisition decisions, and out-of-pocket costs under different insurance arrangements. Financial assistance can reduce costs for eligible people while leaving administrative burdens or systemwide spending in place. Neither a high list price nor the existence of assistance alone establishes the complete access experience.

The historical causal conclusion is nevertheless substantial because it rests on evidence beyond prices: the court found that the restrictions delayed generic competition. The report's quantitative analysis helps explain the scale and mechanism of the conduct. It should not be repurposed as a current price guide, an estimate of every patient's costs, or a recommendation about which medicine to use.

5. Remedies, later proceedings, and present-day limits

The principal antitrust judgment survived appellate review. The New York attorney general's October 2024 statement confirms that the Supreme Court declined to hear Shkreli's appeal, leaving the lifetime ban and \$64.6 million disgorgement judgment in place.⁴ The same source describes the separate company settlement and Mulleady restriction. These are consequential remedies, but the report has not verified a final ledger showing the collection and distribution of every dollar owed under them.

Other legal proceedings must not be merged into that judgment. DOJ's March 2018 sentencing announcement describes Shkreli's securities-fraud convictions involving MSMB hedge funds and Retrophin. It reports a seven-year prison sentence following his August 2017 conviction.³ That is a historical sentencing fact, not a statement about current custody. It is also not the disposition of the Daraprim antitrust suit, which was civil and produced different remedies years later.

The later corporate history includes Chapter 11. An October 2023 bankruptcy-court order approved an agreement involving Vyera, Phoenixus, Cerovene, and Dr. Reddy's; the attached agreement records May 9, 2023 bankruptcy petitions.⁵ This confirms a material break from the acquisition-era business. The present report does not independently trace every asset sale, remaining corporate entity, or trademark transfer. However, Daraprim Direct's current patient site is operated by Tilde Sciences LLC, and its linked prescribing information identifies Tilde as distributor. This establishes a current named commercial contact without establishing the complete ownership or liability-transfer chain.^{8,9}

A separate November 2024 filing by third-party-payer settlement counsel sought authorization to distribute a net settlement fund. It reported a fund balance of approximately \$7.14 million as of October 3, 2024 and described the effect of bankruptcy proceedings on the settlement arrangements.⁶ That is evidence of funds held and a requested distribution at a stated date. It is not evidence that each eligible payer received a particular payment, nor that the fund equals the government's disgorgement recovery.

The product market also changed. FDA records establish first generic approval in 2020, and a Teva U.S. product page reviewed in September 2026 lists 25 mg pyrimethamine tablets with an AB therapeutic-equivalence rating.^{2,7} A manufacturer listing supports the existence of a marketed product listing; it does not confirm stock at every pharmacy, a particular transaction price, or uninterrupted nationwide supply.

The current account therefore has three strands: an established antitrust judgment, subsequent corporate and settlement administration, and a market in which generic products have entered. An accurate update needs all three. Retelling only the 2015 price increase would miss the remedies and entry; declaring that generic approval solved every access issue would go beyond the evidence.

6. Implications and research boundaries

This case illustrates how competition can be constrained outside patent litigation. Control of distribution and critical supply relationships can affect whether another manufacturer can assemble the evidence required for approval. The implication for pharmaceutical oversight is to examine the entire route to market: reference-product access, ingredient supply, regulatory submissions, launch capability, and purchaser response. Looking only for an unexpired patent would have missed the conduct established here.

The individual remedy also matters. The court treated Shkreli's continuing role and responsibility as sufficient to support an industry ban and monetary liability. The result demonstrates that executive accountability can extend beyond a company settlement. It does not mean that any executive associated with a high-priced drug is automatically liable; the record here included detailed findings concerning participation in a particular unlawful scheme.

The method prioritized the trial opinion for facts, legal reasoning, economic analysis, and disposition. FDA records supplied approval dates. DOJ supplied the distinct criminal-case history. Official state reporting updated appellate status, while filed bankruptcy and settlement documents established later proceedings. A current manufacturer listing provided a narrow check on the changed product landscape. Nine primary sources were read for the claims used. No anonymous commentary or search snippet is the sole basis for a central finding.

The price calculation is intentionally modest. It uses two dated WAC values from the same judicial source and an explicit arithmetic formula. It does not blend U.S. and international prices, compare a tablet with an entire course, or treat the gross list price as a net receipt. The net-price range is reported as a range rather than converted into an invented annual series.

Important gaps remain. The research did not inspect a complete September 2026 bankruptcy docket, reconstruct the full brand-ownership transfer chain, reconstruct all recovery payments, or conduct a patient-outcome study. Final distribution records and documented changes in supply or ownership would help address those gaps. The original settlement headline is not proof of full compensation.

The supported conclusion is that the Daraprim episode involved a sharply increased historical list price protected by exclusionary conduct that a court found unlawful. The legal and economic evidence is strong enough to explain that mechanism without relying on celebrity, insults, or an inaccurate account of Shkreli's criminal conviction. The report preserves the distinction between serious established conduct, separate proceedings, and unresolved present-day details so that readers can assess both accountability and the remaining access questions.

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