pathlab



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Bilirubin in Babies and Adjusted Calcium

Conjugated Bilirubin In Babies

An elevated conjugated bilirubin may be a sign of biliary atresia. Early detection and intervention is essential for the best outcome possible for this rare (about 1 in 10 000 live births) but serious condition. An increase in conjugated bilirubin and pale stools should raise suspicion of biliary atresia. An elevated conjugated bilirubin may also reflect other serious conditions and should prompt a paediatric review.

Therefore, as from July 2014 Waikato DHB laboratories and Pathlab laboratories will add conjugated bilirubin to all samples from babies between 14 and 180 days old when the total bilirubin is ≥ 60umol/l.

The following comment will be added to the direct bilirubin results:
"A conjugated bilirubin of > 25 µmol/L or > 20% of the total bilirubin is significant and paediatric review is indicated. Pale stools raise suspicion of biliary atresia but the pattern may also be explained by many other conditions including viral infections, metabolic disease or other liver disease."

Adjusted Calcium – Change In Calculation

Pathlab has changed the analyser used for measuring albumin. Since using the new method, we have noted a decrease in the average reported albumin of about 2g/L. As we use a "mean population value" to calculate the adjusted calcium this means the reported values have increased slightly, in the order of 0 - 0.1mmol/L. Consequently, healthy patients at the upper end of "normal" will have mildly elevated calciums, which may cause unnecessary concern and inappropriate additional investigations. Using local data, a new calculation has been developed and will be **implemented on 1st October 2014**.

Current calculation: adjusted calcium = calcium – 0.022 x (albumin – 40)
New calculation: adjusted calcium = calcium – 0.013 x (albumin –37.5)
When albumin is "normal", adjusted calcium results will decrease 0 – 0.1 mmol/l, and slightly more when albumin is "low".

Calcium will also be reported to 2 decimal places and the reference interval will be 2.10 – 2.55mmol/L. The lower limit for albumin will change from 33g/L to 34g/L. This will bring both albumin and adjusted calcium reporting in line with other laboratories in the region.

CLINICAL UPDATE

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