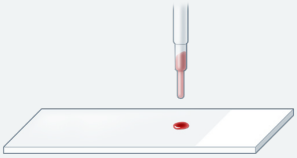
MiniVet Guide Infographics III

BLOOD SMEAR EXAMINATION

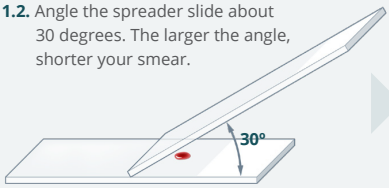
miniVETguide
COMPANION ANIMAL MEDICINE

1. BLOOD SMEAR PREPARATION

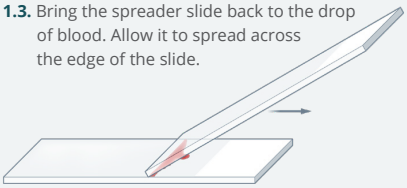
1.1. Small drop of blood.



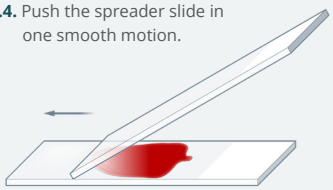
1.2. Angle the spreader slide about 30 degrees. The larger the angle, shorter your smear.



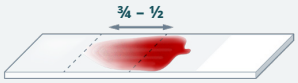
1.3. Bring the spreader slide back to the drop of blood. Allow it to spread across the edge of the slide.



1.4. Push the spreader slide in one smooth motion.



1.5. The smear should end at about ½ to ¾ of the way down the slide and must have a 'feathered edge'.

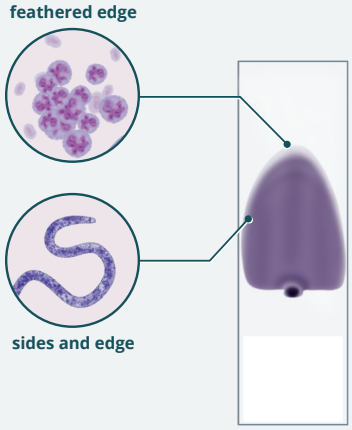


1.6. Allow to air dry, then stain.

2. MICROSCOPE ASSESSMENT

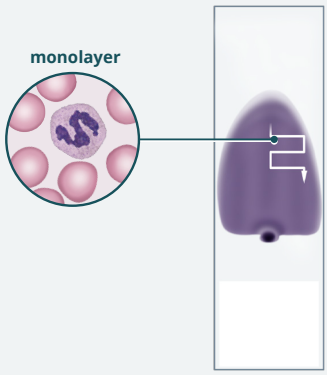
10x Objective lens

- Feathered edge for platelet clumping
- Sides and edge for microfilaria



40x Objective lens

- Monolayer for RBC & WBC assessment
- WBC (using zig-zag pattern) average of 10 fields x 1.5 = ... x 10^9/L



100x Objective lens

- Monolayer
- Closer assessment of RBC & WBC morphology

Regenerative response

(mild) 0–5 polychromatophils/field
(moderate) 5–10 polychromatophils/field
(severe) 10–20 polychromatophils/field

Platelet morphology

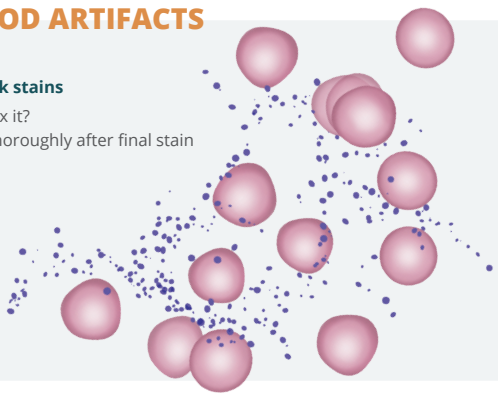
- Platelet count (using zig-zag pattern)
- Average of 10 fields x 15 = ... x 10^9/L (platelet clumping will artifactually reduce platelet count)

3. BLOOD ARTIFACTS

3.1. DiffQuik stains

How to fix it?

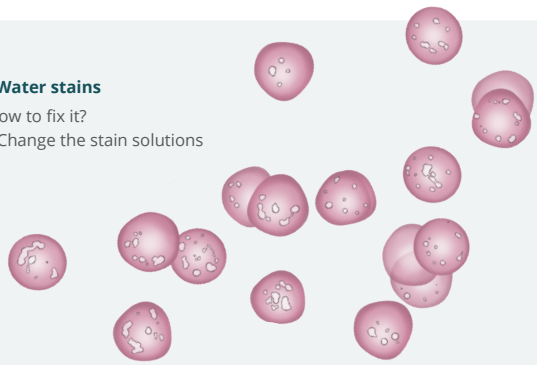
- Rinse thoroughly after final stain



3.2. Water stains

How to fix it?

- Change the stain solutions



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