

Category Justification – The University of Texas at San Antonio

Guinea pigs challenged with *Chlamydia* spp. (*C. caviae*, *C. trachomatis*) develop an infection localized to the genital epithelium and do not experience pain or distress (as evidenced by lack of overt signs of illness) during resolution of the infection (approximately 36 days from time of challenge). This is similar to the situation in human females where approximately 80% are asymptomatic. Additionally, in the available literature, there have been no reports of Guinea Pigs displaying morbidity or mortality after genital chlamydial infection. However, the genital chlamydial infection may result in upper genital tract sequelae, such as infertility.

There is a lack of evidence in the literature that animals infected with this organism experience pain and distress. Additionally, the use of pharmacological agents such as analgesics will alter the immune response and there is significant evidence in the scientific literature showing that the administration of pain medication interferes with immune functions (for example with antigen processing and presentation; the inflammatory mechanisms involved in the initiation; and cytokine differentiation and recruitment of T cells to the joints or other sites of inflammation; as has been shown for NSAID's (Refs: 1-6), morphines (opioids) (Refs: 7-8) or steroids (Refs: 9-12). Moreover, it is not predictable how specific drugs for pain control may affect the expected outcome of our studies. It is likely that pain control will alter both T cell and APC function and will jeopardize the outcome of our study.

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