

VALIDATION OF LABORATORY INSTRUMENTS

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1 INTRODUCTION

The reliability of chemical and physical measurements is critically dependent on the suitability and performance of the instruments from which the measurements are obtained. It is a challenge for any laboratory to develop a pragmatically structured validation program for laboratory instruments of varying complexity. However, implementation of such a program is highly valuable as it provides assurances that instruments meet performance requirements and are suitable for their intended use. These assurances are required to comply with the good manufacturing practices (GMPs) and good laboratory practices (GLPs).

In recent years, tremendous efforts have been put forth by many organizations to address the validation of a wide variety of laboratory instruments of varying complexity. Instrument validation-related topics have been discussed at great length