

PYRETHROID IMPREGNATED BLANKETS, A NEW ALTERNATIVE FOR PERSONAL PROTECTION AGAINST MOSQUITO BITES

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Although pyrethroid impregnated bed nets are a potentially excellent antimalarial measure, some malaria transmission undoubtedly occurs from mosquitoes biting before people go to bed. The use of pyrethroid impregnated blankets as an alternative control method for mosquito borne disease may provide an answer in the search for materials that offer a cheaper, more durable, and convenient package. Pyrethroid impregnated blankets were studied for their impact on mosquito bites. The knockdown and killing effect of permethrin and etofenprox on polyester material for *Cx. tritaeniorhynchus*, *An. maculatus* and *An. dirus* was very quick while on cotton blankets they were more effective against *Ae. aegypti*. The knockdown rate was always faster with permethrin than etofenprox. *Ae. aegypti* was most tolerant to permethrin whereas *An. dirus* was most tolerant to etofenprox. Simulation experiments, employing an untreated net where the mosquitoes were released, showed that a much higher concentration prevented the mosquitoes from coming into contact with the human bait covered with an impregnated blanket. The majority of mosquitoes trying to bite through the blankets suffered knockdown which eventually resulted in their death. Field results confirmed the irritancy/repellency effect of the impregnated blankets through avoidance of contact. In conclusion, insecticide impregnated blankets or Paa Khao Maa are capable of repelling/killing mosquitoes, thus giving us high hope of considerably reducing their contact with man.