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How will you contribute  
to the reduction of antibiotic resistance?

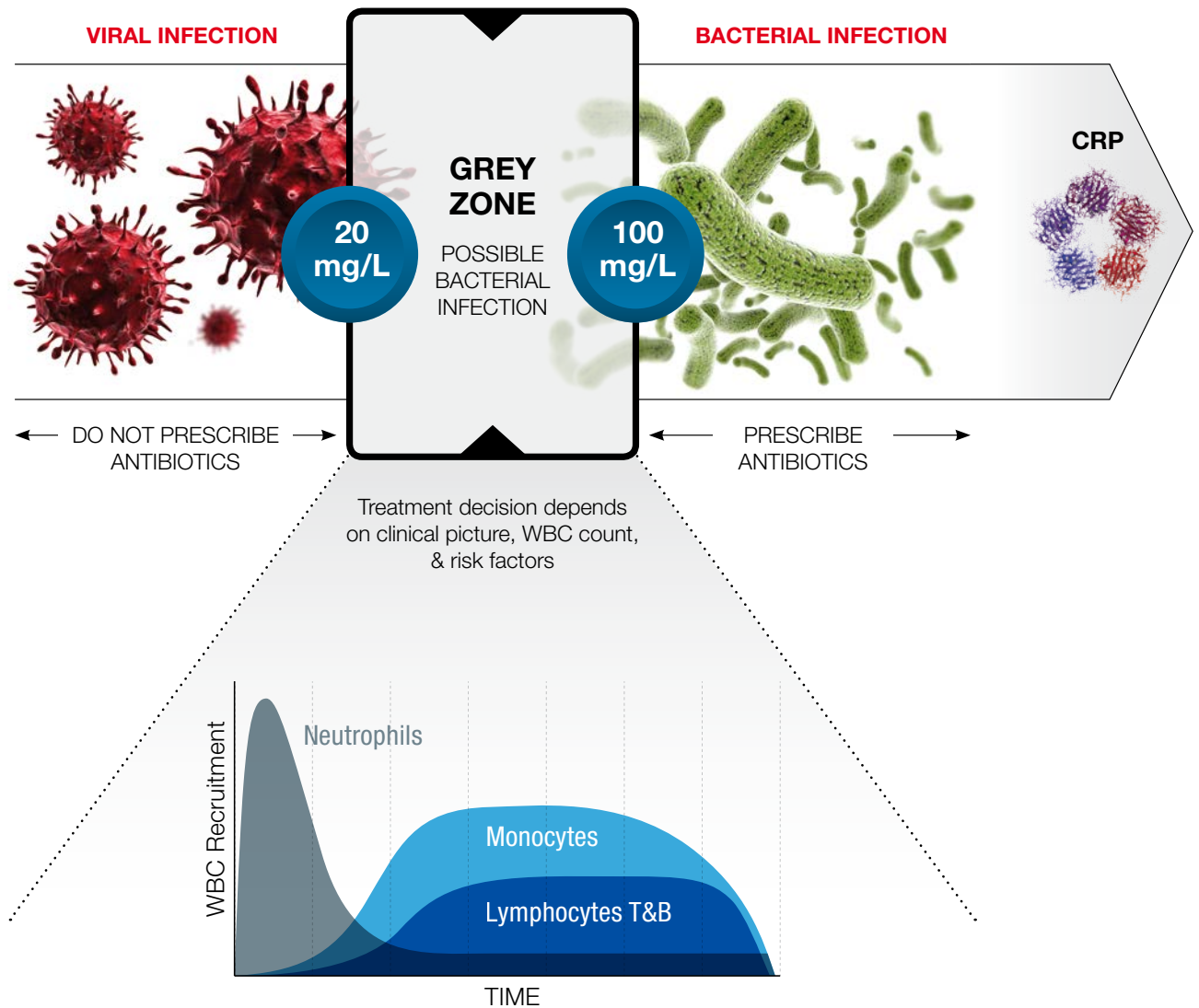
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Hematology CRP Analyzer

# Pentra **MS** CRP ●



# 1 Make the right decision in the prescription of antibiotics



Modified from «Simon A. Jones. J Immunol 2005; 175:3463-3468;»



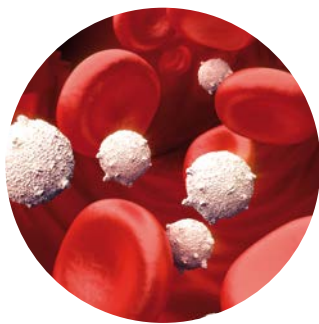
## GUIDANCE AGREEMENT OF 4 INDEPENDENT WORKING GROUPS :

- Nat. Health Clin. Excellence (NICE). Guidance for pneumonia 2014
- Verlee L. et al. Summary of Dutch GP practice guideline. Ned Tijdschr Geneeskd 2012;156:A4188
- Little P. et al. multinational trial on antibiotic prescribing rates (GRACE Study), Lancet 2013;382:1175-82
- Woodhead M. et al. Guidelines for the management of adult lower respiratory tract infections (ERS), Clin Microbiol Infect 2011; 17(Suppl 6):E1-59

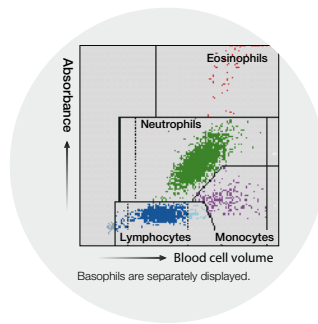
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## 2 Measure simultaneously WBC differential and CRP...

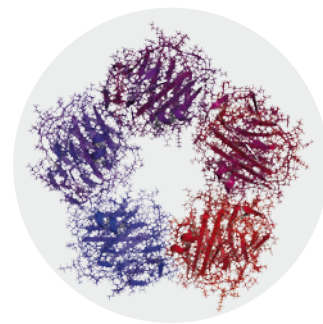
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↓  
26 hematology  
parameters



↓  
WBC  
differential count



↓  
CRP  
measurement

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## ...with rapid results and micro sampling

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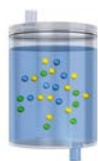
**Measurement of WBC  
differential and CRP in  
just 3 minutes with 35µL  
of whole blood with EDTA**

### CRP measurement

Proven and exclusive immunoturbidimetry technology for rapid and accurate patient diagnosis.



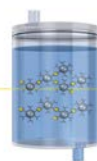
Hemolysis  
reagent  
lyses RBC



Buffer inhibits  
all antigens,  
except CRP



Latex reagent  
agglutinates  
CRP on beads



Measurement of CRP  
with spectrophotometry  
(7 measurements)

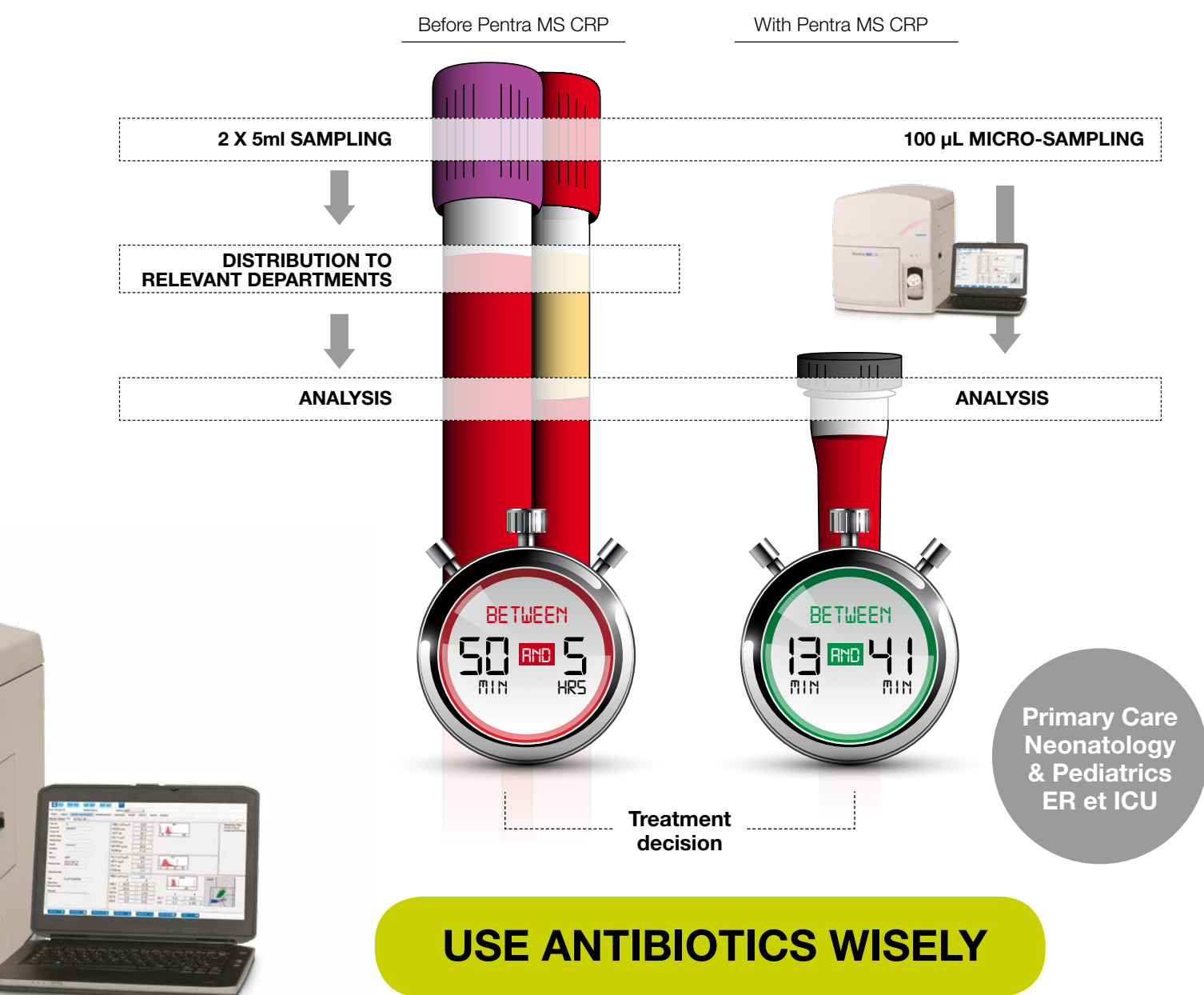




Before, we were outsourcing all tests. [...] Now, we have a CBC+CRP analyser in our treatment room that the nurses can operate.

Dr Utsunomiya,  
Amayama Hospital, Japan.

## 3 Take faster and accurate decision



Hematology CRP Analyzer

**Pentra MS** CRP

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# How will you contribute to the reduction of antibiotic resistance?

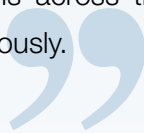
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## **Antimicrobial resistance poses a catastrophic threat.**

If we don't act now, any one of us could go into hospital in 20 years for minor surgery and die because of an ordinary infection that can't be treated by antibiotics. And routine operations like hip replacements or organ transplants could be deadly because of the risk of infection.

That's why governments and organizations across the world, including the World Health Organization and G8, need to take this seriously.



**Professor Dame Sally Davies**

UK Chief Medical Officer

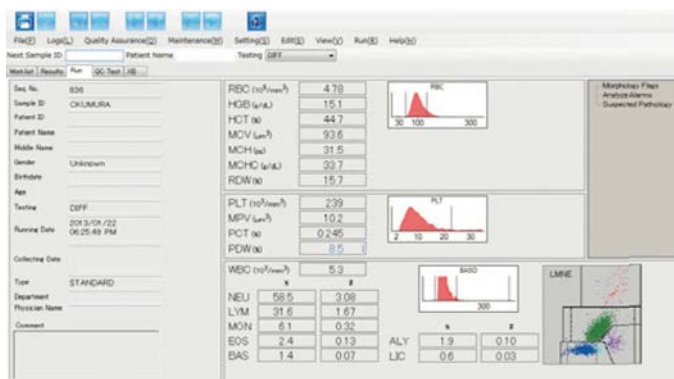




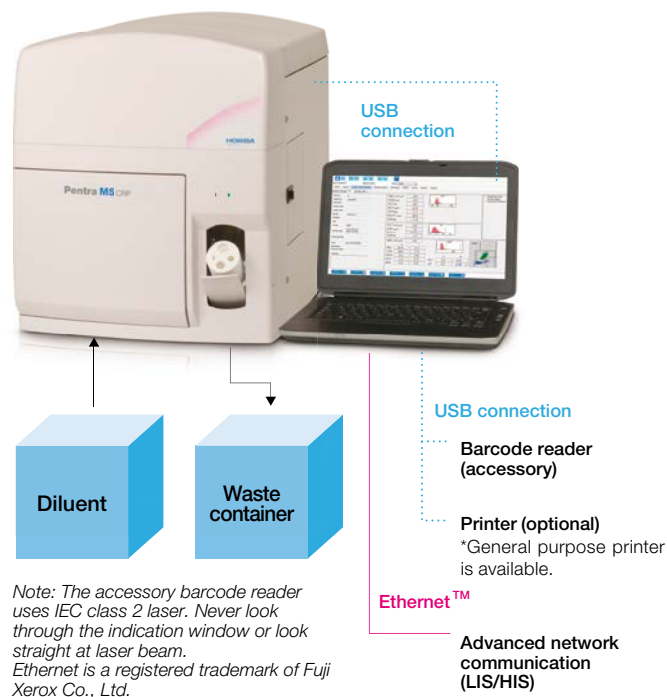
# Pentra MS CRP

Hematology CRP Analyzer

## RESULT DISPLAY



## COMPOSITION



## BASIC SPECIFICATION

### Measurement Subject

DIFF mode, QC (DIFF) mode: whole blood  
DIFF+CRP mode, QC (DIFF+CRP) mode: whole blood, serum, plasma

### Sample Quantity

DIFF mode, QC (DIFF) mode: 26µL  
DIFF+CRP mode, QC (DIFF+CRP) mode: 35µL

### Measurement Mode

DIFF mode, DIFF+CRP mode, QC (DIFF) mode,  
QC (DIFF+CRP) mode

### Sampling Method

Open-vial, tube holder method

### Measurement Parameter

WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW, PLT, PDW, PCT, MPV,  
LYM%, LYM#, MON%, MON#, NEU%, NEU#, EOS%, EOS#, BAS%,  
BAS#, ALY%, ALY#, LIC%, LIC%, CRP

### Measurement Principle

WBC, RBC, HCT, PLT, BAS: Impedance  
LYM, MON, NEU, EOS, ALY, LIC: Impedance and absorbance  
HGB: Photometry, wavelength 550 nm  
CRP: Absorbance measurement, wavelength: 660 nm

### Throughput

DIFF mode, QC (DIFF) mode: approx. 60 samples/hour  
DIFF+CRP mode, QC (DIFF+CRP) mode: approx. 20 samples/hour

### Measurement Condition

Instrument operating temperature: 18 to 30 °C  
Relative humidity: 80% maximum without condensation  
Altitude: maximum 2000m

## SPECIFICATION OF ANALYZER

### Dimensions & Weight (approximate)

	Height	Width	Depth	Weight
Analyser	516mm	445mm	580mm	38kg

Protection: Class I

Power supply: AC100 +/- 240V (within 10%), 50/60Hz

Power Consumption: 160W (200VA)

Interface: USB connector (for PC connection)

### INPUT/OUTPUT

Tube holder cover (measurement start)  
PC\*, (Keyboard, mouse and barcode reader)  
Printer (general-purpose printer used with Windows PC)  
Removable media (media used with Windows PC)  
Sample ID Alphanumeric characters and hyphen (maximum: 16 characters)  
Display PC display, power indicator  
Sensor  
Reagent level (diluent, lyse, CRP reagent), waste  
level, temperature (CBC reaction chamber and CRP  
cooling unit, inside unit)

### Communication Specification

Format ABX, ASTM  
Interface Ethernet, RS-232C (USB transmutable)  
Direction Unidirectional, bidirectional

### Memory

Result: 1000 results x 500 files  
Calibration result: 11 results x 6 lots x 2 types  
QC result: 400 results x 6 lots x 4 types  
XB result: 20 results x 60 batches

Windows is a registered trademark or trademark of Microsoft Corporation in the United States and other countries.

\* PC is not included. Please ask us for recommended PC specification.

**HORIBA**  
Medical

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