

## **Evaluation of cost of ultrasound surveys for cystic echinococcosis in goats in a nomadic pastoral community**

Mbithi, Peter Mulwa F; Njoroge, E M; Mogambo, J K; Gthuma, J M

Date: 2004

### **Abstract**

A study was carried to evaluate the costs of performing ultrasound surveys in goats in a nomadic set-up. The cost of ultrasound examination was determined by calculating how much money was required to perform a scan per goat. This was based on purchase price of portable ultrasound equipment, clippers/shavers, electric cables, and electric generator. It was also based on recurrent expenditure on items that are used during ultrasound examination. A total of 472 animals were examined by ultrasound, out of which 15 were identified to have cystic echinococcosis. In 12 (80.0%) animals, the cysts were thin-walled unilocular (TCE1) while in 3 (20.0%) animals, they appeared as thick-walled unilocular structures (TCE4). Calcification appeared as hyper-echoic ring in the cyst wall in 1 (6.7%) animal. Multiple unilocular cysts (TCE3) separated by the liver parenchyma were imaged in 13 (86.7%) animals. Single multiloculated cysts (TCE2) appeared in 1 (6.7%) animal while multiple multiloculated cysts were observed in 1 (6.7%) animal. Cost of ultrasound examination per goat was found to be US\$ 0.714. The technique could determine the presence, size, nature and exact location of the Echinococcus cysts. Although the initial cost of ultrasound equipment was high, the running costs were inexpensive compared to other diagnostic tests. The cost of ultrasound examination per animal was however inversely proportional to the number of animals scanned.