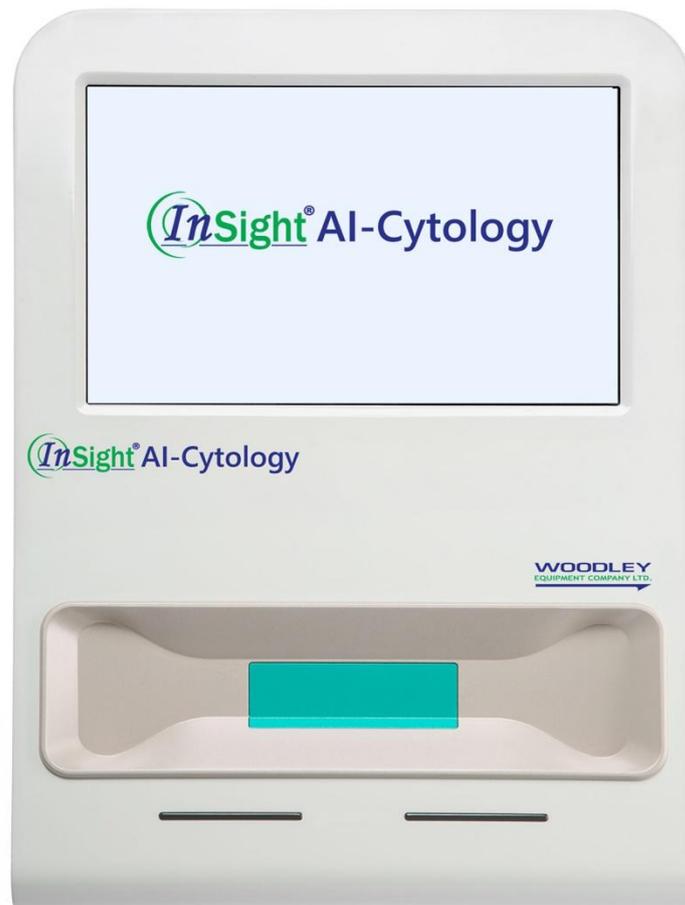


InSight[®] AI-Cytology

**Veterinary Haematology Analyser
with Morphology
Operator's Manual**



Thank you for purchasing the InSight AI-Cytology Veterinary Haematology Analyser with Morphology.

Before operating the analyser, please carefully read and understand this manual to ensure the analyser is operated correctly. Retain this manual in a secure location for future reference as needed.



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Section 1 Manual Overview

1.1 Overview

This section provides a comprehensive explanation of the InSight AI-Cytology Veterinary Haematology Analyser with Morphology, covering its purpose, structure, function and operational procedures. It is essential to thoroughly read and understand the details of this manual prior to using the analyser. Correct understanding and application of the instructions will optimise the performance of the InSight AI-Cytology and ensure the safety of the operator.

1.2 Scope of Application

This product is designed for the automatic analysis of animal blood, faeces, urine, ascites and other biological samples. The analyser and its operator's manual is intended for use by veterinary laboratory professionals, trained veterinarians and veterinary nurses. It is crucial that only trained personnel operate this equipment to ensure accurate results and maintain safety standards.

1.3 Manual Conventions

The illustrations included in this manual are provided solely for reference purposes and should not be utilised for any other application. Please note that the graphics, settings or data depicted in these illustrations may not precisely correspond to what is displayed on the actual InSight AI-Cytology Veterinary Haematology Analyser with Morphology.

1.4 Symbols



Date of manufacture



Manufacturer



Serial number



AC



Biological risks



Caution



CE mark



UKCA mark



ON (power)
OFF (power)



Standby
Power/Standby



Dispose of Product Correctly
Contact the local authorities to determine the proper method of disposal.

Section 2 System Overview

2.1 Overview

This chapter details the test parameters, key components, operating interface and associated reagents used with the InSight AI-Cytology Veterinary Haematology Analyser with Morphology.

2.2 Parameters

This analyser is designed for use as a clinical examination screening tool. It should not serve as the sole basis for clinical diagnosis. Clinicians are advised to consider additional clinical examination results and patient’s clinical symptoms when making a diagnosis.

The analyser currently supports the testing of blood, urine, faeces and ascites samples. For blood, faeces, urine and ascites samples, the testing slide used is a double-channel slide (left, right). It is important to note that the correct side (left or right) is selected before running a test.

2.2.1 Type of Blood Sample – Double-Channel Slide (Left and Right)

The analyser generates 46 report parameters, including one histogram (RBC-PLT CV), two scatter plots (CH-CV, CHC-CV) and one clinical diagnostic comment. The specific details of the 43 blood reporting parameters are listed in the table below.

2.2.1.1 Canine, Feline and Small Mammals Blood Samples

Parameter System	Abbreviation	Full Name
White Blood Cell (18 Items)	WBC	White Blood Cell Count
	NEU#	Neutrophil Number
	NST#	Band Neutrophil
	NSG#	Segmented Neutrophil
	NSH#	Hyper-Segmented Neutrophil
	LYM#	Lymphocyte Number
	MON#	Monocyte Number
	EOS#	Eosinophil Number
	BAS#	Basophil Number
	NEU%	Neutrophil Percentage
	NST/WBC%	Band Neutrophil Percentage (NST/WBC)
	NSG%	Segmented Neutrophil Percentage
	NHG/WBC%	Hyper-Segmented Neutrophil Percentage (NHG/WBC%)
	LYM%	Lymphocyte Percentage
	MON%	Monocyte Percentage
EOS%	Eosinophil Percentage	

	BAS%	Basophil Percentage
	NST/NEU%	Band Neutrophil Percentage (NST/NEU)
	NSH/NEU%	Hyper-Segmented Neutrophil Percentage (NSH/NEU)
Red Blood Cell (18 Items)	RBC	Red Blood Cell count
	HGB	Haemoglobin Concentration
	HCT	Haematocrit
	MCV	Mean Corpuscular Volume
	MCH	Mean Corpuscular Haemoglobin
	MCHC	Mean Corpuscular Haemoglobin Concentration
	RDW-SD	Red Blood Cell Distribution Width - Standard Deviation
	RDW-CV	Red Blood Cell Distribution Width – Coefficient of Variation
	HDW-SD	Haemoglobin Concentration Distribution Width - Standard Deviation
	HDW-CV	Haemoglobin Concentration Distribution Width - Coefficient of Variation
	RET#	Reticulocyte Number
	RET%	Reticulocyte Percentage
	NRBC#	Nucleated Red Blood Cell (NRBC) Count
	NRBC/WBC%	Nucleated Red Blood Cell (NRBC) Percentage (NRBC /WBC)
	ETG#	Erythrocyte Ghost
	ETG%	Erythrocyte Ghost Percentage
	SPH#	Spherocyte
	SPH%	Spherocyte Percentage
AGG#	Agglutinated Erythrocytes	
Platelet (8 Items)	PLT	Platelet Count
	PCT	Plateletcrit
	MPV	Mean Platelet Volume
	LPLT#	Large Platelet number
	P-LCR	Platelet Large Cell Ratio
	APLT#	Agglutinated Platelet number
	PDW-SD	Platelet Distribution Width - Standard Deviation
	PDW-CV	Platelet Distribution Width - Coefficient of Variation

2.2.1.2 Rabbit Blood Samples

The analyser generates 36 report parameters for rabbit blood samples, including one histogram (RBC-PLT CV), two scatter plots (CH-CV, CHC-CV) and one clinical diagnostic comment. The specific details of the 36 blood reporting parameters are listed in the table below.

Parameter System	Abbreviation	Full Name
White Blood Cell (9 Items)	WBC	White Blood Cell Count
	HET#	Heterophil Number
	LYM #	Lymphocytes Number
	MON#	Monocytes Number
	BAS#	Basophils Number
	HET%	Heterophil Percentage
	LYM%	Lymphocytes Percentage
	MON%	Monocytes Percentage
	BAS%	Basophils Percentage
Red Blood Cell (18 Items)	RBC	Red Blood Cell Count
	HGB	Haemoglobin Concentration
	HCT	Haematocrit
	MCV	Mean Corpuscular Volume
	MCH	Mean Corpuscular Haemoglobin
	MCHC	Mean Corpuscular Haemoglobin Concentration
	RDW-SD	Red Blood Cell Distribution Width - Standard Deviation
	RDW-CV	Red Blood Cell Distribution Width - Coefficient of Variation
	HDW-SD	Haemoglobin Concentration Distribution Width - Standard Deviation
	HDW-CV	Haemoglobin Concentration Distribution Width - Coefficient of Variation
	RET#	Reticulocyte Number
	RET%	Reticulocyte Percentage
	NRBC#	Nucleated Red Blood Cell Number
	NRBC/WBC%	Nucleated Red Blood cell percentage
	ETG#	Erythrocyte Ghost Number
	ETG%	Erythrocyte Ghost Percentage
	SPH#	Spherocyte
	SPH%	Spherocyte Percentage
AGG#	Agglutinated Erythrocytes	
Platelet	PLT	Platelet Count
	PCT	Plateletcrit

(7 Items)	MPV	Mean Platelet Volume
	LPLT#	Large Platelet number
	P-LCR	Platelet Large Cell Ratio
	APLT#	Agglutinated Platelet number
	PDW-SD	Platelet Distribution Width - Standard Deviation
	PDW-CV	Platelet Distribution Width - Coefficient of Variation

2.2.1.3 Reptile Blood Samples

The analyser generates 26 report parameters for reptile blood samples, including one histogram (RBC-PLT CV), two scatter plots (CH-CV, CHC-CV) and one clinical diagnostic comment. The specific details of the 26 blood reporting parameters are listed in the table below.

Parameter System	Abbreviation	Full Name
White Blood Cell (9 Items)	WBC	White Blood Cell Count
	HET & EOS#	Heterophil and Eosinophil Number
	LYM#	Lymphocytes Number
	MON#	Monocytes Number
	BAS#	Basophils Number
	HET & EOS%	Heterophil and Eosinophil Percentage
	LYM%	Lymphocytes Percentage
	MON%	Monocytes Percentage
	BAS%	Basophils Percentage
Red Blood Cell (11 Items)	RBC	Red Blood Cell Count
	HGB	Haemoglobin Concentration
	HCT	Haematocrit
	MCV	Mean Corpuscular Volume
	MCH	Mean Corpuscular Haemoglobin
	MCHC	Mean Corpuscular Haemoglobin Concentration
	RDW-SD	Red Blood Cell Distribution Width - Standard Deviation
	RDW-CV	Red Blood Cell Distribution Width - Coefficient of Variation
	NRBC#	Nucleated Red Blood Cell Number
	NRBC%	Nucleated Red Blood Cell Percentage
	ETG#	Erythrocyte Ghost Number
	ETG%	Erythrocyte Ghost Percentage
	Thrombocyte (3 Items)	TC
CTC#		Coagulated Thrombocyte Count
CTC%		Coagulated Thrombocyte Count
Blood Parasite	Blood Parasite	Blood parasite

(2 Item)	HAE#	Hepatozoon
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2.2.1.4 Avian Blood Samples

The analyser generates 18 report parameters for avian blood samples, including one histogram (RBC-PLT CV), two scatter plots (CH-CV, CHC-CV), and one clinical diagnostic comment. The specific details of the 18 blood reporting parameters are listed in the table below.

Parameter System	Abbreviation	Full Name
White Blood Cell (6 Items)	HET & EOS#	Heterophil and Eosinophil Number
	MON#	Monocytes Number
	BAS#	Basophils Number
	HET & EOS%	Heterophil and Eosinophil Percentage
	MON%	Monocytes Percentage
	BAS%	Basophils Percentage
Red Blood Cell (11 Items)	RBC	Red Blood Cell Count
	HGB	Haemoglobin Concentration
	HCT	Haematocrit
	MCV	Mean Corpuscular Volume
	MCH	Mean Corpuscular Haemoglobin
	MCHC	Mean Corpuscular Haemoglobin Concentration
	RDW-SD	Red Blood Cell Distribution Width - Standard Deviation
	RDW-CV	Red Blood Cell Distribution Width - Coefficient of Variation
	NRBC#	Nucleated Red Blood Cell Number
	NRBC%	Nucleated Red Blood Cell Percentage
	ETG#	Erythrocyte Ghost Number
ETG%	Erythrocyte Ghost Percentage	

2.2.2 Faeces Sample Type – Double-Channel Slide (Left and Right)

The analyser provides 32 report parameters, one clinical diagnosis comment and one flora distribution map. Based on positive test results, it automatically displays detailed visuals, including:

- 6 images each of roundworm eggs, hookworm eggs, fluke eggs, Trichomonas and Giardia.
- 6 images each for three stages of Isospora coccidia (0, 1, 2).
- 6 images each of Campylobacter, Bacillus, Spirochete and Helicobacter.
- 6 images each for yeast, red blood cells, white blood cells, epithelial cells, starch granules, lipid droplets, plant fibres and muscle fibres.

Abbreviation	Full Name
ALE#	Ascaris Eggs

ANE#	Hookworm Eggs
CEE#	Tapeworm Eggs
DIP#	Dipylidium Caninum Eggs
SPI#	Spirometra Eggs
TRE#	Alaria Alata Eggs
TRI#	Trichomonas
GIA#	Giardia
GIAT#	Giardia Trophozoite
GIAC#	Giardia Cyst
COD#	Isosporium Coccidia
COD0#	Isosporium Coccidia 0
COD1#	Isosporium Coccidia 1
COD2#	Isosporium Coccidia 2
COS#	Cocci
BACI#	Rods
SBAC#	Brevibacterium
CBAC#	Crude Bacilli
TBAC#	Thin Bacilli
C/B	Cocci/Rods
CAM#	Campylobacter
BAC#	Bacillus
SS1#	Serpentine Spirochetes
SS1#	Helicobacter
YEA#	Yeast
RBC#	Red Blood Cell Count
WBC#	White Blood Cell Count
EPC#	Epithelial Cells
STA#	Starch Granule
LFAT#	Lipid Drop
PLA#	Plant Fibre
AF#	Muscle Fibre

2.2.3 Urine Sample Type – Double-Channel Slide (Left and Right)

The analyser generates 21 reporting parameters, provides one clinical diagnosis comment and includes a urine sediment distribution photo. Based on positive test results, the analyser automatically displays detailed images for comprehensive visual analysis:

- 6 images each of hyaline casts, cellular casts, waxy casts and granular casts.
- 6 images each of various crystals: struvite, calcium oxalate, calcium oxalate monohydrate, calcium oxalate dihydrate, calcium phosphate, uric acid and cystine.

- 6 images each of red blood cells, white blood cells and different types of epithelial cells including renal tubular, transitional and squamous.
- Additional visuals include 6 images each of sperm, cocci, yeast, lipid droplets and mucus.

These visuals serve to aid in the detailed examination and interpretation of urine sediment components.

Abbreviation	Inspection Item
HYA#	Hyaline Cast
CEC#	Cellular Cast
GRA#	Granule Cast
WAC#	Waxy Cast
MAP#	Magnesium Ammonium Phosphate Crystals
COC#	Calcium Oxalate Crystals
COMC#	Calcium Oxalate Monohydrate Crystals
COD#	Calcium Oxalate Dihydrate Crystals
CP#	Calcium Phosphate Crystals
UAC#	Uric Acid Crystals
CYSC#	Cystine Crystals
RBC#	Red Blood Cell Count
WBC#	White Blood Cell Count
RTE#	Renal Tubular Epithelial Cell Count
SEC#	Squamous Epithelial Cell Count
TEC#	Transitional Epithelial Cell Count
SPE#	Sperm Count
COS#	Coccus Number
BAC#	Bacilli Number
YEA#	Yeast Number
FAT#	Lipid Droplets Number
PHL#	Mucus Number

2.2.4 Ascites Sample Type – Double Channel Chip (Left and Right) (Optional)

The analyser provides 19 report parameters and one clinical diagnosis comment. The specific details of the 19 blood reporting parameters are listed in the table below.

Abbreviation	Full Name
Nucleated Cell	
TNCC#	Total Nucleated Cell Count
INC#	Inflammatory Cell Count
GRL#	Total Nucleated Cell Count
NEU#	Neutrophils

HYD#	Degenerative Neutrophil Count (HYD#)
NEU%	Neutrophils
HYD%	Degenerative Neutrophil Count (HYD%)
LYM#	Lymphocytes
MAPC#	Macrophage (MAPC#)
GRL#/TNCC#	Granulocyte Percentage
LYM#/TNCC#	Lymphocytes Percentage
MAPC#/TNCC#	Macrophage Percentage (MAPC#/TNCC#)
MEC#	Mesothelial Cell Count (MEC#)
PHC#	Phagocytic Cell
UCC#	Unclassified Nucleated Cells
Erythrocytes	
RBC#	Red Blood Cells
HCT%	Haematocrit
Microorganisms	
BAC#	Rods
COS#	Cocci

2.3 Species

Blood Test Animal Species

Sample Type	Animal Species
Blood	Dogs, Cats, Rabbits, Chinchillas, Rats, Mice, Hamsters, Ferrets and other mammals
	Turtles, Snakes, Lizards and other reptiles
	Birds

Faeces Test Animal Species

Sample Type	Animal Species
Faeces	Dogs, Cats and other mammals
	Reptiles
	Birds

Urine Test Animal Species

Sample Type	Animal Species
Urine	Dogs, Cats and other mammals

Ascites Test Animal Species

Sample Type	Animal Species
Ascites	Dogs, Cats

2.4 Product Description

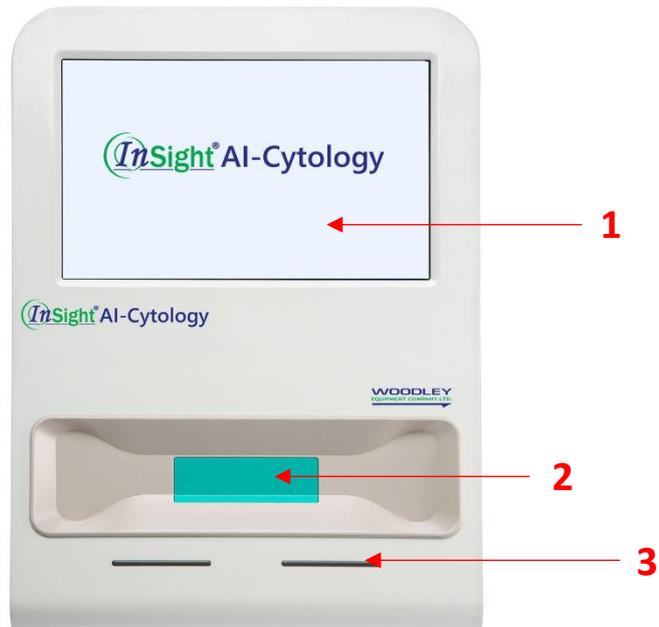
The InSight AI-Cytology Veterinary Haematology Analyser with Morphology has a display touch screen, microscope components, sample port and AI analysis veterinary software.

Weight and Dimensions

- Width: 335mm
- Length: 500mm
- Height: 500mm
- Weight: 30kg

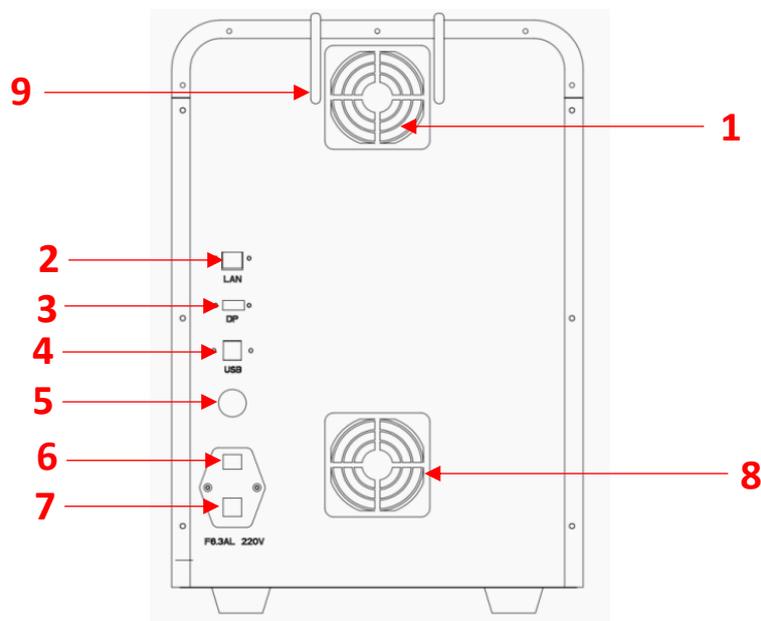
Appearance

The front of the analyser is designed to be compact and efficient, facilitating ease of use in various laboratory settings.



1. Display and Touch Screen
2. Slide Placement Port
3. Power Indicator

The rear of the analyser is shown below. This layout is specifically designed to facilitate easy connections and maintenance.



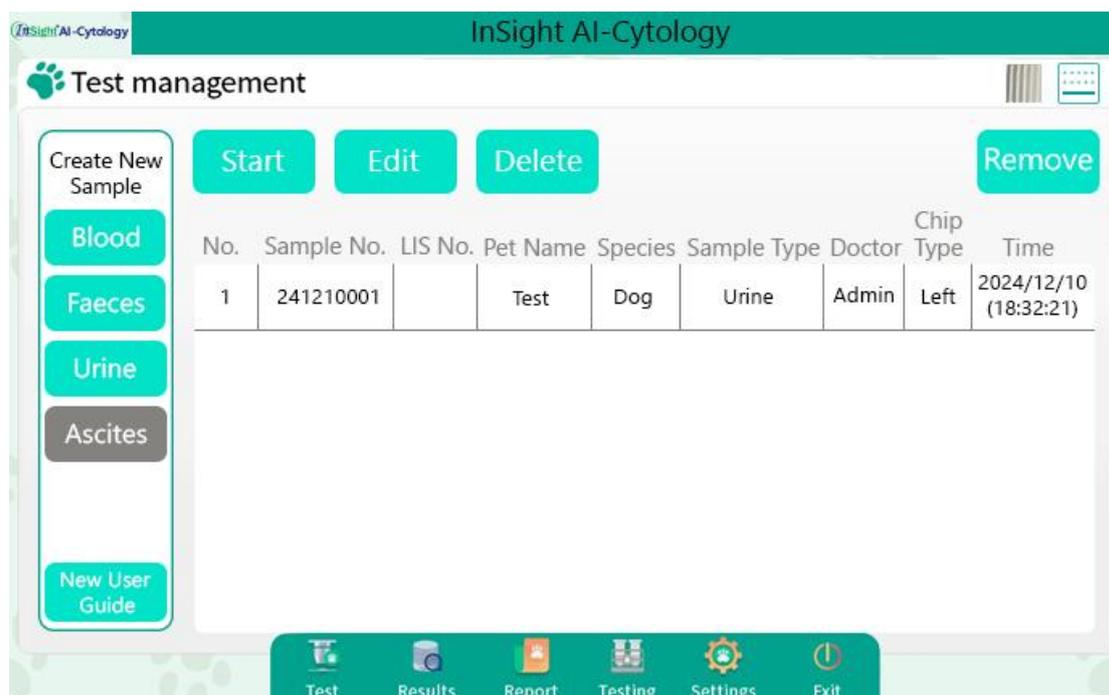
- | | |
|-------------------------|---------------------------|
| 1. Intake Vent | 6. Power Switch |
| 2. Network Port (LAN) | 7. Power Supply Connector |
| 3. Display Port (DP) | 8. Exhaust Vent |
| 4. USB 3.0 Interface x2 | 9. Wi-Fi Antenna |
| 5. Power Button | |

2.5 Technical Specifications

Specification Parameters	
Display Size	12.1 inches (30.7cm)
CPU	8 generation intel
Storage	32G
Hard Disk	256ssd
System	Windows 10
Power Specifications	
Voltage	110~264V AC
Power	350W ATX power and DC-DC power
Dimensions and Weight	
Dimensions	335 x 500 x 500 mm
Weight	35kg
Environmental Specifications	
Operating Temperature	+5°C to +30°C
Storage Temperature	-40°C to +40°C
Environment Humidity	20% to 85%
Atmospheric Pressure	70kPa~106kPa (Altitude: -400m~+2000m)

2.6 Main Menu

To display the menu navigation bar, tap the lower centre of the touch screen. The navigation bar will appear as illustrated in the image below. On the top right corner of the main interface, you will see the Turbidity Card icon and Keyboard icon for system.



2.7 Reagents

2.7.1 Stain Reagent

The stain reagent is included in each test kit. To stain various species and sample types, consult the specific kit instructions or the operation guide image on the 'Create New Sample' interface of the software for detailed operational procedures and the required volume of the original sample prior to staining.

NOTE:

Do not mix staining reagents intended for different species or sample types.

2.7.2 Slide

Once samples have been stained, they should be loaded onto the appropriate slide. This slide is then inserted into the analyser for analysis. For the precise volume of sample to be mixed after staining, refer to the guidelines provided in the corresponding reagent instructions.

NOTE:

Slides designated for different sample types must not be mixed.

Section 3 Operation Mechanics

3.1 Overview

InSight AI-Cytology utilises advanced liquid staining technology, microscopic imaging technology, and AI recognition technology to analyse and detect morphological characteristics in blood, faeces and urine samples.

3.2 Blood Testing

3.2.1 Blood Sample Preparation and Analysis Procedure

1. Using the 10 μ l pipette, collect 10 μ l of fresh EDTA whole blood and add to the stain reagent to prepare the sample mixture.
2. Pipette 150 μ l of the prepared sample mixture and transfer it onto the designated slide.
3. Insert the slide into the analyser and start the test. The analyser will automatically adjust focus and capture images.
4. The integrated AI algorithm processes the images, recognises key features and calculates blood test parameters based on the data captured.

NOTE:

For sample preparation, please follow the operation guidelines in the 'Create New Sample' interface of the software.

3.3 Faeces Testing

3.3.1 Stool Sample Preparation and Analysis Procedure

1. Determine the appropriate volume of fresh faeces to use based on the turbidimetric card specifications.
2. Using a 100 μ l pipette, pipette 100 μ l of the original faeces sample and mix it with the staining reagent.
3. Leave the lid open for 1 minute and wait for the sample to settle.
4. Pipette 150 μ l of the prepared sample mixture and pipette into the designated slide.
5. Insert the slide into the analyser and start the test. The analyser will automatically adjust focus and capture images.
6. The AI algorithm processes these images, identifies relevant features and computes the faeces test parameters accordingly.

NOTE:

For sample preparation, please follow the operation guidelines in the 'Create New Sample' interface of the software.

3.4 Urine Testing

3.4.1 Urine Sample Preparation and Analysis Procedure

1. Use a 500 μ l pipette to collect 500 μ l of the fresh urine sample and add to the supplied dye solution.
2. Pipette 150 μ l of the prepared sample mixture and pipette into the appropriate slide.
3. Insert the slide into the analyser and start the test. The analyser will automatically adjust focus and capture images.
4. The integrated AI algorithm processes the images, identifies relevant features and calculates urine test parameters.

NOTE:

For sample preparation, please follow the operation guidelines in the 'Create New Sample' interface of the software.

3.5 Ascites Testing

3.5.1 Ascites Sample Preparation and Analysis Procedure

1. Determine the appropriate volume of fresh ascites to use based on the turbidimetric card specifications (refer to the guide within the analyser software and test insert).
2. Use a pipette to collect the specified amount (depending on turbidity) of the original ascites sample and mix it with the staining reagent.
3. Pipette 150 μ l of the prepared sample mixture and pipette into the appropriate slide.
4. Insert the slide into the analyser and start the test. The analyser will automatically adjust focus and capture images.
5. The integrated AI algorithm processes these images, identifies relevant features and calculated ascites test parameters.

NOTE:

For sample preparation, please follow the operation guidelines in the 'Create New Sample' interface of the software.

Section 4 Installation

4.1 Overview

4.1.1 System Handling and Installation Guidelines

- **Authorised Personnel Requirement:** Only Woodley Equipment Company authorised personnel should handle, unpack and install the system. Unauthorised handling may lead to personal injury or damage to the analyser. Do not open the box or proceed with installation without the presence of an authorised representative.
- **Software Management:** Installation, verification, upgrades and modifications to the software supporting the analyser must be performed solely by Woodley Equipment Company authorised personnel.
- **Product Integrity Check:** Upon opening the packaging, verify that everything on the packing list is included in the box. Contact Woodley Equipment Company or your authorised distributor if any parts are missing or damaged.
- **XY Platform Precautions:** Do not power on the analyser before removing the hand screw as this could damage the analyser. Before transporting the analyser, re-install the XY platform hand screw to prevent damage during transport due to movement of the platform.
- **Shipping and Handling:** The analyser undergoes rigorous testing and is carefully packaged prior to shipment to ensure it is protected from impact. Upon receipt, inspect the packaging for any physical damage. Report any damages immediately to Woodley Equipment Company or your authorised distributor.

4.2 Installation Requirements

4.2.1 Space Requirements for Installation

To ensure proper repair, maintenance and operation of the analyser, consider the following space requirements for installation.

- **Placement Height:** Choose a suitable height for the analyser placement to facilitate easy access and maintenance.
- **Side Clearance:** Maintain a minimum clearance of 50 cm between the left and right sides of the analyser and any doors or walls to accommodate opening and access.
- **Rear Clearance:** Ensure at least 20 cm of space between the rear panel of the main engine and any wall to ensure the fan is not blocked and allow for cable connections.
- **Support Capacity:** The mounting table or floor should be capable of supporting at least 50 kg to accommodate the weight of the analyser.

4.2.2 Method for Disassembly and Assembly of Components Before Powering On

Before powering on the analyser, it is necessary to remove the hand-tightening screws that fix the XY platform and install them in the designated position, as well as install the external antenna. Please follow the instructions in the Installation Guide for disassembly and installation.

Disassembly Steps for the Hand-Tightening Screws

1. **No Power-On:** Do not power on the analyser before disassembling the XY platform's fixing screws.
2. **Remove Left Panel:** After removing the three hand-tightening step screws from the left panel, slide the left panel off from the locking position on the cover of the main unit (as shown in Figure 1).
3. **Unscrew the Screw:** Unscrew the fixing screw counterclockwise (as shown in Figure 2).
4. **Install the Screws:** Install the removed hand-tightening screws in the designated position (as shown in Figure 3).
5. **Install the Left Panel:** Slide the left panel back into the locking position on the analyser's cover and tighten it with the three hand-tightening step screws.

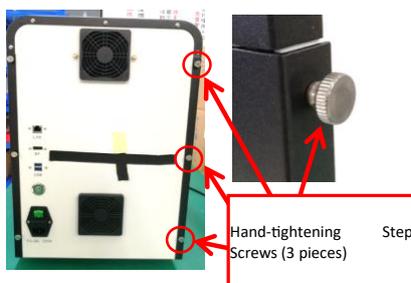


Figure 1

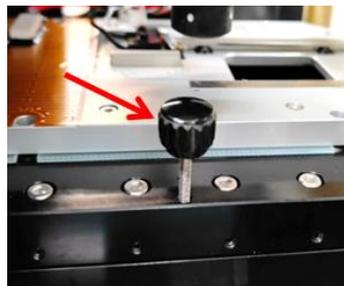


Figure 2



Figure 3

Steps for Installing the External Antenna

1. Secure the two external antennas included with the analyser by tightening them clockwise.



4.2.3 Power Requirements

- **Grounding Conditions:** Ensure the analyser is used under proper grounding conditions.
- **Input Voltage:** Verify that the input voltage meets the device requirements before starting the analyser.
- **Installation Position:** Do not install the analyser in a position where it is difficult to operate or disconnect the analyser. Choose an installation location close to an electrical outlet to avoid additional electrical interference and potential faulty analysis results.
- **Power Cord Usage:** Only use the power cord provided by Woodley Equipment Company. Using other power cords may damage the analyser or cause false analysis results.
- **Power Cord Inspection:** Check the power cord for damage before turning the analyser on.

Table 4-1 Power Supply

Voltage	Input Power	Frequency
100-240V AC	650VA	50/60 Hz

4.2.4 Environmental Requirements

Operating Conditions	Temperature: +5°C to +30°C Humidity: 20% to 85%
Storage Conditions	Temperature: -40°C to +40°C
Atmospheric Pressure	Range: 70.0kPa to 106.0kPa Altitude: -400m to +2000m
Usage	Indoor use only

Environmental Factors

- **Dust-Free Environment:** Ensure the environment is as dust-free as possible.
- **Mechanical Vibration:** Avoid locations with mechanical vibration.
- **Pollution-Free:** The environment should be free from pollution.
- **Noise Sources:** Avoid areas with loud noise sources.
- **Power Interference:** Ensure there is no power interference.
- **Electromagnetic Environment:** Evaluate the electromagnetic environment of the laboratory before running the analyser. Keep the analyser away from strong electromagnetic interference sources to ensure normal operation.
- **Lighting and Electrical Devices:** Avoid areas near flashing fluorescent lights and electrical contact devices that are frequently switched on and off.
- **Sunlight and Heat Sources:** Avoid direct sunlight, locations in front of heat and wind sources.
- **Ventilation:** Choose a well-ventilated location.
- **Placement:** Place the analyser on a flat, level surface.
- **Grounding:** Ensure a good grounding environment.

4.2.5 Handling and Installation Methods

- **Authorised Personnel Only:** Unpacking or installation must be performed by Woodley Equipment Company authorised personnel only. Unauthorised handling may cause personal injury or damage to the analyser. Do not open the box or install the analyser without the presence of authorised personnel.
- **Transportation Precautions:** During transportation, the operating components are secured with hand screws to avoid damage to the moving parts. Before powering on the analyser, remove the hand screws and fix the components as per the Installation Guide.
- **Installation Procedures:** The analyser must be carried and installed by Woodley Equipment Company authorised personnel only. Do not handle or install the analyser without contacting Woodley Equipment Company or your authorised distributor.

4.3 Precautions for Use

- **Dusty Environments:** Prolonged exposure to a dusty environment may cause the performance of the analyser to decline.
- **Cleaning and Disinfection:** Clean and disinfect the outer surface of the analyser regularly. It is recommended to use 75% alcohol for cleaning.
- **Slide Sample Preparation:** Prepare slide samples according to the method explained in the specific reagent instructions. Using an abnormal sampling process may cause inaccurate results.
- **Abnormal Noise:** If there is abnormal noise of moving parts during use, stop using the analyser immediately and contact Woodley Equipment Company or your authorised distributor.
- **Use of Designated Reagents:** Only use the InSight AI-Cytology reagents from Woodley Equipment Company. Using other reagents will lead to unreliable test results and may cause damage to the analyser.
- **Slide Expiry:** Pay attention to the expiry date of the supporting slide. Do not use expired slides as this will lead to unreliable test results.
- **Fuse Specification:** F6.3AL250V.

Section 5 Testing and Reports Management

5.1 Overview

This chapter details the complete daily operational procedure of the analyser, from powering on the analyser to shutting it down, with a focus on the specific operational processes for different sample test types.

Daily Operation Sequence:

1. **Preparation Before Operation:** Ensure all preparations are complete before starting the analyser.
2. **Startup:** Power on the analyser.
3. **Sample Preparation:** Prepare samples according to the type being analysed. Refer to the test kit inserts.
4. **Sample Analysis:** Conduct the analysis using the prepared samples.
5. **Shutdown:** Properly shut down the analyser after testing is completed.

Biohazard Precautions

All materials (samples, reagents, waste liquids) and surfaces that encounter these substances should be treated as hazardous. Operators must adhere to laboratory safety protocols while handling such materials and surfaces. It is essential to wear personal protective equipment, including laboratory protective clothing, gloves and goggles to ensure safety during operations.

Safety Warnings and Precautions

- **Handling Patient Samples:** Always wear gloves when dealing with patient samples.
- **Waste Disposal Compliance:** Operators must adhere to regional and national regulations for the disposal of expired reagents, waste liquids, waste samples and consumables.
- **Reagent Safety:** Reagents may irritate the eyes, skin and mucous membranes. Operators should practice laboratory safety protocols when handling reagents, including wearing personal protective equipment such as laboratory protective clothing, gloves and goggles.
- **Skin Contact:** In the event of skin contact with reagents, rinse the area thoroughly with water. Seek medical attention if irritation persists.
- **Eye Contact:** If reagents get into the eyes, rinse immediately with plenty of water and seek medical attention immediately.
- **Safety Around Moving Parts:** Maintain a safe distance from moving parts of the analyser to avoid injury. Keep clothing, hair and hands clear of these areas.
- **Disposable Items:** Do not reuse disposable items. They are intended for single use to ensure safety and prevent contamination.

5.2 Preparation Before Operation

Prior to turning on the power supply of the analyser, operators must conduct the following checks to ensure system readiness:

- **Power Connection:** Verify that the power plug of the analyser is securely connected to a suitable power outlet.
- **Reagent Validity:** Ensure that the reagent being used has not exceeded its expiration date.

5.3 Analyser Startup

1. **Activate Main Power:** Locate the "O/I" power switch on the back of the analyser and set it to "I" to turn on the main power supply.
2. **Power on the Analyser:** Press the power button located on the rear of the analyser. Once activated, the power indicator on the rear of the analyser will illuminate, signalling that the analyser is powered on. The analyser will then automatically perform a self-test and initiate the startup sequence.
3. **Version Information:** Located at the bottom left of the startup interface. This area shows the main program version number, MCU version number, FPGA version number, AI version number and UI interface version number.
4. **Connection Status:** The lower right section of the interface indicates the status of connections, including the computer connection, AI model connection, camera connection and the status of the mechanical reset.



No.	Description	Remarks
1	Self-Check Timeout (TCP)	■ Yellow indicates detection in progress. ■ Green indicates self-check success.
2	Self-Check (AI)	
3	Self-Check (Camera)	
4	Self-Check (Mechanical Reset)	

NOTE:

All four squares turning green indicates that the analyser self-check has been successful. If any square has not turned green, please follow the corresponding prompt to troubleshoot. If you cannot process, please contact Woodley Equipment or your authorised distributor.

Default Login Credentials and Access Procedure

- **Credentials:** The default login account is "admin" and the password is "123456".
- **Logging In:** To access the software interface, enter the correct username and password in the login dialog box and click "Login".



5.4 Power Off

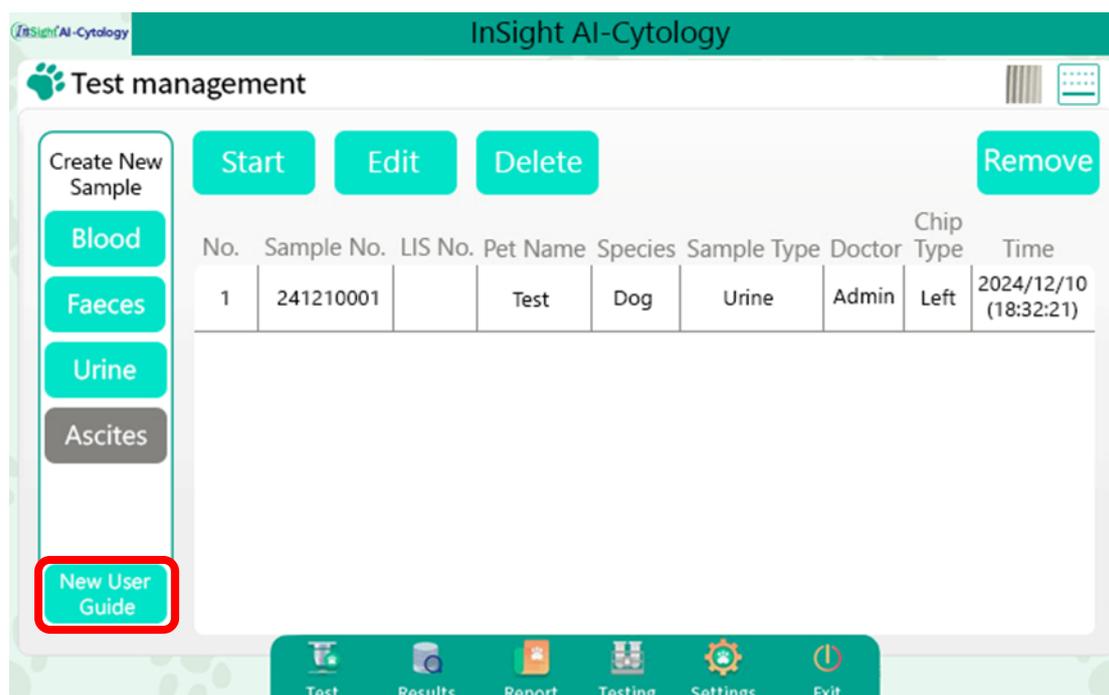
- **Exit Software:** Click "Exit", a pop up prompt will appear. Click "Ok" and the software will be closed.
- **Turn off the Analyser:** Press the power button located at the rear of the analyser. Once turned off, the power indicator on the rear of the analyser and instrument screen will turn off, indicating that the analyser is turned off.
- **Turn off Main Power:** Locate the "O/I" power switch at the back of the analyser and set it to "O" to turn off the main power supply.

5.5 New User Guide

The following methods can be used to create a new user guide.

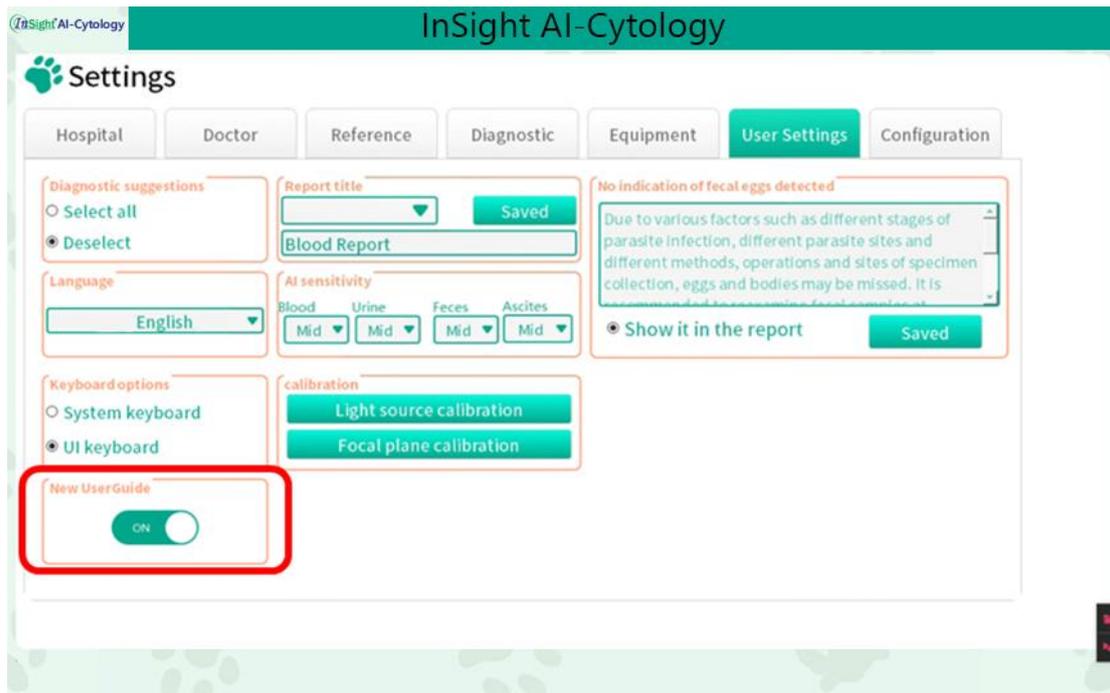
New User Guide Button

1. Navigate to the Test Management interface.
2. Click the "**New User Guide**" button located at the lower left corner of the Test Management interface and the analyser will enter the **New User Guide Mode**. This mode will guide the user to enter the **Create New Sample** interface and guide each step of creating a new sample until the test is started.



Access User Settings

1. Go to Settings > User Settings > New User Guide Switch.
2. In the **System Settings** interface, users can turn on the "**New User Guide**" switch in the **User Settings** interface.
3. After restarting the software, the software system will automatically enter the novice guide mode to guide the user through sample testing operation.



NOTE:

The "New User Guide" switch only limits the software system to automatically enter the New User Guide mode once after restarting. If you want it to automatically enter the New User Guide mode again after the next restart, you need to turn the switch on before restarting the software.

5.6 Operating Instructions

The Operating Instructions provide detailed operation instructions for the entire operation process of preparing various samples. Users can prepare samples according to the operation guide located on the Create New Sample interface or the kit instructions.

The following methods are available.

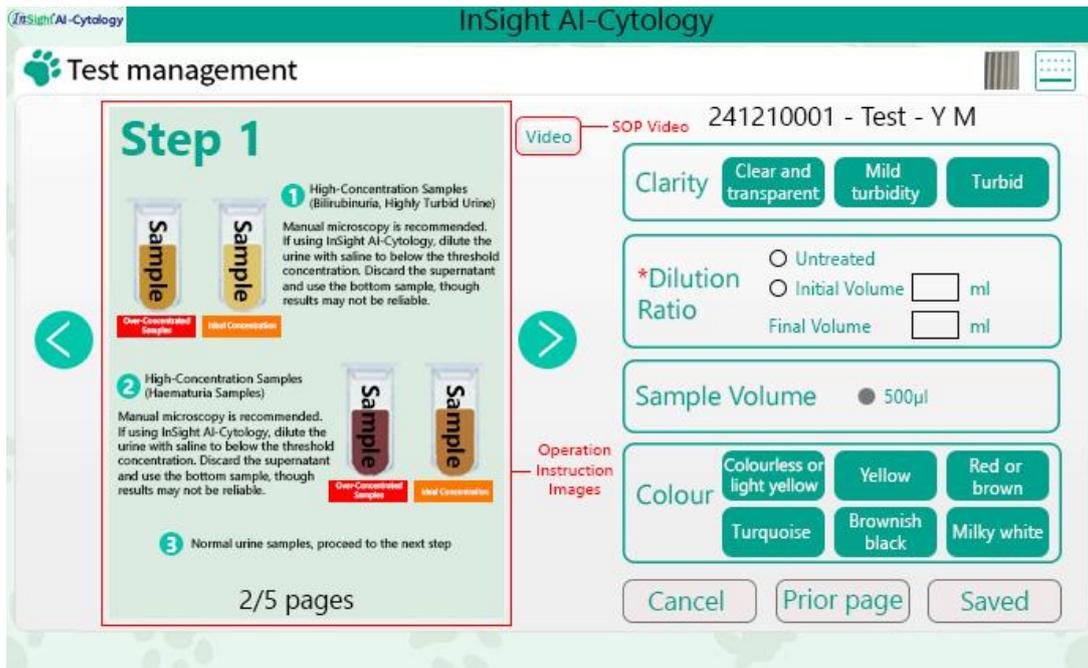
Operation Instruction Images

Create New Sample Interface > Sample Information Interface > Operating Instruction Image

SOP Video

Create New Sample Interface > Sample Information Interface > SOP Video

An example of a newly created urine sample is shown in the following image.



5.7 Sample Analysis

5.7.1 Blood Sample Analysis

Sample Preparation -- Input Information -- Start Test -- Mix Sample with the Stain – Add Sample to Slide -- Picture Review -- Diagnostic Tips -- Edit -- Print.

5.7.1.1 Blood Sample Testing

The analyser is equipped to conduct blood sample tests across multiple species.

Types of Blood Samples Tested

Whole Blood Sample

- **Description:** Venous blood collected in a tube containing EDTA-K2 or EDTA-K3 (Canine, Feline, Small Mammals) or Lithium Heparin (Reptiles) anticoagulant.
- **Procedure:** Ensure that the blood is thoroughly mixed with the anticoagulant to prevent clotting.

Capillary Whole Blood Sample

- **Description:** Blood collected using a sampling tube designed to capture capillary whole blood.
- **Procedure:** If the tube contains an anticoagulant, mix thoroughly to integrate the blood with the anticoagulant. If no anticoagulant is present, process the sample immediately to avoid agglutination and ensure the sample remains viable for testing.

The test must be completed within 4 hours after sample collection, otherwise the final test results may be affected.

5.7.1.2 Inputting Sample Information

To input sample information, follow these steps:

1. **Access Sample Input:** Click "Blood" below the "Create New Sample" menu within the "Test" interface. A sample information input interface will appear.
2. **Input Details:**
 - Select the type of "Animal Subclass" and "Animal Species".
 - Enter the necessary "Sample Information".
 - Click "Select the Vet" to select the vet. Then, click "Next Page".
 - Choose the "Sample Volume" (optional 10µl, 40µl) as required.
3. **Saving Information:** After all selections have been made, click "Save" to store the sample details.
4. **Start Test:** Select the sample to be tested and click "Start".
Required Inputs: Fields marked with an asterisk ("*") are mandatory and must be completed.

Blood Test Animal Species

- **Mammal:** Includes dogs, cats, rabbits, chinchillas, rats, mice, hamsters, ferrets and other mammals.
- **Reptile:** Contains species such as turtles and other reptiles.

The screenshot shows the 'Test management' interface for 'InSight AI-Cytology'. It features a sidebar with 'Create New Sample' options (Blood, Faeces, Urine, Ascites) and a 'New User Guide' button. The main area is divided into four sections: 'Animal Subclass-2' (Mammals), 'Animal Species-3' (Dog, Cat, Rabbit, Chinchilla, Rattus, Mus, Cricitinae, Ferret, Guinea Pig, Others), and 'Sample Information-4' (Sample No., *Pet Name, Pet Owner, Tel., LIS No., Breed, Gender, Weight, Age, *Doctor). The 'Sample Information-4' section includes a 'Cancel' button and a 'Next page' button.

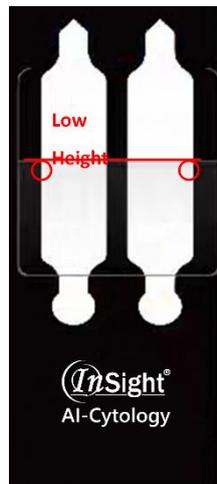
5.7.1.3 Adding Sample to the Stain

1. **Prepare Stain:** Use a single staining reagent designed for blood samples.
2. **Sample Preparation:** Using a pipette, take 10µl of the mixed blood sample and add it to the staining reagent. Mix thoroughly to ensure even staining.

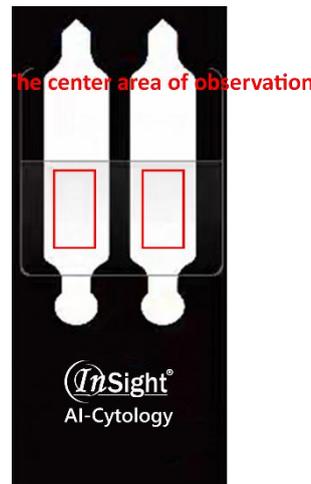
5.7.1.4 Filling the Slide

1. **Filling the Slide:** Carefully transfer 150µl of the stained sample mixture into the slide.

2. **Check for Bubbles:** Observe the filled slide for any visible bubbles. If there are bubbles, it will affect the detection and a new slide needs to be used.



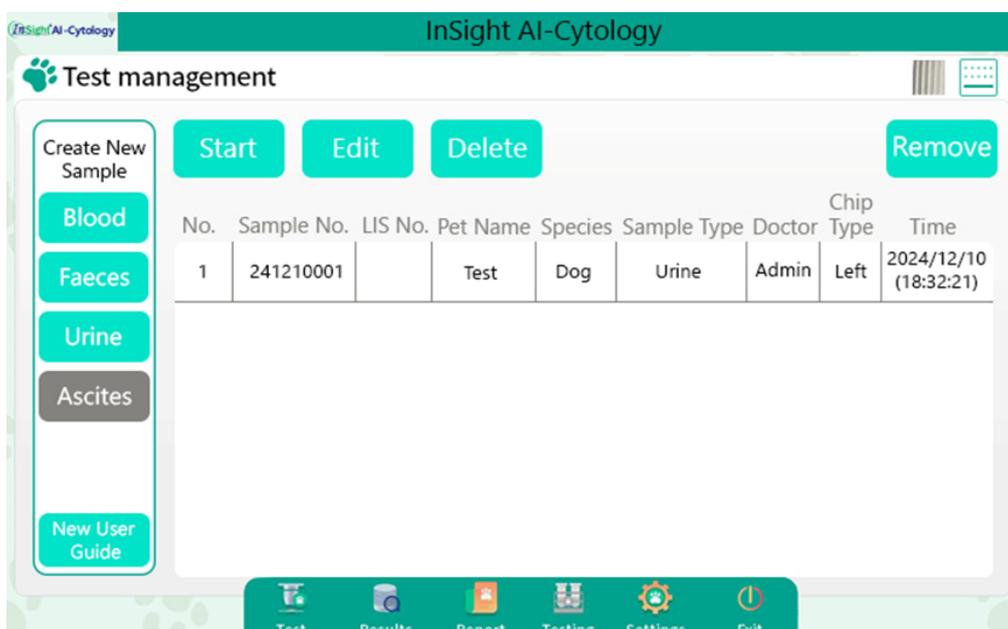
High and Low Channel Junction

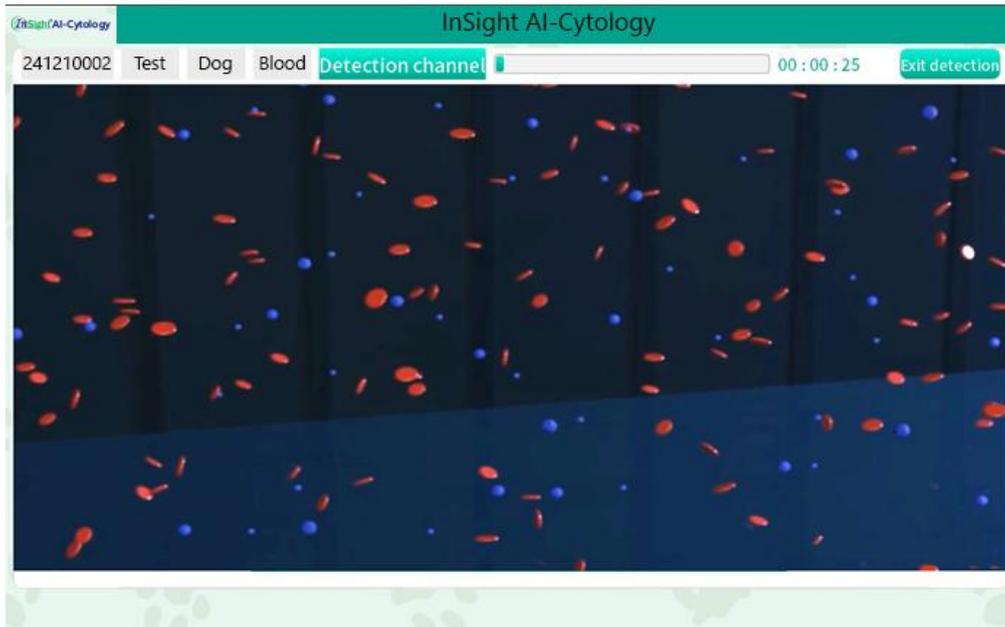


Central Area of Observation

5.7.1.5 Starting the Test Procedure

1. **Select Sample:** Identify and select the sample that needs to be tested within the system.
2. **Initiate Test:** Click "Start test", the "Slide Channel Selection" pop up will appear. After selecting the channel type, the analyser will automatically perform a system reset and the slide holder will be presented.
3. **Insert the Slide:** If no disruptive or obvious bubbles are present, insert the slide into the slide holder. Once properly placed, the slide holder will retract automatically.
4. **Automatic Recovery:** If no slide is placed within the 5 minute window, the slide holder will automatically retract back into the analyser.
5. **Testing Process:** The system will transition to the testing interface, displaying an animation of the testing process and real-time images (approximately 9 minutes).
6. **Result Display:** Upon completion of the test, the results will automatically be displayed on the screen.



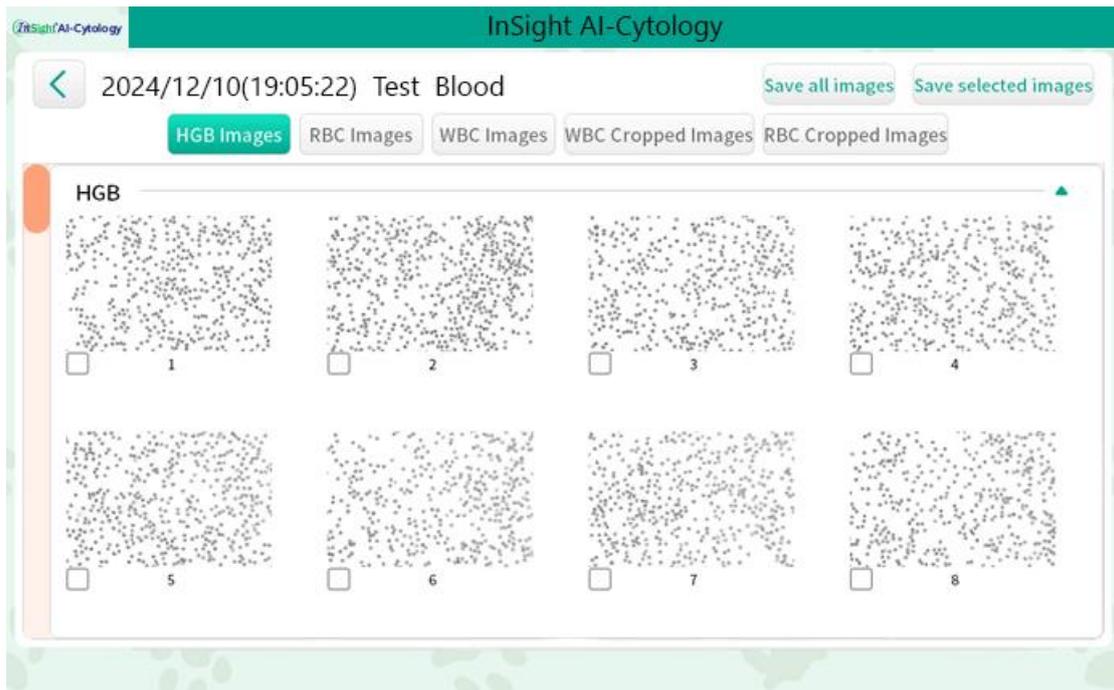


5.7.1.6 Picture Review

1. **Accessing Picture Review:** After completing the test, click the "Picture review" button located in the upper right corner of the screen to open the picture review interface.
2. **Interface Layout:** The interface is organised into different sections for easier navigation, including:
 - HGB Image
 - RBC Image
 - WBC Image
 - WBC Cropped Image
 - RBC Cropped Image
3. **Saving Options:** In the upper right corner of the interface, you have the option to "Save All Images" (check images via E:\anlv_image) or "Save selected images" (check images via E:\anlv_image) after manually selecting the desired images.

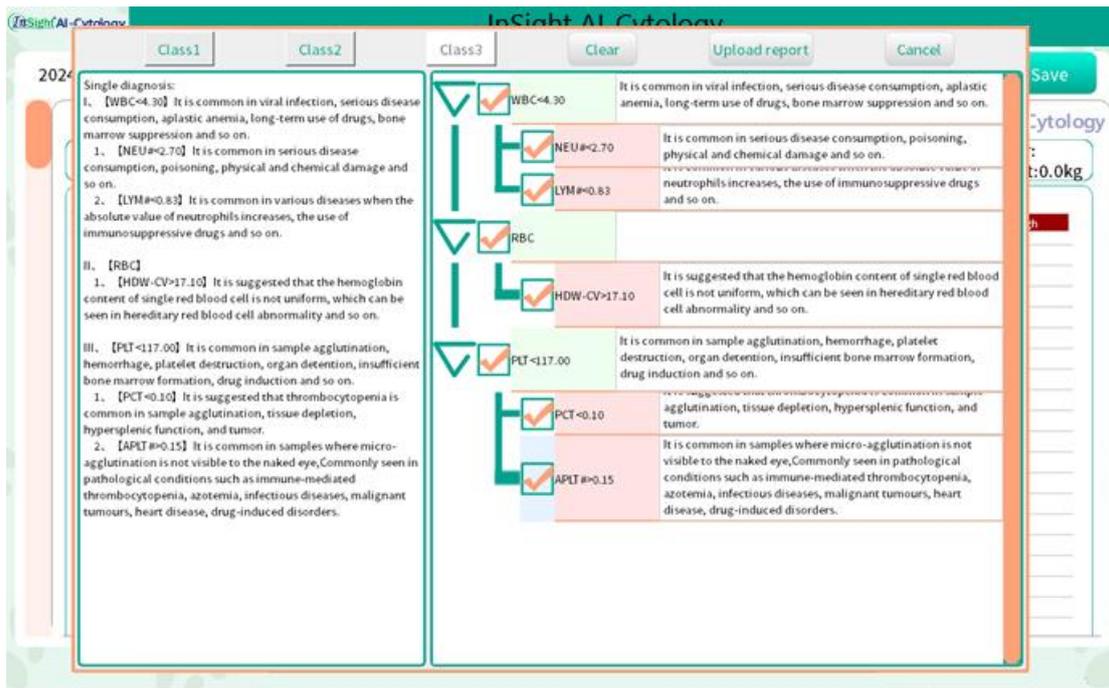
NOTE:

Storing too many images will cause the hard drive (E drive) to become full. If you need to store images, please regularly check that there is still available space on the hard drive (E drive). When the available space on the hard drive is less than 20GB, delete previously stored images to free up space.



5.7.1.7 Diagnostic Tips

1. **Accessing Diagnostic Tips:** Click "Diagnosis Tips" located in the upper right corner of the report display interface.
2. **Tip Levels:** The diagnostic tips are organized into three levels of detail:
 - Level 1
 - Level 2
 - Level 3
3. **Importing Tips into Report:** After reviewing the tips, click "Upload report" to include the selected clinical diagnosis tips directly in the report.
4. **Editing Diagnostic Tips:** You have the option to edit the "Diagnostic tips" through the report review function for any historical report, allowing for updates or corrections as necessary.



5.7.1.8 Editing the Report

"Edit" allows the user to edit the information of the report title.

1. **Accessing Edit Mode:** Click "Edit" located at the upper corner of the report display interface to enter editing mode.
2. **Editing information:** Click on the report header information area to pop up the header information interface. After completing the information modification, click "Save" to save the changes.

5.7.1.9 Saving the Report

After completing the "Edit" procedure, click "Save Report" to save the edited report results.

5.7.1.10 Printing the Report

1. **Connection Check:** Ensure the analyser is properly connected to a printer.

Connecting the Printer

The InSight AI-Cytology is compatible with the Windows system. The following method shows how to connect the analyser to the printer using the Windows system (For reference only. For detailed instructions, please see the printer manual).

- Ensure the analyser and printer are properly connected to the network or local area network, and the analyser's showing permission of file and printer are set up.
 - Download the corresponding driver version from the brand's official website.
 - According to the printer's manual or detailed installation instructions on their website, install the printer driver.
 - After successfully installing the printer driver, enter the interface of the devices and printers to check whether the printer is successfully connected and try printing the report.
2. **Accessing Print Options:** Click "Print preview" located in the upper right corner of the report display interface to open the print preview interface.

3. **Printer Selection:** From the print preview interface, select the appropriate printer.
4. **Printing the Report:** After selecting the printer, click "OK" to begin printing the report. Ensure that the printer settings and paper are correctly configured for optimal print quality.

5.7.2 Faeces Sample Testing

Sample Preparation -- Input Information -- Add Sample Staining -- Add Sample to Slide -- Start Test -- Picture Review -- Diagnostic Tips -- Edit -- Print.

5.7.2.1 Sample Preparation for Faecal Testing

1. **Scope of Testing:** The analyser currently supports faecal testing for dogs and cats.
2. **Pre-treatment Methods:** The pre-treatment approach for faeces samples depends on the method of collection:
 - **Rectal Lavage:** Faeces samples obtained through rectal lavage with saline can be used directly for testing. The addition of other ingredients, such as glycerol, may affect final test results.
 - **Natural Defecation:** Samples collected via natural defecation must be diluted with an appropriate amount of normal saline prior to testing.
3. **Collection Recommendations:** It is not recommended to obtain faecal samples using anal swabs due to potential complications and suboptimal sample quality.
4. To ensure the accuracy of the results, the sample should be tested within 20 minutes of sample collection. Otherwise, part of the faeces may be degraded.

NOTE:

For the specific operational steps of sample pre-treatment, please refer to the operational guide, including pictures and videos, available on the 'Create New Sample' interface within the software.

5.7.2.2 Inputting Information for Faecal Testing

To input sample information, follow these steps:

1. **Access Sample Input:** Click "Faeces" below the "Create New Sample" menu within the "Test" interface. A sample information input interface will appear.
2. **Input Details:**
 - Select the "Animal Species".
 - Enter the necessary "Sample Information".
 - Click "Select the Vet" to select the vet. Then, click "Next Page".
 - "Sample Volume" is fixed at 150µl.
 - Select test mode "Standard mode (approximately 9 mins)" or "Enhanced mode (approximately 18 mins)".
 - Select faeces properties e.g. "Texture", "Smell", "Colour".
3. **Saving Information:** After all selections have been made, click "Save" to store the sample details.
Required Inputs: Fields marked with an asterisk ("*") are mandatory and must be completed.

Faeces Test Animal Species

- **Mammal:** Includes dogs, cats and other mammals. Select "Other Mammals" if a different species is required. Please note, reference ranges won't have been established for other species.
- Reptile
- Avian

NOTE:

Faecal sample testing utilises AI models specifically designed for dogs and cats for recognition and calculation. Due to the difference in intestinal environments between birds, reptiles and dogs/cats, faecal testing for birds and reptiles is only used to determine the presence of parasite eggs in the faeces. Other test indicators are for reference only and it is recommended to combine the results with manual microscopic examination.

NOTE:

The enhanced mode significantly increases the number of images taken compared to the standard mode to improve the detection rate of parasite eggs, extending the detection time from approximately 9 minutes to 18 minutes.

5.7.2.3 Adding Sample to the Stain

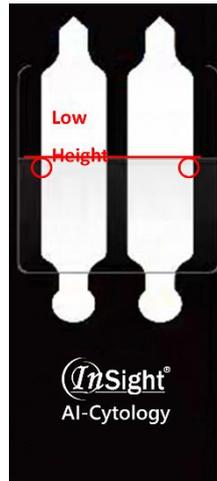
1. **Selecting the Staining Reagent:** Use the single staining reagent designed for faeces samples.
2. **Turbidity Measurement:** Click on the "turbidity control card" icon located in the upper left corner of the screen to compare the turbidity of the faecal sample.
3. **Adding the Sample:** Based on the measured turbidity, add the faecal sample to the staining reagent that corresponds to the turbidity level.
4. **Mixing the Reagent:** Thoroughly mix the sample with the staining reagent to ensure consistent staining across the sample.

NOTE:

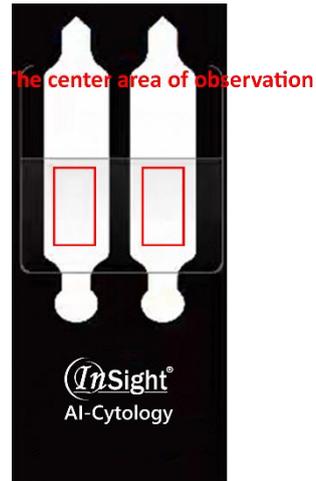
If the faeces is too watery or too concentrated, please centrifuge or dilute the sample before adding it to the stain. For specific operation steps of centrifuging or diluting, please refer to the operation guide, including pictures and videos, on the 'Create New Sample' interface of the software.

5.7.2.4 Filling the Slide

1. **Filling the Slide:** Carefully transfer 150µl of the stained sample mixture into the slide.
2. **Check for Bubbles:** Observe the filled slide for any visible bubbles. If there are bubbles, it will affect the detection and a new slide is needed.



High and Low Channel Junction



Central Area of Observation

5.7.2.5 Starting the Test Procedure

1. **Select Sample:** Identify and select the sample that needs to be tested within the system.
2. **Initiate Test:** Click "Start test", the "Slide Channel Selection" pop up will appear. After selecting the channel type, the analyser will automatically perform a system reset and the slide holder will be presented.
3. **Insert the Slide:** If no obvious bubbles are present, insert the slide into the slide holder. Once properly placed, the slide holder will retract automatically.
4. **Automatic Recovery:** If no slide is placed within the 5 minute window, the slide holder will automatically retract back into the analyser.
5. **Testing Process:** The system will transition to the testing interface, displaying an animation of the testing process and real-time images (standard mode is approximately 9 minutes or enhanced mode is approximately 18 minutes).
6. **Result Display:** Upon completion of the test, the results will automatically be displayed on the interface.

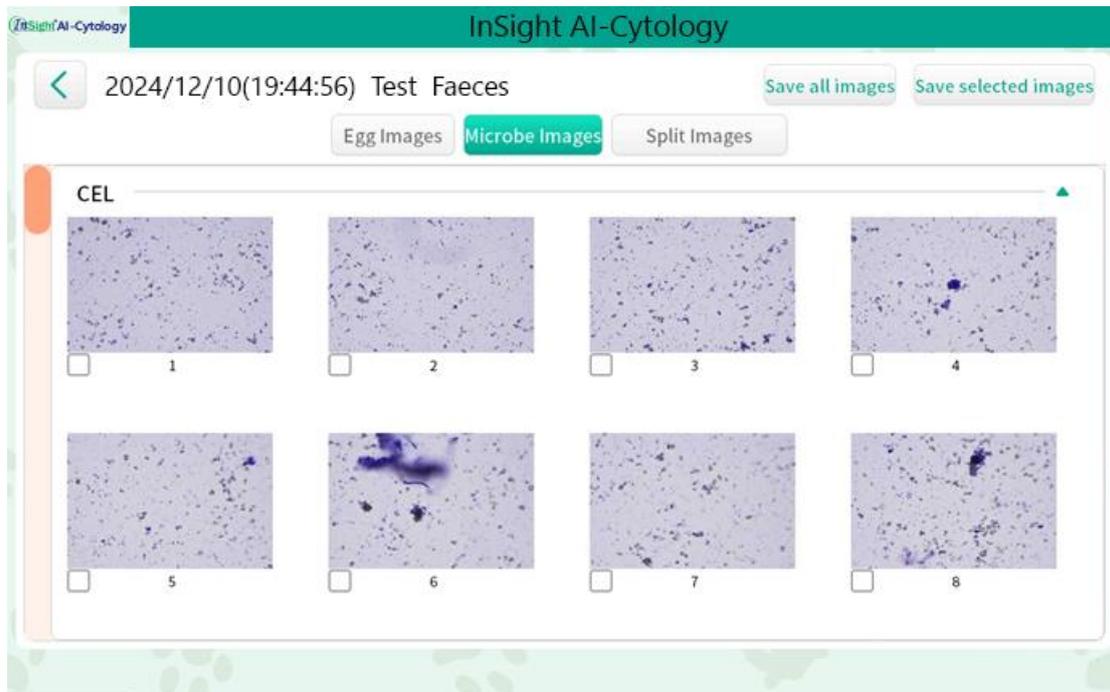
5.7.2.6 Picture Review

1. **Accessing Picture Review:** After completing the test, click the "Picture review" button located in the upper right corner of the screen to open the picture review interface.
2. **Interface Layout:** The interface is organised into different galleries for easier navigation, including:
 - Egg Images
 - Microbial Images
 - Split Images
3. **Saving Options:** In the upper right corner of the interface, you have the option to "Save All Images" (check images via E:\anlv_image) or "Save selected images" (check images via E:\anlv_image) after manually selecting the desired images.
4. **Automatic Saving:** The system automatically saves the pictures from the last 20 tests to ensure data is preserved for further analysis or future reference.

NOTE:

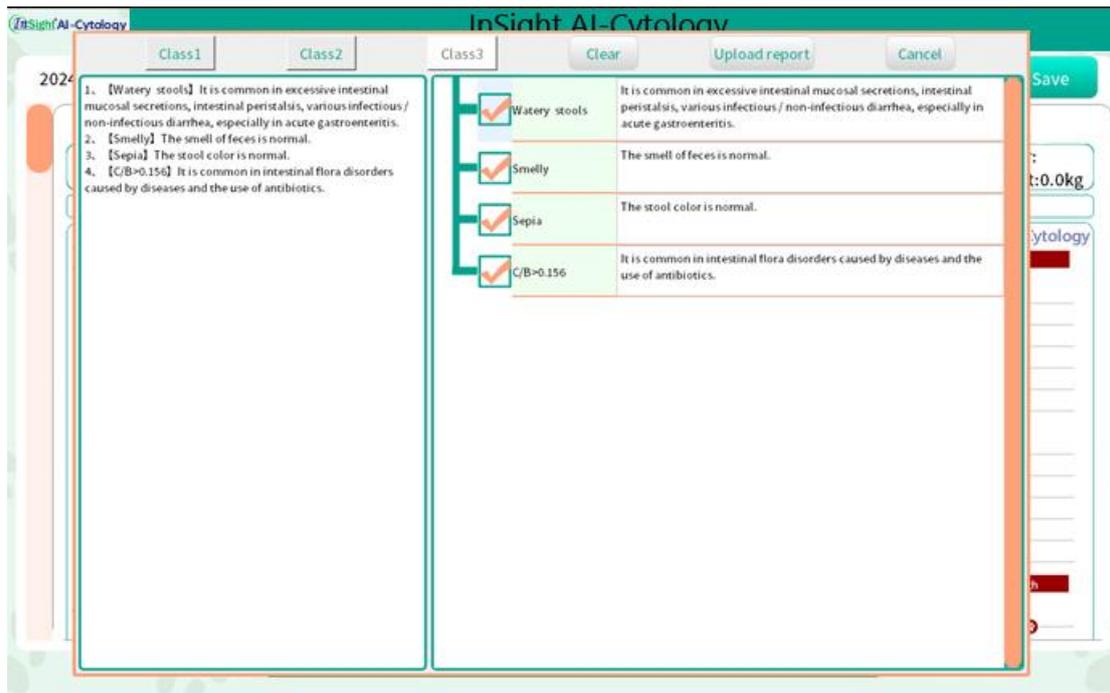
Storing too many images will cause the hard drive (E drive) to become full, which may affect detection. If you need to store images, please regularly check that there is still

available space on the hard drive (E drive). When the available space on the hard drive is less than 20GB, delete previously stored images to free up space.



5.7.2.7 Diagnostic Tips for Faecal Analysis

1. **Accessing Diagnostic Tips:** Click "Diagnostic Tips" located in the upper right corner of the report display interface. Unlike other tests, faecal diagnosis tips are not categorised into levels.
2. **Importing Tips into Report:** After reviewing the available tips, click "Import report" to include the chosen clinical diagnosis tips in the final report. This allows for tailored advice based on the specific findings of the faecal analysis.
3. **Editing Tips:** You have the option to revisit and modify the "diagnostic tips" through the report review function for any previously generated report. This feature facilitates updates or corrections to enhance the accuracy and relevance of diagnostic guidance in historical data.



5.7.2.8 Editing the Report

"Edit" allows the user to edit the information of report title and report parameter results, as well as the deletion of parameter values and images.

1. **Accessing Edit Mode:** Click "Edit" located at the upper corner of the report display interface to enter editing mode.
2. **Editing Report Header Information:** Click on the report header information area to pop up the header information interface. After completing the information modification, click on "Save" to finalise the changes.
3. **Editing Parameter:** By clicking on a parameter indicator, the custom parameter box will pop up, allowing you to edit the parameter value. If the parameter value is edited to 0, the corresponding cell morphology thumbnail will be automatically cleared.
4. **Image Deletion:** Press and hold on a cell morphology thumbnail to delete a single image or an entire row of images. After deleting an entire row of images, the corresponding parameter values will automatically display as 0.

5.7.2.9 Saving the Report

After completing the "Edit" procedure, click "Save" to save the edited report results.

5.7.2.10 Printing the Report

1. **Connection Check:** Ensure the analyser is properly connected to a printer.
2. **Accessing Print Options:** Click "Print preview" located in the upper right corner of the report display interface to open the print preview interface.
3. **Printer Selection:** From the print preview interface, select the appropriate printer.
4. **Printing the Report:** After selecting the printer, click "OK" to begin printing the report. Ensure that the printer settings and paper are correctly configured for optimal print quality.

5.7.3 Urine Sample Testing

Sample Preparation -- Input Information -- Adding Sample to the Stain -- Add Sample to Slide -- Start Test -- Picture Review -- Diagnostic Tips -- Edit -- Print.

5.7.3.1 Sample Preparation

1. The analyser is equipped to conduct urine sample tests across multiple species.
2. This product is suitable for sample detection of puncture sampling, artificial catheterisation and natural urination.
3. Sample collection for natural voiding should collect middle urine, otherwise it will cause bias in result detection.
4. To ensure the accuracy of the results, the samples should be tested within 30 minutes of collection. If the samples cannot be tested within 30 minutes, they should be stored at +2°C to +8°C and used within 6 hours.
5. Refrigerated samples should be brought to room temperature before being tested.

Urine Testing Animal Species

- **Mammal:** This category includes dogs, cats and other mammals.

5.7.3.2 Input Information

To input sample information, follow these steps:

1. **Access Sample Input:** Click "Urine" below the "Create New Sample" menu within the "Test" interface. A sample information input interface will appear.
2. **Input Details:**
 - Select the type of "Animal Species".
 - Enter the necessary "Sample Information".
 - Click "Select the Vet" to select the vet. Then, click "Next Page".
 - "Sample Volume" is fixed at 500µl.
 - Select "Dilution ratio" type.
 - Select urine properties e.g. "Clarity", "Colour".
3. **Saving Information:** After all selections have been made, click "Save" to store the sample details.

Required Inputs: Fields marked with an asterisk ("*") are mandatory and must be completed.

NOTE:

For high concentration samples (such as jaundice urine, highly concentrated turbid urine, or haematuria), manual microscopy is recommended. If analyser testing is required, please refer to the operation guide in the "Create New Sample" interface of the urine for specific steps.

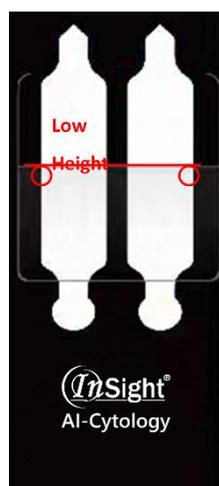
5.7.3.3 Adding and Staining the Urine Sample

1. **Stain Preparation:** The urine stain used is in dry powder form.
2. **Sample Addition:** Directly add 500µl of fresh urine to the test tube containing the dry powder stain.

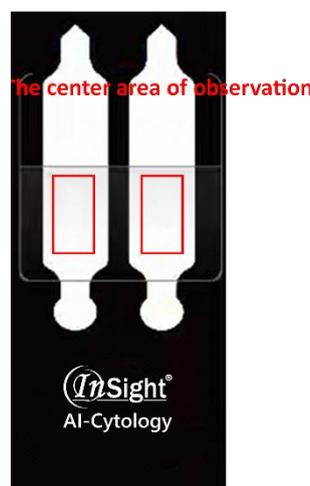
Mixing Procedure: Thoroughly mix the urine with the stain until the mixture is homogeneous and no visible dye sediment remains in the test tube. This ensures consistent staining across the sample for accurate analysis.

5.7.3.4 Filling the Slide

1. **Filling the Slide:** Carefully transfer 150µl of the stained sample mixture into the slide.
2. **Check for Bubbles:** Observe the filled slide for any visible bubbles. If there are bubbles, it will affect the detection and a new slide needs to be used.



High and Low Channel Junction



Central Area of Observation

5.7.3.5 Starting the Test Procedure

1. **Select Sample:** Identify and select the sample that needs to be tested within the system.
2. **Initiate Test:** Click "Start test", the "Slide Channel Selection" pop up will appear. After selecting the channel type, the analyser will automatically perform a system reset and the slide holder will be presented.
3. **Insert the Slide:** If no obvious bubbles are present, insert the slide into the slide holder. Once properly placed, the slide holder will retract automatically.
4. **Automatic Recovery:** If no slide is placed within the 5 minute window, the slide holder will automatically retract back into the analyser.
5. **Testing Process:** The system will transition to the testing interface, displaying an animation of the testing process and real-time images.
6. **Result Display:** Upon completion of the test (approximately 8-11 minutes), the results will automatically be displayed on the interface.

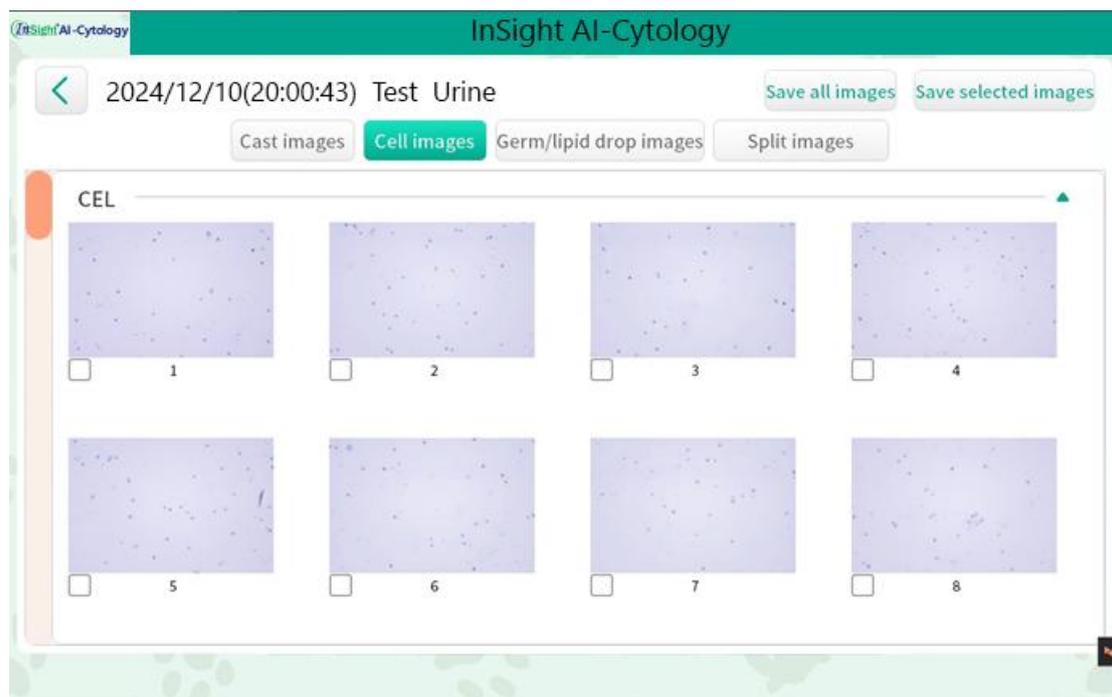
5.7.3.6 Picture Review

1. **Accessing Picture Review:** After completing the test, click the "Picture review" button located in the upper right corner of the screen to open the picture review interface.
2. **Interface Layout:** The interface is organised into different galleries for easier navigation, including:
 - Cast Images
 - Cell Images
 - Germ/Lipid Droplets Images
 - Split Images

3. **Saving Options:** In the upper right corner of the interface, you have the option to "Save All Images" (check images via E:\anlv_image) or "Save selected images" (check images via E:\anlv_image) after manually selecting the desired images.
4. **Automatic Saving:** The system automatically saves the pictures from the last 20 tests to ensure data is preserved for further analysis or future reference.

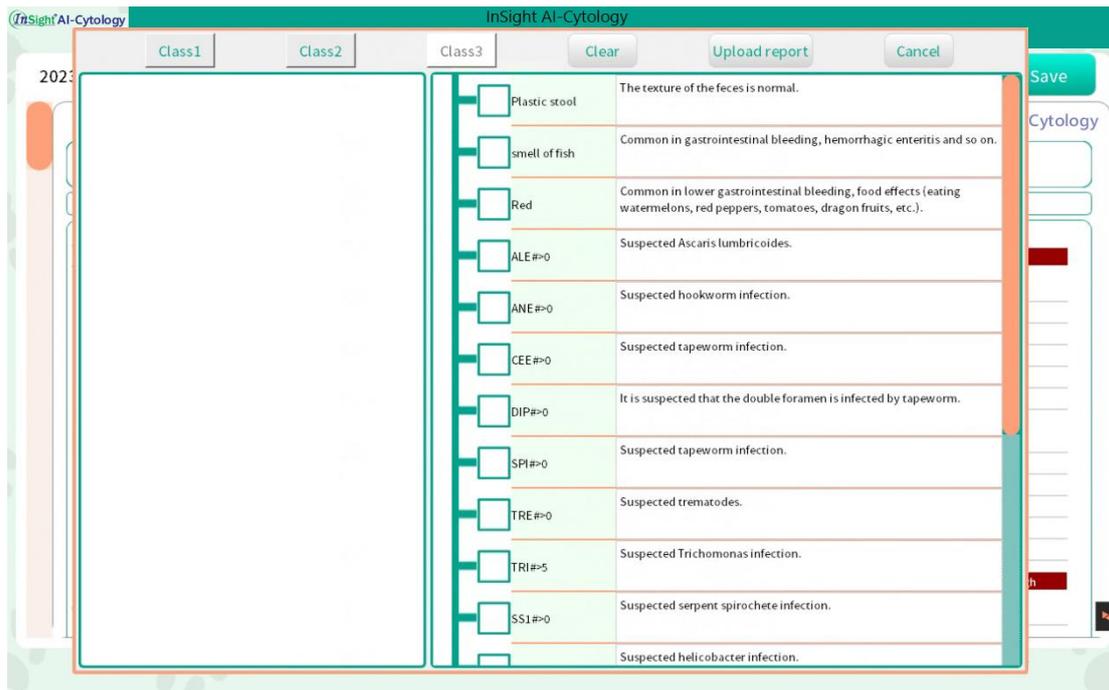
NOTE:

Storing too many images will cause the hard drive (E drive) to become full, which may affect detection. If you need to store images, please regularly check that there is still available space on the hard drive (E drive). When the available space on the hard drive is less than 20GB, delete previously stored images to free up space.



5.7.3.7 Diagnostic Tips for Urine Analysis

1. **Accessing Diagnostic Tips:** Click on "Diagnosis Tips" located in the upper right corner of the report display interface. Unlike other tests, urine diagnosis tips are not categorised into levels.
2. **Importing Tips into Report:** After reviewing the available tips, click "Import report" to include the chosen clinical diagnosis tips in the final report. This allows for tailored advice based on the specific findings of the urine analysis.
3. **Editing Tips:** You have the option to revisit and modify the "diagnostic tips" through the report review function for any previously generated report. This feature facilitates updates or corrections to enhance the accuracy and relevance of diagnostic guidance in historical data.



5.7.3.8 Editing the Report

"Edit" allows the user to edit the information of report title and report parameter results, as well as the deletion of parameter values and images.

1. **Accessing Edit Mode:** Click "Edit" located at the upper corner of the report display interface to enter editing mode.
2. **Editing Report Header Information:** Click on the report header information area to pop up the header information interface. After completing the information modification, click on "Save" to finalise the changes.
3. **Editing Parameter:** By clicking on a parameter indicator, the custom parameter box will pop up, allowing you to edit the parameter value. If the parameter value is edited to 0, the corresponding cell morphology thumbnail will be automatically cleared.
4. **Image Deletion:** Press and hold on a cell morphology thumbnail to delete a single image or an entire row of images. After deleting an entire row of images, the corresponding parameter values will automatically display as 0.

5.7.3.9 Saving the Report

After completing the "Edit" procedure, click "Save" to save the edited report results.

5.7.3.10 Printing the Report

1. **Connection Check:** Ensure the analyser is properly connected to a printer.
2. **Accessing Print Options:** Click "Print preview" located in the upper right corner of the report display interface to open the print preview interface.
3. **Printer Selection:** From the print preview interface, select the appropriate printer.
4. **Printing the Report:** After selecting the printer, click "OK" to begin printing the report. Ensure that the printer settings and paper are correctly configured for optimal print quality.

5.7.4 Ascites Sample Testing

Sample Preparation -- Input Information -- Add Sample to the Stain -- Fill Slide -- Start Test -- Picture Review -- Diagnostic Tips -- Edit -- Print.

5.7.4.1 Sample Preparation for Ascites Testing

- **Scope of Testing:** The analyser currently supports ascites testing for dogs and cats. Additional species will be included as software updates are released.
1. Freshly collected pleural effusion of ascites samples should be preserved in EDTA tubes.
 2. Samples should be tested within 4 hours at room temperature.

5.7.4.2 Inputting Information for Ascites Testing

To input sample information, follow the steps below.

1. **Access Sample Input:** Click "Ascites" below the "Create New Sample" menu within the "Test" interface. A sample information input interface will appear.
2. **Input Details:**
 - Select the type of "Animal Species".
 - Enter the necessary "Sample Information".
 - Click "Select the Vet" to select the vet. Then, click "Next Page".
 - Select ascites property e.g. "Clarity", "Colour", "Protein concentration", "Smell".
 - Select "Sample Volume" (optional 10µl, 150µl, the volume of before centrifugation) (10µl for turbid samples, 150µl for clear samples).
3. **Saving Information:** After all selections have been made, click "Save" to store the sample details.
Required Inputs: Fields marked with an asterisk ("*") are mandatory and must be completed.

Ascites Test Animal Species

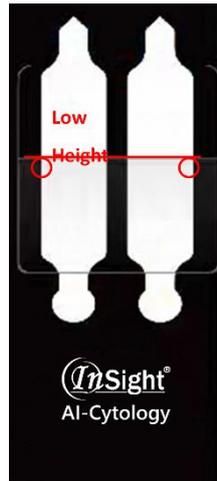
- **Mammal:** Includes dogs and cats.

5.7.4.3 Adding Sample to the Stain

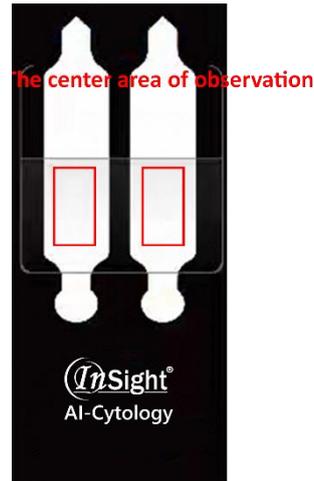
1. **Selecting the Staining Reagent:** Use the single staining reagent supplied for ascites samples.
2. **Turbidity Measurement:** Click on the "turbidity control card" icon located on the upper right corner of the screen to compare the turbidity of the ascites sample.
3. **Adding the Sample:** Based on the measured turbidity, add the ascites sample to the staining reagent that corresponds to the turbidity level.
4. **Mixing the Reagent:** Thoroughly mix the sample with the staining reagent to ensure consistent staining across the sample.

5.7.4.4 Filling the Slide

1. **Filling the Slide:** Carefully transfer 10µl, 150µl or the volume of before centrifugation (different sample volume depends on sample clarity) of the stained sample mixture into the slide.
2. **Check for Bubbles:** Observe the filled slide for any visible bubbles. If there are bubbles, it will affect the detection and a new slide needs to be used.



High and Low Channel Junction



Central Area of Observation

5.7.4.5 Starting the Test Procedure

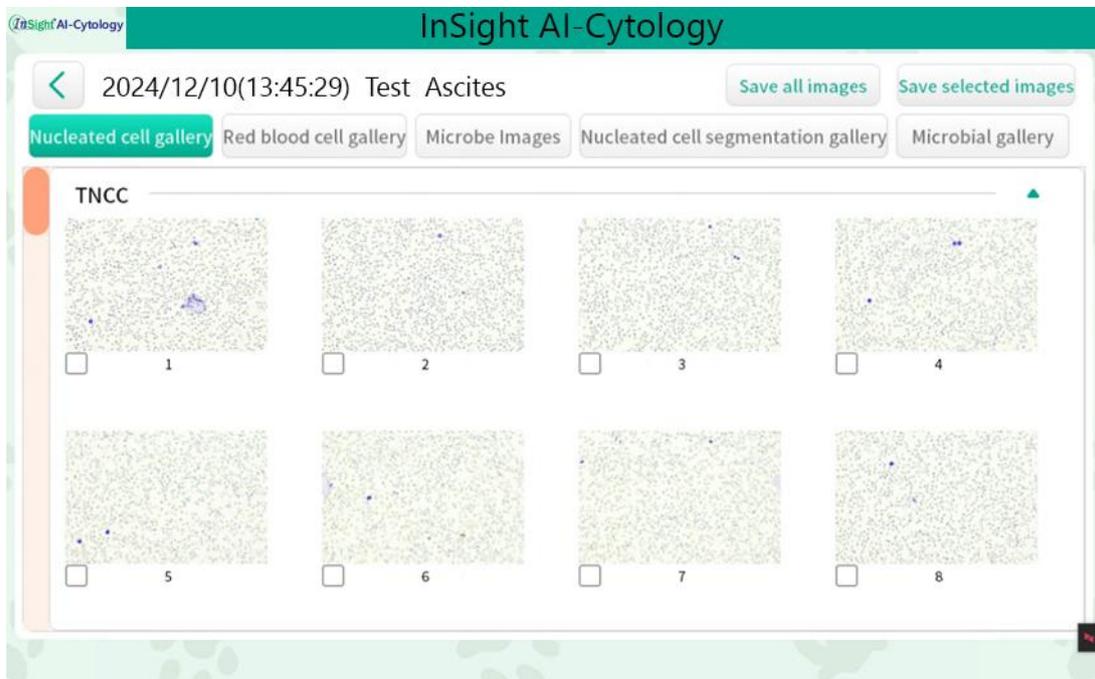
1. **Select Sample:** Identify and select the sample that needs to be tested within the system.
2. **Initiate Test:** Click "Start test", the "Slide Channel Selection" pop up will appear. After selecting the channel type, the analyser will automatically perform a system reset and the slide holder will be presented.
3. **Insert the Slide:** If no disruptive or obvious bubbles are present, insert the slide into the slide holder. Once properly placed, the slide holder will retract automatically.
4. **Automatic Recovery:** If no slide is placed within the 5 minute window, the slide holder will automatically retract back into the analyser.
5. **Testing Process:** The system will transition to the testing interface, displaying an animation of the testing process and real-time images (approximately 10 minutes).
6. **Result Display:** Upon completion of the test, the results will automatically be displayed on the interface.

5.7.4.6 Picture Review

1. **Accessing Picture Review:** After completing the test, click the "Picture review" button located on the upper right corner of the screen to open the picture review interface.
2. **Interface Layout:** The interface is organised into different galleries for easier navigation, including:
 - Nucleated cell gallery Images
 - Red blood cell gallery Images
 - Microbe Images
 - Nucleated cell segmentation gallery Images
 - Microbial gallery Images
3. **Saving Options:** In the upper right corner of the interface, you have the option to "Save All Images" pictures or "Save selected pictures" after manually selecting the desired images.
4. **Automatic Saving:** The system automatically saves the pictures from the last 20 tests to ensure data is preserved for further analysis or future reference.

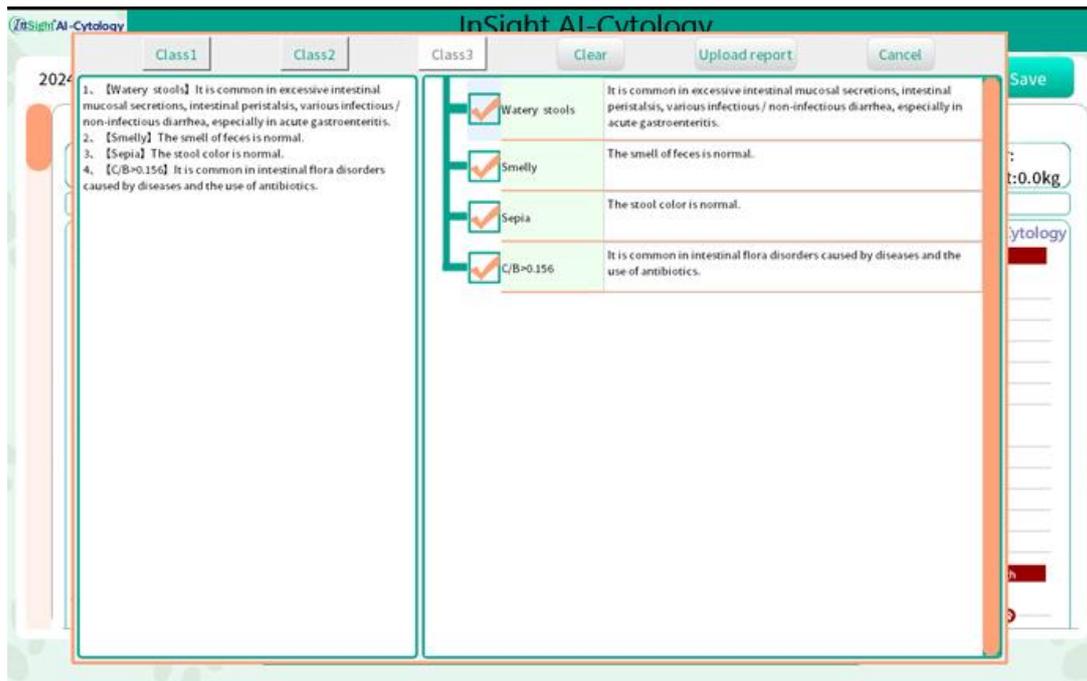
NOTE:

Storing too many images will cause the hard drive (E drive) to become full, which may affect detection. If you need to store images, please regularly check that there is still available space on the hard drive (E drive). When the available space on the hard drive is less than 20GB, delete previously stored images to free up space.



5.7.4.7 Diagnostic Tips for Ascites Analysis

1. **Accessing Diagnostic Tips:** Click "Diagnosis tips" located in the upper right corner of the report display interface. Unlike other tests, ascites diagnosis tips are not categorised into levels.
2. **Importing Tips into Report:** After reviewing the available tips, click "Import report" to include the chosen clinical diagnosis tips in the final report. This allows for tailored advice based on the specific findings of the ascites analysis.



5.7.4.8 Editing the Report

"Edit" allows the user to edit the information of report title, report parameter results, sample property (colour ,smell, clarity and protein concentration), as well as the deletion of parameter values and images.

1. **Accessing Edit Mode:** Click "Edit" located at the upper corner of the report display interface to enter editing mode.
2. **Editing Report Header Information:** Click on the report header information area to pop up the header information interface. After completing the information modification, click "Save" to save the changes.
3. **Editing parameter:** By clicking on a parameter indicator, the custom parameter box will pop up, allowing you to edit the parameter value. If the parameter value is edited to 0, the corresponding cell morphology thumbnail will be automatically cleared.
4. **Images deletion:** Press and hold on a cell morphology thumbnail to delete a single image or an entire row of images. After deleting an entire row of images, the corresponding parameter values will automatically display as 0.

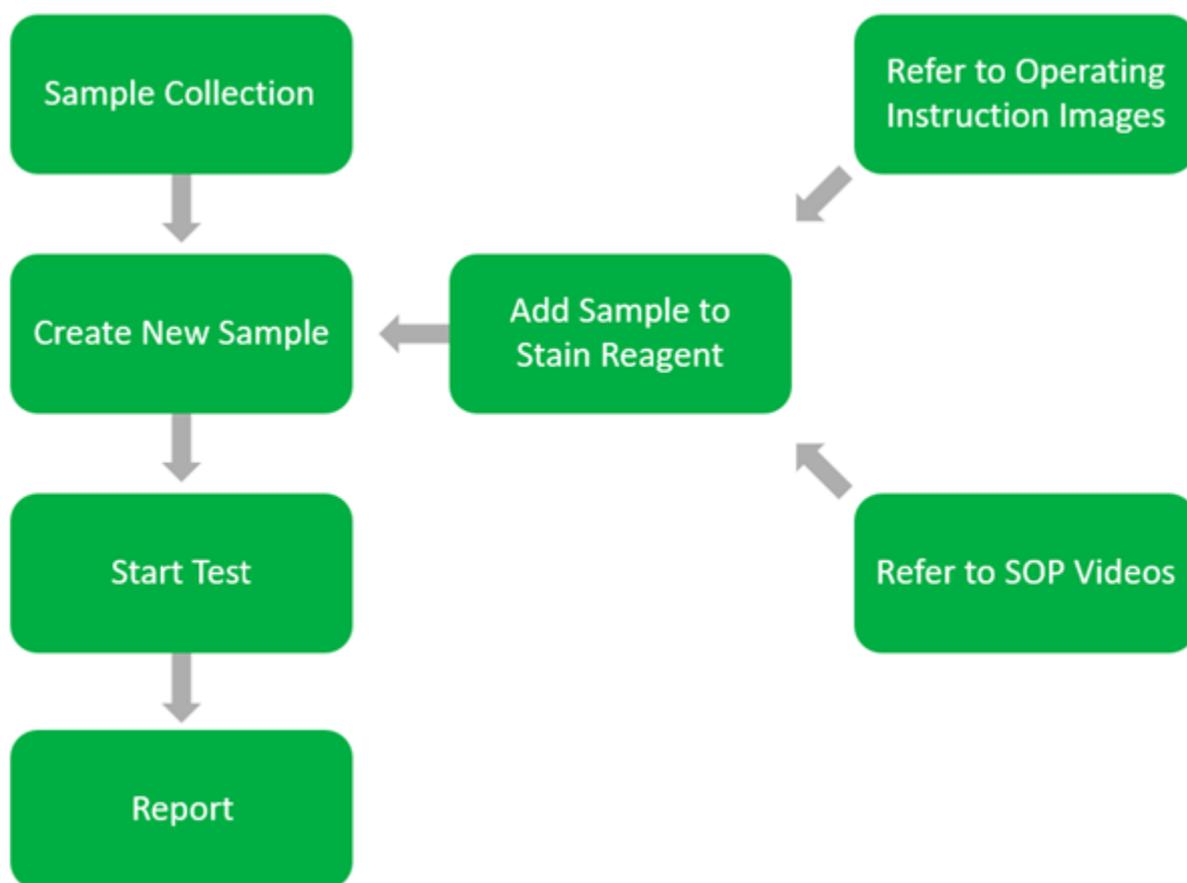
5.7.4.9 Saving the Report

After completing the "Edit" procedure, click "Save" to save the edited report results.

5.7.4.10 Printing the Report

1. **Connection Check:** Ensure the analyser is properly connected to a printer.
2. **Accessing Print Options:** Click "Print preview" located in the upper right corner of the report display interface to open the print preview interface.
3. **Printer Selection:** From the print preview interface, select the appropriate printer.
4. **Printing the Report:** After selecting the printer, click "OK" to begin printing the report. Ensure that the printer settings and paper are correctly configured for optimal print quality.

5.8 Detection Procedure



NOTE:

The Operating Instruction Images and SOP Video located on the Create New Sample interface provide detailed instructions of the sample addition and staining process. Simply follow the corresponding sample's user guide for procedure. When filling the slide with the mixed staining solution, check whether there are no bubbles in the observation area. If there are bubbles, the slide needs to be refilled as this can affect detection. If no bubbles are present, the slide filling is considered complete.

5.9 Result Management

5.9.1 Sample Retest

1. **Access Results Management Interface:** Navigate to the results management section within the system.
2. **Select Sample Record:** Choose the sample record you wish to retest from the list of historical entries.
3. **Sample Retest:** Click "Retest" located above the sample records to access the interface of creating new sample.
4. **Check or edit Details:** Check or edit sample information.

5. **Saving Information:** After all selections have been checked, click "Save" to store the sample details. Then, the sample to be retested will appear in the list of tests to be detected.
6. **Start Test:** Select the sample to be retested and click "Start".

5.9.2 Send via LIS

1. **Access Results Interface:** Navigate to the results interface within the system.
2. **Select Sample Record:** Choose the sample record you wish to send via LIS.

NOTE:

To send data via LIS (Laboratory Information System), the LIS cloud platform needs to be successfully set up or HL7 needs to be successfully configured in the Configuration interface (see Section 6.8.2).

5.9.3 Report Review

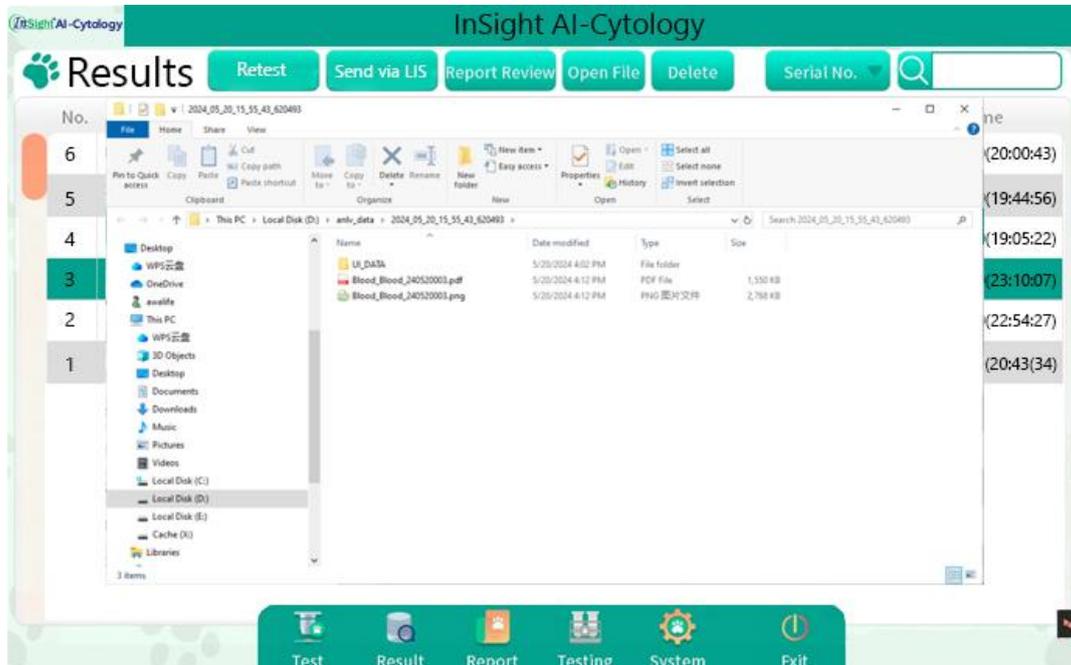
1. **Access Results Interface:** Navigate to the results interface within the system.
2. **Select Sample Record:** Choose the sample record you wish to review from the list of historical entries.
3. **Review Report:** Click on "Report Review" located above the sample records to access the report display interface.
4. **View Test Results:** In the report display interface, you can examine the test results for the selected sample, providing a detailed overview of the analysis conducted.

No.	Sample No.	LIS No.	Pet name	Species	Sample type	Doctor	Chip type	Time
6	241210001		Test	Dog	Urine	Admin	Left	2024/12/10(20:00:43)
5	241210003		Test	Dog	Faeces	Admin	Right	2024/12/10(19:44:56)
4	241210002		Test	Dog	Blood	Admin	Left	2024/12/10(19:05:22)
3	241120003		Honey	Dog	Blood	Admin	Left	2024/11/20(23:10:07)
2	241120002		Jojo	Dog	Blood	Admin	Right	2024/11/20(22:54:27)
1	241120001		Momo	Cat	Blood	Admin	Left	2024/11/20(20:43:34)

5.9.4 Opening the File

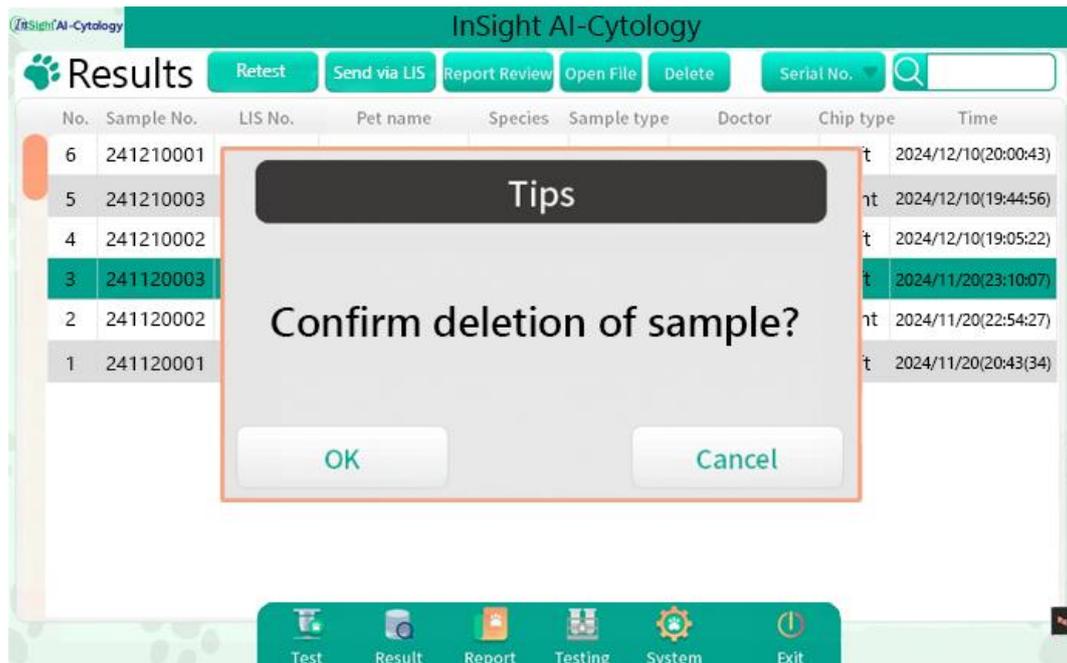
1. **Navigate to Report Management Interface:** Access the report management section within the system to locate the example reports.
2. **Select Sample Record:** Choose the specific sample record you want to view from the listed entries.

3. **Open File:** Click "Open file" located at the top of the interface. This action will redirect you to the directory "D:\Awalife_data\XXX".
4. **View Report Files:** In this directory, you can view both PDF and PNG versions of the report, as well as the original images that correspond to the thumbnail pictures displayed within the report. This provides a comprehensive view of the test results and associated imagery.



5.9.5 Deleting a Sample Record

1. **Access Report Management Interface:** Open the report management section within the system where sample records are displayed.
2. **Select Sample Record:** Identify and select the sample record you wish to delete.
3. **Initiate Deletion:** Click "Delete". A confirmation prompt will appear asking, "Are you sure you want to delete the sample?".
4. **Confirm Deletion:** Click "OK" in the prompt window to confirm and permanently delete the selected sample record from the system.



5.9.6 Sorting Function

In the report management interface, use the sorting feature located in the upper right corner to organise sample records. The sorting options include:

- **Sample Number Sorting:** Click once to sort the records by sample number. Clicking again will reverse the order, allowing for flashback sorting based on sample number.
- **Sample Sorting:** This option sorts the records based on the sample details. A second click reverses the order.
- **Time Sorting:** Organise records chronologically. Clicking again will toggle the sorting between ascending and descending order.

5.9.7 Search Function

To locate specific records or information within the report management interface:

- **Keyword Search:** Enter a keyword into the search box located in the upper right corner of the page. The system will display records that contain the entered keyword, facilitating quick and efficient retrieval of relevant data.

InSight AI-Cytology

Results Retest Send via LIS Report Review Open File Delete Serial No.

No.	Sample No.	LIS No.	Pet name	Species	Sample type	Doctor	Chip type	Time
6	241210001		Test	Dog	Urine	Admin	Left	2024/12/10(20:00:43)
5	241210003		Test	Dog	Faeces	Admin	Right	2024/12/10(19:44:56)
4	241210002		Test	Dog	Blood	Admin	Left	2024/12/10(19:05:22)
3	241120003		Honey	Dog	Blood	Admin	Left	2024/11/20(23:10:07)
2	241120002		Jojo	Dog	Blood	Admin	Right	2024/11/20(22:54:27)
1	241120001		Momo	Cat	Blood	Admin	Left	2024/11/20(20:43:34)

Test Result Report Testing System Exit

Section 6 Settings

6.1 Overview of Initial Setup and Configuration

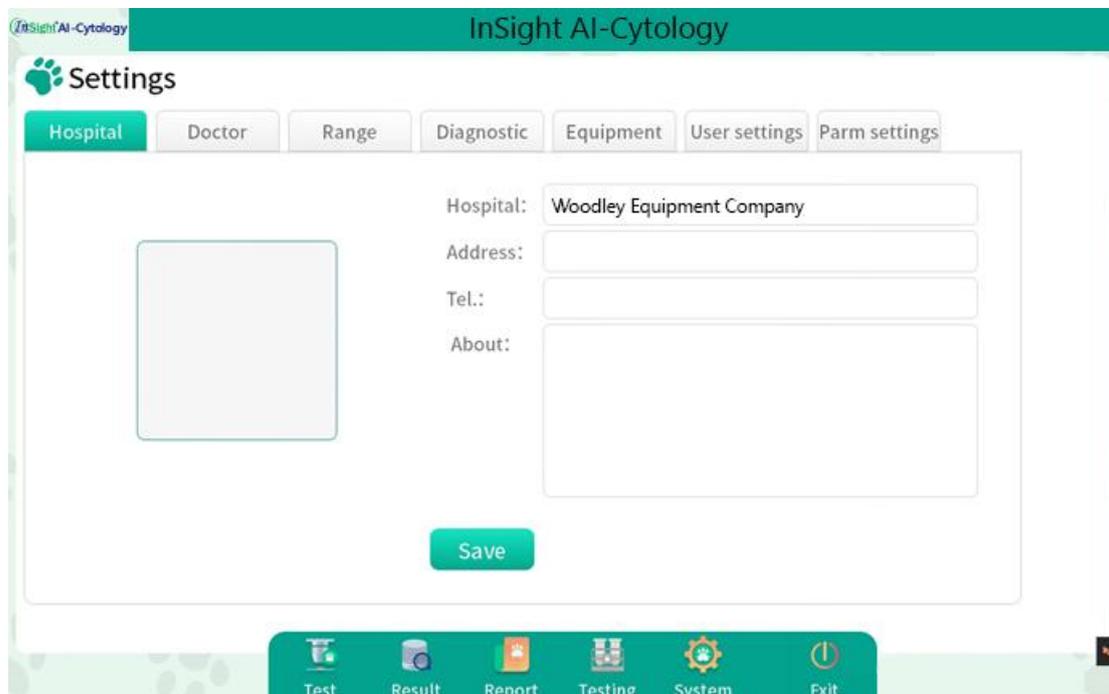
The analyser is fully initialised prior to delivery. Upon first startup, the user will be presented with the default interface. To accommodate various practical applications, the settings of the analyser can be adjusted.

6.2 Hospital Information Settings

As shown in the following image, users can customise various aspects of the hospital profile that will appear in the final inspection reports through the Hospital Information settings menu. The settings include:

- **Hospital Logo:** Upload or update the hospital logo picture.
- **Hospital Name:** Enter or edit the name of the hospital.
- **Hospital Address:** Specify the hospital's location.
- **Hospital Phone Number:** Provide a contact number for the hospital.
- **Hospital Profile:** Add a brief description or profile of the hospital.

The hospital logo and hospital name are prominently featured in the final inspection report to ensure clear identification.



The screenshot shows the 'Settings' menu in the InSight AI-Cytology software. The 'Hospital' tab is selected, showing a form for entering hospital information. The form includes a placeholder for a logo, a text field for the hospital name (filled with 'Woodley Equipment Company'), and text fields for the address, telephone number, and a description. A 'Save' button is located at the bottom of the form. The bottom navigation bar contains icons for 'Test', 'Result', 'Report', 'Testing', 'System', and 'Exit'.

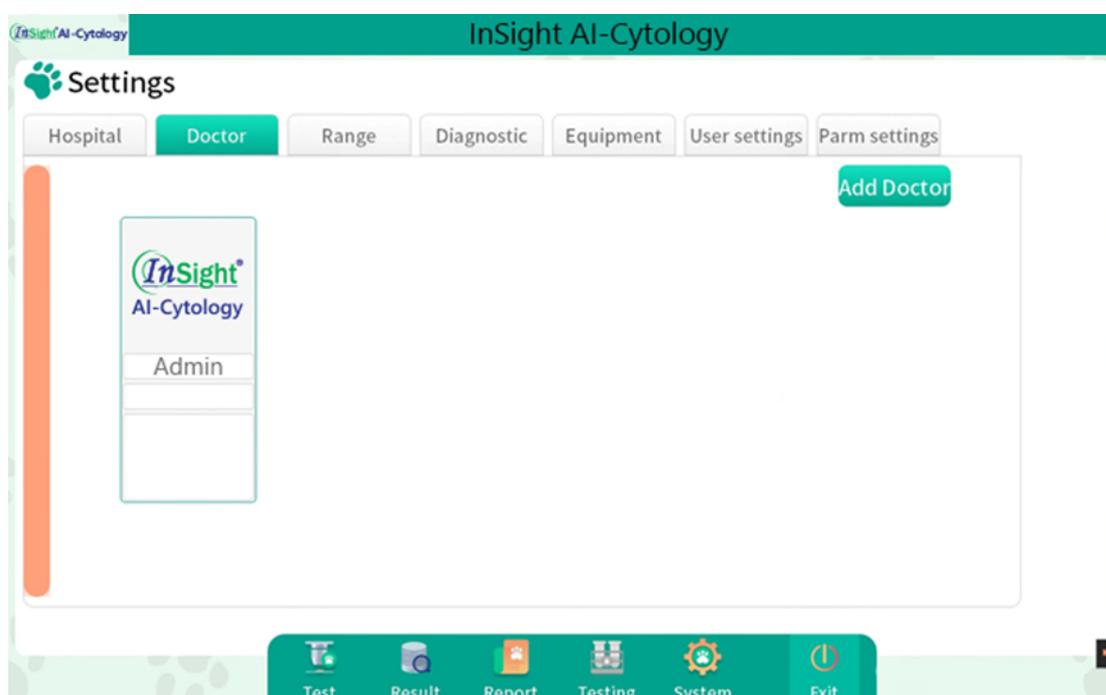
6.3 Vet Information Settings

6.3.1 Adding a Vet

As shown in the following image, users can manage information related to medical personnel through the Vet Information settings menu. The options available include:

- **Adding a Vet:** Users can add new vets by entering their details into the system.
- **Vet's Name:** Input the name of the vet.
- **Vet's Phone Number:** Provide a contact number for the vet (if required).

When entering a new sample into the system, it is necessary to select the vet associated with that sample. The selected vet's information will then be displayed in the final test report, linking the medical analysis to the overseeing physician.



6.3.2 Editing Vet Information

- **Editing a Vet:** Click on the vet you want to edit.
- **Change a Picture:** Click  to change the picture.
- **Save:** Click  to save the information.

6.3.3 Deleting Vet Information

- **Deleting a Vet:** Click on the vet you want to delete. The delete button  will appear. Click  to delete the vet.



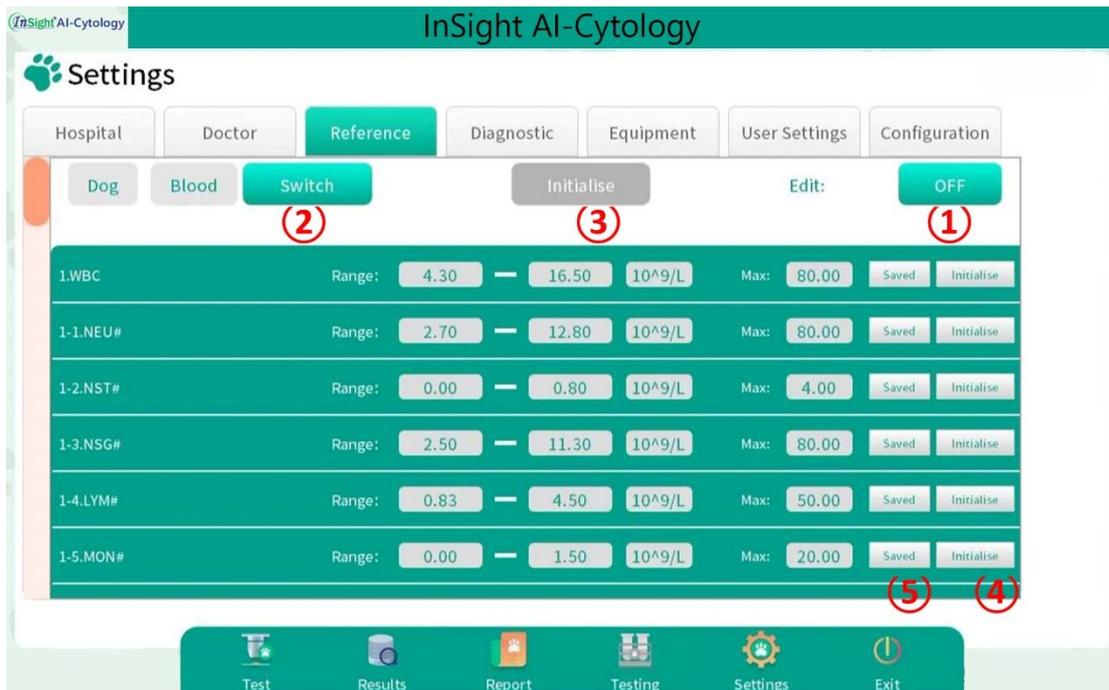
6.4 Reference Range Settings

As shown in the following image, users can adjust the reference ranges for different species and sample types through the Reference Range settings menu. This allows for customised diagnostic references tailored to specific testing needs.

Safety and Accuracy Features

- **Edit Mode:** To prevent accidental modifications, the edit mode is disabled by default.
- **Activating Edit Mode:** Users must enable the edit mode manually before they can make changes to the reference ranges. When entering Edit Mode, the user will be prompted to enter the password ("admin"). After entering the password, Edit Mode can be activated.

This design ensures that reference range adjustments are made deliberately, maintaining the integrity and reliability of test results.



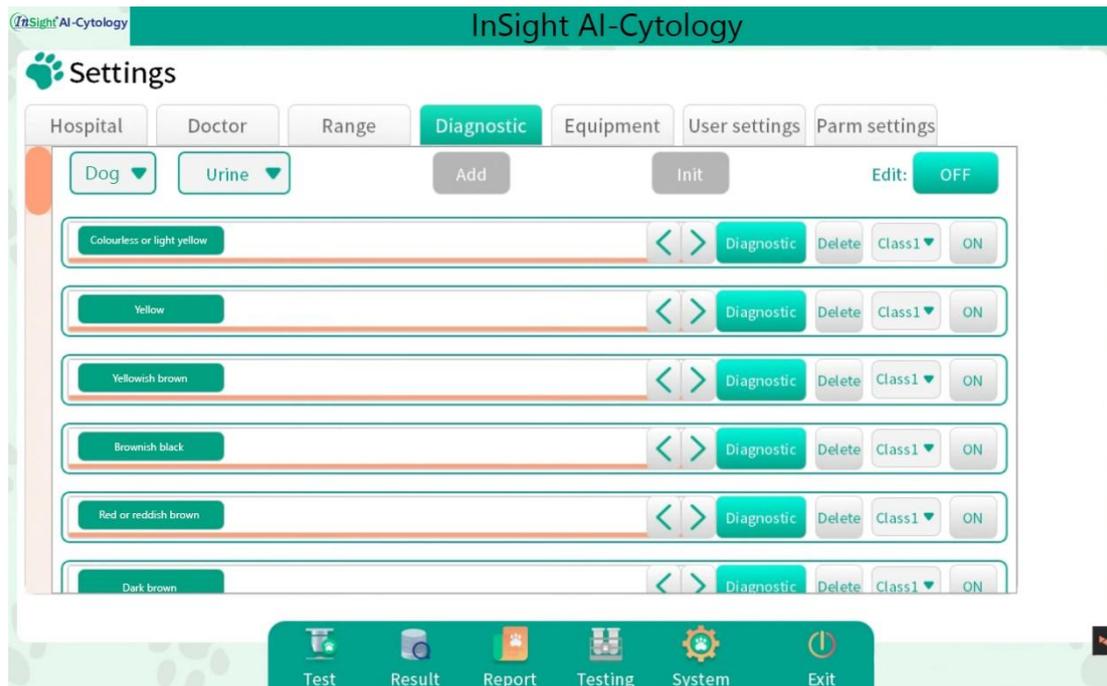
1. **Edit Mode:** Turn editing mode on/off.
2. **Switch:** Click "Switch" to switch to the reference ranges of the corresponding sample types and animal species.
3. **All Items Initialisation:** Click "Initialise" and the reference ranges of all items for the current species will be defaulted to the factory-set parameters.
4. **Single Item Initialisation:** Click "Initialise" and the reference range of this single item will be defaulted to the factory-set parameter.
5. **Saved:** After modifying the reference range of a single item of the detection items for the current species, save the reference range.

6.5 Diagnostic Tips Settings

As shown in the following image, the Diagnostic Tips settings menu allows users to customise the diagnostic prompt information specific to various species and sample types. This feature enhances the relevance and utility of diagnostic outputs.

Functionality and Controls

- **Enable/Disable Tips:** Users have the flexibility to activate or deactivate individual diagnostic tips based on relevance and necessity.
- **Modify Tips:** Add new diagnostic prompts or delete existing ones to tailor the guidance provided by the system.
- **Edit Mode:** To safeguard against accidental changes, the edit mode is deactivated by default.
- **Activating Edit Mode:** Users must manually enable the edit mode before they can make any modifications to the diagnostic prompts. This precaution helps to prevent unintended alterations. When entering edit mode, you will be prompted to enter the password "admin" After entering the password, edit mode can be activated.



6.6 Analyser Information Settings

The Analyser Information section provides comprehensive information on the analyser. This section is designed to help users easily access and review essential information about the device, ensuring they are fully informed about the specifications and support details.

Included Information:

- **Analyser Specifications:** Details about the physical and operational specifications of the analyser.
- **System Specifications:** Information about the software.
- **Brand Support:** Insight into the brand's support options, including warranty and customer service contacts.
- **Version Support:** Information on the current version of the analyser's software, including any available updates or compatibility notes.

6.7 User Settings

6.7.1 Diagnostic Prompt Settings

This setting allows users to manage how diagnostic prompts are displayed and selected:

- **Selection Modes:** Users have the option to either select all or none of the diagnostic prompts.
- **Default Selection:** By default, when entering the diagnostic prompt screen, all diagnostic prompts are automatically selected. Upon completing the test, the diagnostic prompts automatically appear on the report.

- **Unselect All:** If all diagnostic tips are not required, users can choose to display the diagnostic tips screen with none selected by default. Upon completing the test, the diagnostic prompts do not appear on the report.

These settings streamline the user's interaction with diagnostic prompts, enhancing the efficiency of customising diagnostic outputs.

6.7.2 Report Title Settings

This section supports customisation of the report titles based on the type of test being reported:

- **Supported Titles:** Users can select from four types of report headers corresponding to the type of sample tested: blood, faeces, urine and ascites.
- **Default Title:** The default report header automatically displays the test type followed by "Report" (e.g., "Blood Report").
- **Customisation:** Users can customise the report header by entering their desired text in the input box provided. After saving, this customised header will appear on the corresponding reports.

By allowing customisation of report titles, users can tailor the output to better fit the presentation and documentation standards required by their practice or laboratory.

6.7.3 Language Switching Settings

This setting facilitates language customisation within the system:

- **Default Language:** The default system language is set to English.

6.7.4 AI Sensitivity Settings

AI sensitivity can be adjusted to suit different analysis needs:

- **Sensitivity Levels:** Options available in the dropdown box include High, Medium and Low.
- **Default Setting:** The default sensitivity setting is Medium, balancing accuracy and processing time.

Increasing sensitivity leads to a higher detection rate but reduces accuracy, while decreasing sensitivity lowers the detection rate but improves accuracy

6.7.5 Keyboard Options

Keyboard options support System Keyboard and USB Keyboard. By default, the analyser is set to the Windows System Keyboard. After switching to the USB Keyboard mode, restart the analyser to use the selected keyboard.

6.7.6 Calibration Settings

Calibration Settings support light source calibration and focal plane calibration. Follow the pop up prompts during calibration.

Light Source Calibration Conditions: Perform manual light source calibration to improve image quality when experiencing abnormal image colour, such as yellowish or reddish hues.

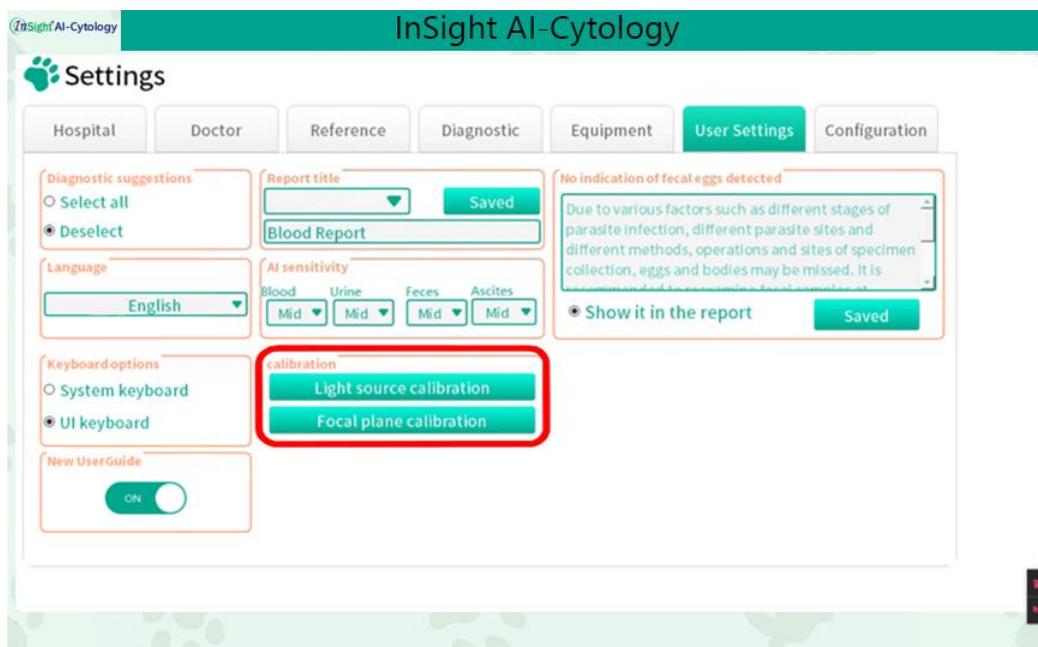
Focal Plane Calibration Conditions: Perform manual focal plane calibration when image quality issues arise, such as unclear or blurry images.

Light Source Calibration Procedure

1. Settings > User Settings > Light Source Calibration.
2. When there is a slide in the analyser, the slide holder will pop out. Remove the slide and the slide holder will automatically retract. The procedure will progress until the calibration is successful.
3. If there isn't a slide in the analyser, the light source calibration will automatically begin and progress until the calibration is successful.

Focal Plane Calibration Procedure

1. Settings > User Settings > Focal Plane Calibration.
2. Follow the prompts on the analyser to prepare dual-channel blood sample for dogs/cats and select the left/right channel.
3. The slide holder will pop out. Insert the slide into the slide holder and the slide holder will automatically retract. If a slide isn't inserted within 5 minutes, the slide holder will automatically retract back into the analyser.
4. The focal plane calibration will automatically begin and progress until calibration is successful.



NOTE:

The system is programmed to conduct light source and focal plane calibration every 2 months. When the scheduled calibration time arrives, light source calibration will automatically occur upon software startup if there is no slide in the slide holder. Focal plane calibration requires a blood sample slide inside the analyser. If blood testing coincides with the scheduled focal plane calibration, the system will automatically

combine the calibration with the blood test, extending the testing time to approximately 12 minutes.

6.7.7 New User Guide Settings

When the new user guide button is "ON", the system will automatically enter guide mode the next time the software starts up. If you don't want the software to start in guide mode, simply disable the setting.

6.7.8 Faeces Eggs Miss Detected Warning

This setting addresses the potential for missed detections in faeces egg analysis:

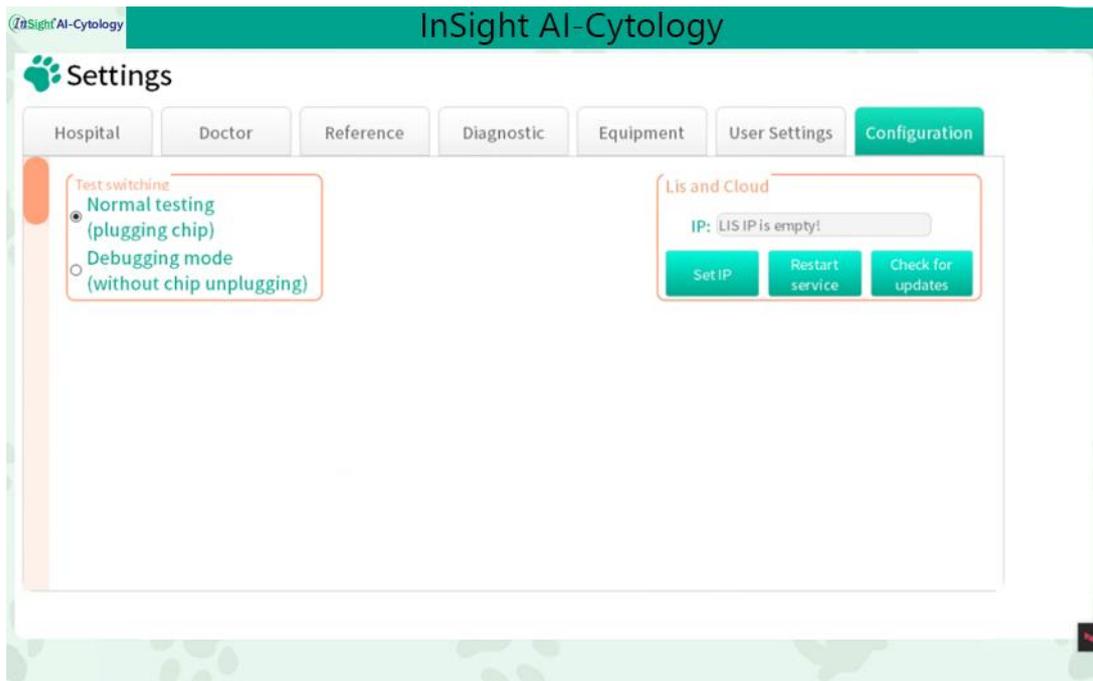
- **Default Text:** The default warning text states, "Due to the influence of various factors such as different stages of parasite infection, different parasite sites, and different methods, operations, and sites of sample collection, eggs and worms may be missed. It is recommended to review faeces samples at different sites and different times 3 times to improve the testing rate – {Laboratory Test Methods for Parasites}". Custom modifications are supported by the content.
- **Report Integration:** This warning is automatically included in stool report tests under Diagnostic Tips.

6.8 Configuration Settings

6.8.1 Test Switching Settings

Test switching supports normal testing (plugging slide) and service mode (without slide unplugging).

- **Normal Testing:** For regular use. Users typically perform normal testing, where the system prompts the insertion and removal of the slide during sample testing.
- **Service Mode:** Service testing, primarily for engineers during testing and validation, allows the slide to automatically eject and retract in without requiring manual insertion or removal.



6.8.2 LIS and Cloud Platform Settings

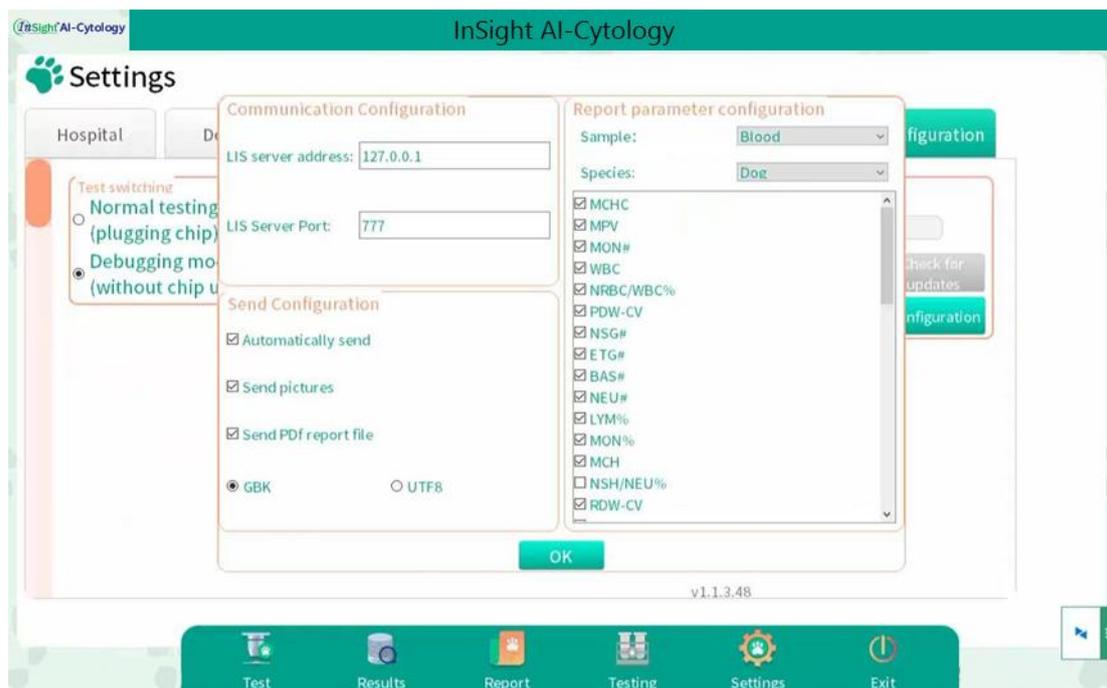
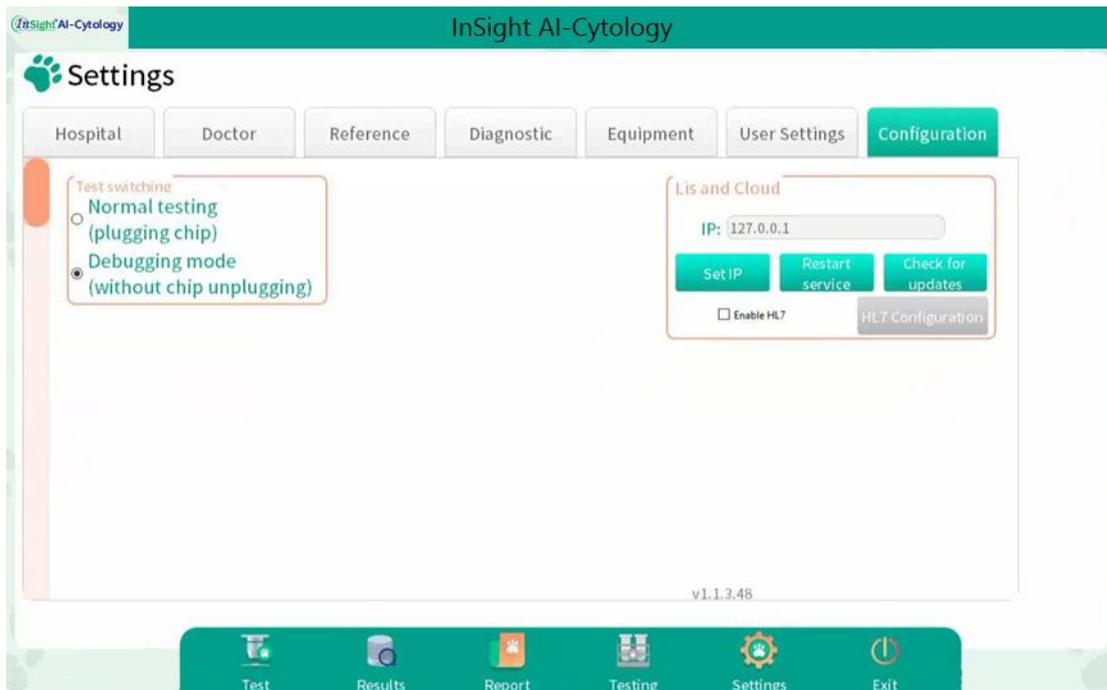
The LIS and cloud platform is used to enable the LIS function to achieve efficient data sharing and support the connection with the cloud platform and HL7.

Enable the LIS Cloud Platform

- **IP Address Input:** Enter the IP address of the LIS receiving computer in the IP input box.
- **Setting:** Click "Setting" and the IP address will be automatically inputted into the cloud service configuration file.
- **Restart the Service:** Click "Restart Service" to restart the cloud service and the IP setting function will be activated.

Enable the HL7

- **Enable Function:** Click "Enable HL7" to enable the HL7 function.
- **Access Configuration:** Click "HL7 Configuration" to enter the communication configuration interface. Then, enter the LIS server address and the LIS server port.
- **Sending Configuration:** For the sending configuration, you can check "Automatically Send" (automatically send after the report is generated), "Send Pictures" (send pictures from E:\anlv_image) and "Send PDF Report Files" (send PDF report files from E:\anlv_report_PDF).
- **Report Parameter Configuration:** Select the required sample and species from the dropdown box. After selecting the correct samples and species, select the report parameter items that need to be automatically sent.



6.9 Analyser Information and Other Settings

Manufacturer Settings: Certain device information and configuration settings are pre-set by the manufacturer and are typically not meant for user modification, ensuring stability and compliance with technical specifications.

Section 7 Services

7.1 Overview of Routine Maintenance

To maintain the accuracy and effectiveness of the analyser, it is essential for operators to conduct routine maintenance as outlined in this section. Adhering to these maintenance guidelines ensures the analyser operates optimally and extends its service life.

7.2 Maintenance Warnings

- **Replacement Parts:** Only use parts provided by Woodley Equipment Company to maintain the analyser. This ensures compatibility and reliability.
- **Accessories:** To maintain equipment performance and safety, only use accessories provided by Woodley Equipment Company. For further information, please contact Woodley Equipment Company or your authorised distributor.
- **Damaged Parts:** Immediately report any damaged parts to Woodley Equipment Company or your authorised distributor to prevent further issues or unsafe conditions.
- **Post-Maintenance Checks:** After completing maintenance tasks, thoroughly check the analyser's status to confirm it is operating accurately and effectively before using again.

7.3 Biological Hazards

When operating and maintaining the analyser, it is important to be aware of potential biological hazards and take the necessary safety precautions:

- **Infectious Potential:** The surface and slides of the analyser may carry infectious agents. Treat with caution and employ safety measures both during operation and maintenance tasks.
- **Reagent Handling:** Reagents used with the analyser can cause irritation to the eyes, skin and mucous membranes. To minimise exposure risks:
 - Adhere strictly to laboratory safety regulations.
 - Wear appropriate personal protective equipment, such as laboratory coats, gloves, and safety goggles when handling reagents.

Immediate Actions for Exposure

- **Skin Contact:** In the event of skin contact with reagents, rinse the area thoroughly with water. Seek medical attention if irritation persists.
- **Eye Contact:** If reagents get into the eyes, rinse immediately with plenty of water and seek medical attention immediately.

7.4 Cautions for Maintenance

When maintaining the analyser, adherence to proper procedures is crucial to avoid causing damage. Please consider the following precautions:

- **Maintenance Guidance:** Always follow the maintenance instructions provided in the manual carefully. Improper maintenance practices can lead to equipment damage.
- **Professional Support:** If the operator's manual does not address a specific issue, contact Woodley Equipment Company.
- **Reporting Damage:** If any damaged parts are discovered, contact Woodley Equipment Company or your authorised distributor.
- **Cleaning the Analyser:** Regular cleaning of the analyser's shell is necessary:
 - Use only the cleaning materials specified in the maintenance section of the manual (see Section 7.6.1).
 - Avoid using strong acidic or basic cleaning agents, as these can damage the analyser.
 - Woodley Equipment Company will not provide warranties for damage or accidents caused using unauthorised cleaning materials.
- **Chemical Effectiveness:** Woodley Equipment Company does not assume liability for the effectiveness of chemicals listed for infection control.

7.5 Tools

- Hex Head Screwdriver

7.6 Maintenance Overview

Maintenance tasks for the analyser include both surface cleaning and heat dissipation vent maintenance to ensure optimal performance and safety.

7.6.1 Surface Cleaning and Heat Dissipation Vent Maintenance

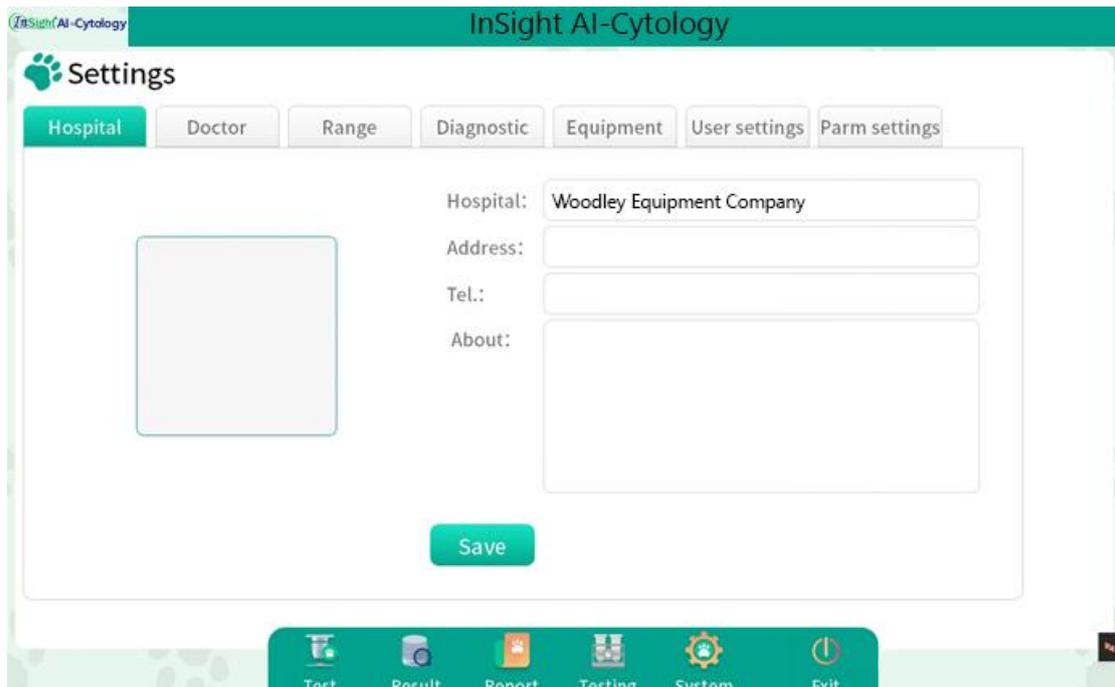
- **Surface and Display Cleaning:** Use 75% alcohol wipes to clean any stains on the analyser's surface and display. This ensures that the analyser remains clean and functional without damaging sensitive areas. Do not spray fluids directly onto the analyser screen.
- **Fan Filter Cleaning:** Use a soft brush to remove pet hair and other debris from the fan filter. Keeping these filters clear is crucial for maintaining proper airflow and preventing the analyser from overheating.

By regularly performing these maintenance tasks, you can help extend the life of the analyser and ensure it operates efficiently.

7.7 Version Information Access

To view the current version information of the analyser, follow these steps:

1. **Navigate to Version Info:** Go to the lower right corner of the software interface.
2. **Access the Display:** On the display screen, you will find the version information section. This area of the interface allows users to quickly and easily check the analyser's firmware and software version details, ensuring they are up to date with the latest updates and features.



Section 8 Troubleshooting

8.1 Overview

This chapter is dedicated to outlining the potential fault information for the analyser and offering appropriate troubleshooting methods.

NOTE:

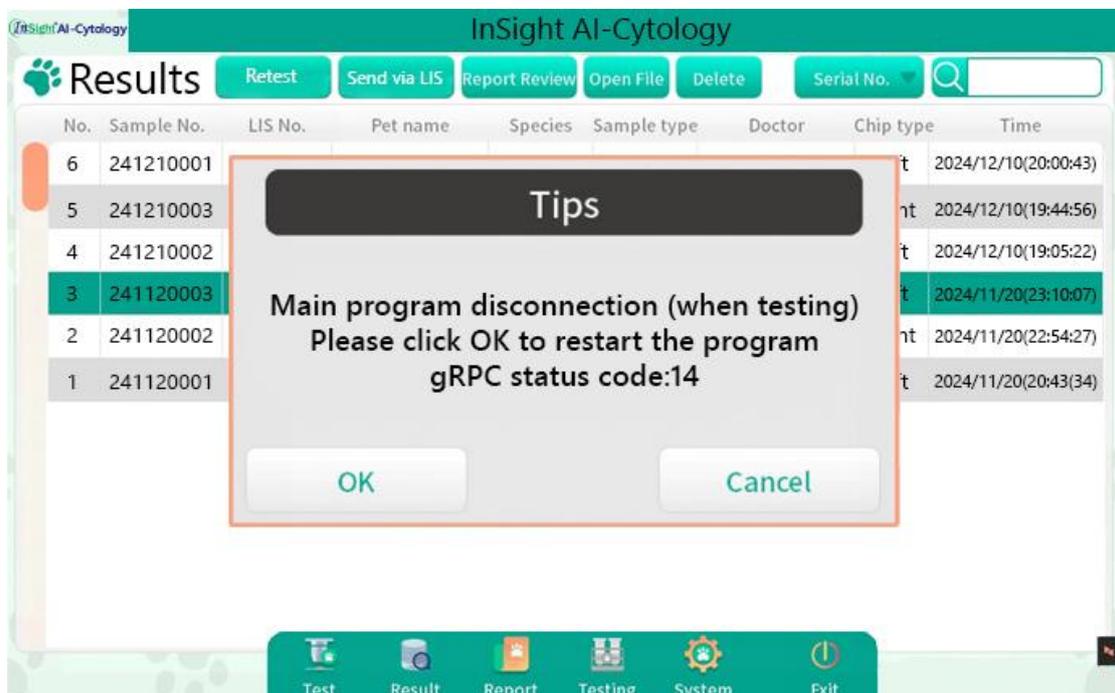
This manual is not intended as a comprehensive maintenance guide. Instead, it focuses on the initial actions an operator should take when faced with a fault alarm from the analyser.

8.2 Error Prompts and Solutions

8.2.1 Error Prompt

- **Error Identification:** During operation, if an error occurs within the analyser, a pop up window will appear on the software interface.
- **Fault Display:** This window will display the fault information along with a summary of the error details to assist in rapid identification and resolution.

These features are designed to provide operators with immediate and actionable information to manage and rectify issues efficiently, ensuring minimal downtime and maintaining the reliability of the analyser



8.2.2 Error and Solution

The table below provides a comprehensive list of potential faults that may occur with the analyser, along with corresponding troubleshooting steps or information to address the issue.

Error	Solution
MCU connection failure	Turn the power off. Then, restart the analyser. If the error persists, contact Woodley Equipment Company.
Disconnect from the main program	Turn the power off. Then, restart the analyser. If the error persists, contact Woodley Equipment Company.
Under-staining of platelets	If the staining is insufficient, increase the staining duration or apply heat to the slide. If the error persists, contact Woodley Equipment Company.
Wi-Fi signal and mobile phone hotspot appear but can't be connected	Use the network diagnostics tool provided with Windows to try to resolve the issue. If the error persists, contact Woodley Equipment Company.
Test time exceeds 25 minutes without result	Restart the software and perform the test again. If the error persists, contact Woodley Equipment Company.
Failed self-test	Turn the power off. Then, restart the analyser. If the error persists, contact Woodley Equipment Company.
Failed self-test timeout (TCP)	Click [OK] to restart the analyser. If the error persists, contact Woodley Equipment Company.
Failed self-test timeout (AI)	Click [OK] to restart the analyser. If the error persists, contact Woodley Equipment Company.
Failed self-test timeout (camera)	Click [OK] to restart the analyser. If the error persists, contact Woodley Equipment Company.
Failed self-check timeout (mechanical reset)	Click [OK] to restart the analyser. If the error persists, contact Woodley Equipment Company.
Black screen	Turn the analyser off. Turn the analyser on after 30 seconds. If the error persists, contact Woodley Equipment Company.
White blood cells are too lightly stained	If the staining is insufficient, increase the staining duration or apply heat to the slide. If the error persists, contact Woodley Equipment Company.
Failure to focus	Repeat with a new slide.



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