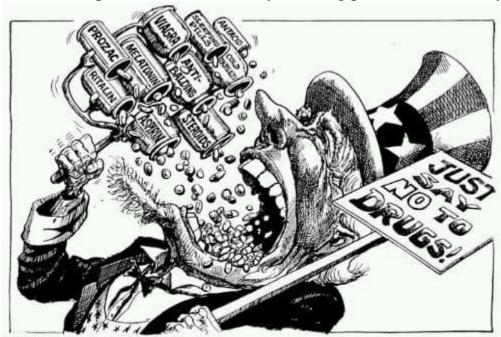


Several of my patients require a new drug to control cholesterol. It's called Repatha and Amgen just decided to lower its price from \$14,600 a year to between \$4500 and \$8000. That is a huge amount of money, even at discounted prices. I am sure if you take care of oncology patients, rheumatological patients or even GI patients you can also tell me various horror stories. Anyway, it got me to thinking once more about the pharmaceutical industry and drug prices. I think everyone



agrees there is a big problem out there just ready to explode. So before condemning the industry, I thought I would do a little research and share it with you.

Even on a personal level you may be very ambivalent about pharmaceutical costs. On the one hand we are seeing the most amazing discoveries, but on the other hand the costs of drug therapy are hitting stratospheric levels. If you have a pension plan or own stocks, your portfolio is likely littered with pharmaceutical companies and you may be quite pleased with your return on investment. As a consumer, your pocket book is directly and indirectly being savaged by these same companies.

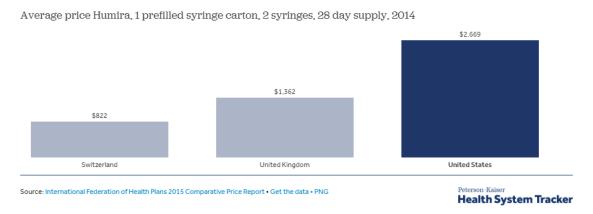
On behalf of pharmaceutical companies, we must appreciate that the cost to develop a new drug is roughly \$2.6 billion.

(https://www.policymed.com/2014/12/a-tough-road-cost-to-develop-one-new-drug-is-26-billion-approval-rate-for-drugs-entering-clinical-de.html). This is about a 300% increase from about 15 years ago when the cost was \$802 million. You may say that new laws have decreased the time to market and this would be true, but the rate of success has also gone down.

Only 12% of new drugs successfully come to market. Once a drug is on the market, there are ongoing expenses, such as post approval costs. Taking this after release factor into account, the cost of a new drug becomes \$3 billion. Remember, this \$3 billion is for a successful drug and does not consider the 7 out of 8 compounds that enter testing but fail. The cost of drug failures must also be considered by the pharmaceutical companies.

Now that we understand just a little of the costs of bringing a new pharma product to market let's investigate the costs in the US. You probably already know that we pay more for drugs in the US than other countries.

## The average price of Humira in the United States is about 96% higher than in the United Kingdom

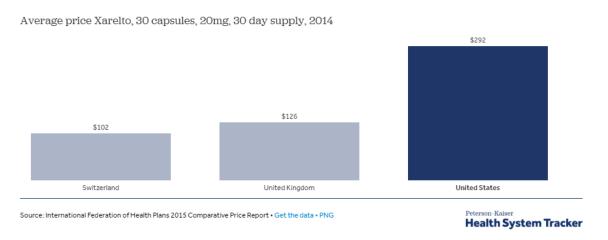


According to Scientific American, US prices for the 20 top-selling medications are, on average, three times higher than Britain. US prices were six times higher than Brazil. As mentioned above, pharmaceutical companies point to research and development (R and D) recuperation but why does the US shoulder this responsibility and where does it end?

At what point does the cost become so prohibitive that the amount spent on R and D is outweighed by the actual benefit. Drug companies state that the list price is

not informative because US drug insurers get discounts as a result of "negotiations". But big European buyers also drive down costs and get discounts. The drug companies counter that Americans pay more initially and pay less when a drug comes off patent and is available as a generic. But the graphs of examples above and below are real, and numbers don't lie.

## The average price of Xarelto in the U.S. is more than double the price in the United Kingdom



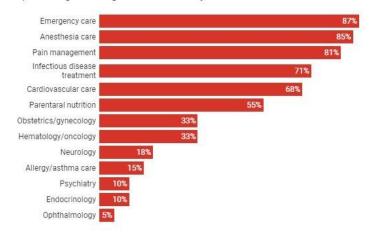
Next, let's turn our attention to hospitals in the US. You may think your local hospital is raking in the dough charging \$75 dollars for Tylenol, and they very well may be. But on a whole, hospitals are having problems. Ninety percent of over 1000 hospitals surveyed have had to identify alternative therapies to take into account drug prices and shortages. One quarter of hospitals have had to cut staff because of budget pressures due to drug prices that increased 18.5% between 2015-2017 or \$1.8 million of new spending per hospital. Remember, not all hospitals have mega-donors like Cedars Sinai. Many community hospitals are really taking it on the chin. Outpatient spending on drugs has increased 28.7% per admission. Inpatient spending on drugs has increased 9.6% per admission. Prices for anesthetics, parenteral solutions and opioid antagonists and chemotherapy jumped 80%.

How can we explain these shortages in a land of plenty? Just as other industries have consolidated so has healthcare. Seven manufacturers are responsible for the vast majority of sterile injectables, with one supplier owning 70% market share for some products. There is really no negotiation when the supplier has that large of the market. The supplier states the price and that is what is paid. Did you know that the unit price for hydromorphones surged 107% while vasopressin and

ephedrine increased 87%? These are not new medications, there are not new manufacturing techniques.

## Drug shortages

In a survey of 300 U.S. health care workers, over half reported that more than 20 drugs were involved in shortages during the six months prior to the survey. Emergency care, anesthesia care and pain management drugs were the most likely to be affected.



Generic drugs were supposed to have suppressed price increases, but older drugs made by generic makers frequently cost more because no one else is making them.

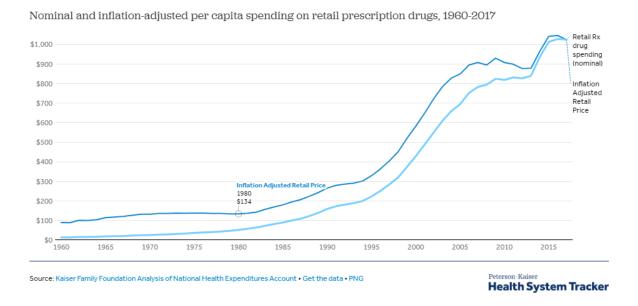
"About 80% of the hospitals found it to be extremely or somewhat challenging to obtain <u>opioid injectables</u> (for pain management), <u>saline</u> (for rehydrating patients, wound cleaning and irrigation), <u>sodium bicarbonate</u> (an alkalinizing agent for oral or parenteral therapy), sterile water (used to prepare many drug products for IV use), <u>epinephrine</u> (used in severe acute anaphylactic reactions and shock), and dextrose (used as parenteral source of calories and water for nutrition and hydration)."

None of this addresses the average consumer. John and Jane Q. Public are paying an inordinately high amount of their income for medications. This fact brings up some very poignant questions.

Why did the cost of insulin triple between 2002 and 2013 despite no changes in formulation or manufacturing? Why did the price of Evzio, an auto-injected drug that is used to treat opioid overdose, jump to over \$4,000 — from just \$690 in 2014 — just as demand for the medicine was quickly rising?

Nitrofurantoin is a drug that has been around since 1953. The company making it needed to meet new FDA rules but made no other changes. The price increased 400%. Why is that?

The average spending on prescription drugs exceeds \$1000 per person a year. American spend \$3.4 trillion on healthcare. Did you know more than 10% goes just to prescription meds?



You say that you don't take these high-priced medications, so the problem does not affect you. Wrong, wrong, wrong!

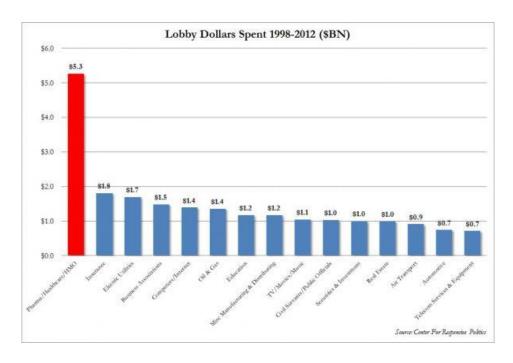
Let's say your neighbor has outstanding health insurance that helps to defray their treatment costs. How do you think the insurance companies makes up the cost? They raise out-of-pocket costs, premiums and deductibles for all their insureds. Medicare and Medicaid must also pay these higher costs which are passed along to you the consumer in the form of higher taxes. In the future, these costs to the government, will require rationing and restrictions.

Upon researching this article, I came across an amazing analysis that I wanted to share. Everyone seems to be wishing there was a realistic treatment for Alzheimer's. As a chronic disease, it is likely that treatment will be ongoing process, not a one-time cure. Knowing the cost of new therapies in oncology, suppose that the new breakthrough treatment cost \$60,000 a year.



Did you know that to pay for this treatment for our population each and every privately insured individual would have to have his personal insurance policy increase in cost \$140 a MONTH. For a family of 4 that would be \$6720 for each and every family... and that is each and every year. You may say that the rate will come down with time but remember the number of aging in our population is skyrocketing to cancel that.

The problem is even worse than you think. Our legislators who are trying to solve this problem are being bribed. Yes, both parties are on the take to the tune of \$2.5 billion of lobbying by the pharmaceutical industry. These are dollars that go directly or indirectly into your healthcare costs. The redline in the graph is spending on lobbying from 1998-2012 by Pharmaceuticals/Healthcare lobbyists.



What is the answer? The answer is to be careful what you wish for. If you say government regulation is the answer, be very aware that everything the government touches becomes a large bureaucracy and even more expensive. Remember Ronald Reagan's nine most terrifying words, "I'm from the government and I'm here to help."

What are some of the suggestions people are considering?

- Federal legislation that requires drug companies to justify their pricing (*oh that's going to work out well, he says sarcastically. Who is paying the legislators?*)
- Full disclosure pricing (after the lawyers are done with it, it will look like a software contract that you never read.)
- Eliminate more of the middleman (exactly whose job are you going to axe?)
- Allow the government to negotiate prices for Medicare recipients (*just like recent \$10,000 air force toilet cover*)
- Increased competition (you need to make it enticing, so that if you want more businesses to manufacture pharmaceuticals you must make it.... profitable.)
- Stop the rebate and co-pay card games (*This seems reasonable since you can't control costs if the costs are obscure and hidden.*)
- Change drug patent laws (Another reasonable suggestion. Drug companies should be rewarded for their R and D, but patents need to have a better expiration date. Drug companies have found work arounds to this though by making infinitesimal small changes to known products and modifying the patent.)
- Tie drug prices to effectiveness (*This is very difficult, one person may consider two months of life invaluable, but a drug panel may not.*)

The entire healthcare industry including pharmaceuticals is truly one of the most complex subjects now facing Americans.



Complex problems are not new. In 333 BC, Alexander the Great marched into the Phyrgian capital of Gordium (this would be in modern day Turkey). Upon entering the city, he encountered an ancient wagon. Its yoke was tied with knots so complex, entangled and multilayered, it was impossible to see how they were fastened. It was the tradition of the ancient state that the wagon once belonged to Gordius, father of King Midas. It was held that any man who could unravel its elaborate knots was destined to become ruler of Asia. According to an ancient



chronicler, Arrian. Alexander immediately desired to untie the Gordian knot. After a lengthy time passed and being unable to find the solution he stated, "It makes no difference how they are loosed." He then drew his sword and sliced the knot in half with a single stroke. Alexander was hailed as having solved the puzzle and went on to conquer Egypt and large portions of Asia and died at age 32. Unfortunately, Alexander is not here to help us solve the healthcare crisis and it is doubtful that as single stroke will solve this dilemma, even single payor or Medicare for all.

I hope you have enjoyed this little summary of a very large problem. Please feel free to send feedback to <a href="reed@reedwilson.com">reed@reedwilson.com</a> or <a href="reed.wilson@privatepracticedoctors.com">reed.wilson@privatepracticedoctors.com</a> We are here to help with all your private practice needs, from banking and merchant account rates, to medical and non-medical supply purchasing. From insurance to EMR and everything in between. Just ask!