

## **CU I&E Submission: Reducing Costs of Effective Antimicrobial Therapy for Research animals** <sup>[1]</sup>

### **Team Information**

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### **What**

The Office of Laboratory Animal Resources (OLAR) updated our standard of care for treating and preventing skin infections in rodents. The drug costs to provide antimicrobial treatment for mice was reduced from \$2.45 to less than \$0.04 per week by switching from Clavamox (amoxicillin clavulanate) to generic amoxicillin. This was critical during a 10-week period when approximately 75 cages of mice required weekly treatments to prevent the spread of *Corynebacterium bovis* infection. Before we made the change to generic amoxicillin, this large-scale treatment would have cost \$1837.50, but by using the standard amoxicillin, our cost was \$29.00, saving over \$1,800 in just 10 weeks. In addition to this, we're saving \$62.71 per month to provide an average of 26 treatments, for a total of \$2,590 over the year. Based on OLAR's success remaining *C. bovis* free for over 6 months and continued resolution of clinical infections in rodents, the affordable amoxicillin is as effective as the expensive Clavamox, and is just as simple to mix into rodent drinking water.

### **Why**

Safe, efficient, and effective antimicrobial therapy is essential for the health of research animals and the validity of human cancer research performed with rodent models. Previously, the veterinary team at OLAR prescribed amoxicillin clavulanate (Clavamox) for rodents with clinical infections and to prevent spread of *Corynebacterium bovis*. This organism profoundly impacts cancer research results, and OLAR has worked hard to eliminate it from the Anschutz Medical Campus. Based on a recent publication (McIntyre & Lipman 2007), we determined that a generic amoxicillin would be just as effective to treat or prevent infections in rodents, without adding burden on our staff.

### **When**

OLAR switched from using Clavamox to generic amoxicillin for bacterial infections in rodents during early May 2019. The \$128 we spent to stock this medication at the end of June 2019

has provided a sufficient supply through February 2020 and beyond, compared to \$1218 spent on Clavamox in FY17-18 and \$1587 in FY18-19 before the switch.

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