INDICATIONS FOR TESTING
Liver disease of unknown etiology (all viral serologies negative, elevated transaminases)

ORDER
Autoimmune Liver Disease Evaluation with Reflex to Smooth Muscle Antibody (SMA) IgG, by IFA AND Anti-Nuclear Antibodies (ANA), IgG by ELISA with Reflex to ANA, IgG by IFA

OR
Individual tests:
- F-Actin (Smooth Muscle) Antibody, IgG by ELISA with Reflex to Smooth Muscle Antibody, IgG Titer
- Anti-Nuclear Antibodies (ANA), IgG by ELISA with Reflex to ANA, IgG by IFA
- Liver/Kidney Microsome-1 Antibody, IgG
- Mitochondrial M2 Antibody, IgG (ELISA)

Positive result(s)

ANA and/or F-actin/SMA +
- AIH-1 or PSC
  - Suggests AIH-2

LKM-1 +
- Suggests AIH-2

AMA M2 + and ANA +/-
- Suggests PBC

Negative result(s)

- Anti-Neutrophil Cytoplasmic Antibody, IgG
- Soluble Liver Antigen Antibody, IgG

Either test positive

pANCA + with atypical staining pattern
- ANCA - SLA +
  - Suggests AIH-1
- pANCA + with atypical staining pattern SLA -
  - Yes
    - Suggests PSC
    - Perform cholangiography
  - No
    - Suggests AIH
    - UC

Negative

CCH
AIC

Test key

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANA</td>
<td>Anti-nuclear antibody</td>
</tr>
<tr>
<td>LKM-1</td>
<td>Liver-kidney microsome 1 (cytochrome P450 2D6)</td>
</tr>
<tr>
<td>M2</td>
<td>Mitochondrial antibody 2 (PDC-E2)</td>
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<tr>
<td>pANCA</td>
<td>Perinuclear antineutrophil cytoplasmic antibody</td>
</tr>
<tr>
<td>SLA</td>
<td>Soluble liver antigen</td>
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<tr>
<td>SMA</td>
<td>Smooth muscle antibody</td>
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Disease key

<table>
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<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>AIC</td>
<td>Autoimmune cholangitis</td>
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<tr>
<td>AIH</td>
<td>Autoimmune hepatitis</td>
</tr>
<tr>
<td>PBC</td>
<td>Primary biliary cholangitis</td>
</tr>
<tr>
<td>PSC</td>
<td>Primary sclerosing cholangitis</td>
</tr>
<tr>
<td>UC</td>
<td>Ulcerative colitis</td>
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