Challenges and Opportunities for China-US Healthcare Industry Under the Impact of Reciprocal Tariffs: Analysis of Impacts and Countermeasures

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Abstract. This paper studies the special impacts of the new policy of the April 2025 Chinese and US counter tariff and find solutions. First, it analyzes the connotation and policy evolution of reciprocal tariffs, interprets the core content of the April 2025 policy, defines exempt and non-exempt categories in the healthcare industry, and examines the focal points of trade disputes. Then, from the perspectives of pharmaceuticals, medical devices, and healthcare services, it explores the impacts on China's API (Active Pharmaceutical Ingredients) industry, the US pharmaceutical market, China's medical device exports and supply chain, as well as hospital costs and patients' financial burden. Finally, it proposes countermeasures from the industrial, hospital, and government levels. The conclusion shows that tariffs have disrupted the trade balance: China's low- and mid-end API sector has been hit while its high-end sector has made breakthroughs, and the US faces unstable pharmaceutical supply; thus, coordinated responses from the three parties are required. In the short term, tariff negotiations between China and the US may continue; in the long term, the industrial chain will be restructured, and China and the US need to explore cooperation. Future research can focus on the long-term impacts of tariffs.

Keywords: Reciprocal tariffs, China-US healthcare industry, medical devices, supply chain, 2025 tariff new policy.

1. Introduction

In recent years, trade tensions between China and the United States have kept growing. The healthcare industry, which is an important part of the global industrial chain, has become one of the main areas affected by tariffs. In April 2025, the US government raised tariffs again on medical products from China. For some types of active pharmaceutical ingredients (APIs), the total tariff rate became very high. In response, China placed similar tariffs on medical equipment and key components from the United States [1].

This policy changed the previous balance of healthcare trade between the two countries. China is the world's largest API supplier, accounting for over half of the global market. The US is a large exporter of advanced medical devices. the two countries' healthcare industries are closely related, but now there is a policy conflict. Because of this, it is important to learn about the tariffs from all sides and looking for ways to reduce some of the threats and keep stability on the healthcare supply chain [1].

It is able to solve the research gap of which tariff policy of 2025 would impact the healthcare sector of US-China. It also adds to what we know about how trade policies among countries affect health care. Research gives blueprints of avoidance for Chinese API and medical equipment companies, and it also gives advice for hospitals to improve themselves and the data for the government to make plans on their policies [2, 3].

Earlier studies have studied the previous studies: Hufbauer at Peterson Institue for International Economics used gravity model to find out that US medical equipment imports cost has been raised. However, his study does not consider the effects of the 2025 tariff policies [4]. Wang from the Boston Consulting Group said that multinational healthcare companies face a "speed versus quality" problem

when restructuring their supply chains, but he did not fully discuss how Chinese companies might replace foreign suppliers [5].

The 2024 China Pharmaceutical Foreign Trade Development Report from the China Chamber of Commerce for Import and Export of Medicines and Health Products listed the amount of Chinese API exports to the US in 2024 but did not analyze the risk of order loss after tariffs increased [6]. Ma from Shanghai Jiao Tong University said that higher tariffs might cause drug shortages in the United States, but his research did not include real data from hospitals [3].

2. Overview of Reciprocal Tariffs and China-US Healthcare Trade

2.1. Meaning and Development of Reciprocal Tariffs

2.1.1. Development of tariff policies during trade frictions

Since 2018, trade tensions between China and the United States have kept increasing. The United States started the "Section 301 Investigation" against China under the Trade Act of 1974 and placed tariffs on many Chinese products. China similarly took such action, and this resulted in cycles of "toll increases and counteractions".

In 2022, the US started to combine the tariffs policy with the industrial policy like inflation reduction act, chips and science act. In April 2024, The US launches yet again "Section 301 investigation" at China's Shipping, Logistics and Related Industries. It shows that the US will continue down the road of unilateral trade protectionism [7].

These trade frictions caused slow growth in world trade, and the international financial market had problems too. And investor confidence is lower as well. China responded by raising tariffs, applying export controls, and adding several US companies to the "Unreliable Entity List". These actions led to four major rounds of policy confrontation.

These trade frictions slowed global trade growth and made the international financial market unstable. They also lowered investor confidence. At the same time, they disrupted the global industrial and supply chains, forcing many multinational companies to reconsider their global business layouts [7].

2.1.2. Main content of the April 2025 China-US reciprocal tariff policy

In April 2025, the US government changed tariff rates on Chinese products three times within ten days. It set a "minimum benchmark tariff" and introduced "reciprocal tariffs" only for China. The tariff rate was much higher than the one applied to other trade partners, such as the European Union and Japan. Later, the US raised tariffs twice more, reaching the highest level since trade frictions began [1].

China reacted by raising tariffs on all products imported from the US and filing a complaint with the World Trade Organization (WTO). Official documents showed that the healthcare industry was one of the main sectors affected. Medical supplies, dressings, medical equipment and its pieces were all included in the tariff list. Just some APIs and finished medicines got emergency exceptions.

This selective exempted showed that the USA was trying to keep pressure on China but wanted to make sure the US' own medicinal supply was safe as well [1].

2.2. Scope and Controversies of Healthcare Tariffs Under the April 2025 Policy

2.2.1. Exempt and non-exempt healthcare products

On April 2, 2025, the exemption list took an alternative approach for all kinds of medical goods. Four types of APIs from China, which are anti-infective, amino acid, vitamin, and hormonal APIs, were retained under the old tariff rate. It is because the US depends largely on China for those raw materials. Many US pharmaceutical companies rely on Chinese suppliers for their significant API imports [1].

However, other healthcare products faced high tariffs. These included some APIs with unique tariff codes, most medical consumables, dressings, medical devices and their parts, and rehabilitation

tools. A key point of uncertainty was drug tariffs. At first, the April 2 list excluded drugs from the tariff plan, but on April 8, they were added again. This quick change caused large market fluctuations. The Hang Seng Healthcare ETF dropped by more than 6% at one point, showing strong investor concern about supply chain stability [1].

2.2.2. Main points of dispute in China-US healthcare trade

Current healthcare trade disputes between China and the United States have become complex and multi-layered. The United States aims to push domestic production of pharmaceuticals by using tariffs, trying to reduce its dependence on imported APIs.

The China Chamber of Commerce for Import and Export of Medicines and Health Products said that the US's one-sided policies harm global pharmaceutical supply chains, violate WTO rules, and threaten the well-being of people worldwide—especially those in low- and middle-income countries [6].

Supply chain safety is one of the most important concerns. China is the largest producer and exporter of APIs in the world. In 2024, Chinese API exports to the United States still made up a large portion of total exports [6].

Higher US tariffs could cause two serious problems. First, US pharmaceutical companies might have to raise prices because of higher import costs, which would make patients pay more. Second, there could be shortages of important drugs, which would hurt global public health systems.

In response, many Chinese companies have started to adjust their business strategies and explore new markets. In the long run, this could lead to a reshaping of the global pharmaceutical supply chain [1].

3. Analysis of the Impact of April 2025 Reciprocal Tariffs on the China-US Healthcare Industry

3.1. Impact on the Pharmaceutical Sector

3.1.1. Impact on China's API industry

High tariffs on non-exempt products have greatly increased export costs for Chinese companies. It has made their profits much smaller. Many of the big exporting companies are seeing their profit margins dropping for sure [6].

At the same time, the US had lower tariffs for APIs coming from other countries. This led to some Chinese API exports decreasing and the likelihood of order losses becoming greater [1].

With regard to market structure, the low- and mid-end API exports felt the most pressure. But exports of specialty API of higher end grew as compared to the previous year due to the presence of strong technical barrier. And it shows the pattern of "lose the low end but advance in the high end" [6].

3.1.2. Impact on the US pharmaceutical market

The US pharmaceutics market relies pretty heavily on China for lots of important APIs. After putting tariffs on non-exempt APIs, the efficiency of the entire drug supply chain took a hit. The drug resellers turned around their inventory slower, and some community pharmacies ran out. so, drug supply was unstable [1].

Due to the high tariffs, the import cost went up; thus, the drug prices on the market also got higher. The average price of prescription medicines rose steeply in contrast to the preceding year. For drugs hit by tariffs, price went up far more than five-year average [4].

The US government wanted American pharmaceutical companies to build factories at home to reduce import dependence. But building your own local factory costs much more than manufacturing in China. And as for the local production, up until now, only some few companies have done it, and the effectiveness of those industrial policies is not what we hope for [4].

3.2. Impact on the Medical Device Sector

3.2.1. Pressure on China's medical device exports to the US

After raising tariffs, the cost for Chinese medical devices to go into the US shot up a great deal. Product prices increased rapidly and China's price advantages against other countries were also lost [8].

So, in the first quarter of 2025, China's medical devices exports to the US dropped compared with last year. The market share for numerous big items fell as well [6].

At the same time, small and medium size enterprises were also put up against the wall by the need for FDA certification and higher tariffs. Their export costs as a whole increased and several small companies were forced off the US market [9].

3.2.2. Supply chain challenges for China's medical device production

Medical devices in China still depend on US-made parts very much. When the tariffs rose, so did the prices on these parts. So, leading manufacturers spent many times more on imports [8].

Getting those parts late slow down inventory turnover too. Due to some firms had to up their safety reserves, which caused an elevated amount of capital costs [8].

Although Chinese enterprises are working hard to produce domestic replacements for these components. the production quality of local materials is still lower than that of foreign ones. This indicates that domestic products currently have trouble meeting high-end level, and it will take some time for local products to catch up [9].

3.3. Impact on the Healthcare Service Sector

3.3.1. Changes in hospital operating costs

Higher tariffs make imported med-equipment more costly. Tertiary hospitals now pay much more for new imported machines, and some provincial hospitals have had to delay their equipment purchases because they went over budget [10].

Drug prices have also increased because of higher API costs. Many medical institutions now spend more on drug procurement, and some common drugs take up a larger part of total hospital drug expenses [1].

In addition, the cost of maintaining imported medical equipment has gone up. Maintenance now takes a bigger share of hospitals' operating costs. To save money, some hospitals have stopped using official maintenance services and turned to third-party service providers instead [8].

3.3.2. Accessibility of healthcare services and patients' financial burden

The availability of US non-exempt drugs in Chinese public hospitals has dropped, especially in rural areas. Some county-level hospitals have a low supply of important drugs [10].

The higher costs caused by tariffs have been partly passed on to patients. The average out-of-pocket cost per hospital stay has gone up. Tests and examinations using imported equipment have become more expensive. Patients with chronic diseases now spend much more per year on treatment [10].

At the same time, rising prices for drugs and equipment have also pushed up medical insurance spending. A large share of the new medical insurance costs comes from the extra spending caused by tariffs. In some regions, medical insurance funds are now under pressure and face the risk of running out [2].

4. Countermeasures for the Healthcare Industry Under Reciprocal Tariffs

4.1. Industrial-Level Countermeasures

4.1.1. Supply chain: improving structure and layout

Many API companies are moving part of their production to other countries to avoid high tariffs. At the same time, medical device companies are working with suppliers from other countries to reduce their dependence on US components [5].

Companies based in regions with strong industrial foundations are forming innovation groups to focus on developing local versions of key components. This can also increase their own production capacity, reduce imports [8].

Furthermore, they are developing new healthcare markets, such as those in countries along the "Belt and Road", These new markets can make up for a loss of US orders and reduce their risk of exports [6].

4.1.2. Technology: increasing R&D investment

Most major API producers are putting out more dough to boost the tech and quality behind their higher end API's. This has helped them sell higher end APIs for a bigger percentage of what they're selling [6].

Medical device companies are also investing in fancier product. They have some new products that got international certificates and can be sold for more money, which can help pay for the tariffs [6].

Firms are trying to improve production too by using better tech in production, and making designs that use less materials by using modular design, and making production more efficient [5].

At the same time, many medical device companies are creating digital supply chain systems. These platforms also link up all parts of the supply chain, helps cut down inventory time and logistics cost [5].

4.2. Hospital-Level Countermeasures

4.2.1. Equipment procurement: prioritizing domestic equipment

Big hospitals are buying more stuff made nearby. Some hospitals when purchasing large medical devices select only domestic products and are supplied with some financial supports for doing this [6].

Hospitals are also working closely with local device makers on custom-made machines that fit the local healthcare need. They are more economical than imported ones, but they are still up to standard for medicine [6].

Several provincial hospitals formed a group to buy equipment together. This big purchase gets them a cheap price and saves quite a lot of money when buying [6].

4.2.2. Operations and cost control

Hospitals have kept lists of "tariff-affected drugs" and they monitor and control the use of expensive medicines. And they also saved on energy costs with the upgrade to energy saving equipment [6].

Policy within limits, hospitals increase a little bit the fees to some technical services like diagnosis, care and nursing, and reduce the price of large equipment exams. It helps equalize hospital income and makes medical costs reasonable [6].

Hospitals are also working with drug distributors to manage inventories together. They can share stocks to shorten inventory turnover time and save capital cost [5].

4.3. Government-Level Countermeasures

4.3.1. Industrial support: subsidies and tax incentives

The government provides additional tax deduction on R&D cost for medical device company which produces high end technology. Some companies get direct R&D subsidies as well [3].

A "key technology breakthrough fund" will give financial backing to study of important technologies. The government has also made a "Preference List for Domestic Products" so hospitals can buy more homegrown medical gear [3].

China was also promoting international cooperation by bringing their National Medical Product Administration (NMPA) certifications into line with EU CE standards. It also helps local companies to lower certification costs, and enter in to the global market [9].

4.3.2. Social security: reducing patients' financial burden

Government adds regular medicine affected by tariffs to medical insurance price reduction list. It also talks to producers to get drug prices lowered. Insurance can now pay out for tests with domestic equipment more than previously [2].

In order to provide patients with chronic illnesses, the government gives out "drug subsidy coupons", which set a yearly cap for the subsidy on a per-person basis. It also gives special money to help county-level hospitals buy made-in-China medical stuff [2].

The establishment of "Tariff Impact Early Warning System". For tariff cost effect, monitoring impact on health care costs & insurance funds. Some areas may suffer more so they get extra cash from the national insurance fund to keep their own funds from drying up [2].

5. Conclusion

This paper investigates the impact of the April 2025 China-US reciprocal tariff policy on healthcare industries in China and the US and offers practical countermeasures.

The tariff has destroyed the trading balance between China and the USA in the health section. Also, they make big changes to the whole industry chain. The US wants to take its pharma industry home with high tariffs. But it encounters a clear problematic issue. The US relies on China for APIs so that it has to balance between "trade pressure" and "supply safety".

But China does have some progress in high-end APIs because of their advanced technology ability. But the low-end and mid-end APIs and the exports of medical devices encounter a rising cost and fewer orders. It creates problems for the industrial security and exports of China.

The influence of a tariff is irregular and passes through the whole system. China's API sector is losing the low-end market but making progress in high-end sectors. The medical device sector is impacted by costs because importing parts are expensive. The hospitals' operating cost is higher and the patients have to pay more money to buy medicines and receive treatments. The US also experiences unstable drug supply and higher prices. The desire to re-establish local manufacturing is expensive and not as effective as hoped. Thus, both lose, and world health gets supply-chained.

To decrease those bad things needs cooperation at different places. The industrial sector can cut risks through diversified supply chains, regional production centers, and R&D work. Hospitals save money and keep good service by using more made-in-China stuff, buying things together, and making things better. The government could offer aid through tax benefits, R&D help, and changes in medical insurance policy. From the level of industries - hospitals - the government, all need to maintain and secure it.

For the near future, China-US trade negotiation will probably go on. companies should improve its supply chain, promote cooperation with "Belt and Road" countries, and focus on major technologies. Hospitals should increase the amount of local equipment used and continue improving efficiency. The government needs to keep negotiating with US at the same time providing better supporting and protective policy for our economy to decrease the harm cause by the tariff.

Long-term, the global healthcare supply chain will go through great changes. Technological innovation and relying on themselves are also major strengths for the two countries. China should seize the opportunity to strengthen domestic substitutes and address the “bottlenecks” in high-end medical devices and core components. Strengthening the base.

At the same time, China and the U.S. work with each other in the public health, disease prevention, and industrial cooperation areas. It’ll help cut down on trade disputes, and keep people all around the planet safe and healthy. Future studies can examine other industries with tariffs and how they change in the future long term, examine other emerging markets that have entered into the global market and what new technology will change the supply chain.

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