

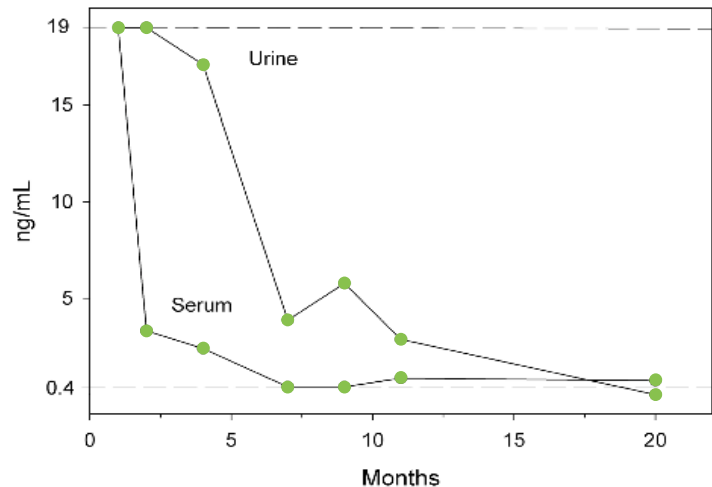


How Best to Use *Histoplasma* Antigen for Monitoring Therapy

Case Report. A 32-year-old woman who was receiving biological therapy for psoriasis presented with fever of 102.6°F, shortness of breath, 5% weight loss, and hepatomegaly. Histoplasmosis was suspected and urine and serum were submitted for *Histoplasma* antigen detection. Both results were above 19 ng/mL (above limit of quantification-ALQ). The urine remained ALQ for 6 weeks after initial testing; the serum declined to 3.1 ng/mL (figure).

Discussion. Often only the urine is tested for antigen and in cases where it is ALQ, it may remain ALQ more than 6-24 months after initiation of treatment, raising the question whether the treatment is working.

In most cases where the urine is ALQ, the serum is quantifiable initially or within a month of treatment [1] providing a better marker for assessing response. As the serum antigen becomes negative or low level (<2 ng/mL), the urine antigen is quantifiable and provides a marker to aid in decisions to stop treatment.



Recommendations.

- Send both urine and serum for antigen testing to aid in diagnosis
- If the urine result is ALQ, monitoring the serum until it is negative or <2ng/mL
- Revert to testing urine once serum antigen is negative
- Monitor antigen:
 - 3-month intervals during treatment
 - 6 and 12 months after stopping treatment
 - Any time clinical or imaging findings suggest progression or relapse

Reference.

(1) Hage CA, Kirsch EJ, Stump TE, et al. *Histoplasma* Antigen Clearance during Treatment of Histoplasmosis in Patients with AIDS Determined by a Quantitative Antigen Enzyme Immunoassay. Clin Vaccine Immunol 2011 Apr; 18(4):661-6.