

Leading the Way for Lead Follow-up

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Many children enrolled in Medicaid, as well as others at similar risk of lead exposure and poisoning, live in urban areas and receive medical care at academic or teaching hospitals.

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In a recently released Quality Report ([10.1542/peds.2018-3085](#)) in *Pediatrics*, Dr. Courtney Brown and colleagues describe a successful quality improvement (QI) initiative to standardize clinical response to results of lead screening in a primary care clinic. Most practitioners are aware that there is no safe blood lead level (BLL) in children. The Centers for Medicare & Medicaid Services (CMS) requires BLL screening at ages 12 and 24 months for all children enrolled in Medicaid, and additionally for

any child 24-72 months on Medicaid who has no record of a prior BLL, and this requirement is not met by use of a screening or risk assessment tool. ¹ Many children enrolled in Medicaid, as well as others at similar risk of lead exposure and poisoning, live in urban areas and receive medical care at academic or teaching hospitals. Thus not only experienced pediatricians in practice, but pediatric trainees at teaching institutions and their supervising attending physicians, have the clinically meaningful ongoing duty of following up on lead level after lead level (provided of course that these are obtained as per guidelines!). Thus lead screening and follow-up is a public health urgency, a medical responsibility, and an educational challenge, and Drs. Brown and colleagues tackle this issue head on in their QI report.

The authors acknowledge that their project benefited from an impressive array of information technology services, nursing resources, and an “Environmental Health Clinic” to which referrals are directed for BLL >5.0 mcg/dL. However, they appropriately point out that each hospital or clinic, large or small, will need to customize their approach to this issue, and indeed this is just what QI is about, i.e. improving local care. I found several really interesting “lessons learned” that could potentially be generalized to other settings. For example, the initial distribution of a protocol via email, and group provider education sessions, had minimal impact on adherence to the new protocol, while “individualized feedback to providers” and the introduction of EMR “SmartPhrases” were temporally associated with improvement. In other words, emails get deleted and group conference may be tuned out by a distracted or tired trainee, but individual-to-individual communications, and easy to use “dot phrases,” appear to empower individual change. Another interesting aspect of the project was the clinic-based approach to BLL results: rather than asking the ordering provider to “chase down” and act on the result, the QI group took a team-based approach, in that all providers in clinic that day addressed the results that came back that day. This approach takes advantage of underutilized (if brief) down times in clinic, provides *in situ* supervision if questions arise, and makes care of patients’ BLLs everyone’s job.

Smaller programs with less resources who aim to do similar QI work regarding BLL may actually find educational benefits in having fewer resources. Rather than having a nurse call and review “what parents can do,” the individual trainee could make the call and become conversant with recommendations. Centers for Disease Control and Prevention (CDC) handouts such as, “[What do parents need to know to protect their](#)

children?" are great resources. Similarly, the recommendations for time to follow-up for BLL above 5.0 mcg/dL are dependent on the actual level, with same day urgency for levels >45 mcg/dL.² Having good knowledge and understanding of the details of BLL follow-up has educational and clinical advantages for the trainee. In summary thanks to Dr. Brown and colleagues for their leadership in addressing BLL follow-up in this valuable QI project!

References

1. Lead Screening. Medicaid.gov Keeping American Healthy. Centers for Medicare & Medicaid Services. <<https://www.medicaid.gov/medicaid/benefits/epsdt/lead-screening/index.html>> Accessed 4/25/2019.
2. Recommended Actions Based on Blood Lead Level. Centers for Disease Control & Prevention. <https://www.cdc.gov/nceh/lead/acclpp/actions_blls.html> Accessed 4/25/2019.

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