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Appendix Materials
Cholestasis and Hepatitis

Algorithms for Cholestasis
Extra material on Viral Serologic Tests

Winter 2012
Continuous lines indicate usual pathway for evaluation. Dashed lines indicate alternative pathways that should be employed if individual patient characteristics strongly suggest a diagnosis. Note that both direct duct visualization and treatment to relieve obstruction be performed at the same time.
Approach to the Patient with Cholestasis

- Elevated alkaline phosphatase level
  - Confirm liver origin of AP
    - fractionate AP
    - look for abnormalities in other liver tests

- Abnormal liver tests suggesting cholestasis
  - Suspect intrahepatic cholestasis
    - Specific diagnostic tests
      - Stop drugs
      - Consider liver biopsy
      - Consider CT to rule out structural disease
      - Medical management/observation
  - Suspect extrahepatic cholestasis
    - Noninvasive imaging of the biliary tree: ultrasound or CT
      - may go to direct duct visualization in some cases
      - Normal ducts
      - Normal ducts, still suspect extrahepatic cholestasis
      - Dilated ducts
        - Relief of biliary obstruction: surgical endoscopic percutaneous
          - Obstruction visualized
      - Direct duct visualization (ERCP or PTC)
<table>
<thead>
<tr>
<th>Test</th>
<th>Interpretation</th>
</tr>
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<tbody>
<tr>
<td>HBsAg</td>
<td>HBV infection: acute or chronic</td>
</tr>
<tr>
<td>anti-HBs</td>
<td>Past HBV infection/immunity</td>
</tr>
<tr>
<td>IgM anti-HBc</td>
<td>Recent (acute) HBV infection</td>
</tr>
<tr>
<td>HBV DNA</td>
<td>High viral replication/infectivity</td>
</tr>
<tr>
<td>HBeAg</td>
<td>High viral replication/infectivity</td>
</tr>
<tr>
<td>HBeAb</td>
<td>Low viral replication/infectivity</td>
</tr>
<tr>
<td>IgG anti-HBc and HBsAg</td>
<td>Chronic HBV infection</td>
</tr>
<tr>
<td>IgG anti-HBc and anti-HBs</td>
<td>Past HBV infection (immune)</td>
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</tbody>
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