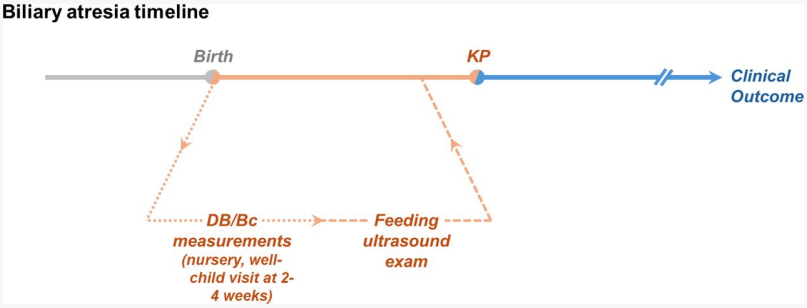
Catching biliary atresia earlier: A practical pathway from a Texas center

GA, UNITED STATES, July 3, 2026 /EINPresswire.com/ -- Biliary atresia (BA), a rare but serious liver disease in infants, can move quickly from subtle newborn signs to irreversible liver injury. Early treatment with Kasai portoenterostomy (KP) offers the best chance of delaying or avoiding liver transplantation, yet many infants are still diagnosed after the most favorable treatment window has passed. A newly described clinical strategy aims to shorten this delay by pairing two practical steps: direct or conjugated bilirubin (DB/Bc) measurements and a feeding abdominal ultrasound exam. Together, the approach could help clinicians identify infants who need urgent evaluation while reducing unnecessary invasive testing in those less likely to have BA.



The timeline of biliary atresia's natural history divided into three intervals relative to birth and treatment with the KP.

BA is difficult to detect because early jaundice can resemble common newborn conditions, and pale stools may not appear immediately. The disease is thought to begin before birth, when the extrahepatic bile ducts do not form properly. After birth, bile builds up in the liver, driving progressive injury and increasing the likelihood of liver transplantation. Studies have shown that infants treated before 30–45 days of life tend to have better long-term outcomes, but diagnosis is often delayed beyond 60 days. Due to these challenges, there is a need for deeper research into faster, simpler, and more equitable diagnostic workflows for early BA detection.

Researchers from Texas Children's Hospital and Baylor College of Medicine, with collaborators from Stanford University School of Medicine, published a review on March 16, 2026, in World Journal of Pediatric Surgery. The article describes a streamlined pathway developed at a Texas pediatric center to accelerate BA diagnosis by combining DB/Bc testing, interpretation through BiliScreen.org, and a feeding ultrasound approach focused on key biliary imaging signs.

The first step uses DB/Bc measurements in the newborn nursery and early outpatient visits. The review highlights evidence that DB/Bc levels can be elevated in the first 24–48 hours of life in infants with BA, before clear clinical signs or other liver injury markers emerge. Primary care

providers (PCPs) are also guided to test DB/Bc levels at 2–4 weeks when infants have persistent jaundice, pale stools, or a previous high DB/Bc result, consistent with American Academy of Pediatrics (AAP) guidance. The second step is a feeding abdominal ultrasound exam for infants with high DB/Bc levels. Instead of requiring fasting, the infant feeds before or during imaging, which can make the duct at the hilum (DaH) easier to visualize. The exam also measures maximum echogenicity (MxE) near the right portal vein. In the proposed workflow, an MxE greater than 4.0 mm or an absent DaH raises concern for BA and may prompt definitive evaluation, while other findings may support continued outpatient assessment.

The authors said the strategy is designed to make early BA evaluation more actionable for the full care team, from nursery providers and PCPs to radiologists, hepatologists, and surgeons. They said the aim is not to replace specialists' judgment, but to give clinicians clearer signals at the moment when time matters most. By sharing the pathway, they hope other centers will provide feedback, test the approach in different practice settings, and adapt useful parts into their own workflows.

The potential implications are broad. Universal newborn DB/Bc screening could reduce delays and may also help address disparities in diagnosis by identifying risk before visual signs are missed or misread. The feeding ultrasound approach could make follow-up evaluation less burdensome by avoiding fasting and potentially reducing reliance on tests that require anesthesia or invasive procedures. For families, earlier detection could mean faster treatment decisions and a better chance of preserving the native liver. Future studies will need to evaluate implementation, cost-effectiveness, and performance across multiple centers and healthcare systems.

References

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