



A provider-facing dashboard to monitor hydroxychloroquine dosing within the VA Healthcare System: the Albuquerque VA experience

Meredith Keller DO, David Cisneros MD, Kimberly Reiter MD, Gabriela Schmajuk MD PI SFVA Measurement Science QUERI

Background

Through the SFVA Measurement Science QUERI led by Principle Investigator Gabriela Schmajuk MD, the Albuquerque VA Healthcare System was enrolled in a multi-site study to identify patients with hydroxychloroquine doses greater than the recommended 5mg/kg to reduce the risk of retinal toxicity.

Hydroxychloroquine Dashboard

"The purpose of this dashboard is to identify patients who are prescribed higher than recommended doses of hydroxychloroquine".

Initial assessment, Feb 11, 2021.

274 patients prescribed HCQ in Station 501 (NMVAHCS)

29 patients designated as "high dose".

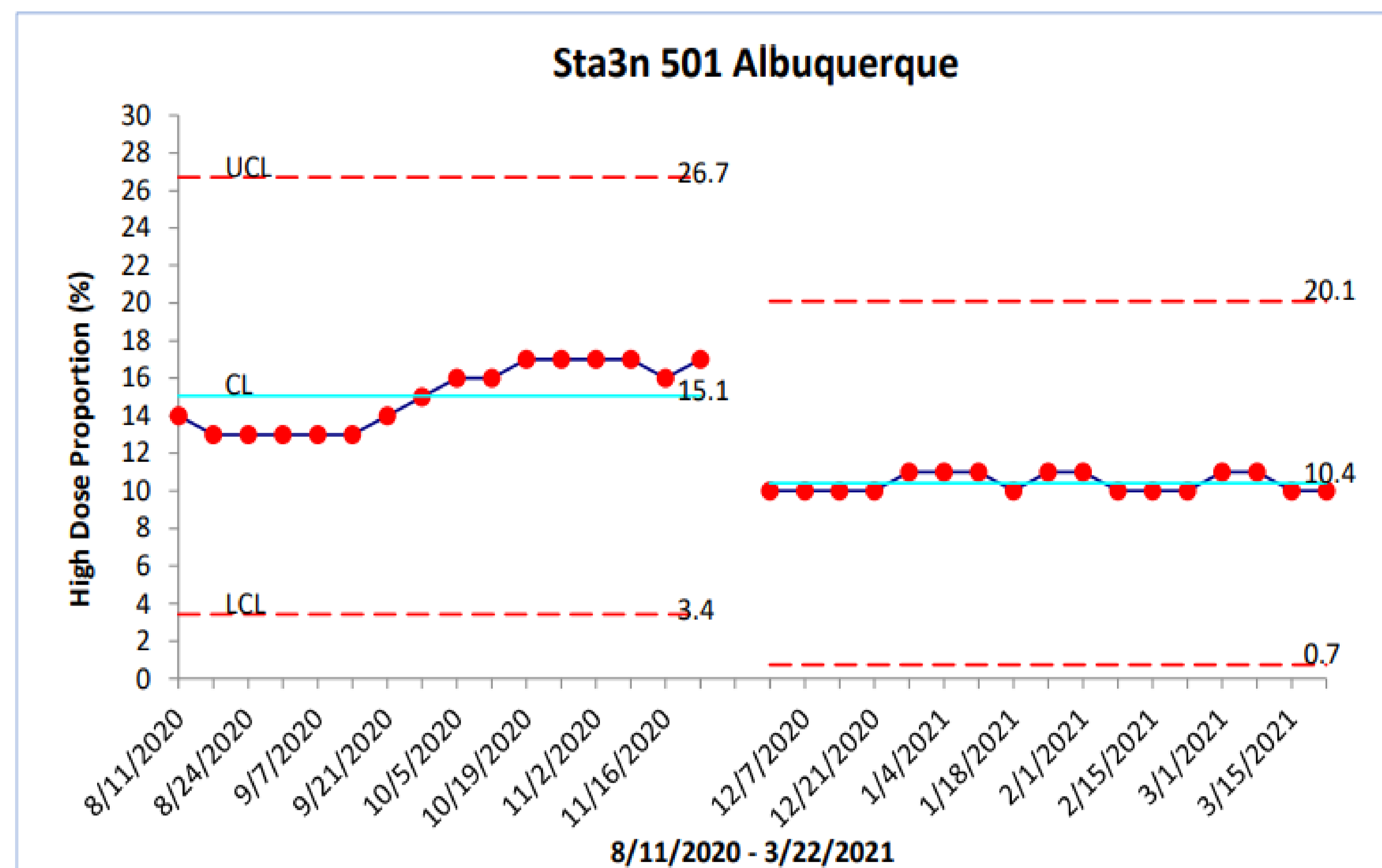
- 12 prescriptions from Abq VA Rheumatology provider/fellow patients
- 9 prescriptions from Ambulatory Care providers
- 4 prescriptions from "rural health CBOC" (Community based outpatient clinic_)
- 3 prescriptions for Community Care contracted provider (blank on service section)
- 1 prescription from "Fee Services" provider

Methods

Using the Dashboard tool, patients with hydroxychloroquine doses greater than 5mg/kg were identified. Data about these patients, including weight, rheumatologic diagnoses, dosages, and prescribing providers was collected. The prescribing providers were then contacted with dosage recommendations.

Results

Twenty-eight patients were identified with Hydroxychloroquine dosages greater than 5mg/kg. The prescribing providers were contacted of the recommended change via secure EMR messaging. It was expected that with recommendations, the prescribing providers would decrease the prescribed dosages of hydroxychloroquine to be in line with recommended guidelines to reduce risk of retinal toxicity. However, per recent Dashboard report, these changes have not yet been made.



You will notice there was a "process change" on 11/23/2020 when we changed the definition of "High Dose" from 5.0mg/kg/day to 5.2mg/kg/day to allow for small discrepancies in the real vs calculated dose.

In summary, your site:

- Was granted access on 11/16/2020
- Has 6 approved users
- As of 3/22/20, has had 16 dashboard interactions

Number of patients with HCQ with daily dose > 5.2mg/kg			
	Date	N	%
Station 501 Albuquerque	11/30/2020	30	10.6%
	3/22/2021	29	10.4%

National Performance	11/30/2020	2938	15.5%
	3/22/2021	2758	15.3%

Reference:
Michael F. Marmor, Ulrich Kellner, Timothy Y.Y. Lai, Ronald B. Melles, William F. Mieler, Recommendations on Screening for Chloroquine and Hydroxychloroquine Retinopathy (2016 Revision), Ophthalmology, Volume 123, Issue 6, 2016, Pages 1386-1394, ISSN 0161-6420,

SCRIPT

Dear Provider,

As part of a quality improvement initiative, the Rheumatology Section from the Albuquerque VA is monitoring for optimal dosing regimens of hydroxychloroquine. Dosing guidelines are based on reducing risk of retinal toxicity.

You have been identified as the prescriber for this Veteran's hydroxychloroquine. This patient's current prescription is roughly equivalent to ___ mg/kg per day.

To reduce the risk of retinal toxicity, American Academy of Ophthalmology recommends hydroxychloroquine dosing not exceed 5 mg/kg per day. (see below reference).

If clinically appropriate, please consider reducing this Veteran's hydroxychloroquine dose to be in accordance with these guidelines.

Please note Consolidated Mail Outpatient Pharmacy (CMOP) will no longer fill hydroxychloroquine orders that involve splitting the tablet. Thus,

- If 5 mg/kg is closest to 200 mg/day then prescribe 200 mg tablet once per day
- If 5 mg/kg is closest to 300 mg/day then prescribe alternating dosing (i.e., 200 mg/day then 400 mg/day then 200 mg/day,...)
- If 5 mg/kg is closest to 400 mg/day then prescribe 2 x 200 mg tablets (total 400 mg dose) once per day
- If 5 mg/kg exceeds 400 mg/day then prescribe max dose of 2 x 200 mg tablets (total 400 mg dose) once per day

--SUGGESTED HYDROXYCHLOROQUINE DOSE: _____

--SUGGESTED SIG FOR THIS PATIENT _____

--QUANTITY FOR A 90 DAY SUPPLY _____

If you change this Veteran's hydroxychloroquine dosing based on this guidance, please notify Bernadette Salazar, RN, who will notify Veteran of this change through standardized mailing.

Discussion

At the time of this writing, one month after dosage recommendations were given to prescribing providers, the outreach has not been effective at reducing the hydroxychloroquine dosages prescribed to the identified patients. There are several reasons for this. First, it may take time for these changes to take effect. It is also possible that the providers are waiting for follow-up appointments with their patients to change the doses. Second, hydroxychloroquine only comes in 200mg tablets. With most patients needing a dosage of approximately 300mg a day. This is difficult to dose with every other day dosing. Lastly, some referrals back to rheumatology have been made for patients identified within the study with prescriptions of hydroxychloroquine from their primary care provider. In time, we expect to see some improvement in results.