

vetscan OptiCell™

The first point-of-care analyzer with CHCM — reference lab quality¹, right on your bench.

Vetscan OptiCell™ offers an accurate, precise analysis of blood health that enhances your clinical decision making. With the addition of **Cellular Hemoglobin Concentration Mean (CHCM)** and **Plateletcrit (PCT)**, it is the first and only analyzer to offer reference lab-quality¹ results right in your clinic.



What is CHCM?²

CHCM is a direct measure of the hemoglobin (Hgb) concentration inside each red blood cell — not calculated, but measured at the cellular level.

What it can do

- ✓ **Differentiate** iron-deficiency anemia from inflammatory
- ✓ **Aid in identification** of iron deficiency before clinical signs appear
- ✓ **Help avoid misdiagnoses** that lead to incorrect treatment
- ✓ **Deliver more reliable results³** than Mean Corpuscular Hemoglobin Concentration (MCHC) when endogenous interferences are present

Why it matters for clinics

Prior to this update, CHCM was only available on external, reference laboratory analyzers — leaving veterinarians to make clinical decisions with incomplete information.

With this Vetscan Opticell update, veterinarians can now offer pet owners **in-clinic measurement of Hgb concentrations within individual cells** for fast, informed diagnoses, without the need for additional testing.



PCT completes the picture⁴

Vetscan OptiCell now also offers PCT, which reflects the total platelet mass in circulation. PCT combines platelet count with mean platelet volume to help clinicians assess platelet production and evidence of destruction. **Together, CHCM and PCT give you accurate in-clinic automated CBC results with the precision of a reference lab¹ to help support better patient outcomes.**

The clinical insights behind CHCM and PCT

CHCM offers in-clinic, cell-level precision²

Most analysers report Mean Corpuscular Hemoglobin Concentration (MCHC), a value calculated from population averages. With this update, Vetscan OptiCell is now the **only point-of-care analyzer that reports CHCM**, a direct measure of the hemoglobin (Hgb) concentration within each red blood cell (RBC).

More reliable³

Lipemia, hemolysis and RBC agglutination can falsely elevate MCHC, but CHCM is largely unaffected by these issues, making it a better indication of the probable cause of anemia.

More sensitive⁵

CHCM captures cell-to-cell variation and is more sensitive to subpopulations — for example, hypochromic cells that a population average might mask.

Earlier intervention

CHCM can aid in identification of iron deficiency before clinical signs appear, helping avoid misdiagnoses that lead to incorrect treatment.

When CHCM and MCHC diverge on a Vetscan OptiCell result, that's not an error — it's the measured, individual-cell-level data providing additional reliable information to strengthen clinical decision making.

PCT provides a fuller picture for platelet evaluation⁶

Where platelet count reflects numbers, PCT reflects mass — combining platelet count with mean platelet volume (MPV) for a more complete and clinically actionable picture.



Production vs. destruction

Helps differentiate decreased production from increased consumption or immune destruction



Therapy monitoring

Can help gauge recovery alongside count, particularly when MPV changes



Hemostasis & inflammation

Can indicate platelet activation or consumption if levels fall



Special use cases

Provides clinically meaningful context in cases where count alone may be misleading or insufficient

Average calculations and incomplete parameters create diagnostic blind spots. With CHCM measuring directly at the cellular level and PCT reflecting true platelet mass, Vetscan OptiCell delivers the reliable data your clinic needs to diagnose with confidence and act without delay.

Learn more at zoetisdiagnostics.com/opticell

References: 1. Data on file, Study No. DHXMZ-US-24-235, 2024, Zoetis, Inc. 2. Scott MA, Stockham SL. Chapter 3: Erythrocytes. In: Stockham SL, Scott MA, eds. Fundamentals of Veterinary Clinical Pathology. 3rd ed. Wiley-Blackwell; 2025:153. 3. Scott MA, Stockham SL. Chapter 3: Erythrocytes. In: Stockham SL, Scott MA, eds. Fundamentals of Veterinary Clinical Pathology. 3rd ed. Wiley-Blackwell; 2025:198. 4. Scott MA, Stockham SL. Chapter 4: Platelets. In: Stockham SL, Scott MA, eds. Fundamentals of Veterinary Clinical Pathology. 3rd ed. Wiley-Blackwell; 2025:311. 5. eClinpath. MCHC/CHCM. Cornell University College of Veterinary Medicine. <https://eclinpath.com/hematology/tests/mchc/>. Accessed May 28, 2026. 6. Scott MA, Stockham SL. Chapter 4: Platelets. In: Stockham SL, Scott MA, eds. Fundamentals of Veterinary Clinical Pathology. 3rd ed. Wiley-Blackwell; 2025:311-312.

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