Clinical analyses have a decisive impact on medical decision-making. However, and in view of the complexity of the processes of the Clinical Biology Laboratory (CLB), failures can occur during the process that begins with the doctor's prescription and leads to the interpretation of the test results.The assessment of the causes that generate these risk factors and the measures to be taken to detect and prevent them areessential for CLB, this is done through a prioririsk analysis. This research was carried out in the hematology laboratory of Ibn Sina's University Hospital in Rabat, with the objective of conducting a priorianalysis of the risks impacting the reliability of the analytical results.Data collection was carried out through direct observation and data processing from the laboratory's non-conformity register. 67risk factors have been identified, quantified and prioritized. 44of theserisk factors are considered unacceptable. Improvement actions have been developed to remove the root causes of unacceptable risk factors. Key word:Risks in clinical laboratories, FMEA (Failure Mode and Effect Analysis), Pre-analytical process.