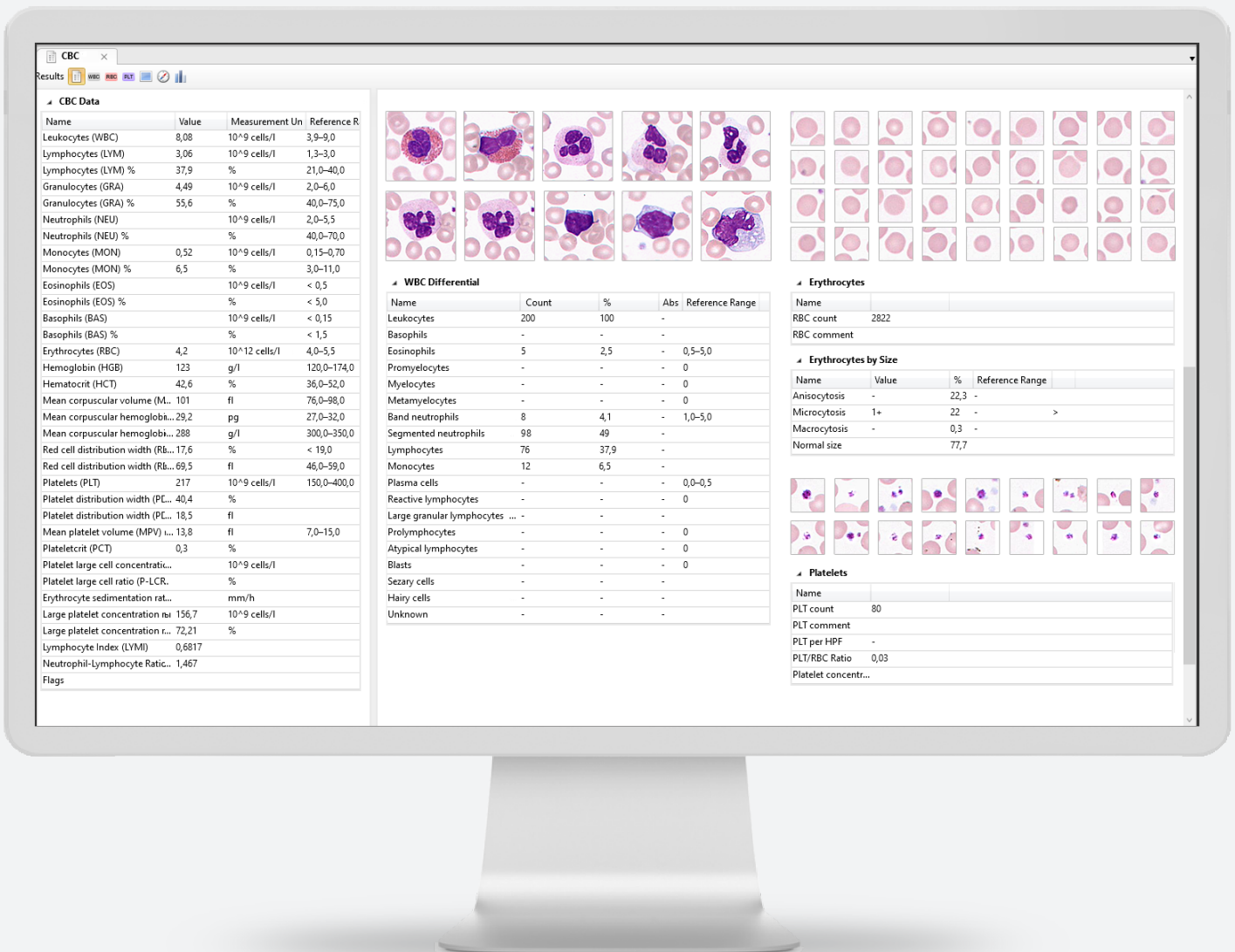


# Vision Manager

## Automated process of complete blood count



The screenshot displays the Vision Manager software interface for a Complete Blood Count (CBC) analysis. The interface is divided into several sections:

- CBC Data:** A table listing various hematology parameters, their values, measurement units, and reference ranges.
- WBC Differential:** A table showing the count, percentage, and absolute count of different white blood cell types.
- Erythrocytes:** A section for red blood cell analysis, including RBC count, RBC comment, and a table for Erythrocytes by Size (Anisocytosis, Microcytosis, Macrocytosis, Normal size).
- Platelets:** A section for platelet analysis, including PLT count, PLT comment, PLT per HPF, and PLT/RBC Ratio.

Microscopic images of blood cells are displayed in a grid format, corresponding to the data presented in the tables.

Name	Value	Measurement Un	Reference R
Leukocytes (WBC)	8,08	10 <sup>9</sup> cells/l	3,9-9,0
Lymphocytes (LYM)	3,06	10 <sup>9</sup> cells/l	1,3-3,0
Lymphocytes (LYM) %	37,9	%	21,0-40,0
Granulocytes (GRA)	4,49	10 <sup>9</sup> cells/l	2,0-6,0
Granulocytes (GRA) %	55,6	%	40,0-75,0
Neutrophils (NEU)		10 <sup>9</sup> cells/l	2,0-5,5
Neutrophils (NEU) %		%	40,0-70,0
Monocytes (MON)	0,52	10 <sup>9</sup> cells/l	0,15-0,70
Monocytes (MON) %	6,5	%	3,0-11,0
Eosinophils (EOS)		10 <sup>9</sup> cells/l	< 0,5
Eosinophils (EOS) %		%	< 5,0
Basophils (BAS)		10 <sup>9</sup> cells/l	< 0,15
Basophils (BAS) %		%	< 1,5
Erythrocytes (RBC)	4,2	10 <sup>12</sup> cells/l	4,0-5,5
Hemoglobin (HGB)	123	g/l	120,0-174,0
Hematocrit (HCT)	42,6	%	36,0-52,0
Mean corpuscular volume (M...)	101	fl	76,0-98,0
Mean corpuscular hemoglobin...	29,2	pg	27,0-32,0
Mean corpuscular hemoglobin...	288	g/l	300,0-350,0
Red cell distribution width (RB...)	17,6	%	< 19,0
Red cell distribution width (RB...)	69,5	fl	46,0-59,0
Platelets (PLT)	217	10 <sup>9</sup> cells/l	150,0-400,0
Platelet distribution width (PL...)	40,4	%	
Platelet distribution width (PL...)	18,5	fl	
Mean platelet volume (MPV) l...	13,8	fl	7,0-15,0
Plateletcrit (PCT)	0,3	%	
Platelet large cell concentrati...		10 <sup>9</sup> cells/l	
Platelet large cell ratio (P-LCR...)		%	
Erythrocyte sedimentation rat...		mm/h	
Large platelet concentration by	156,7	10 <sup>9</sup> cells/l	
Large platelet concentration r...	72,21	%	
Lymphocyte Index (LYMI)	0,6817		
Neutrophil-Lymphocyte Ratic...	1,467		
Flags			

Name	Count	%	Abs	Reference Range
Leukocytes	200	100	-	-
Basophils	-	-	-	-
Eosinophils	5	2,5	-	0,5-5,0
Promyelocytes	-	-	-	0
Myelocytes	-	-	-	0
Metamyelocytes	-	-	-	0
Band neutrophils	8	4,1	-	1,0-5,0
Segmented neutrophils	98	49	-	-
Lymphocytes	76	37,9	-	-
Monocytes	12	6,5	-	-
Plasma cells	-	-	-	0,0-0,5
Reactive lymphocytes	-	-	-	0
Large granular lymphocytes ...	-	-	-	-
Prolymphocytes	-	-	-	0
Atypical lymphocytes	-	-	-	0
Blasts	-	-	-	0
Sezary cells	-	-	-	-
Hairy cells	-	-	-	-
Unknown	-	-	-	-

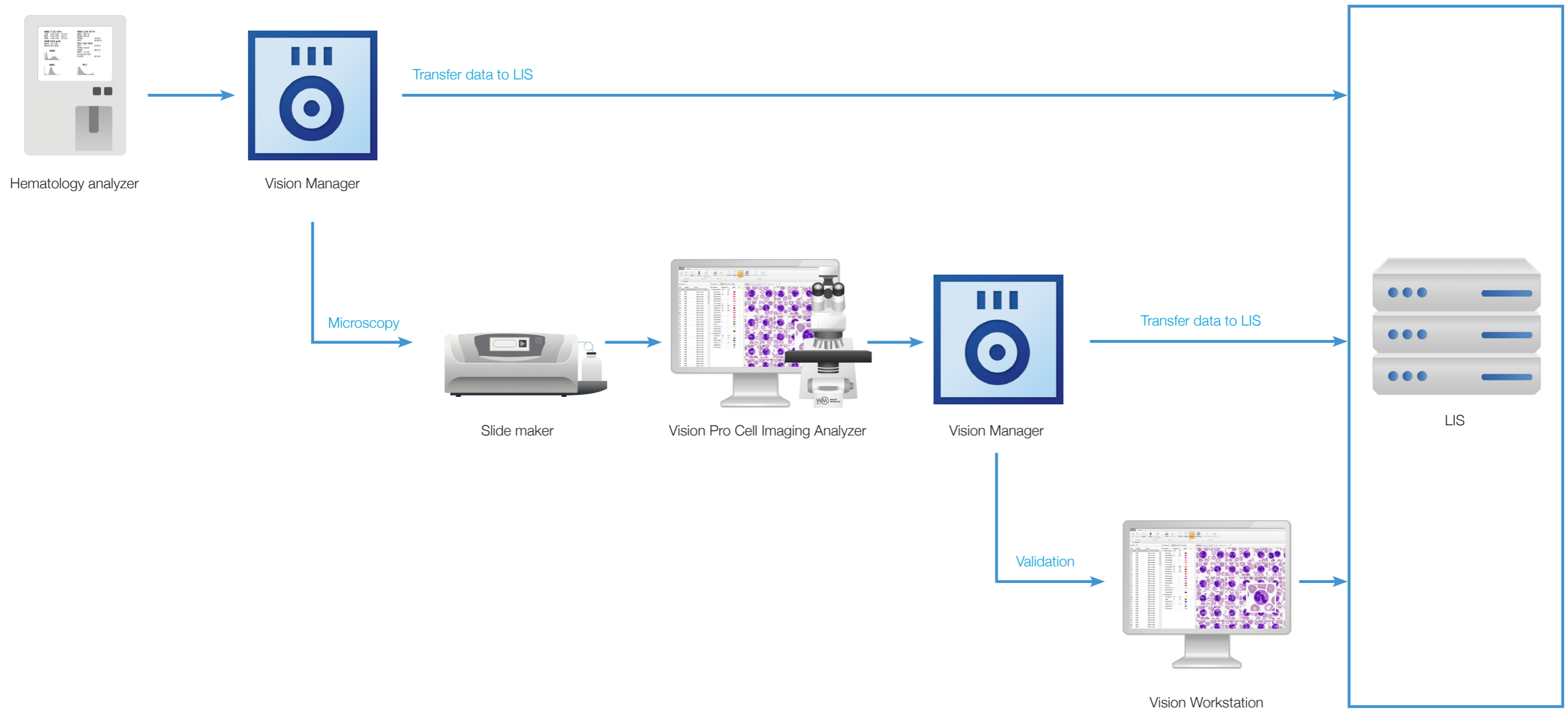
Name	Value	%	Reference Range
Anisocytosis	-	22,3	-
Microcytosis	1+	22	>
Macrocytosis	-	0,3	-
Normal size		77,7	

Name	Value
PLT count	80
PLT comment	
PLT per HPF	-
PLT/RBC Ratio	0,03
Platelet concentr...	

Hematology analyzers data processing rules and morphological blood cell analysis

# Automated process of complete blood count

Hematology analyzers data processing rules and morphological blood cell analysis



- 1 Hematology analyzer results are transferred to Vision Manager
- 2 Automatic processing of data based on the set of rules for decision-making regarding blood smear microscopy
- 3 Blood smear slide preparation and staining
- 4 Automatic blood smear analysis
- 5 Automatic processing of data related to blood smear microscopy results
- 6 Results validation
- 7 Data storage

# Vision Manager

Administrative module for managing the workflow of analyses in medium sized and large laboratories.

## Key features

- Transfer of data from hematology analyzers or LIS
- Processing of data based on the set rules and algorithms
- Automatic decisions about the necessary actions with samples in terms of validation of the blood smear analysis
- Validation and control of results

Vision Manager is the ultimate workplace manager, a reflection of the real-life laboratory hierarchy as it helps clinicians and lab employees to manage daily operations related to: lab clients, work stations, rules, tests, patients and users.

Vision Manager provides efficient automation of routine work processes, giving the staff more time to complete other important and non-recurring tasks. The system covers all pathological analysis profiles automatically and offers full customization. Workplaces for the process of complete blood count are arranged in a single working network.

The concept of Vision Manager is an important step in the lab workflow support software. It offers a clear general user interface and a completely new application affecting a wide range of processes from working next to the analyzer to the Manager's office responsible for monitoring.

Rules are created by the laboratory clinical direction. Vision Manager provides the tools for creation of rules under the responsibility of the laboratory clinical direction.