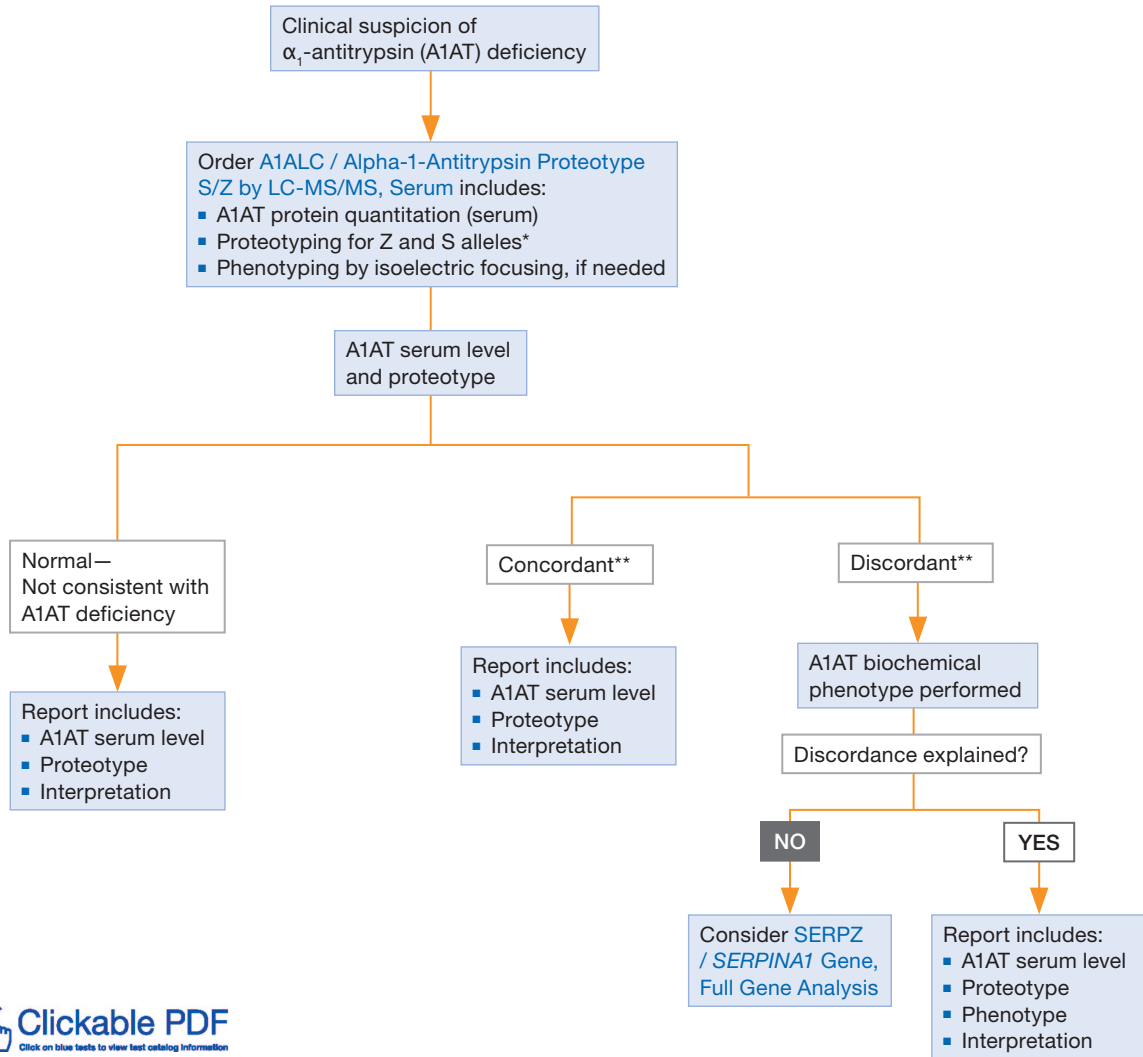


## Alpha<sub>1</sub> Antitrypsin—A Comprehensive Testing Algorithm



\*Chen Y, Snyder MR, Zhu Yi, et al: Simultaneous phenotyping and quantification of alpha-1-antitrypsin by liquid chromatography-tandem mass spectrometry. Clin Chem 2011;57(8):1161-1168

\*\*For each of the possible A1AT proteotypes there is an expected range for the total serum level of A1AT. However, a number of factors can influence either the A1AT serum level or the A1AT proteotype results, including acute illness (A1AT is an acute phase reactant), protein replacement therapy, the presence of other rare variants and/or the presence of DNA polymorphisms. As noted above in the algorithm, when the serum level differs from what is expected for that proteotype (discordant), additional studies are performed in order to ensure the most appropriate interpretation of test results. Additional follow-up may include A1AT phenotyping by isoelectric focusing (IEF), obtaining additional clinical information, and/or DNA sequencing.