

SYSTEMIC INFLAMMATORY RESPONSE SYNDROME (SIRS) IN FOALS



Final degree project

Miguel Coelho Rodrigues

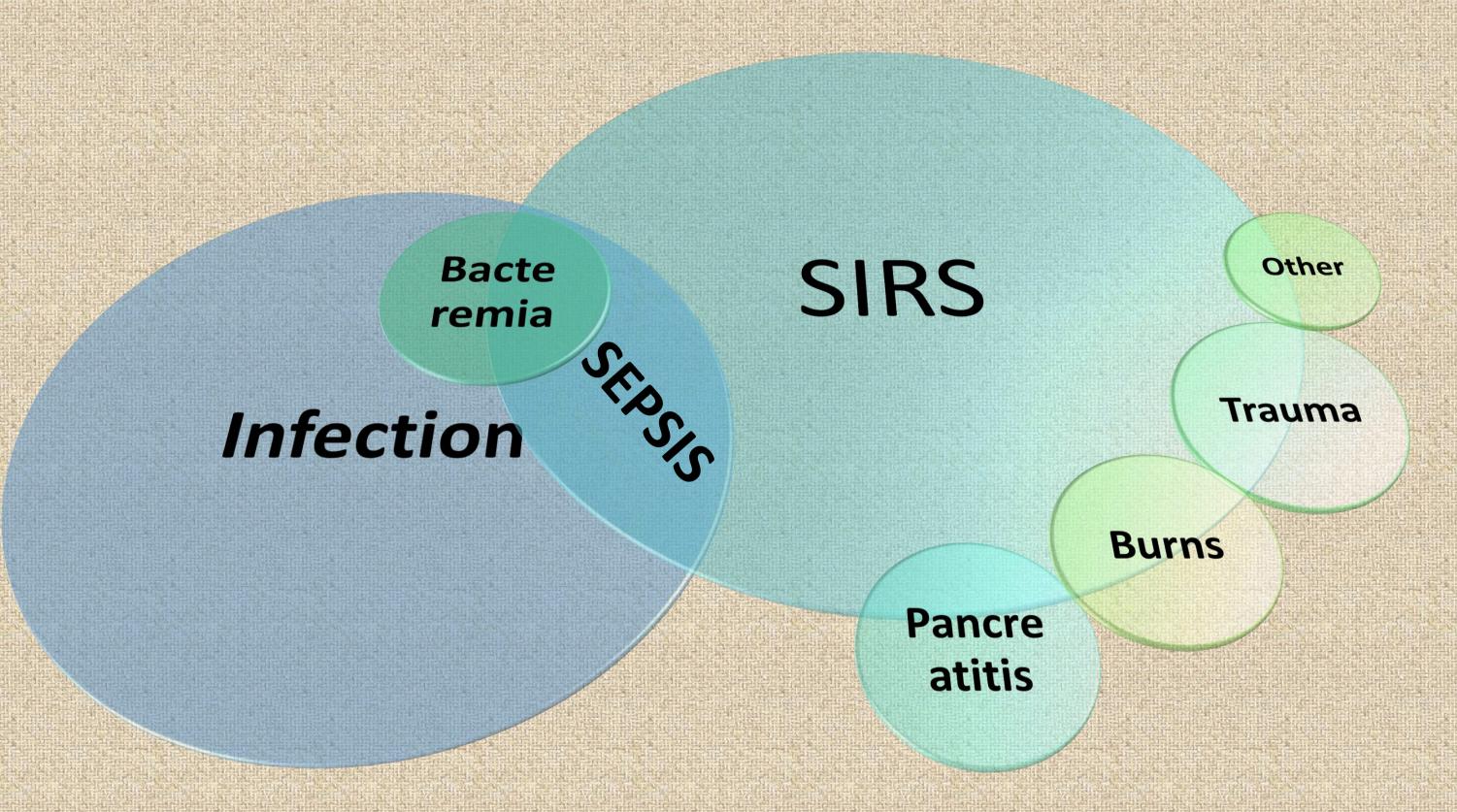
Objetives

Currently diagnosis of SIRS in foals requires:

- A more accurate definition of the condition.
- The identification of new diagnostic tolls to reduce the diagnosing time.

Introduction

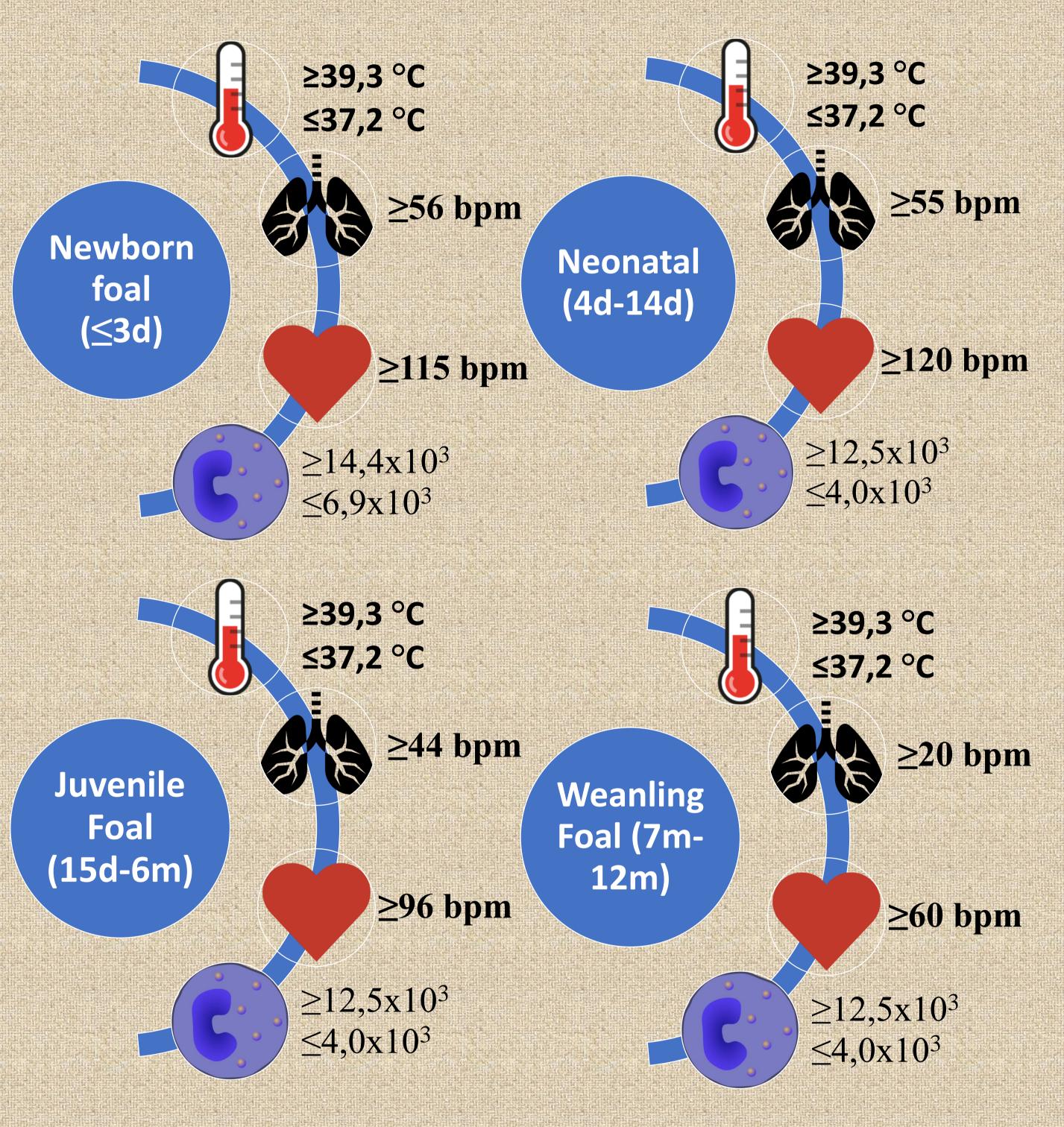
The systemic inflammatory response syndrome (SIRS) is the body response to injury or insult, infectious or non-infectious condition characterized by a hyperinflammatory state.



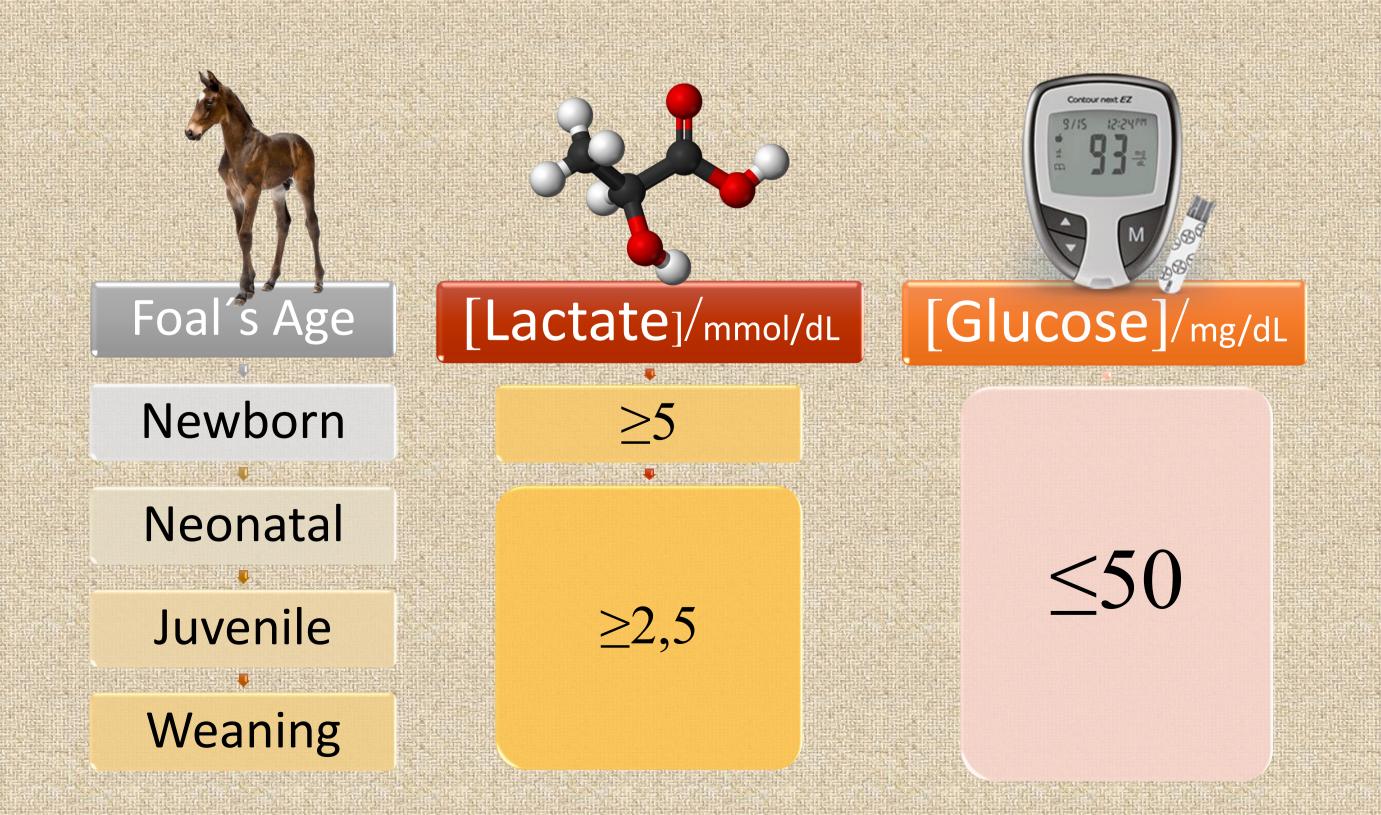
SIRS is an extremely important cause of morbility and mortality in foals. Where over 60% of all the foals admitted to hospital met the study criteria for SIRS.

Current SIRS diagnose

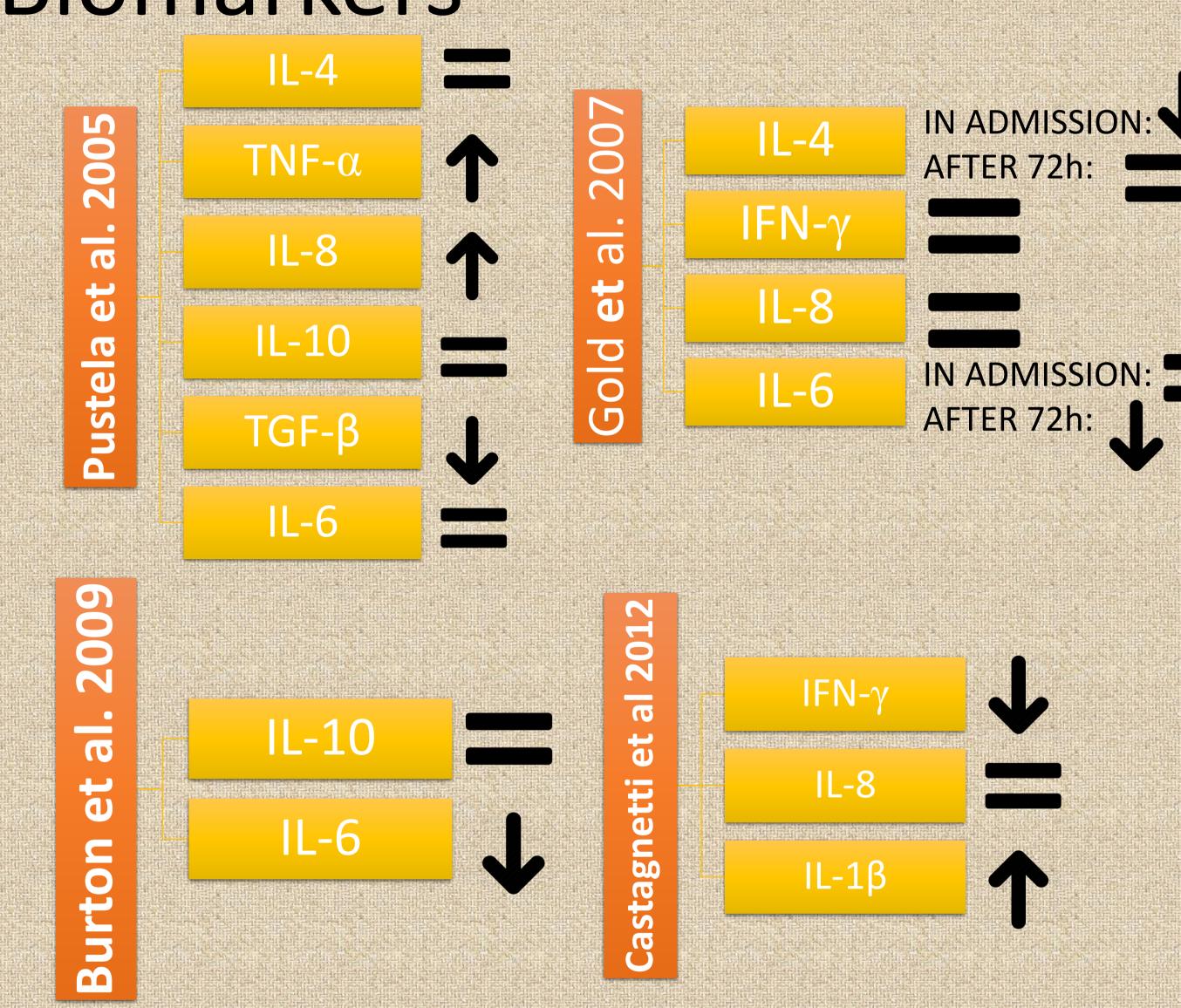
Physical and haematological parameters



Biochemical parameters



Seeking for new ways of diagnosing SIRS: Serum Biomarkers



Parameters were determined based on comparative determinations of sick foals values relative to those of healthy individuals.

Future perspectives

Foals inflammation response is extremely complex and there is no prove of the correlation between most biochemical markers and SIRS.

- Recently, some studies have been performed in both human and equine to evaluate procalcitonin (PCT) and myeloperoxidase (MPO) as inflammatory biomarkers.
- The so called omics approaches that simultaneously compares the levels of all detected biomolecules could be the way forward to the discover of new SIRS biomarkers.