

Lecture 6 – Basic Assays for RBCs & Cytochemistry

OBJECTIVES

1. Explain the different principles of automated blood cell counting and analysis.
2. Describe how the general principles are implemented on different instruments.
3. Identify the parameters directly measured on the four analyzers discussed.
4. Explain the derivation of calculated or indirectly measured parameters for the same four analyzers.
5. Explain the derivation of the white blood cell differential count on the different instruments discussed.
6. Interpret and compare patient data, including white blood cell, red blood cell, and platelet histograms or cytograms or both, obtained from the four major hematology instruments.
7. Explain the general principles of automated reticulocyte counting.
8. Identify sources of error in automated cell counting and determine appropriate corrective action.