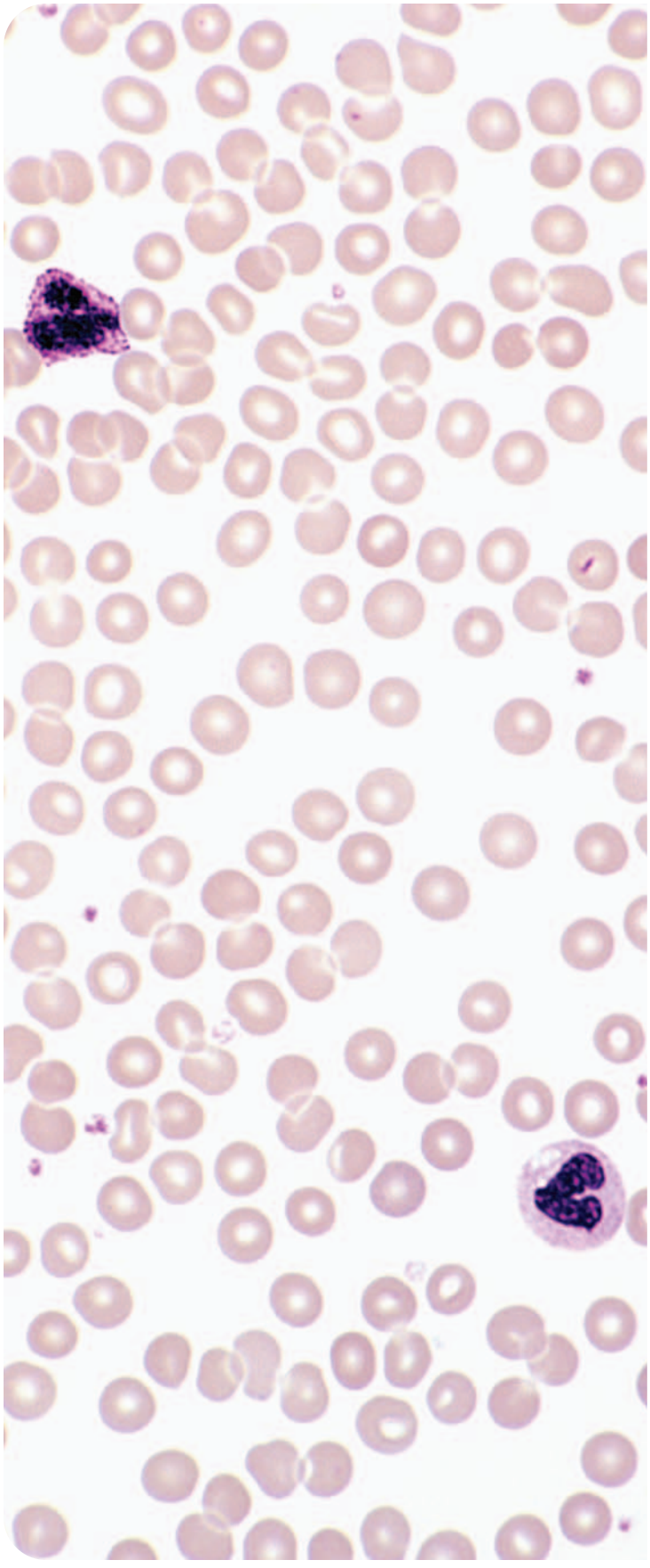
Medica EasyCell® *assistant*
Cell Image Analysis System

Automated Cell Analysis Assistance
for the Smaller Hematology Lab

System Overview

The EasyCell® *assistant* is an automated cell image analyzer, designed to assist technologists with routine differentials by automating the scanning and pre-classification of white cells. Today's clinical laboratories are faced with a lack of qualified technologists. The EasyCell *assistant* improves efficiency by eliminating much of the routine work of locating and sorting predominantly normal cells, freeing up time for technologists to classify abnormal cell types.



The Right System for Smaller Laboratories

This system brings many of the capabilities found in cell imaging systems designed for larger labs to the smaller hematology laboratory. Its compact size and high resolution imaging capabilities offer the perfect balance of high quality results with a small footprint and affordability.

The EasyCell *assistant* helps increase efficiency in smaller labs by automating the labor-intensive process of scanning slides and pre-classifying the normal cells found on most blood smears. The advantages enjoyed by larger labs can now be cost-effectively realized by labs which typically process 100 to 300 samples per day.

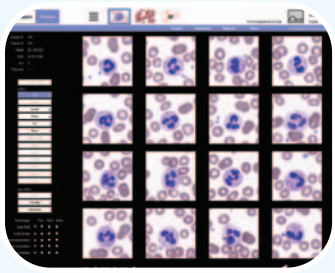
Key Benefits:

- **Efficient** – walk-away, unattended scanning of up to 30 slides saves valuable technologist time
- **Rapid** – automated location and pre-classification of normal and abnormal WBCs, preparation of images for RBC morphology and platelet estimate reduces 'scope fatigue'
- **Easy** – simple, intuitive graphic user interface enables fast training and seamless user adoption
- **Accurate** – ability to view cells with various levels of magnification and compare cells to each other offers the technologist the opportunity to improve accuracy. There is no risk of double counting cells.

Your Assistant for Cell Image Analysis

WBC Differentials

The EasyCell *assistant* locates and displays cell images, then performs preliminary classification of 100 or 200 cells into WBC categories. Immature, abnormal and unrecognized cells are categorized for further review. Cell images can be enlarged to view in detail.

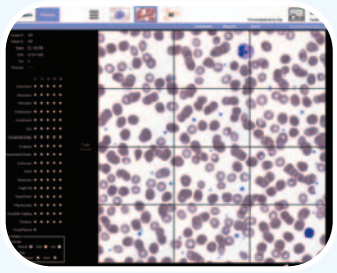


After automatically scanning the slide, the system provides images of the sorted, pre-classified cells. Any cells requiring manual re-classification can be easily moved by a mouse click.

RBC Morphology and Platelet Estimates

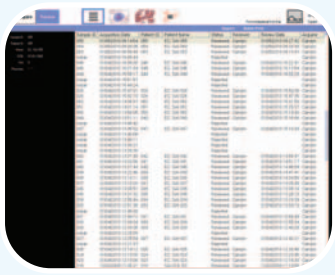
Red cell morphology grading and platelet estimates may be performed on images that are automatically provided. This speeds up platelet count, platelet morphology and RBC morphology verification.

A total of one thousand RBCs over four screens are provided for each patient's slide, with RBC and platelet grading categories. A virtual micrometer is also provided for cell sizing.

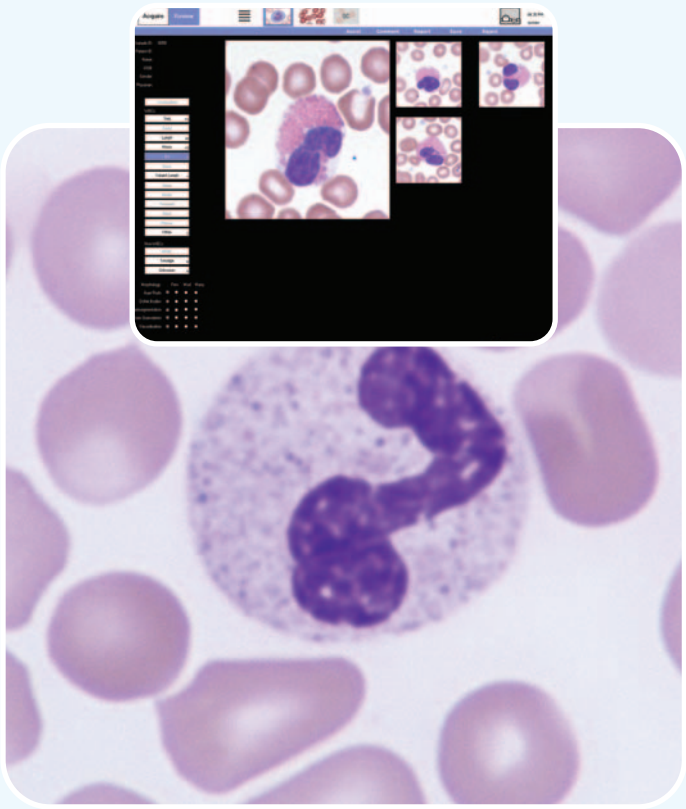


Patient Data Reporting

The system provides a complete CBC and Differential, with the option of selected cell images included in the written report. The technologist is able to enter comments and observations about the sample for targeted review.



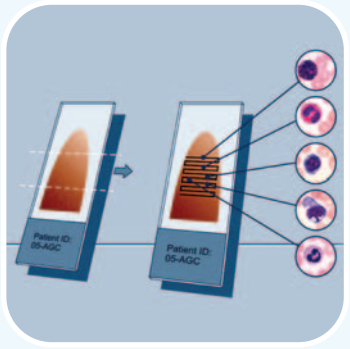
- On-board data storage for up to 10,000 slides with rapid recall.
- CD-ROM storage of data for potentially indefinite and compact storage.
- Supports barcoding or label image capture for positive slide identification.
- A bi-directional interface for LIS connectivity improves workflow and helps eliminate errors.



Cell images can be enlarged to aid analysis. By clicking on one of the cells, a larger image can be quickly viewed, showing cell morphology in greater detail.

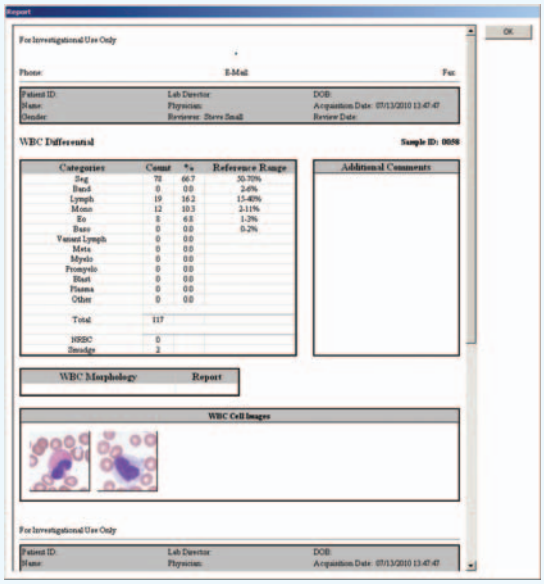
Walk-away System Operation – as easy as 1,2,3

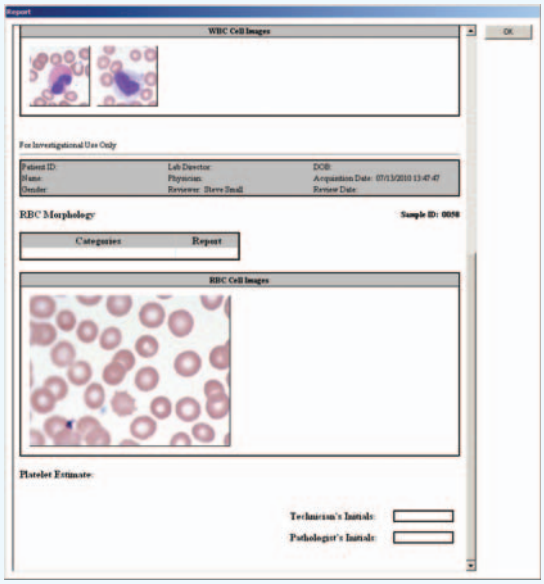
- Place up to 30 oiled slides in the carousel, press “start” and walk away.
- STAT feature for ‘next slide’ analysis



- The system finds the monolayer automatically:
  - Nucleated cells are located and coordinates are stored.
  - The Patient ID barcode is imaged at 10x magnification.
  - If RBC morphology is ordered, 50 images are automatically captured at 10x.
- Utilizing CLSI methodology at 100x magnification, up to 200 nucleated cells are located and images are stored.

- The user interface displays the cells for technologist review:
  - WBCs are pre-classified into 8 categories, including a flagged category for abnormal cells & artifacts.
- Manual grading of RBC morphology & platelet estimates are also supported for quick, streamlined turnaround.





Up to six WBC and two RBC cell images may be included on the printed patient report.

Specifications

PERFORMANCE SPECIFICATIONS	
Slide Capacity	Up to 30 pre-oiled slides; walk-away Single slide STAT capability
Slide Methods	Automated and manually prepared wedge-smear slides
Stains	Standard stains, including: • Wright • Wright-Giemsa • May-Grunwald-Giemsa
Stain Variation	Automatic adjustment
Scan Time (typical)	4.5 min / slide – WBC only 5.5 min / slide – WBC with RBC/PLT images
WBC Diff Cells Counted	100 or 200 cell differential (user choice)
Automated Pre-classification Cell Categories	Segmented Neutrophils, Band Neutrophils, Lymphocytes, Monocytes, Eosinophils, Basophils, Variant Lymphocytes, NRBCs, Smudge Cells, Other
Cell Classification Categories*	Blast Cells, Promyelocytes, Myelocytes, Metamyelocytes, Plasma Cells
WBC Morphology Reporting Categories*	Auer Rods, Döhle bodies, Hypersegmentation, Toxic Granulation, Vacuolization (None, Few, Moderate, Many)
RBC Morphology Reporting Categories*	Anisocytosis, Macrocytosis, Microcytosis, Poikilocytosis, Acanthocytosis, Burr, Howell-Jolly, Ovalocyte, Pappenheimer bodies, Schistocyte, Sickle, Spherocyte, Target Cell, Hypochromic, Polychromatic, Basophilic Stippling, Rouleaux (0, 1+, 2+, 3+, 4+)
Platelet Estimate Morphology Categories*	Normal, Decreased, Increased
Platelet Morphology Categories*	Clumped, Giant
Slide Identification	Barcoding or label image capture
Oiling Method	EasyCell Oil Applicator

INSTRUMENT SPECIFICATIONS	
Environmental Conditions	Indoor Use
Conditions	15 – 30° C (59 – 86° F); 500 – 800 mmHg (Max 15 PSI) Altitude up to 2,000 m 5 – 85% humidity, non-condensing
Data Storage:	10,000 slides
LIS Compatibility:	Bi-directional CLSI LIS 2-A2 message protocol CLSI LIS 1-A2 transport over TCP/IP or RS-232
Calibration:	On Demand
Capacity:	30 Slides per carousel
Power:	EasyCell: 100-240 ~ VAC, 50/60Hz, 4A Computer: 90 – 135 ~ VAC, 50/60 Hz or 180 – 240 ~ VAC, 50/60 Hz Monitor: 100 – 240 ~ VAC, 50/60 Hz, 1.5 A
Fuses:	5MM x 20MM, 250 VAC, 4A Replace with Fuse type: T4AL250V
Size:	24" W x 24" H x 21.5" D
Weight:	150 lbs.
Printer Support:	A list of compatible printers is listed in the Operators Manual and is available upon request.
Archiving of Results:	Media: CD

**Images presented automatically by EasyCell assistant. Final classification and/or ranking is based on Technologist expertise.*

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