

Abstract

Tapeworms affect 12% of people in Mexico City. We intend to treat Mexico's largest pork producer with oxfendazole. Success will be determined by a statistically significant decrease infection of pigs by *T. solium*. Given our successful approach, treatment will spread to other GCM factories and eventually the entirety of Mexico's pork industry.

Cysticercosis
1 in 10 people hospitalized for neurocysticercosis in the United States die.

Background

Cysticercosis, a serious disease capable of affecting the brain and muscles, is caused by a dangerous species of tapeworm, *Taenia solium*

- Spread through consumption of improperly cooked, infected pork
- Mainly prevalent in Latin America, but has spread to New York, California & Florida
- Identified as 1 of 6 preventable diseases through use of oxfendazole on pigs

Methods

- Partnership with GALVmed in order to get funding
- Grants from the Gates Foundation
- Partnership with the largest pork producer in Mexico, Granjas Carroll de México (GCM)

Oxfendazole is a cheap treatment to eradicate *T. solium* from the pigs

- Costs only 2 cents for a single dose (30 mg/kg)
- Pigs treated at 3 months old so protected until it is slaughtered at the six month mark

Spread of Tapeworms



■ Native □ Imported

Results

Based on previous trials of oxfendazole, our treatment will result in a significant decrease in incidence of *T. solium* in GCM farms. Our success will allow expansion of the program to other GCM factories, and then entire Mexican pork industry, reducing new cases of *T. solium*.

Conclusions/Recommendations

- Stopped the cycle of tapeworms
- Decreased incidence of Cysticercosis in humans
- Improved Mexican Pork Industry

References

www.cdc.gov/parasites/taenia
http://microbewiki.kenyon.edu/index.php/Cysticercosis
http://www.thelancet.com/journals/lanct/article/2010140161353-2/fulltext

