

Madigan Army Medical Center

Referral Guidelines

Liver Enzyme Elevation (Incidental)

Diagnosis/Definition

Elevation of serum ALT or AST in a patient for > 6 months. Cases with ALT > 150, or suspected autoimmune disease, should be sent sooner than 6 months (see below).

Initial Diagnosis and Management

- Usually an incidental finding in a chemistry panel obtained for reasons other than suspected liver disease.
- Review medication list (prescription, over-the-counter, and supplements) and discontinue, if possible, medications that are known to cause abnormal liver enzymes
- Have patient abstain from alcohol (suspect alcohol when AST > ALT and GGT elevated).
- If patient is overweight, encourage weight loss.

Ongoing Management and Objectives

- Repeat liver enzymes in one month, and if still abnormal, following lab tests are recommended:
 - HBsAg
 - HCV Ab
 - ANA
 - Smooth Muscle Ab; Mitochondrial Ab
 - Iron Panel, Ferritin
 - Ceruloplasmin (if < 40)
 - Alpha-1-antitrypsin level
 - SPEP
 - Protime
 - Celiac Panel
 - U/S RUQ (include AMA if alkaline phosphatase elevated).
 - For ALT <150, above studies can be obtained gradually over 6 months while observing the enzymes for possible spontaneous resolution. Check common things first (like viral studies and fasting iron panel).
 - If ALT > 150, check above studies and referral should be within 2 months if enzymes are not resolving (or refer immediately if autoimmune hepatitis is suspected - young female, other autoimmune features, elevated gamma globulin, or + ANA or Smooth Ab; Mitochondrial Ab elevated).
 - For minor elevations (<1.5x normal ALT) if work-up is negative and ultrasound suggests fatty liver, referral may not be necessary and a trial of weight loss is reasonable.

Indications for Specialty Care Referral

- If any of the above listed diagnostic tests are abnormal.

- If AST or ALT is above normal for 6 months or more and above work-up is complete (see also "minor elevations" above).
- If AST or ALT is > 150 and not coming down for 2 or more months and above work-up is complete (or pending).
- Signs or symptoms suggestive of underlying liver disease (RUQ pain, tenderness, encephalopathy, ascites).
- If autoimmune hepatitis is suspected (see above).

Criteria for Return to Primary Care

- Completion of GI evaluation with assessment of potential etiology, severity, prognosis, treatment plan (if any), and recommendations for any periodic surveillance or evaluation.
- Certain disease categories treatment plans may require ongoing close follow-up with the gastroenterologist (ie. interferon for viral hepatitis).

References

NIH guidelines; [NIH Consensus Development Program](#)
[AALSD guidelines and recommendations](#)

Last Review for this Guideline: June 2011
Referral Guidelines require review every three years.

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Clinical Practice and Referral Guidelines Administrator