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Price Variance for Malaria Prophylaxis Among Northeastern US Pharmacies

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BACKGROUND

Prescription drug prices have no governmental control in the USA and costs have soared in the last few years; for antimicrobials and other categories, even for generic medications.¹⁻⁴ Many travelers with limited budgets economize by not seeking pre-travel medical advice, not purchasing disease preventing medications, or by skipping recommended immunizations altogether. For these travelers, malaria prophylaxis can be an expensive proposition.

OBJECTIVE

We sought to compare price variability in local pharmacies in Eastern Pennsylvania, USA; for several malaria prophylaxis regimens, for travelers without insurance coverage, going for an average 2-week trip.

METHODS

Over a 4 year period, we called 8 local pharmacies: 4 large national chains, 3 regional supermarkets and our own health network-associated outpatient pharmacy (Spectrum), requesting quotes for prophylaxis for a 2 week trip to a malaria zone. Atovaquone-Proguanil 250mg/100mg (#22) (generic and brand), Mefloquine 250 mg (#7), Chloroquine 500 mg (#7), Doxycycline hyclate 100mg (#46) and Doxycycline monohydrate 100mg (#46) for price comparison.

Initially, quotes were obtained at the beginning of the year in January. (2015-2019), later was added a second quote before the summer vacation season, May or June (2017-2018).

RESULTS

The price range between pharmacies at any given time was remarkable. The same prescription could vary in price as much as 500%. The variability in prices would change entirely in 6–12 months, equating to hundreds of dollars in difference.

There was no association between large national chains vs. regional vs. our network OPP, as to which had the least expensive prescription, since any of them could be as much as \$517 cheaper than the next door competitor, for the same prescription (i.e. Doxycycline hyclate tabs, 5.2017).

For Chloroquine resistant malaria prophylaxis, there was no clear “cheapest option”, since the price of either Doxycycline formulation varied widely over the years (\$647 in May 2017 to \$18.73 in June 2018).

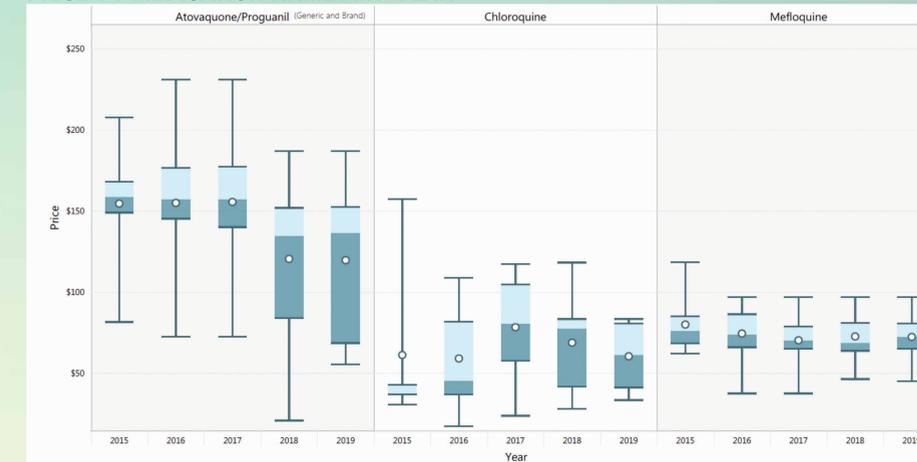
Prices increased during the pre-summer months; from 1% to 35%. Mainly seen in Atovaquone-Proguanil (up to 25%) more so than in Mefloquine (< 1%).

Between 2015 and 2019, there was, on average, a decrease in the price for Atovaquone-Proguanil (-18%) mainly through its generic version; and Mefloquine (-9%). This was not the case for Chloroquine (+40%). Additionally, Doxycycline cost varied widely without a clear trend.

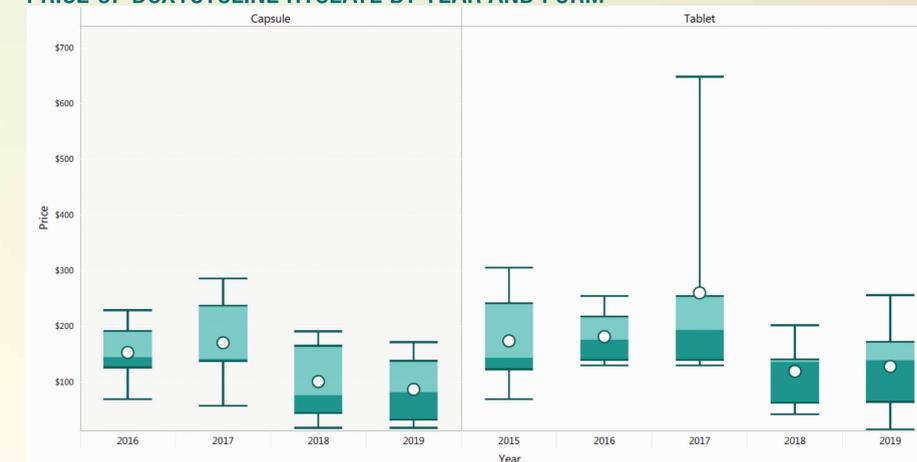
PRICE VARIATION IN MALARIA PROPHYLAXIS MEDS, BETWEEN 2015-2019, BY SELECTED PHARMACIES

| Pharmacy Name | Malarone Brand + Generic | Mefloquine | Chloroquine |
|---------------|--------------------------|----------------|----------------|
| Spectrum | (-\$100) (-64%) | \$0 (=) | \$3 (+10%) |
| Rite Aid | \$30 (+18%) | \$13 (+13%) | (-\$2) (-\$5%) |
| CVS | (-\$9) (-6%) | (-\$9) (-12%) | \$36 (+90%) |
| Walgreens | (-\$62) (-30%) | \$0 (=) | \$4 (+10%) |
| Walmart | (-\$9) (-10%) | (-\$12) (-13%) | (-\$47) (-36%) |
| Giant | \$9 (+5%) | \$0 (=) | \$40 (+108%) |
| Wegmans | \$0 (=) | \$.90 (+1%) | \$42 (+113%) |
| Weis | (-\$31) (-64%) | (-\$73) (-61%) | \$0 (=) |

PRICE BY MEDICATION NAME AND YEAR



PRICE OF DOXYCYCLINE HYCLATE BY YEAR AND FORM



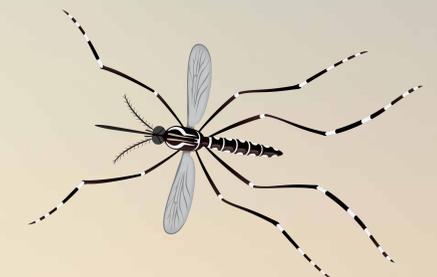
GRAPH REFERENCE

- 1 – Upper and lower extremes, are represented by brackets
- 2 – Box represents the upper and lower quartile
- 3 – Changed in color within the box marks the median
- 4 – The single dot marks the mean

CONCLUSIONS

Price of malaria prophylaxis medication varies significantly between retailers, regardless of the size of the pharmacy chain. Results also support that prices tend to increase before the US summer.

Findings introduce an important cost saving measure for traveler on a budget which might suggest conducting price comparisons for malaria prophylaxis prescriptions before travel.



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