

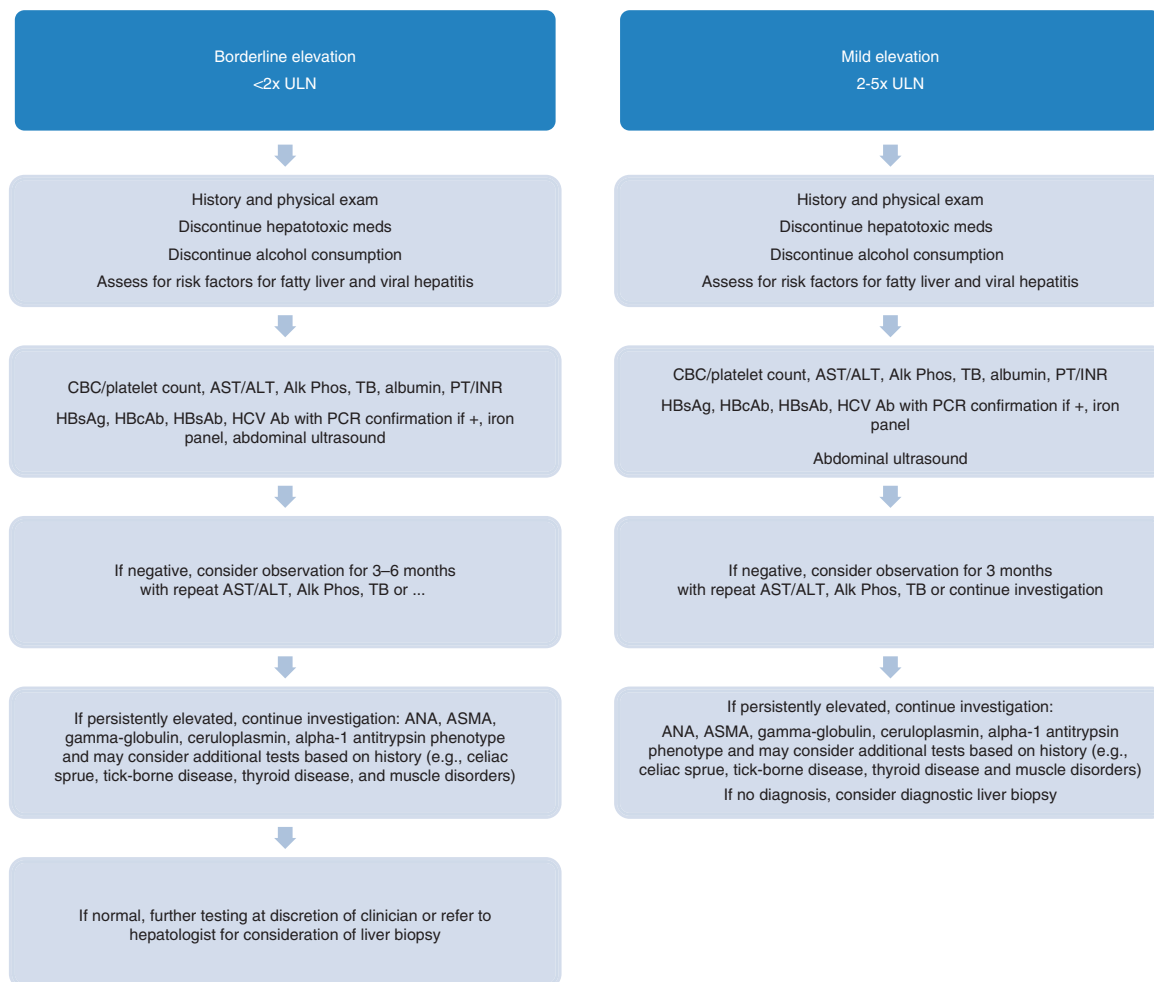
## Clinical Practice Algorithms for Evaluation of Liver Function Chemistry Tests Clinical Guideline from American College of Gastroenterology

### Introduction

In January 2017, the American College of Gastroenterology (ACG) published a newly developed clinical practice guideline regarding the evaluation of abnormal liver chemistry tests.

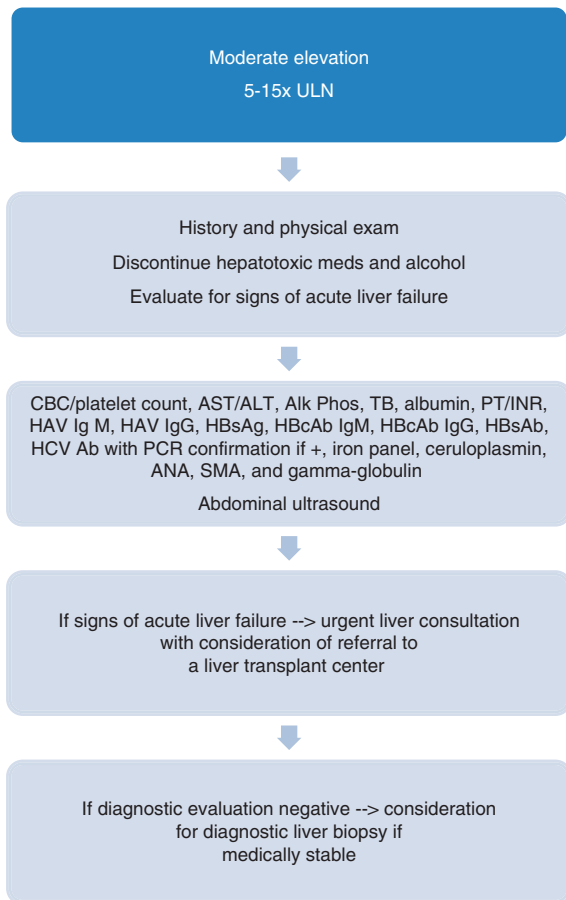
As a general rule, it is recommended that before initiation of evaluation of abnormal liver chemistry tests, the provider should repeat the laboratory panel and/or perform a clarifying test to confirm that the liver chemistry actually is abnormal. In addition, the provider should recognize that most reference intervals are established at a confidence interval of 95%, meaning that 2.5% of all healthy individuals will have test values both slightly above and slightly below the reference interval.<sup>1</sup>

Included here in Figures 1-5 are a number of clinical practice algorithms recommended by ACG depending on the liver chemistry test that is abnormal, degree of elevation, and possible combination of test results.



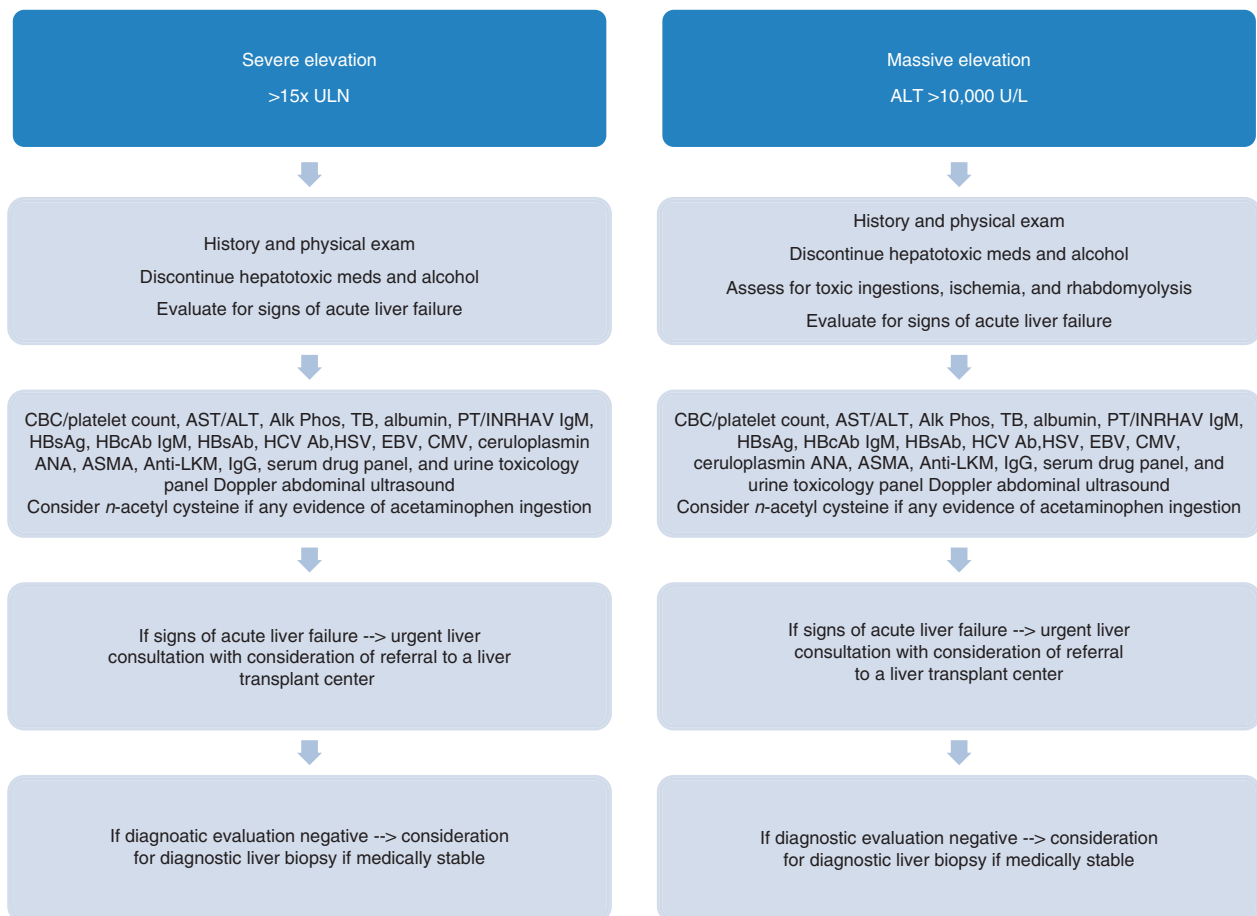
**Figure 1.** Algorithm for evaluation of aspartate aminotransferase (AST) and/or alanine aminotransferase (ALT) level. HCV, hepatitis C virus.

Figure 1 reprinted from Kwo PY, Cohen SM, Lim JK. ACG Clinical Guideline: Evaluation of Abnormal Liver Chemistries. *Am J Gastroenterol.* 2017 Jan;112(1):18-35, with permission from American College of Gastroenterology.



**Figure 2.** Evaluation of moderate elevation of aspartate aminotransferase (AST) and/or alanine aminotransferase (ALT) levels. HCV, hepatitis C virus.

Figures 2-3 reprinted from Kwo PY, Cohen SM, Lim JK. ACG Clinical Guideline: Evaluation of Abnormal Liver Chemistries. *Am J Gastroenterol*. 2017 Jan;112(1):18-35, with permission from American College of Gastroenterology.



**Figure 3.** Evaluation of severe elevation of aspartate aminotransferase (AST) and/or alanine aminotransferase (ALT) levels. HCV, hepatitis C virus.

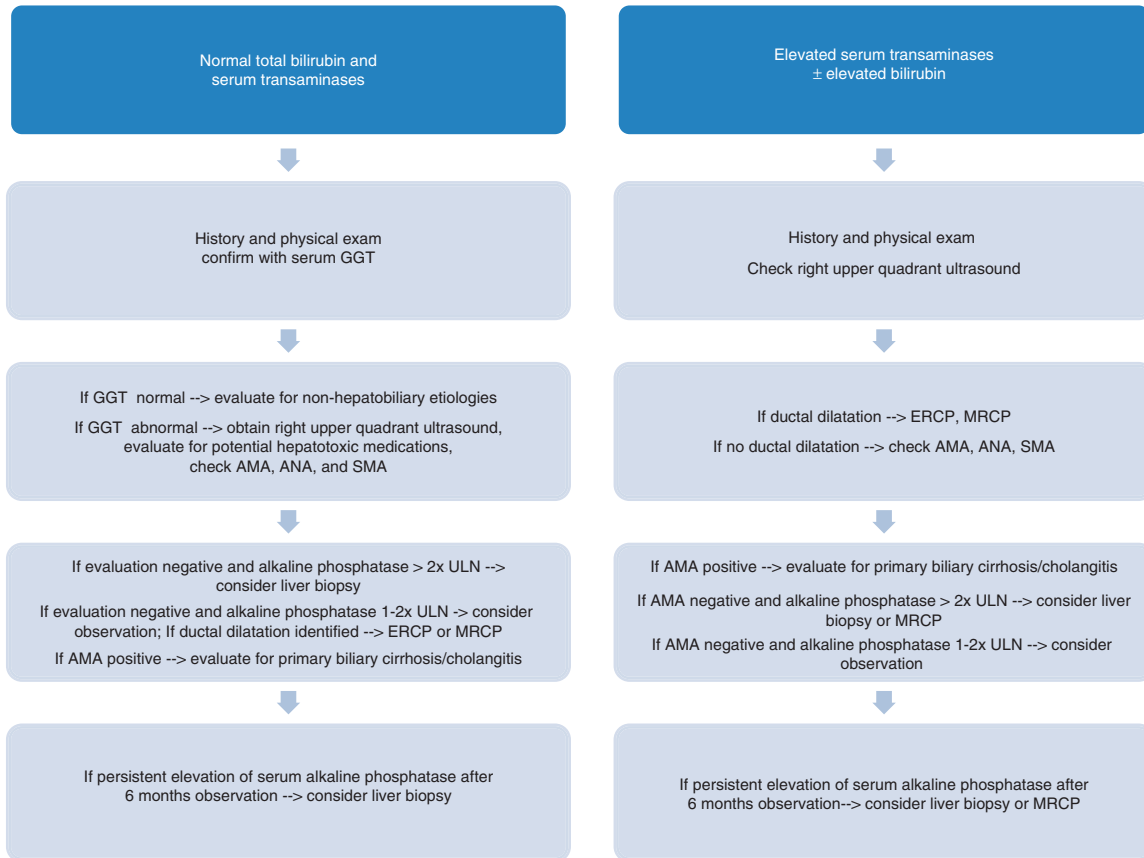


Figure 4. Algorithm for evaluation of elevated serum alkaline phosphatase.

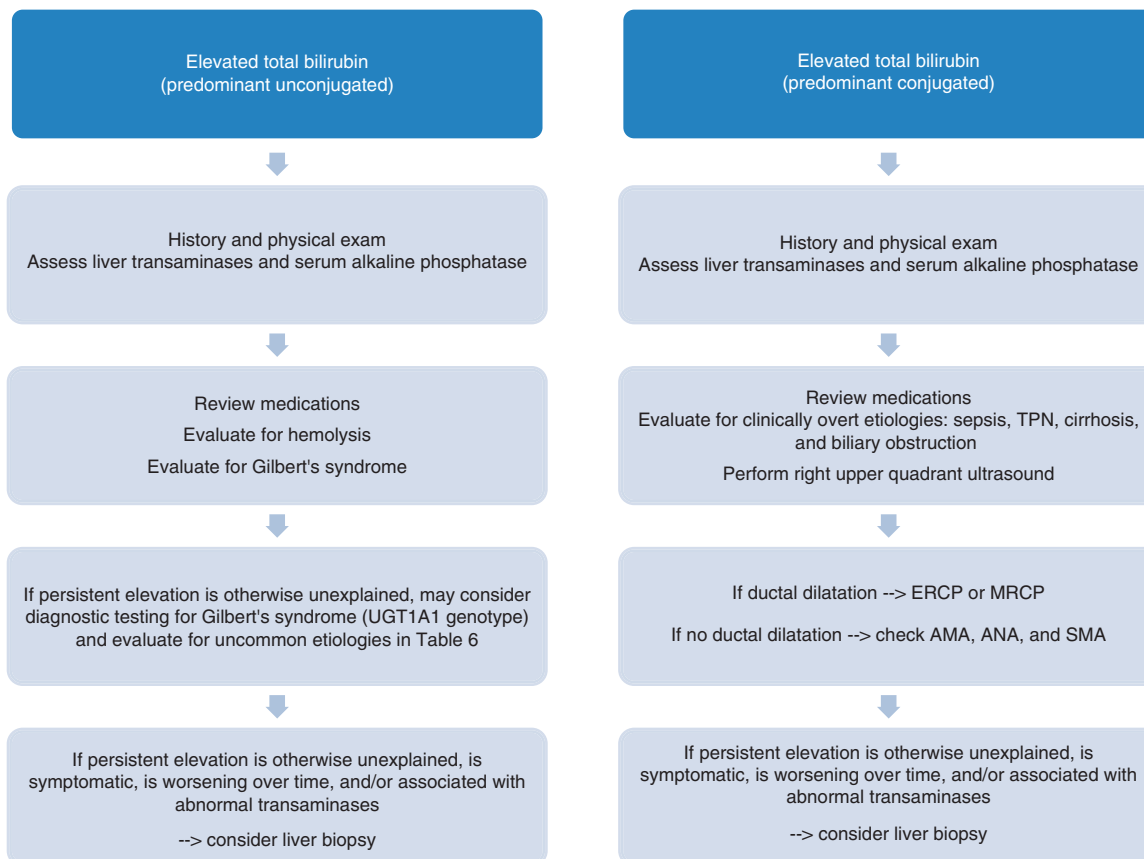


Figure 5. Algorithm for evaluation of elevated serum total bilirubin.

Figures 4-5 reprinted from Kwo PY, Cohen SM, Lim JK. ACG Clinical Guideline: Evaluation of Abnormal Liver Chemistries. *Am J Gastroenterol.* 2017 Jan;112(1):18-35, with permission from American College of Gastroenterology.

**Reference:**

1. Kwo PY, Cohen SM, Lim JK. ACG Clinical Guideline: Evaluation of Abnormal Liver Chemistries. *Am J Gastroenterol*. 2017 Jan;112(1):18-35.



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