EVALUATION OF THE BRAHMS PCT DIRECT HUMAN POCT ANALYSER FOR INFECTION DETECTION IN HORSES

Responsible antimicrobial use is important for OneHealth context. Procalcitonin (PCT) is a biomarker of sepsis in human medicine, proved useful in equine SIRS.
The aim of this prospective study was to evaluate BRAHMS PCT Direct POCT analyser in equine infection detection and follow up regarding antibiotic presciptions.

PCT Reader allows dosage in 20 mins by immunochromatography with 20 microl EDTA blood dropped on a cartridge. Dosage > 0,10 microg/l is positive.
Clinical cases included were also tested for blood cells counts. History, treatments and PCT evolution were recorded. Correlations between PCT values and complaint, clinical status, antibiotic treatments and white blood cells counts were interpreted.

290 PCT tests were performed on 140 horses examined for different medical reasons : digestive (24), respiratory (48), locomotion (22) , surgery (26), none (14), other (28).
44 positive tests (PCT+ = 15%) were recorded (mean 0,268 microg/l +- 0,198 ; mini 0,1 ; maxi 1) :
- digestive group, 50% PCT+ from colic horses (22/44 ; mean PCT 0,321 microg/j).
- respiratory group, 9% PCT+, 14% coughing horses (mean PCT 0,344 micog/l), 4 horses before symptoms

2 horses were PCT+ before surgery without symptom and 1 horse with wounds (0,127 microg/l).
14/54 (26%) of PCT+ horses had fever.
PCT+ was correlated with :
- 16% leucocytosis (>9000 /ml)
- 17% neutropenia (<60%)
- 13% neutrophily (>67%).

PCT decreased with antibiotics in 5 horses. PCT- influenced the vet not to give antibiotics in 80%.

Despite more studies are needed, PCT seems interesting for equine infection detection and AM responsable attitude.