Lead screening update from the US Preventive Services Task Force

Cantor AG, Hendrickson R, Blazina I, Griffin J, Grusing S, McDonagh MS. Screening for Elevated Blood Lead Levels in Childhood and Pregnancy: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA* 2019;321:1510-26.

Question What is the level of evidence for lead screening in asymptomatic children?

Design Systematic review.

Setting Largely US communities.

Participants Children 1-5 years of age.

Intervention Screening, testing, and treatment for elevated blood lead levels.

Outcomes Screening effectiveness, test accuracy, and benefits of screening and interventions.

Main Results The Task Force concluded that questionnaires and other clinical prediction tools cannot accurately identify asymptomatic children with elevated lead levels. The Task Force also found inadequate evidence for the treatment of elevated blood lead levels in asymptomatic children.

Conclusions There is insufficient evidence to assess the utility of screening for elevated blood lead levels in asymptomatic children ("I" statement).

Commentary Updating best practices using available high-quality evidence is an important and worthy undertaking. Sadly, this update fails to inform best clinical practice and if followed, not only places clinicians at significant liability, but more importantly, needlessly abandons children to lead exposures that are entirely preventable. This is precisely why the US Preventive Services Task Force recommendation is at odds with nearly every other consensus statement on the subject, including the Centers for Disease Control and Prevention,[1] American Academy of Pediatrics,[2] and many others.[3] Simply put, this recommendation should not be followed. Furthermore, clinician failure to screen high risk children has been the subject of repeated investigations by the Government Accountability Office and Congressional hearings. Almost none of the key studies in the field of lead screening, hazard identification, and control were cited in the Task Force's recent assessment. These are reviewed in detail elsewhere.[4] For example, a randomized controlled trial found that among non-Hispanic black children, blood lead concentrations were 31% lower (95% CI, −50% to −5%; $P = .02$) in the intervention group than the control group.[5] The Task Force failed to include this and dozens of other studies showing significant reductions in blood and dust lead levels following screening and hazard control, including a large-scale study of 14 jurisdictions and nearly 3000 housing units.[6] Historically, clinicians have appropriately ignored the Task Force's previous recommendations in this area because their review is viewed as flawed and incomplete. This is evidenced by the fact that nearly 3 million children had blood lead levels reported to the CDC in 2016.[7] With over half a million children with blood lead levels above the CDC reference level and with over 37 million housing units harboring lead paint, lead exposure remains a large pressing problem that requires action, not just calls for more evidence. The practice of ignoring the Task Force's recommendations will likely continue with this latest update. One can only hope that future updates will include those who are more knowledgeable in the field and the many studies that were not included in this most recent review. Proven best practice would involve taking action to prevent exposures, screening of high risk children, and then referring families who have children with elevated blood lead levels to risk assessors and others who are trained and licensed to identify, quantify, and remediate exposure. The evidence supporting this best practice is best detailed in the CDC Advisory Committee Statement.[3] Clinicians should not suggest that reliable information on how to identify and control lead hazards is "unavailable" because this does not reflect the current science. Lead content in millions of homes have been successfully abated, which in part explains why blood lead levels have declined. Clinicians should be part of this successful effort and not ignore the evidence.

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A low cost, skin-color-matching tool to detect hyperbilirubinemia

Lee AC, Folger LV, Rahman M, Ahmed S, Bably NN, Schaeffer L, et al. A Novel Icterometer for Hyperbilirubinemia Screening in Low-Resource Settings. *Pediatrics* 2019;143. pii: e20182039.