

Separation of erythromycin and related substances on base-deactivated reversed phase silica gel columns

Abstract:

Malaria control in Africa relies primarily on early effective treatment for clinical disease, but most early treatments for fever occur through self-medication with shop-bought drugs. Lack of information to community members on over-the-counter drug use has led to widespread ineffective treatment of fevers, increased risks of drug toxicity and accelerating drug resistance. We examined the feasibility and measured the likely impact of training shop keepers in rural Africa on community drug use. **METHODS:** In a rural area of coastal Kenya, we implemented a shop keeper training programme in 23 shops serving a population of approximately 3500, based on formative research within the community. We evaluated the training by measuring changes in the proportions of drug sales where an adequate amount of chloroquine was purchased and in the percentage of home-treated childhood fevers given an adequate amount of chloroquine. The programme was assessed qualitatively in the community following the shop keeper training. **RESULTS:** The percentage of drug sales for children with fever which included an antimalarial drug rose from 34.3% (95% CI 28.9%-40.1%) before the training to a minimum of 79.3% (95% CI 71.8%-85.3%) after the training. The percentage of antimalarial drug sales where an adequate amount of drug was purchased rose from 31.8% (95% CI 26.6%-37.6%) to a minimum of 82.9% (95% CI 76.3%-87.3%). The percentage of childhood fevers where an adequate dose of chloroquine was given to the child rose from 3.7% (95% CI 1.2%-9.7%) before the training to a minimum of 65.2% (95% CI 57.7%-72.0%) afterwards, which represents an increase in the appropriate use of over-the-counter chloroquine by at least 62% (95% CI 53.7%-69.3%). Shop keepers and community members were strongly supportive of the aims and outcome of the programme. **CONCLUSIONS:** The large shifts in behaviour observed indicate that the approach of training shop keepers as a channel for information to the community is both feasible and likely to have a significant impact. Whilst some of the impact seen may be attributable to research effects in a relatively small scale pilot study, the magnitude of the changes support further investigation into this approach as a potentially important new strategy in malaria control.