

11 Step Shoemaker Protocol

A patient's first visit to my office involves a detailed history and physical exam. In addition, all old labs are reviewed and additional labs are requested based on a differential diagnosis of possible causes of the patient's illness. Patients with CIRS from exposure to WDB (Water Damaged Building) typically present with multi-system involvement. Typical symptoms may include fatigue, cognitive difficulties, paresthesias, gastrointestinal complaints, anxiety, mood swings, photophobia, myalgias, arthralgias, and headaches to name a few. Lab testing is done to assess the underlying cause of the patient's illness with the understanding that many different health issues can present with similar symptoms. This testing may include CBC, Chemistry panel, testing for possible viruses, parasites, bacterial infections, hormonal and immune markers, and possibly MRI or CT scans to name a few. Once CIRS is confirmed, I will proceed with Dr. Shoemaker's 11 step protocol aimed at restoring the patient's health.

Step 1: Identify and Eliminate Mold Exposure

In individuals who have initial evidence of illness from WDB based on HLA multi or mold susceptible genotype and abnormal labs consistent with CIRS, the first step is to run the ERMI testing from Mycometrics. It can be evaluated based on the ERMI score and the HERTSMII scale for potential exposure. This testing can be done at work, home, school, and any other indoor space the person spends time in regularly. If indicative of possible exposure meaning $ERMI > 2$, if $MSH < 35$ & $C4a < 20,000$ or $ERMI > -1$, if $MSH < 35$ & $C4a > 20,000$ then a proper microbial investigation should be conducted by a professional mold consultant. Besides the ERMI score the HERTSMI-2 score can be used to assess risk of illness from toxic exposure to WDB. This score, based on over 700 hundred consecutive ERMI tests by patients of Dr. Shoemaker, assigns a score based on the levels of five commonly encountered mold species in WDB (details at www.survivingmold.com/diagnosis/hertsmi-2). A score of less than 11 has been found to be safe so far. Above 15 is deemed unsafe for previously sickened patients. Between 11-15 is borderline with remediation necessary before safety can be assessed. Once the person is removed from the toxic environment, either after the remediation or has simply moved out, then and only then can they move onto the next step. Re-entry to the remediated home can only be done with a normal post remediation ERMI.

In the case of other biotoxin illnesses like Lyme, antibiotic treatment should be completed to eradicate the Lyme before moving on to the next step.

Step 2: Remove Biotoxin load

The individual is next treated with Cholestyramine (CSM) at a dose of 1 scoop (4gm) QID (or 60 mg/kg/dose) for 4 weeks. CSM is able to bind to the biotoxins (toxic ionophores) and thereby interrupt the enterohepatic circulation allowing safe excretion of these substances in the stool. If not tolerated, individuals can be treated with Welchol 2 tabs TID with food. The latter is not as effective. The other option is to pretreat patients intolerant of CSM with hi dose omega 3 fish oils (2.4gm EPA and 1.8gm DHA daily) and no Amylose diet for 5 days before starting CSM and continuing throughout the month.

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Routine labs (C4a, VCS, MMP9, VEGF, & TGFb1 and symptom questionnaire should be done at each step to document improvement and to rule out any potential hidden mold exposure.

Strict avoidance of WDB is critical during this protocol as these patients are metabolically primed (as manifested by low MSH) and will therefore frequently respond with inflammation and a flareup of their symptoms with even short exposures to WDBs.

Step 3: Eliminate MarCons

Individuals with a positive nasal swab for MarCons (coag. negative staph resistant to two or more antibiotics) can be treated with BEG nasal spray one spray to each nostril TID plus one to two oral antibiotics for 4 weeks. Encased in a biofilm, MarCons are typically resistant to antibiotics and require the addition of EDTA (found in the BEG nasal spray) to help in dissolving the biofilm. A repeat swab should be done 1 week after completing the treatment to ascertain the MarCons is gone.

Step 4: Eliminate gluten

If patients test positive for celiac or have positive anti-gliadin antibodies, gluten needs to be eliminated completely from the diet.

Step 5 and 6: Correct MMP9 and ADH/osm

If MMP9 is extremely high treat it first with hi dose omega 3 fish oils (2.4gm EPA and 1.8gm DHA daily) and no Amylose diet. Otherwise treat the ADH/osm mismatch with DDAVP. Protocol involves starting treatment with 1 spray qhs 5x/week and checking serum Na, ADH and osmolality after 1 week. May subsequently increase to 1 spray 10x/week if needed. Static shock, polyuria and thirst should improve. Normalizing ADH will many times also help lower MMP9. Normal MMP9 is 322 or less.

Step 7: Correct VEGF

Above steps will frequently correct VEGF. If still low may institute anaerobic threshold exercises. It involves starting patient at very low exercise (bike or treadmill) so that the anaerobic threshold is not exceeded. This is done daily, slowly increasing to 15 minutes. Once this is achieved add floor exercises again working up to 15 minutes daily. Once this is achieved you work up to another 15 minutes of weights with the upper body. Once this 45 minute routine is tolerated, incorporate stretching in between each 15 minute session and ramp up the intensity.

If this routine does not improve VEGF, patient may be started on Procrit which will lower C4a and raise VEGF. The dosage is 8000units SQ BIW x 5 doses. Baseline studies include C4a, CBC, VCS, MSH, vitals and consent. CBC and VCS is rechecked at the 3rd and 5th injections. MSH and C4a are repeated 2-3 days after 5th injection. Patients are screened at each visit for Fever, headaches, SOB, dizziness, fatigue and arthralgias. The 5 injection course may be repeated with appropriate adjustments in

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Procrit dose if needed. MR spectroscopy and neurocognitive testing may be done pre and 2 weeks after Procrit to document improvement.

Step 8: Correct C3a

Assuming first all chronic bacterial infections have been eradicated and there is a persistent elevated C3a, treat with CoQ10 150 mg qd followed by high dose statin drug.

Step 9: Correct C4a

Procrit will normalize C4a. If Procrit was not used in step 7, it can be used now.

Step 10: Reduce TGFb1

Elevated TGFb1 can be reduced with Losartan. Goal is to titrate up to 50mg/day (.6-.7mg/kg/day) in divided doses with close monitoring of BP for up to 6 months.

Step 11: Restore MSH levels with VIP

VIP will normalize all remaining parameters including CD4+CD25+ count, MSH levels, Vit D metabolism, VEGF, TGFb1, C4a, HPA axis, androgen levels and may more. The protocol is VIP one spray intranasal QID for 4-12 weeks, then BID for 4 weeks, then qd for 4 weeks then discontinue. Give first dose in office with a pre and 15 minute post TGFb1 and C4a. If there's a two fold increase or more, suspect hidden mold exposure. Also lipase levels should be checked at baseline and every month while on VIP. VIP to be discontinued if lipase increases or patient experiences abdominal pain. All previously abnormal labs should be repeated to ascertain benefits of VIP and completion of patient treatment.