



Order ID 200123
 Provider Example Provider MD

Specimen
 Collected 09/28/2018
 Received 09/29/2018
Test Order
 Created 09/29/2018
 Reported 09/30/2018

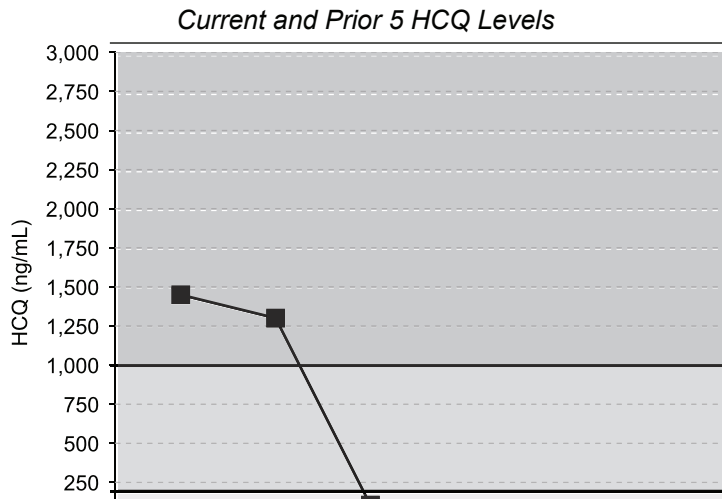
Patient
Smith, Mary L
 Gender - DOB Female - 01/12/1970
 Identifier Received
 Exagen ID 300955

AVISE HCO Test Report

Current Hydroxychloroquine (HCQ) Level:

105 ng/mL - Underexposed

Hours elapsed between last dose and sample collection	HCQ Dose (mg/day)	Date HCQ Dose Initiated
5	400	4/1/17



HCQ Level	Interpretation & Consideration
Therapeutic (>1000 ng/mL)	Level associated with clinical efficacy. HCQ is likely absorbed effectively
Sub-therapeutic (200-1000 ng/mL)	Patient could be partially adherent to therapy. Patients with HCQ lower than 1000 ng/mL can be at greater risk for disease flare
Underexposed (<200 ng/mL)	Patient is likely non-adherent to HCQ therapy

Date	05/28/17	12/01/17	09/28/18
Level (ng/mL)	1450	1301	105
Dose (mg/day)	400	400	400

Test Method Description

HCQ concentration is determined by liquid chromatography coupled with mass spectrometry (LC/MS/MS). This test has not been validated in pediatric populations. The HCQ blood level should be evaluated after 6 months of HCQ therapy - it has not been validated in patients treated for less than 6 months. This test cannot be used to assess the risk of HCQ toxicity.

References

- Costedoat-Chalumeau N, et al. Low blood concentration of hydroxychloroquine is a marker for and predictor of disease exacerbations in patients with systemic lupus erythematosus. *Arthritis Rheum.* 2006 Oct;54(10):3284-90.
- Costedoat-Chalumeau N, et al. Very low blood hydroxychloroquine concentration as an objective marker of poor adherence to treatment of systemic lupus erythematosus. *Ann Rheum Dis.* 2007 Jun;66(6):821-4.
- Costedoat-Chalumeau N, et al. (2013a) Hydroxychloroquine in Systemic Lupus Erythematosus: Results of a French Multicentre Controlled Trial (PLUS Study). *Ann Rheum Dis* 72:1786-1792.
- Costedoat-Chalumeau N, et al. (2013b) Adherence to Treatment in Systemic Lupus Erythematosus Patients. *Best Pract Res Clin Rheumatol* 27:329-340.
- Frances C, et al. Low blood concentration of hydroxychloroquine in patients with refractory cutaneous lupus erythematosus: a French multicenter prospective study. *Arch Dermatol.* 2012 Apr;148(4):479-84.
- Exagen, Inc. Date on File.



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