



COLE Stellar Practices to Increase Lead Testing

In January of 2022, a “Lead Test” sub-group of the Advocacy Committee for the Coalition on Lead Emergency (COLE) began meeting with Wisconsin Department of Health Services about ways to increase lead testing in Milwaukee, where fewer than 48% of children under six years of age were tested in 2018. Our group was comprised of physicians, other medical staff and environmental health advocates.

Most Health Departments rely on a child’s primary care physician to conduct lead testing. The testing practices below were compiled from interviews with individual pediatricians and office managers whose WHS “report card” performance showed 80% or more of their Medicaid patients under six years of age were tested for lead poisoning in Milwaukee County in 2019. We call them our “stellar” physicians. (The 2020 data charted too sporadically from the pandemic to use.)

The following “stellar practices” suggest office workflow tools and a clinic culture that optimize lead testing in children. They are based on interviews with clinicians who have “stellar” records in this regard. They are not intended to be official standards, but rather a guide to increase rates of lead testing for children. (See CDC, WHS, AAP, ACOG links below for professional requirements. References provided.)

We asked them: “How do you do it?” Here’s what they told us.

1. The Culture: “Perseverance;” dedication of staff; a team approach

Rationale: For aggressive response to lead poisoning, do lead testing as directed for Medicaid patients, and then do more. There are many obstacles of “life happens” that prevent or discourage parents from bringing their child in for testing. The two top performing groups had a team approach with their own expectations and learned ways to counteract barriers to getting children tested.

Stellar Practice: Considering the prevalence of lead poisoning and lasting damage to a child, use a staff team approach to anticipate barriers to lead testing and have a multi-prong approach to resolve them. For example, review a child's testing schedule at all office visits, not just wellness visits.

2. The Parent: Understanding and agreement upfront on testing expectations

Rationale: Engaging the parent at the first (or next) visit sets the stage for better cooperation. The parent is a vital member of the child's health care team.

Stellar Practice: **Take time at the first appointment to talk with the parent and answer questions about lead poisoning**, the importance of lead testing, expectations of your practice, and to answer any questions. **Give them a flyer/brochure about lead poisoning and preventative actions that they can take.**

3. Reminders: Phone/text reminders increase attendance

Rationale: Parenting is complicated. Reminders by phone and/or text provide better likelihood of parent and child showing up for appointment and testing. Many parents need close contact and follow-through to get them to the office.

Stellar Practice: Have office staff phone and text parents prior to appointments as reminders: one week in advance, 48 hours, then 24 hours in advance.

4. Staff Support: Identify test needs before the child sees the doctor

Rationale: Office support staff identifying when a test is needed ahead of the office visit raises the success rate of testing.

Stellar Practice: Before taking patient back to the doctor's office, or in preparation for the workday, medical assistant accesses child's electronic health records (eg., EPIC), Wisconsin Blood Lead Registry (WBLR) and/or calls WIC office to see if/what lead test is needed, and flags those identified for the doctor.

5. Review Consistency: Review test needs for every appointment

Rationale: To reduce missing a prescribed test, check a child's testing needs at every visit, regardless of the reason for the visit. Catching a missed test or currently due test is more likely to occur at the next tummy ache or bad cold appointment, rather than a wellness visit. Parents do not need to request a lead test when making or at an appointment in order for it to occur. The doctor takes that responsibility.

Stellar Practice: To reduce missing a prescribed test, check a child's testing needs at every visit (see #4), regardless of the reason for the doctor appointment.

6. Test Initiation: Start early: 9 months, 6 months, birth, pre-natal

Rationale: The sooner the better. Some obstetricians include lead testing in pre-natal draws to identify households with lead risk before the infant comes home. And there is a current effort to include lead testing in "heel sticks" at birth.

Some stellar pediatricians start testing at six months, and continue testing at 12 months. Infants ingesting lead from formula made with unfiltered hot tap water would be missed by starting at 12 months. Six months catches those.

Other stellar doctors aim at 9 months as a test start age in order to assure the WHS* 12-month target, compensating for schedule changes or delays. With the national average of Medicaid "no shows" at 35%, waiting until 12 months often resulted in the child's first test being closer to 18 months.

Stellar Practice: Start lead testing at 6 months of age, rather than waiting until 12 months to begin; or at least at 9 months to include all children by 12 months.

7. Test Location: In the office

Rationale: The further the lab is from the doctor's office (down the hall, another floor, different building, across town), the less likely the test will occur.

Stellar Practice: Do lab draws while the child is still in the doctor's office room.

8. Test Timing: Before seeing the doctor or before daycare papers signed

Rationale: The concern is that often parents and/or children are tired, hungry, aggravated by the end of the visit and some head for home instead of waiting for a lab test afterwards. Testing beforehand reduces the risk of their leaving before the test occurs. Some physicians may not want the pain of a test to precede the visit, or prefer discussion before testing. One option: do pre-visit testing only for those who in the past have left without being tested.

Another option: informing the parent that a required Child Health Report for Child Care Centers will be ready with signature following their child's lead test.

Stellar Practice: Especially for those who previously left before being tested, test the child before seeing the doctor, and before signing the daycare Health Report.

9. Testing Method: Venous draw if phlebotomist available

Rationale: Although a capillary draw is simpler (using Magellan or the free WI State Lab of Hygiene (<http://www.slh.wisc.edu/clinical/metals/test-kit/>), elevated results need to be confirmed by venous draw before registered with WHS. That requires another appointment at the lab, for which the child may not show up. If a phlebotomist is available, using venous draws avoids a second lab return and possible no-show, as well as problems with a test machine or state lab test tubes.

Stellar Practice: Do venous draws consistently if a phlebotomist is on-site.

10. Follow-up: Phone/text messages for missed appointments/testing

Rationale: Quick follow-up with a phone or text message increases likelihood of a return/make-up appointment.

Stellar Practice: Similar to reminders, staff follows up missed appointments with phone and text messages ASAP to re-schedule appointment.

11. Community Outreach Workers: Take testing to the child

Rationale: Trained outreach workers follow up with families where children have missed appointments and/or lead testing. Capillary testing is done during a home visit if needed. Until insurance covers these visits, outside funding is needed.

Stellar Practice: Use outreach workers if available to bring testing to the child's home if needed, especially for repeat missed appointments or missed testing.

BARRIERS found to decrease physician lead testing:

1. Lack of information about alternatives to Magellan recall or unavailable machine parts: use the WI State Lab of Hygiene for free supplies/billing.
2. Lack of in-office labs; patients lost when sending them to different building
3. Lack of phlebotomists for venous draws in-office
4. Lack of office support to triage/identify children needing lead testing
5. Test timed after seen by doctor, may increase "bolt" phenomenon
6. Lack of transportation for parents to take child to lab/doctor
7. Lack of outreach workers/ systems for reminders and follow-up
8. Delay until 12 months may result in up to 24 months for first lead test
9. Lack of community outreach worker funding
10. Lack of easy access to WBLR, kept separate from electronic health records

WHS:

<https://www.dhs.wisconsin.gov/lead/links/wibloodleadscreeningrecommendations.pdf>

<https://www.dhs.wisconsin.gov/lead/test-your-child.htm>

CDC: <https://www.cdc.gov/nceh/lead/resources/guidelines.html>

AAP: The relevant American Academy of Pediatrics article:

https://publications.aap.org/pediatrics/article/138/1/e20161493/52600/Prevention-of-Childhood-Lead-Toxicity?_ga=2.14549620.278058931.1670872577-1107983757.1670872577?autologincheck=redirected

ACOG: the relevant article from the American College of Obstetrics and Gynecology;

<https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2012/08/lead-screening-during-pregnancy-and-lactation>

