

## Benefits of simultaneous 5-part extended DIFF and rapid CRP whole blood measurement

Accurate assessment of the immune response and of infectious vector types (virus, bacteria, parasite) allows:

- Targeted antimicrobial prescription,
- Efficient and simple patient triage,
- Monitor disease progress through changing values

Potential to decrease costs and TAT.

- Reduction of hospitalization duration
- Reduction of transfusion needs
- Reduction of the number of manual blood smears and their manual review
- Reduction of antimicrobial Treatment duration



Use antibiotics wisely

## Specifications



### PHYSICAL SPECIFICATIONS

Dimensions & Weight:  
W\*D\*H (mm): 397(W) x 477(D) x 483(H) mm  
25.8kg

Printer (optional):  
Compatible models with Linux drivers

Throughput:  
CBC or DIFF approx. 60 s/hour  
CRP mode 15 s/hour  
DIFF + CRP 15 s/hour

Sample Management:  
Closed Tube/sample holder

Analysis Mode:  
CBC, DIFF  
CBC+CRP, DIFF+CRP, CRP

Sound Level: 57 dBA

Operating Temperature & Humidity:  
+18°C (64°F) to +30°C (+86°F)  
Relative humidity ~80%,  
without condensation

Specimen Type & Volume:  
Human venous and capillary blood  
Whole blood, serum or plasma from vein  
for CRP measurement  
EDTA K2, EDTA K3 anticoagulant  
CBC, DIFF: 20 µL  
CBC+CRP,DIFF+CRP,CRP: 27 µL

Power Requirements:  
Power Supply:  
AC 100-240V(within ±10%),50/60Hz  
Power consumption: 190 VA  
Heat output: 378 KJ/h

Reagents:  
ABX Diluent (10L or 20L)  
Whitediff 1L (cyanide free)  
ABX Cleaner 1L  
CRP UNIT50 (50 tests \* 2 pcs)  
1 reagent for concentrated cleaning:  
ABX Minoclair

### ECO FRIENDLY SOLUTION

LED light source  
Cyanide free lysis reagent  
WEEE Standard compliance

### MEASUREMENT PRINCIPLES

WBC & Differential

Methods:  
• Cytometry :  
Double Hydrodynamic Sequential System 'DHSS'  
• Optical Reading : Absorbance  
• Impedance Variation

HGB Measurement Method:  
• Spectrophotometry

RBC & PLT Detection Methods:  
• Impedance Variation  
• Analogic Digital Conversion

HCT Measurement Method:  
• Analogical integration

CRP:  
Latex immunity turbidity rate method

### PARAMETERS & PERFORMANCE DATA

38 Parameters:  
WBC  
NEU# & NEU%  
LYM# & LYM%  
MON# & MON%  
EOS# & EOS%  
BAS# & BAS%  
IMG# & IMG%  
IML# & IML%  
IMM# & IMM%  
ALY# & ALY%  
LIC# & LIC%

RBC  
HGB  
HCT  
MCV  
MCH  
MCHC  
RDW-CV  
RDW-SD  
MIC  
MAC  
PLT  
MPV  
PCT  
PDW  
P-LCC  
P-LCR  
CRP

### SOFTWARE SPECIFICATIONS

• Data Processing  
Color LCD touch screen: 12.1 inches  
Operating System: Linux™  
Connection: RS232, Ethernet, USB  
Communication: ASTM & HL7 protocols  
Capacity: 10 000 results + graphs  
Options: keyboard, mouse and barcode reader

• Quality Control  
CBC/DIFF - 3 controls levels (Low, Normal, High)  
CRP-2 levels (Low, High)

QC results compatible with  
HORIBA Medical Quality Control Program (QCP)  
Levey-Jennings graphs  
Radar graphs  
XB on 3 or 9 parameters  
Overlapping QC (DIFF - 6 active QC files)

### ANALYTICAL MEASUREMENTS

Linearity	Linearity Limits	Visible Range	Unit
WBC	0-300	300-999	10 <sup>9</sup> /L
RBC	0-8	8-18	10 <sup>12</sup> /L
HGB	0.0-24.0	24.0-30.0	g/dL
HCT	0-67	67-80	%
PLT (HGB >1.5 g/dL)	0-2500	2500-4000	10 <sup>9</sup> /L
PLT (HGB <1.5 g/dL)	0-4000	4000-5000	10 <sup>9</sup> /L
CRP (HCT ≥23%)	0.0-200.0	200.0-230.0	mg/L
CRP (HCT <23%)	0.0-150.0	15.0-170.0	mg/L

Limit of quantitation	Value	Unit
WBC	0.2	10 <sup>9</sup> /L
RBC	0.2	10 <sup>12</sup> /L
HGB	1	g/dL
HCT	2	%
PLT	10	10 <sup>9</sup> /L
CRP	1	mg/L

Precision	CV%	in Range	Unit
WBC	3	4-10	10 <sup>9</sup> /L
RBC	2	3.6-6.2	10 <sup>12</sup> /L
HGB	< 1.5	12.0-18.0	g/dL
HCT	< 2.0	36-54	%
PLT	< 5.0	180-500	10 <sup>9</sup> /L
CRP	< 10.0	0-10.0	mg/L
CRP	< 8.0	10-120.0	mg/L

Subject to modifications / Ref 1300148279 © 2025 HORIBA - HORIBA ABX SAS - France - RCS Montpellier 328 031 042  
HORIBA invites users of its systems to carefully read the instructions for use in user manuals



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**CERTAINTY IN DIAGNOSIS,  
SERENITY IN CARE AND A SMILE  
AS THE FINAL OUTCOME.**

**Yumizen**  
H500 CRP

Explore the future

**HORIBA**

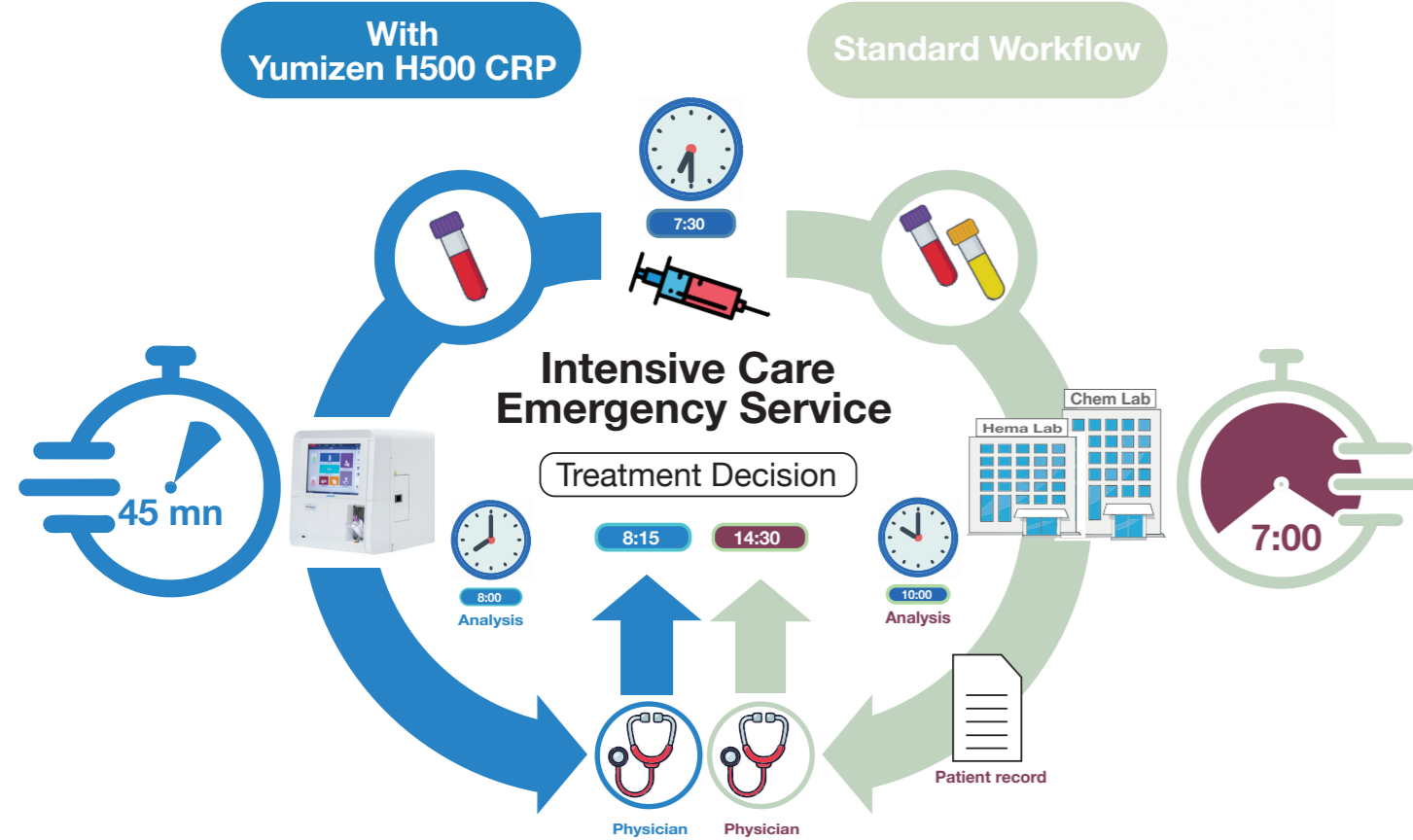
Explore the future

**HORIBA**

# 1 Improved Turn Around Time

**Yumizen**  
H500 CRP

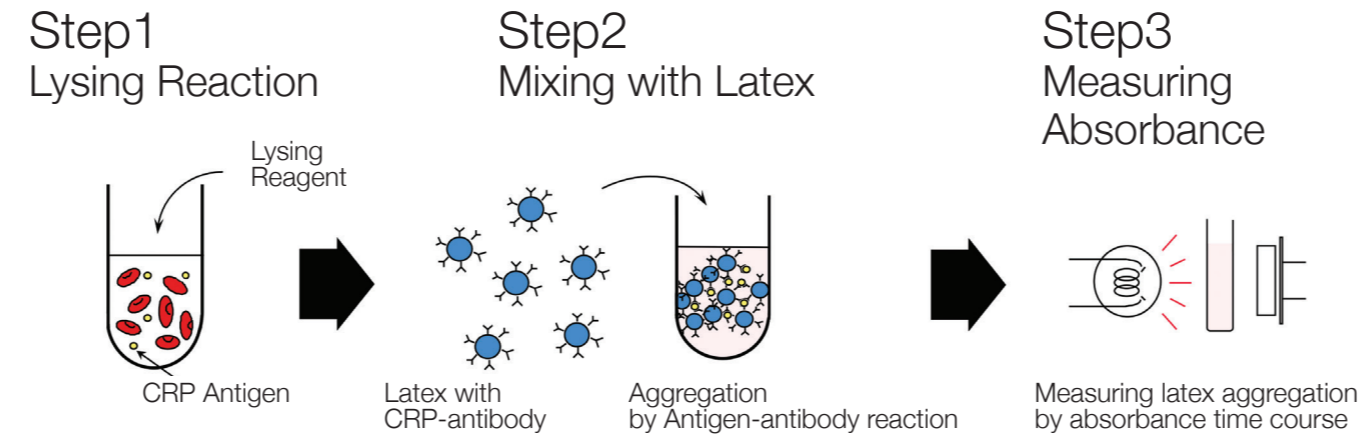
The infection and inflammation hematology finder



Ideal for small samples  
• Capillary and venous blood

# 2 Combine 5 DIFF & CRP

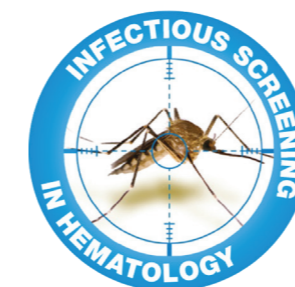
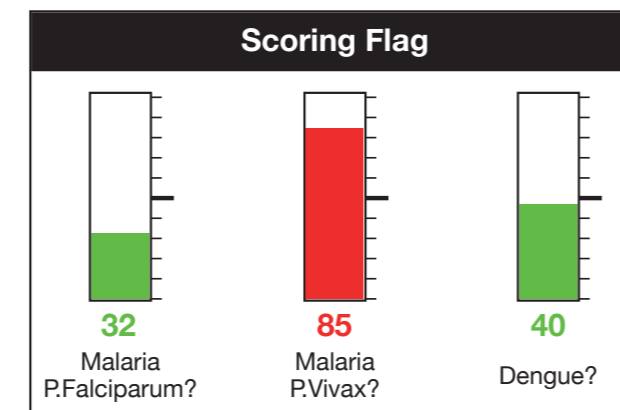
CRP measurement Principle



WBC with total Immaturity Count: IML, IMM and IMG

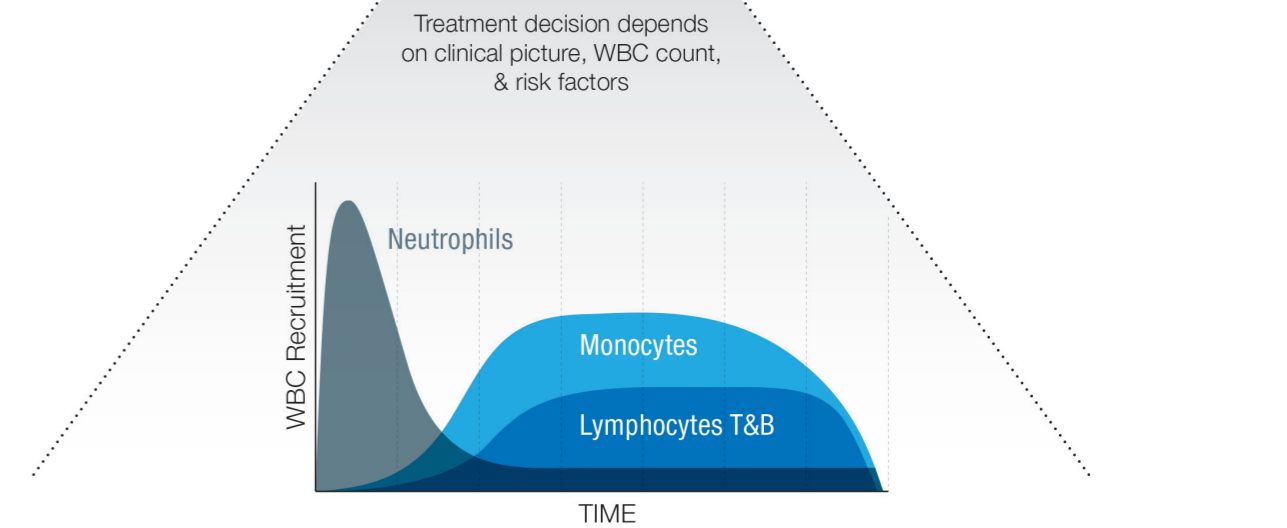
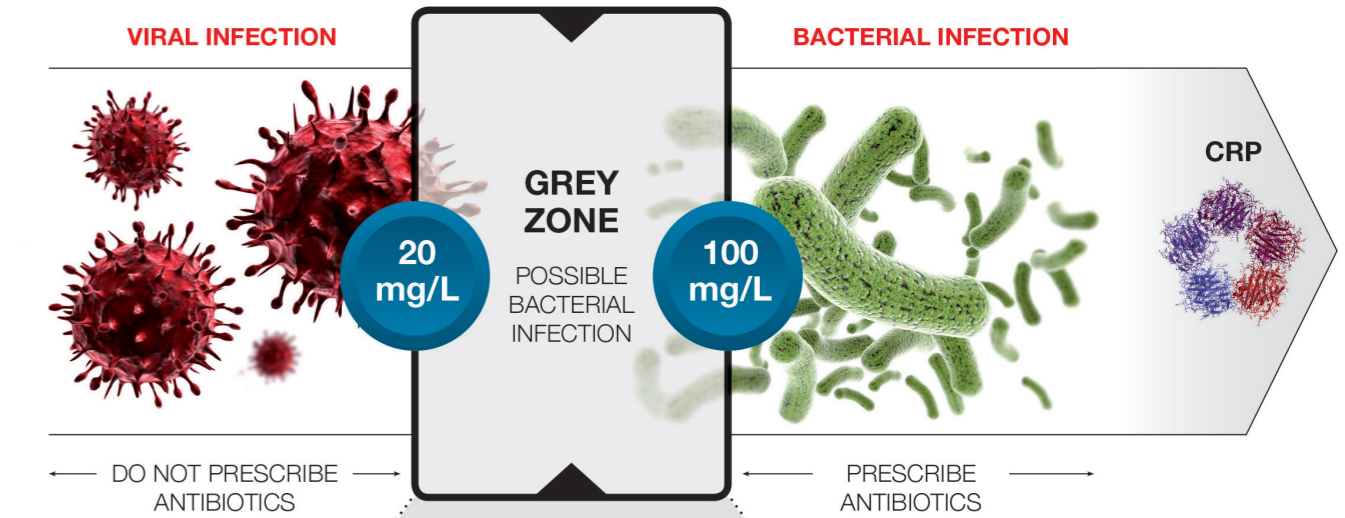
CBC		DIF				Run Date	17/01/2025 10:59:13	
WBC	8.63 10 <sup>9</sup> /mm <sup>3</sup>	NEU	43.5	3.76	IMG	0.3	0.02	
RBC	4.52 10 <sup>6</sup> /mm <sup>3</sup>	LYM	39.5	3.41	IMM	0.0	0.00	
HGB	12.0 g/dL	MON	6.6	0.57	IML	0.0	0.00	
HCT	38.7 %	EOS	9.6 h	0.83 h	ALY	1.0	0.08	
MCV	85.5 fL	BAS	0.5	0.04	LIC	0.5	0.04	
MCH	26.5 f pg	CRP	CRP 25.7 H mg/L					
MCHC	31.0 g/dL							
RDW-CV	13.5 %							
RDW-SD	33.7 L fL							
MIC	4.0 %							
MAC	2.5 %							
PLT	346 10 <sup>9</sup> /mm <sup>3</sup>							
MPV	9.4 fL							
PCT	0.326 %							
PDW	14.2 fL							
P-LCC	133 10 <sup>9</sup> /mm <sup>3</sup>							
P-LCR	38.4 %							

With infectious screening flags (optional)

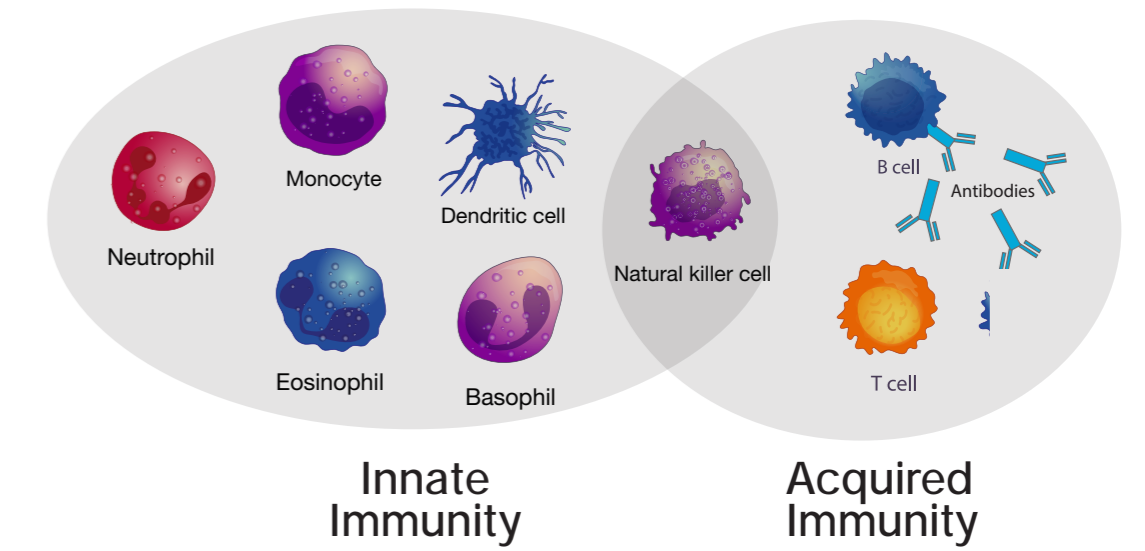


Scoring Flags are displayed to provide the flags' triggering level and hence help the users to appreciate the flagging rate.

# 3 Facilitate Clinical Decision



Leukocyte Counts Kinetics in case of Infection  
High early recruitment of the Neutrophils and late rise of Monocytes and Lymphocytes



The successful outcome of any infectious event is the transition from innate to acquired immunity with a slight decrease of white blood cells, neutrophil and NLR and an increase of lymphocyte counts