

Category E Explanation for 31-R-0116

An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used:

Necrotizing enterocolitis (NEC) is the leading cause of death from gastrointestinal disease in premature infants. The objective of this study is to assess new therapies for premature infants presenting with NEC in the hospital setting. The piglet model of NEC is effective because neonatal pig intestine is developmentally similar to the intestine of premature human infants. A liquid diet will be fed to piglets using an orogastric tube to induce NEC. Advanced clinical symptoms of NEC are decreased activity, increased respiratory rate, bloody diarrhea, abdominal distention or vomiting. In order to minimize or alleviate pain, subcutaneous buprenorphine will be administered at the first sign of any of the advanced clinical symptoms of NEC and continue this every 8-12hr if they persist. Animals are euthanized if pain and distress cannot be alleviated with buprenorphine.