

Predictiveness and Utility of the **RISC Rating System**™

in identifying supply chain risks
and preventing drug shortages.

July 2023



RISCS Highlights



Founded in 2019



First ratings issued in Q1 2021



Ratings for over 100 products published on
RISCratings.com



Over a dozen pharmaceutical manufacturers
participating



Representing >50% of the US generic injectables market,
including 5 of the top 8 manufacturers

About Us

RISCS is a nonprofit rating and certification organization with a mission to prevent drug shortages.

*Our **RISC Rating System™** evaluates the resilience of pharmaceutical supply chains and helps drug purchasers to identify the manufacturers that are investing in their supply chains.*

Similar to how credit rating agencies like Standard & Poor's and Moody's evaluate risk in the financial industry, we evaluate risk in drug supply chains. Ultimately, the goal of RISCS is to incentivize manufacturers to increase the robustness of their supply chains and ability to respond to disruptions.

Over a dozen pharmaceutical manufacturers have provided confidential supply chain data to us since 2020 in the areas of raw materials, fill-finish manufacturing capabilities, and inventory practices. We have evaluated these metrics, many of which we believe have never been disclosed by manufacturers previously, to publish supply chain resilience **RISC Ratings™** for over 100 products on [RISCratings.com](https://risccratings.com).

We have been highly cited in publications from organizations such as [Brookings](#), [The Atlantic](#), and [ProMarket](#) as a promising solution to the drug shortage crisis. In 2022, we announced a [pilot program with Vizient](#) to provide supply chain resilience insights to inform pharmacy contracting decisions. We are also grateful to our many other partners including HealthTrust and other GPOs, wholesalers, and manufacturers.



Predictiveness

The RISC Rating System™ has already been predictive of drug shortages.

To evaluate the predictiveness of the **RISC Rating System™**, RISC analyzed ASHP Drug Shortage List data from 2021 through Q2 2023 that was provided to us by ASHP (American Society for Health-System Pharmacists) and the University of Utah Drug Information Service.



	Total	Platinum	Gold	Silver	Certified
NDCS NOT ON ASHP DRUG SHORTAGE LIST WHEN RISC RATING™ ISSUED	44	2	9	20	13
OF THESE NDCS, HOW MANY LATER WENT INTO SHORTAGE?	7	0	0	3	4
%	16%	0%	0%	15%	31%

Of the 44 NDCs not in shortage when the rating was issued:

The average score for the NDCs that later went into shortage was **39% lower*** than the average scores for NDCs that did not go into shortage

0 Platinum or Gold rated NDCs later went into shortage

The RISC Rating System™ is designed to be predictive of shortages over a time horizon of several years, providing manufacturers with sufficient time to take real preventive steps such as qualifying new raw material suppliers, modernizing equipment, and adding additional manufacturing capacity. We look forward to continually measuring and improving the RISC Rating System™.

* Since the lowest RISC Rating™ is 45 points out of 100, 45 points are subtracted from each RISC Rating™ in this analysis.

Utility

The RISC Rating System™ has high utility for drug contracting and purchasing decisions, as demonstrated in recently completed pilots with several of the largest group purchasing organizations and wholesalers in the US.

***Predicting drug shortages alone isn't enough.** Tools with high utility must also drive actionable insights.*

*The RISC Rating System™ evaluates **controllable actions** that manufacturers can take to improve the resilience of their supply chains and is designed to be **embedded into day-to-day pharmacy contracting and purchasing decisions**. By evaluating supply chain resilience at the NDC-level, RISC Ratings™ can help to answer questions in use cases such as:*



CONTRACTING

I work in a GPO pharmacy contracting department and am deciding which supplier of phenylephrine 10 mg/1 mL vials to put on our GPO contract.

For phenylephrine 10 mg/1 mL vials, which manufacturer should I sign a long-term committed contract with due to their commitment to reliable supply?



PURCHASING

I am a health system Director of Pharmacy.

How do I help my pharmacy buying team to identify reliable suppliers? Should we buy phenylephrine 10 mg/1 mL vials through a committed contracting model to help mitigate and prevent the impact of future shortages?

The RISC Rating System™

The RISC Rating System™ is the first and only platform that uses non-public manufacturer-reported data to provide robust supply chain analytics at the NDC level.

3 Key Score Categories



Form the RISC Rating™



Sample NDC-level RISC Rating System™ analytics from a GPO pilot.

			Raw Materials Score	Fill-Finish Score	Inventory Practices Score	RISC Rating Score	Rating
1	xxxxx-xxxx-xx	10 mg/1 mL	16 / 25	19 / 31	38 / 43	73	Silver
1	xxxxx-xxxx-xx	50 mg/5 mL	15 / 25	23 / 31	38 / 43	76	Gold
1	xxxxx-xxxx-xx	100 mg/10 mL	15 / 25	23 / 31	37 / 43	76	Gold
2	xxxxx-xxxx-xx	10 mg/1 mL	12 / 25	18 / 31	38 / 43	68	Silver
2	xxxxx-xxxx-xx	50 mg/5 mL	12 / 25	18 / 31	38 / 43	68	Silver
2	xxxxx-xxxx-xx	100 mg/10 mL	12 / 25	18 / 31	38 / 43	68	Silver
3	xxxxx-xxxx-xx	10 mg/1 mL	11 / 25	6 / 31	34 / 43	51	Certified
3	xxxxx-xxxx-xx	50 mg/5 mL	11 / 25	6 / 31	41 / 43	59	Certified
3	xxxxx-xxxx-xx	100 mg/10 mL	11 / 25	6 / 31	41 / 43	59	Certified

How the RISC Rating System™ works, including sample metrics

Pharmaceutical manufacturers provide **confidential supply chain data** to us in the areas of raw materials, fill-finish manufacturing capabilities, and inventory practices. Many of these metrics we believe have never been disclosed by manufacturers previously. We then issue **standardized, easy-to-understand, easy-to communicate** supply chain resilience **RISC Ratings™** at the NDC level.



RAW MATERIALS

- Number of Approved Suppliers
- Number of Approved Manufacturing Locations
- Number of Components Unique to this NDC
- Raw Materials Shelf Life



FILL-FINISH

- Number of Approved Manufacturing Locations
- Number of Approved Manufacturing Lines
- Line Utilization %



INVENTORY PRACTICES

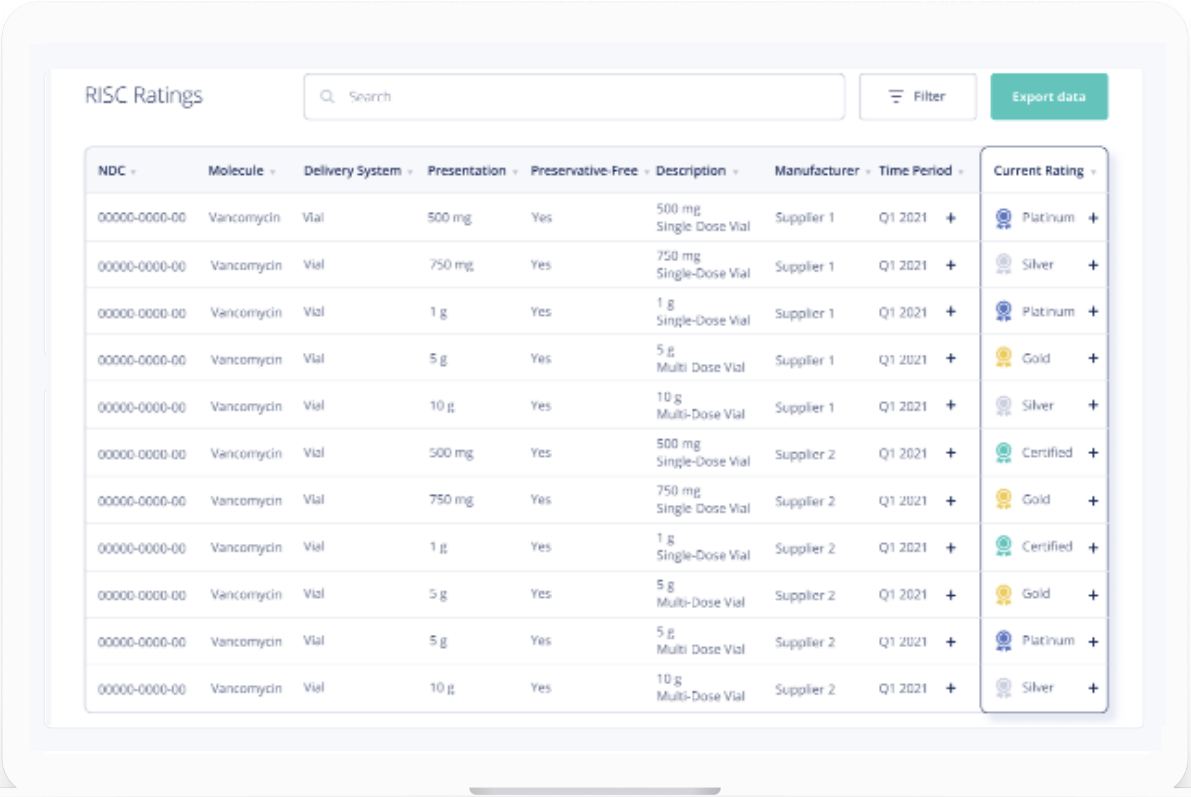
- Finished Goods Shelf Life
- Safety Stock as % of Historical Demand
- Number of Days on Backorder in the Past Year
- Average Backorders as % of Historical Demand
- Average Days from Order Placement to Fulfillment

In addition to these confidential metrics, the **RISC Rating System™** also overlays metrics such as FDA Site Statuses, Warning Letters, 483s, Geopolitical Risks, and Location Differentiation Risks from publicly available data sources.

The RISC Rating System™

RISC Ratings™ are published on a quarterly basis.

Create a free account on RISCratings.com today to view the ratings.



The screenshot displays the RISCratings.com web application. At the top, there is a search bar labeled 'Search', a 'Filter' button, and an 'Export data' button. Below these is a table titled 'RISC Ratings' with the following columns: NDC, Molecule, Delivery System, Presentation, Preservative-Free, Description, Manufacturer, Time Period, and Current Rating. The table lists 12 entries for Vancomycin, categorized by NDC, presentation (500 mg, 750 mg, 1 g, 5 g, 10 g Single-Dose Vial and 5 g, 10 g Multi-Dose Vial), and manufacturer (Supplier 1 and Supplier 2). The 'Current Rating' column shows Platinum, Silver, Gold, and Certified ratings, each with a plus sign to expand details.

NDC	Molecule	Delivery System	Presentation	Preservative-Free	Description	Manufacturer	Time Period	Current Rating
00000-0000-00	Vancomycin	Vial	500 mg	Yes	500 mg Single Dose Vial	Supplier 1	Q1 2021 +	Platinum +
00000-0000-00	Vancomycin	Vial	750 mg	Yes	750 mg Single-Dose Vial	Supplier 1	Q1 2021 +	Silver +
00000-0000-00	Vancomycin	Vial	1 g	Yes	1 g Single-Dose Vial	Supplier 1	Q1 2021 +	Platinum +
00000-0000-00	Vancomycin	Vial	5 g	Yes	5 g Multi Dose Vial	Supplier 1	Q1 2021 +	Gold +
00000-0000-00	Vancomycin	Vial	10 g	Yes	10 g Multi-Dose Vial	Supplier 1	Q1 2021 +	Silver +
00000-0000-00	Vancomycin	Vial	500 mg	Yes	500 mg Single-Dose Vial	Supplier 2	Q1 2021 +	Certified +
00000-0000-00	Vancomycin	Vial	750 mg	Yes	750 mg Single Dose Vial	Supplier 2	Q1 2021 +	Gold +
00000-0000-00	Vancomycin	Vial	1 g	Yes	1 g Single-Dose Vial	Supplier 2	Q1 2021 +	Certified +
00000-0000-00	Vancomycin	Vial	5 g	Yes	5 g Multi-Dose Vial	Supplier 2	Q1 2021 +	Gold +
00000-0000-00	Vancomycin	Vial	5 g	Yes	5 g Multi Dose Vial	Supplier 2	Q1 2021 +	Platinum +
00000-0000-00	Vancomycin	Vial	10 g	Yes	10 g Multi-Dose Vial	Supplier 2	Q1 2021 +	Silver +

Next Steps

We need to scale our efforts.

Pharmaceutical manufacturers. Reach out to us to receive free RISC Ratings™ evaluations.

Group purchasing organizations and wholesalers. Reach out to us to schedule your next RFP process to include a RISC Rating evaluation.

Health systems. Register for an info session on [RISCratings.com](https://riscratings.com). Reach out to your GPO and wholesaler to inquire about how they are using RISC Ratings™ to help ensure a stable supply of essential medicines.

Create a free account today!

[RISCratings.com](https://riscratings.com)

Contact Us:

info@riscratings.com

*We look forward to continually measuring and improving the **RISC Rating System™**.*

Be on the lookout for future additions and refinements to this white paper.

